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Reg. No.: 1999/007722/06

11 December 2025

Mr Davis Kgosimolao Moshweunyane
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Per Email: rmakgotlho@icasa.org.za
chairperson@icasa.org.za
dmoshweunyane@icasa.org.za

Dear Mr Moshweunyane

RE: DRAFT UPDATE OF THE NATIONAL RADIO FREQUENCY PLAN 2025

1. We wish to thank the Authority for the opportunity to provide written comments on the proposed draft regulations on the update of the National Radio Frequency Plan as published in *Government Gazette 53637* dated 7 November 2025.

2. Cell C supports the overarching aim of the draft regulations and is supportive of various updated provisions that are informed by decisions based on national and international radio frequency ITU recommendations.

3. Cell C wishes to make an oral submission when the public hearings are convened.

Yours sincerely

Mr Themba Phiri
Managing Executive: Regulatory and Policy Affairs

Reg. No.: 1999/007722/06. Directors: JS Mthimunye (Chairman); LM Nestadt (Deputy Chairman); JJC Mendes (CEO); ET Kope (CFO); M Makanjee; GN Motsa; DH Shimkins; SJ Vilakazi; SV Zilwa

CELL C COMMENTS ON THE UPDATE OF DRAFT THE NATIONAL RADIO FREQUENCY PLAN 2025

CONTENTS

1. INTRODUCTION

1.1 Cell C would like to thank the Authority for the opportunity to present these written comments and requests the opportunity to both elaborate on the points below as well as to raise further points via oral submission when public hearings are convened on the matter.

1.2 Cell C commends the Authority on the publication of the proposed regulations on the draft update of the National Radio Frequency Plan 2025 ("**NRFP**"). Cell C supports the intention of the Authority to update the existing 2021 National Radio Frequency Plan as published in *Government Gazette 46088* on 25 March 2022. Cell C understands that the updates are in respect of the decisions taken by 2023 World Radiocommunication Conferences (WRC-23) as contained in the Final Acts of WRC -23 and the 2024 version of the ITU Radio Regulations including agreements taken at regional level including the African Telecommunication Union (ATU) and the Southern African Development Community (SADC) Frequency Allocation Plan (FAP). Our comments are made on this basis.

1.3 Cell C believes that the draft NRFP is all-inclusive and attempts to create an environment where spectrum bands are used for different applications under Primary and Secondary spectrum allocations to ensure that radio frequency spectrum is used in an orderly manner, accommodate technological innovation, benefiting from economies of scale and providing for minimal or no interference between licensees. Cell C welcomes the harmonized approach adopted by the Authority both on an international and regional level. After our consultation has taken place, the final NRFP must be transparent, unambiguous and form the basis to any further radio frequency spectrum initiatives such as Radio Frequency Assignment Plans, that the Authority may pursue thereafter. This will ensure that any available radio frequency spectrum is published to all interested parties on an ongoing basis under a robust regulatory framework.

2. SPECIFIC COMMENTS

2.1 Spectrum Management Principles

In general, Cell C encourages the Authority to abide by the following spectrum management principles:

(a) Ensure that the radio frequency spectrum is utilized and managed in a transparent, orderly, efficient and effective manner;
(b) Ensure procedures are in place to eliminate harmful interference;
(c) Create an environment for flexibility (adapt to market changes and new technologies), innovation, and rapid introduction of services;
(d) Ensure economic efficiency where market allocation of spectrum to users, and to uses, that derives higher value from the spectrum resource;
(e) Be consistent with government policy;
(f) Promote development and introduction of new spectrum-saving technologies where the cost of such technologies is justified by the value of the spectrum saved; and
(g) Ensure the harmonization of radio frequency spectrum with international, regional and national requirements and in so doing, conform to international best practise.

2.2 Radio Frequency Processes

It is Cell C's view that due to the many specific requirements that are time linked contained in the abovementioned regulations and the complexity of the NRFP, there is a huge risk that the Authority may have incorrectly referenced such requirements in the NRFP. This complexity and overlap may lead to unintended consequences. The unintended consequences may include a delay in finalizing the NRFP, require future amendments and unnecessary litigation causing wasteful expenditure to all parties involved, Therefore, Cell C recommends that the Authority judiciously manage this process when finalising the NRFP and not only attend to the NRFP but also ensure that the multiple regulations are taken into account, kept current and amended or replaced as may be appropriate, at the same time.

2.2 Decisions by World Radio Conference 2023 (WRC 23)

Prior to finalising these regulations, Cell C recommends that the Authority consult Department of Communications and Digital Technologies in developing the NRFP. In addition, consultation is required in relation to the migration of licensees to ensure that the provisions as contemplated in subsection 34(7) of the Electronic Communications Act ("**ECA**") are met.

In developing the NRFP, the Authority is required to fulfil the following prescribed activities:

"*In preparing the national radio frequency plan as contemplated in subsection (4), the Authority must-.*

a) take into account the ITU's international spectrum allotments for radio frequency use, in so far as ITU allocations have been adopted or agreed upon by the Republic, and give due regard to the reports of the experts in the field of spectrum or radio frequency planning and to internationally accepted methods for preparing such plans;
b) take into account existing uses of the radio frequency spectrum and any radio frequency band plans in existence or in the course of preparation;
c) ***consult with the Minister to-***

I. Incorporate the radio frequency spectrum…
II. Take account of …

III. ***Co-ordinate a plan for the migration of existing users**, as applicable, to make available radio frequency spectrum to satisfy the requirements of subsection (2) and the objects of this Act and of the other related legislation."*

In addition to the existing spectrum bands that have been allocated by ITU World Radio Conference to MOBILE for IMT applications, new bands have been confirmed for MOBILE as Primary and Secondary allocations after WRC23. Best practise in spectrum assignment and administrative fairness requires the Authority to consult with affected licensees including affected licensees, to ensure a smooth transition from their existing spectrum assignments to new bands identified by the Authority.

To avoid unnecessary litigation and delays to the implementation of the NRFP, Cell C recommends that the Authority ensures that it follows due process as prescribed by the ECA and the Promotion of Administrative Justice Act, 2000 ("**PAJA**") in terms of consultation and migrating licensees to new bands. In addition, there may be an instance when the NRFP is finalized and certain bands are set aside exclusively for MOBILE IMT applications, when licensees operating services other than IMT may be declared as operating in these bands unlawfully. In particular, Cell C recommends that the Authority publishes a clear timeframe for migrating users and produce quarterly updates of the progress thereof. Such intervention will provide certainty to the sector.

2.3 Primary Allocations

Cell C seeks clarity from the Authority on how the Authority is going to deal with licensees who are assigned radio frequency spectrum under a Primary arrangement and allocated for FIXED applications or other applications, however, at a later point in time the Licensee but then uses the assigned spectrum allocated for MOBILE to provide IMT services.

This occurs when radio frequency bands become more attractive as the allocation changes to applications that are in high demand. For example, the 2.3 Ghz band may have been assigned to a licensee for fixed services under the FIXED allocation but later used for the provision of IMT services.

However due to this band having been identified for IMT services, the licensee then chooses to initially keep the spectrum and later uses this radio frequency spectrum for IMT services (MOBILE – Primary). Whilst licensing is technology-neutral, the international designation of spectrum is critical to uphold to avoid interference, provide certainty and ensure consistency.

2.4 IMT Frequency Bands

Cell C supports the Authority in its inclusion of the IMT bands as identified by Final Acts of the World Radiocommunication Conference WRC 23 in the NRFP. In particular, Cell C supports the list of bands in Table A below as identified for IMT Mobile.

Cell C further believes that the ATU and SADC recommendations will align with these resolutions and will go a long way in contributing to regional harmonization resulting in accessible and affordable IMT services.

Table A

ITU Region 1 allocations and footnotes	South African allocations and footnotes	Typical Applications	THE AUTHORITY - Notes and Comments	Cell C - Notes and Comments
IMT 450 ITU-Rec (20MHz BW) 450 - 470MHz Band 31 / n31	*FIXED MOBILE 5.286AA NF9*	*IMT450 (450-470 MHz) IoT M2M Government Services (Fixed links) PPDR*	*Consideration of the future spectrum needs of Broadband Public Protection and Disaster Relief (PPDR)in the range 380-470 MHz as described in the most recent ITU-R M.2015, while taking into account studies called for by Resolution 646 (WRC-15) for technical and operational measures. RFSAP - GG No.48353 of 31 March 2023 (Notice 3246 of 2023)*	Migration of existing users (Transnet) out of this band is essential should the Authority consider adopting IMT450 for the purposes mentioned above, Cell C notes that the IMT 450 RFSAP was published in Government Gazette 48353 on 31 March 2023. Cell C supports the adoption of IMT 450 into the RFSAP to be used for last mile access providing LTE services due to the favourable propagation characteristics of sub 1GHz band including the IMT 450MHz Band. The configuration is currently as per D14 option, but D8 (450 to 470MHz @ 1x20MHz TDD) is proposed and supported by Cell C. Cell C recommends that the potential for neighbouring cross border interference be mitigated by consolidation and implementation of spectrum coordination amongst the affected countries. According to the GSA - (https://gsacom.com/paper/sub-1-ghz-spectrum-for-lte-and-5g-may-2020/) there were 14 commercial networks identified in 2020 which launched LTE in this band. There were 135 band 31 devices available.
IMT 700 ITU – Rec 703–733 // 758–788 MHz Band B28/n28	*MOBILE except aeronautical Mobile 5.312A 5.312B 5.317A NF9 BROADCASTING 5.300 5.312*	*IMT700 MTX (703 – 733 MHz)*	*Radio Frequency Spectrum Assignment Plan IMT700 (GG 47788 Notice 2886 of 2022) IMT in accordance with ITUR Recommendation ITU-R M.2090 latest version Res 224 (Rev. WRC-23), Res 760 (Rev. WRC-23) and Res 749 (Rev. WRC-23), apply Recommendation ITU-R M.1036-7 . HCM4A for cross-border Coordination. Consideration of the future spectrum needs of Broadband Public Protection and Disaster Relief (PPDR) in the range 694-790 MHz as described in the most recent ITU-R M.2015, while taking into account studies called for by Resolution 646 (WRC15) for technical and operational measures. SADC PPDR recommendation Framework for Harmonisation of Radio Frequency Spectrum for Public Protection and Disaster Relief (PPDR) in SADC Edition 2020. SADC recommended ("Framework for Harmonisation of Radio frequency Spectrum for Public Protection and Disaster Relief (PPDR), edition 2020") the use of the sub-bands 698-703MHz paired with 753-758 MHz (2x5 MHz) and 733-736 MHz paired with 788-791MHz (2x3 MHz) for broadband PPDR services.*	Cell C understands that this RFSAP was finalised in GG 47788 in December 2022 and this spectrum was made available for the 2022 HDS IMT auction of which 4 x 10MHz was auctioned. Cell C seeks clarity and certainty on the status of the WOAN set aside of the remaining 2 x 10 MHz in the IMT 700MHz band , for example, will this set aside be made available for use by the State Digital Infrastructure Company ("SDIC") as contemplated in Subsection 24.3 of the recently published "*Next Generation Radio Frequency Spectrum Policy*", in GG 50725 ("Spectrum Policy"). If the case, Cell C recommends that the Authority follow a transparent and compliant process within the regulatory framework to avoid any unnecessary consequences arising from unnecessary legal disputes in advance of assigning the spectrum.
IMT 750 ITU – Rec 791–821 // 832–862 MHz	*MOBILE except aeronautical mobile 5.312A 5.312B 5.317A NF9*	*IMT750 (733 to 758 MHz) SDL HIBS (694-960 MHz) Wireless microphones (470-786 MHz)*	*Radio Frequency Spectrum Assignment Plan IMT750 (GG 47788 Notice 2887 2022)*	Cell C supports the adoption of IMT 750 (25MHz TDD) to be used for last mile access providing LTE services due to the favourable propagation characteristics of sub 1GHz spectrum considering the feasibility thereof. We say this because as we understand

ITU Region 1 allocations and footnotes	South African allocations and footnotes	Typical Applications	THE AUTHORITY - Notes and Comments	Cell C - Notes and Comments
				device ecosystem is not mature for IMT750 as yet, there is limited reference to any available devices according to the GSA report (https://gsacom.com/paper/lte-ecosystem-may-2023/). The device ecosystem for IMT750 TDD is emerging and limited lacking widespread commercial rollout, resulting in fewer certified devices. Support is mostly in high-end chipsets from Qualcomm, MediaTek, and HiSilicon, enabling carrier aggregation (CA) with other bands for global roaming. (https://gsacom.com/paper/5g-ecosystem-may-2025/)
IMT 800 ITU – Rec 821MHz // 832 - 862MHz *Band 20 / n20*	*FIXED* *MOBILE except aeronautical mobile 5.316B 5.317A NF9*	*IMT800 MTX (832 - 862 MHz) paired with BTX (791 – 821 MHz)*	*IMT 850 RFSAP GG No 48353, Notice 3245 of 31st March 2023 was Repealed. This followed the publication of the Reasons Document GG 48353 (Notice 3243) of 31st March 2023 Res 224 (Rev. WRC-23), Res 760 (Rev. WRC-23) And Res 749 (Rev. WRC-23) apply.* *IMT 850 RFSAP GG No 48353, Notice 3245 of 31st March 2023 was Repealed. This followed the publication of the Reasons Document GG 48353 (Notice 3243) of 31st March 2023 Res 224 (Rev. WRC-23), Res 760 (Rev. WRC-23) and Res 749 (Rev. WRC-23) apply.* *HCM4A for cross-border Coordination.* *SADC PPDR recommendation Framework for Harmonisation of Radio Frequency Spectrum for Public Protection and Disaster Relief (PPDR) in SADC Edition 2020.*	Cell C understands that this RFAP was finalised in GG 47788 in December 2022 and this spectrum was made available for the 2022 HDS auction of which Lot 9 (2x10 - Coverage Lot) of the 800MHz band was unsold. Cell C seeks clarity and certainty on the status of the unsold Lot 9, for example, will this set aside be made available for use by the State Digital Infrastructure Company ("SDIC") as contemplated in Subsection 24.3 of the recently published "*Next Generation Radio Frequency Spectrum Policy*" as published in GG 50725("Spectrum Policy") or will it be made available in the next THE AUTHORITY assignment process. If the case, Cell C recommends that the Authority follow a consultative process within the regulatory framework to avoid any unintended consequences arising from unnecessary legal disputes in advance of assigning the spectrum.
GSM-R 862 – 890MHz BROADCASTING	FIXED MOBILE except aeronautical mobile 5.312B 5.317A NF9 NF10	*GSM-R MTX (877.695 – 880 MHz)* *Wireless Audio systems and Wireless microphones (863 – 865MHz)* *CT2 cordless phones (864.1 – 868.1 MHz) aired with 921 – 925 MHz.* *RFID (865 – 868 MHz).* *Non-specific SRD and RFID (869.4 – 869.65 MHz)* *Non-Specific SRDs (862-863. 863-870, 868 – 868.6 MHz, 868.7 – 869.2 MHz, 869.4 – 869.65 MHz, 869.7 – 870.0 MHz)*	*THE AUTHORITY is following the regional trends, ECC Report 357 conducted Regulatory analyses of satellite use in this band. All low power applications are consistent with Radio Frequency Spectrum Regulations as amended (Annex B) (GG. No. 38641, 30 March 2015, amended by GG 48643 included Notice No 1822, 23 May 2023).* *All FWA systems have been migrated and the spectrum license surrendered.* *As per the footnote 5.312B, HIBS shall not claim protection from existing primary services.*	Cell C recognizes the importance of the 862–890 MHz band for GSM-R and critical services and further supports the Authority's spectrum planning efforts. Our position is as follows: • We encourage efficient use of unused spectrum, including IoT applications as per ECC Report 357. • Protect existing incumbent services (PMR, telemetry, narrowband) with clear migration timelines and alternative allocations. • Align GSM-R adoption with ITU and CEPT standards for cross-border rail interoperability. • Implement guard bands and coordination measures to avoid interference with adjacent IMT800/IMT850 bands. • Plan for future migration to Future Railway Mobile Communications Services (FRMCS) (5G-based railway system) while safeguarding current GSM-R investments.

ITU Region 1 allocations and footnotes	South African allocations and footnotes	Typical Applications	THE AUTHORITY - Notes and Comments	Cell C - Notes and Comments
		Alarms (868.6 – 868.7 MHz, 869.25 – 869.3 MHz, 869.65 – 869.7 MHz) *Social Alarms (869.2-869.25 MHz)* *HIBS (694-960 MHz).* *PMR for GSM-R (874.4-880.0 MHz paired with 919.4-925.0 MHz)*		
IMT 1500 ITU-Rec 1427–1518 MHz Band n50	*SPACE OPERATION (Earth-to space) FIXED NF14. MOBILE except aeronautical mobile 5.341A NF9.*	*IMT TDD/SDL (1427-1518)* *MFCN SDL*	*IMT identification in Regions 1. ATU-R Recommendation 008-0, JULY 2025 IMT Spectrum Roadmap For Africa. - Hence no deletion of 5.341A.* *These resolutions are applicable to T-DAB and S-DAB.* *RFSAP (GG 48353 Notice 3244) assumes IMT for the entire band.* *Section 9.2, of the GG 48353 Notice 3244, 31 March 2023, states that "1427 to 1518 MHz band…, exclusively for ….MFCN SDL and IMT TDD/SDL"* *This followed the publication of the Reasons Document GG 48353 (Notice 3243) of 31st March 2023.*	Cell C supports the adoption of IMT 1500 (91MHz TDD) to be used for providing high-capacity services with lower propagation characteristics resulting in high density networks due to smaller cell properties. We understand that this band is currently under study by ITU WP5D and await the results thereof which will inform the way forward. However, Cell C supports these bands for IMT whilst taking into account existing services and where feasible, the migration of existing users to other suitable bands ensuring that this IMT bands are used more efficiently and effectively. These migration plans should provide clear timelines and alternative allocations. IMT1500 is globally identified for IMT use (Bands 11, 21, 32, 45, and NR bands n50–n76), primarily for SDL and capacity enhancement. South Africa's approach should align with ITU-R M.1036 and CEPT recommendations for efficient spectrum use. While the ecosystem for IMT1500 is emerging, device support for SDL bands is growing, especially for LTE-A and 5G NR. https://www.gsma.com/connectivity-for-good/spectrum/wp-content/uploads/2017/06/L-band-1500-MHz-IMT-Range.pdf https://www.qualcomm.com/content/dam/qcomm-martech/dm-assets/documents/expanding_5g_nr_-_3gpp_rel-16_and_beyond_-_april_2018_-_web.pdf Cell C notes that the IMT 1500 RFSAP was published in Government Gazette 48353 on 31 March 2023 and subject to an ITA.
IMT-Satellite 1518 – 1559MHz ***(downlink)***	*FIXED MOBILE except aeronautical Mobile. MOBILE-SATELLITE (space to-Earth) 5.348 5.348A 5.351A*	*IMT Satellite component*	*The band 1518-1559 MHz is identified for satellite component of IMT; Res.225 applies.* *Radio Frequency Spectrum Assignment Plan GG No. 49079 Notice 3768 of 4 August 2023.* *THE AUTHORITY also observes that ECC Report 263 provides recommendations based on adjacent band compatibility studies between IMT operating in the frequency band 1492-*	Cell C supports the adoption of the IMT-Satellite band for Mobile Satellite Services (MSS). These services include essential communications for maritime, aeronautical, remote land-based operations, emergency response and IoT. Cell C agrees that a feasibility study is essential to address the requirements for the 1518–1525MHz band. Studies indicate that IMT deployments in the adjacent 1492–1518MHz range can cause harmful interference to MSS receivers operating in 1518–1525MHz. Even with guard bands, risks from out-of-band emissions and receiver blocking remain

ITU Region 1 allocations and footnotes	South African allocations and footnotes	Typical Applications	THE AUTHORITY - Notes and Comments	Cell C - Notes and Comments
			1518 MHz and the MSS operating in the frequency band 1518-1525 MHz. *ECC Report 263 also considers Maritime scenarios.*	significant unless robust mitigation measures are implemented. The conclusion by the Authority to encourage a mixed use of the band between Fixed, Mobile, and Mobile-Satellite services whist ensuring that there is no harmful interference to any future IMT Satellite Systems is supported by Cell C. Cell C recommends that the preparation, consultation, and finalisation of the RFSAP's be conducted and concluded.
IMT Satellite *1668 – 1675MHz* ***(uplink)***				Cell C supports the adoption of the IMT-Satellite band for Mobile Satellite Services (MSS). Cell C suggests that THE AUTHORITY maintain MSS allocations and apply strict technical conditions for any IMT use in adjacent bands. Implement guard bands and coordination measures to prevent harmful interference. Align with ITU-R and CEPT guidelines for MSS coexistence and IMT-Satellite integration. To ensure compliance with WRC-23 decisions and international harmonization, The Authority should develop a long-term roadmap that enables IMT Satellite growth while safeguarding MSS continuity.
IMT1900 Band n101	*FIXED* *MOBILE 5.384A* *5.388 5.388A* *NF9*	*IMT1900 TDD (1900 – 1920 MHz).* *PMR for GSM-R (1900-1910 MHz).* *FRMCS (1895-1951 MHz)* *FRMCS= Future Railway Mobile Communication System*	*Radio Frequency Spectrum Regulations as amended (Annex B) (GG. No. 38641, Notice 279, 30 March 2015)., amended by GG45690, 24 Dec 2021 and then in GG 48643, 18 May 2023)* *Res. 212 (Rev. WRC-23)* *Res. 223 (Rev. WRC-23)* *Res. 221 (Rev. WRC-23)* *RFSAP for the IMT1800 band to be developed.* *RFSAP for the IMT2100 band to be developed.* *The European Union have designated the 1.9GHz band as the target spectrum band for FRMCS, since 2019. Angola have allocated this spectrum band to the railway industry.*	Cell C supports the development of a Radio Frequency Spectrum Assignment Plan (RFSAP) for the IMT1900 band. We note that the 1900–1920 MHz range is currently used exclusively by Telkom for MGW and eMGW Fixed Wireless Access (FWA) systems (Government Gazette 50413, 28 March 2024). Cell C acknowledges the Authority's intention to align with international best practices and to accommodate the Future Railway Mobile Communication System (FRMCS) as the successor to GSM-R, alongside Public Mobile Radio (PMR) requirements. FRMCS, based on 5G NR standards, is essential for enabling advanced, safety-critical railway communications and ensuring interoperability across the SADC region. We recommend that the Authority: • Align with ITU and WRC frameworks to maintain compliance with global standards while prioritizing spectrum efficiency and socio-economic benefits. • Develop a clear coexistence strategy to ensure effective coordination between GSM-R, FRMCS, and IMT services during the transition period.
IMT 2100 – Extension/Satellite *ITU Rec* *1920 - 2010MHz //* *2110 - 2200MHz*	*FIXED* *MOBILE 5.388A* *NF9*			Cell C supports the Authority 's decision to extend the band with an additional 30MHz. Extending the IMT2100 band by an additional 30 MHz will lead to improved network performance, enhanced user experience, and future technology readiness. The 1920–2010 MHz range is identified internationally for IMT and, in some regions, for satellite and supplemental downlink (SDL) applications. The Authority's 2024 Draft IMT Roadmap and 2024 draft Frequency Migration Plan

ITU Region 1 allocations and footnotes	South African allocations and footnotes	Typical Applications	THE AUTHORITY - Notes and Comments	Cell C - Notes and Comments
				propose reviewing this band for future IMT use, including potential technology-neutral allocations to accommodate evolving requirements such as 5G NR and innovative satellite-based connectivity solutions. Cell C recommends prioritizing a flexible, technology-neutral framework to enable both terrestrial IMT and satellite-based broadband services supporting improved national coverage. The ecosystem is **highly mature**, with global device support across smartphones, tablets, routers, and IoT. It's one of the most established IMT bands, so availability and interoperability are excellent. ITU-R Report M.2039 – Characteristics of terrestrial IMT-2000 systems for frequency sharing/interference analyses. ITU-R REPORT M.2039 - Characteristics of terrestrial IMT-2000 systems for frequency sharing/ interference analyses | GlobalSpec
IMT 2300 – ITU Rec 2300 - 2400MHz Band n40	*FIXED MOBILE*	*IMT (satellite) (1980-2010 MHz) paired with 2170 – 2200 MHz.* *Fixed links (1980 – 2010 MHz)* *CGC/ATC fixed systems 1980 – 2010 MHz).* *FAR147 = Federal Aviation regulations.* *IMT2300 TDD (2300 – 2400 MHz)* *WLAN, FDDA and model ctrl. (2400 – 2483.5 MHz)*	*(International Mobile Telecommunications (IMT))* *The development of satellites for IMT services to be monitored.* *Final Frequency Migration Plan 2019 (GG No.42337 Notice 36 of 2019)* *RFSAP to be developed for this band*	Cell C supports the inclusion of the IMT2300 radio frequency spectrum band (100MHz TDD) as published in the "*Notice Regarding the Draft Amendments to The Radio Frequency Assignment Plan for The IMT2300 Band"* published on 24 November 2023. We say this because of the following reasons: a. This band has a mature device ecosystem. According to GSA https://gsacom.com/paper/national-spectrum-positions-june-2023/) publication there are 10,251 devices which supports band 40. b. According to the GSA document "Evolution from LTE to 5G" published in January 2023, global adoption of band38 is the most licensed band followed by band 40 for LTE TDD services. At the time of publication there were 69 licences assigned globally. LTE-to-5G Ecosystem January 2023 - GSA (gsacom.com) c. The device ecosystem is well established where 9417 TDD devices support this band according to the GSA (https://gsacom.com/paper/lte-ecosystem-may-2023/). d. Cell C recommends that the preparation, consultation, and finalisation of the RFSAP's be conducted and concluded with all interested parties. Cell C supports the Authority's draft Radio Frequency Migration Plan and IMT Roadmap objectives to align with ITU and WRC-23 decisions, which include provisions for non-terrestrial networks (NTN) and satellite-based IMT services because the 2300 MHz band is recognized in African and global roadmaps as a candidate for hybrid terrestrial-satellite IMT deployments, supporting broadband coverage in underserved areas. Key considerations and recommendations to the Authority will be ensure that any future integration of

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				satellite IMT services with IMT Mobile should prioritize coexistence with intereference mitigation strategies and technology-neutral frameworks to maximize spectrum efficiency and socio-economic benefits.
IMT2600 – ITU-Rec 2500–2690MHz	*FIXED 5.410 MOBILE except aeronautical mobile 5.384A 5.409A BROADCASTING SATELLITE 5.413 5.416*	*IMT2600 (2500 – 2690 MHz) HIBS (2500-2690 MHz) Earth exploration satellite (passive) (2 640-2 655 MHz) Space research (passive) (2 640-2 655 MHz)*	*IMT identification in all Regions ATU-R Recommendation 008-0, JULY 2025 IMT Spectrum Roadmap For Africa As per the Footnote 5.409A of RR, HIBS shall not claim protection from existing primary services*	Cell C seeks clarity on the status of the WOAN set aside of the remaining 1 x 30 MHz in the IMT 2600MHz band , for example, will this set aside be made available for use by the State Digital Infrastructure Company ("SDIC") as contemplated in Subsection 24.3 of the recently published "Next Generation Radio Frequency Spectrum Policy", in GG 50725 (“Spectrum Policy”). If the case, Cell C recommends that the Authority follow a transparent and compliant process within the regulatory framework to avoid any unnecessary consequences arising from unnecessary legal disputes in advance of assigning the spectrum.
IMT 3300 – ITU Rec 3300–3400MHz Band n40	*RADIOLOCATION MOBILE except aeronautical mobile NF9*	*Radio astronomy (CH Molecules)*	*IMT identification in 49 African countries. ATU-R Recommendation 008-0, JULY 2025 IMT Spectrum Roadmap For Africa*	Cell C understands that the band was already earmarked for mobile and IMT services after WRC 2015 and the RFSAP finalised 2022. According to GSA (https://gsacom.com/paper/3300-4200-mhz-a-key-frequency-band-for-5g/) this band will support a wide range of 5G applications such as augmented and virtual reality, ultra-high-definition video and fixed wireless access. Applications associated with industry 4.0 such as smart cities, health care and drones are only a view of the technologies that will benefit from this allocation. The 3.3–3.4 GHz is globally adopted and is the primary mid-band spectrum for 5G worldwide, identified by ITU for IMT-2020 and standardized by 3GPP as Band n77 (3300–4200 MHz) and Band n78 (3300–3800 MHz). These bands are widely deployed in Europe, Asia, Americas, and Africa, making them the most harmonized mid-band option for 5G. [gsma.com] Cell C recommends that THE AUTHORITY follow a transparent and compliant process within the regulatory framework to avoid any unnecessary consequences arising from unnecessary legal disputes in advance of assigning the spectrum. It is unclear the status of the IMT 3300 RFSAP published in Government Gazette 47788. Cell C observes the following after conducting a quick desktop study. Over 2,300+ 5G devices announced globally, with 83% commercially available, most supporting n77/n78 bands (sub-6 GHz). [gsacom.com] All major smartphone vendors (Samsung, Apple, Huawei, Xiaomi) and chipset makers (Qualcomm, MediaTek) include these bands in their 5G modems. Fixed Wireless Access (FWA) CPE, IoT modules, and enterprise routers also support these bands extensively. This band supports 5G NR TDD

ITU Region 1 allocations and footnotes	South African allocations and footnotes	Typical Applications	THE AUTHORITY - Notes and Comments	Cell C - Notes and Comments
				with channel bandwidths up to 100 MHz, enabling high capacity and low latency. Ecosystem includes carrier aggregation across n77/n78 and other bands for enhanced performance. [3gpp.org] More than 245 operators have launched 5G using mid-band spectrum, primarily in the 3.3–3.8 GHz range. [qualcomm.com] GSMA identifies this band as the birthplace of 5G, offering the best balance between coverage and capacity. https://www.gsma.com/connectivity-for-good/spectrum/gsma_resources/3-5-ghz-range-for-5g/ https://gsacom.com/paper/5g-ecosystem-january-2024-member-report/ https://www.itu.int/wrs-22/wp-content/uploads/sites/25/2022/10/IMT_general_aspects_WRS-22-2.pdf https://docdb.cept.org/download/1531 https://www.qualcomm.com/content/dam/qcomm-martech/dm-assets/documents/global-5g-spectrum-status-and-innovations-for-future-wireless-systems.pdf
IMT 3500 – ITU Rec 3400–3600 MHz	*FIXED MOBILE except aeronautical mobile 5.430A NF9*	*IMT3500 TDD (3400 – 3600 MHz)*	*The band 3400 -3600MHz is also used for BFWA in some SADC Countries IMT identification in all Regions ATU-R Recommendation 008- 0, JULY 2025. Res. 223 (Rev.WRC-23) Recommendation ITU-R M.1036- 7.*	Cell C seeks clarity on the status of the WOAN set aside of the remaining 1 x 30 MHz in the IMT 3500MHz band , for example, will this set aside be made available for use by the State Digital Infrastructure Company ("SDIC") as contemplated in Subsection 24.3 of the recently published "Next Generation Radio Frequency Spectrum Policy", in GG 50725 (“Spectrum Policy”). If the case, Cell C recommends that The Authority follow a transparent and compliant process within the regulatory framework to avoid any unnecessary consequences arising from unnecessary legal disputes in advance of assigning the spectrum.
IMT3600 - ITU Rec 3600 to 3800MHz	*FIXED NF14 FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile 5.434A 5.434B NF09*	*Fixed links (4 GHz) (3600 – 4200 MHz) BFWA (3600 – 3800 MHz) C-band downlink (VSAT/SNG/PTP links) (3600 – 4200 MHz).*	*The band 3 600-3 800 MHz shall be used for IMT noting ITU-R Recommendation 1036-7 8. The channelling arrangement for PTP links in this band is based on ITU-R Recommendation F.635 latest version Annex 1. In the band 3 600-3 800 MHz, FS PTP and FSS applications will have to operate on coordinated basis. Operators are encouraged to apply for spectrum licenses including registering all C Band Earth stations on the THE AUTHORITY online database RFSAP to be developed for this band.*	Cell C understands that the entire of 3600MHz to 3800MHz bands are now allocated for IMT Mobile as an outcome of WRC -23. The Authority must ensure that the correct sequence of spectrum regulations occur to ensure procedural integrity to avoid any unintended consequences. Upon finalisation of the NRFP-25, THE AUTHORITY may accordingly proceed in finalising the related IMT RoadMap, FMP and RFSAP. The RSFAP needs to include feasibility/compatibility studies, migration timelines, affected Fixed/FWA users, financial impact, technical consideration, awareness campaigns into clearing the frequency band for use by IMT services and the role and responsibilities of secondary users in the band. Cell C recommends The Authority to maintain compliance with ITU-R F.635 for any remaining PTP links until full migration is achieved. Apply technology-neutral policies

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				and enforce TDD synchronization to maximize spectrum efficiency. Establish clear coexistence guidelines to minimize disruption during transition and enable rapid 5G deployment.
DSA 3600 – 3800	*FIXED* *FIXED-SATELLITE (space-to-Earth)* *MOBILE except aeronautical mobile 5.433B 5.434A 5.434B 5.435A*	*Fixed links (4 GHz) (3600 – 4200 MHz)* *BFWA (3600 – 3800 MHz)* *C-band downlink (VSAT/SNG/PTP links) (3600 – 4200 MHz)* *IMT (3600 – 3800 MHz)*	*The band 3 600-3 800 MHz shall be used for IMT noting ITU-R Recommendation 1036-7 8.* *The channelling arrangement for PTP links in this band is based on ITU-R Recommendation F.635 latest version Annex 1.* The band 3 600-4 200 MHz band is used for medium and high capacity *PTP links and FSS.* *In the band 3 600-3 800 MHz, FS PTP and FSS applications will have to operate on coordinated basis.* *Operators are encouraged to apply for spectrum licenses including registering all CBand Earth stations on the THE AUTHORITY online database.* *RFSAP to be developed for this band*	Cell C conducted desktop research studies on the C-band and observed characteristics and uses of this band. This band provides for a variety of access services such as mobile broadband, Internet of Things ("IoT"), Fixed Wireless Services and IMT MOBILE (3600MHz - 3800MHz). Our research findings indicate that the device ecosystem in this band is mature for both the mobile and FWA services. With regards to Narrowband -IoT (NB-IoT) and LTE-Machine Type Communication (LTE-M) services, some OEMs offer modules that are compatible and available for use in this band. the device ecosystem is highly mature for consumer smartphones and FWA, with growing maturity for IoT and enterprise devices. Over 90% of 5G devices launched since 2021 support n77/n78, driven by global harmonization and chipsets from Qualcomm (Snapdragon X series), MediaTek, and Samsung. Major manufacturers (e.g., Apple, Samsung, Google, Xiaomi, Oppo) include C-band support in flagship and mid-range devices. For example, iPhones (since iPhone 12, 2020) and Samsung Galaxy S series (since S21, 2021) support n77/n78, ensuring compatibility with U.S. band (n77) and international (n78) C-band networks. Cellular IoT modules for applications like smart cities, industrial automation and healthcare, support C-band, particularly for NB-IoT and LTE-M in mid-band spectrum. Companies like Quectel, Sierra Wireless, and Telit offer modules with n77/n78 compatibility. (FWA) - WA customer premises equipment (CPE), such as 5G routers and gateways, supports C-band for home and enterprise broadband. Nokia, Huawei, and ZTE produce CPEs are optimized for 3.7–3.98 GHz, and widely used by Verizon and AT&T for 5G home internet. 3400Mhz – 3800Mhz Bands - identified as IMT spectrum. ITU Region 1 (Europe, Africa, Middle East): the 3400–3800 MHz range is harmonized for IMT, with 3600–3800 MHz widely allocated and adopted for 5G. The device ecosystem is highly mature. The n78 band has a high device ecosystem due to its global harmonization and widespread operator adoption. (https://www.5g-networks.net/5g-band-n78-3500mhz/)
IMT 4900 – ITU Rec 4800–4990 MHz	*FIXED NF14 NF15* *MOBILE 5.441B NF9 NF15*	*IMT4800 TDD (4800-4990 MHz)* *Fixed links (4.8 GHz) (4400 – 5000 MHz)* *Government services.* *Outside Broadcast Links.*	*IMT identification in 26 African countries, ATU-R Recommendation 008-0, JULY 2025.* *IMT Spectrum Roadmap For Africa*	Cell C supports the adoption of this band as IMT spectrum. The frequency Band 4800 to 4990 was allocated for International Mobile Telecommunications (IMT) during WRC 19. Cell C recommends that the Authority aligns with ITU and WRC resolutions for global harmonization and adopting technology-neutral licensing and synchronization requirements for TDD IMT systems. Cell C

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		IMT4800 TDD (4800-4990 MHz) Electronic News Gathering. Radio astronomy (Observations of formaldehyde (H2CO) interstellar clouds). Fixed links (4.8 GHz) (4400 – 5000 MHz) Government services		recommends the Authority to develop clear coexistence and migration guidelines and RFSAP for this band. This band is identified for IMT (5G NR) in multiple countries under ITU Radio Regulations (RR No. 5.441A/B) and WRC-19/WRC-23 decisions. Used primarily for 5G NR TDD deployments in Asia-Pacific and some parts of Africa and Latin America. APT-AWG-REP-103_-_APT_Report_on_Frequency_Arrangements_of_4.8-4.99GHz.docx Region 1 (Europe) did not adopt a regional IMT identification for 4800–4990 MHz at WRC-19 or WRC-23. Discussions were complex due to NATO and aeronautical/maritime incumbents, and the band remains primarily for other services in Europe. https://ctu.int/wp-content/uploads/2024/02/WRC-23-outcome-for-Mobile-service-and-IMT.pdf Defined as Band n79 (4400–5000 MHz) in 3GPP TS 38.101 and TS 38.307, supporting channel bandwidths up to 100 MHz for high-capacity 5G services makes it highly suitable for 5G applications and services. https://www.5g-networks.net/n79-5g-band-4500mhz/ Most modern 5G smartphones (Apple, Samsung, Huawei, Xiaomi) and chipsets (Qualcomm, MediaTek) support n79, making the ecosystem mature for consumer devices. Enterprise solutions (FWA CPE, routers, IoT modules) also widely support n79 for high-capacity applications. https://quadgenwireless.com/small-cell/
DSA 5 925-6 425 MHz	*FIXED 5.457 NF14 FIXED-SATELLITE (Earth-tospace) 5.457A*	*Fixed links - Lower 6 GHz (5925-6425 MHz) BFWA. Fixed-satellite uplinks (PTP/VSAT/SNG) (5850-6425 MHz) ESVs (5925 – 6425 MHz). Radio astronomy (observation of Methanol) WAS/RLAN (5925-6425 MHz)*	*The development of Draft Regulations on Dynamic Spectrum Access and Opportunistic Spectrum Management in the Innovation Spectrum are in progress (GG 52415 No 6066 of 28 March 2025). Spectrum highest value use analysis and a follow up RFSAP for the 5925-6425 MHz band would identify suitable applications, including dynamic and opportunistic sharing opportunities.*	Cell C supports in principle the adoption of the lower part of the 6GHz frequency band to be assigned for WiFi-6E applications such as Wireless Access Systems and Radio Local Area Networks to provide for the affordable means of communication for the SA public in general under the provision of Non-Specific Short-range Applications. The demand for WiFi services will increase and the traffic grow exponentially which will place a huge burden on the existing ISM bands. This band should be made available both for WiFi applications including other ISM applications. Cell C recommends that these WiFi applications form part of the license exempt (ISM) band, as an extension of the current 5GHz band allocated for ISM technologies which is subsequently also being used for WiFi applications. Cell C recommends the allocation of the upper 6 GHz band (6425-7125 MHz) for IMT ito the WRC-23 decision. the Authority need to develop the RFSAP with clear timlines for affected users and the assignement process.

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24.25 – 27.5GHz	*FIXED* *MOBILE except aeronautical mobile* *5.338A 5.532AB*	*Fixed links – 26 GHz (24.25-26.5 GHz)* *IMT TDD (24.25 – 27.5GHz)* *INTER-SATELLITE* *MOBILE except aeronautical mobile 5.338A 5.532AB NF9.* *FIXED-SATELLITE (Earth-tospace) 5.532B* *INTER-SATELLITE*	*IMT identification in all Regions ATU-R Recommendation 008-0, JULY 2025, IMT Spectrum Roadmap For Africa.* *Spectrum highest value analysis and a follow-up RFSAP to be conducted to identify suitable applications, considering both IMT, Fixed Service (FS) links and sharing opportunities.*	Cell C supports the adoption of this band as IMT spectrum. The 24.25–27.5 GHz band has been recognized worldwide for IMT use under Resolution 242 (Rev. WRC-23) across all ITU Regions. This global identification underpins the deployment of IMT-2020 (5G) and future mobile technologies, promoting spectrum harmonization and cost efficiencies for devices and infrastructure. To ensure compatibility with other services, measures must be in place to safeguard passive services in 23.6–24 GHz and FSS gateway stations operating in adjacent bands, in line with WRC provisions. It is recommended that ICASA incorporate the 24.25–27.5 GHz band into South Africa's IMT spectrum roadmap, applying a technology-neutral licensing framework and establishing clear timelines for spectrum assignment, whether through auction or administrative processes. All technical conditions should align with ITU-R and ATU guidelines to maintain regional and global consistency.

3. CONCLUSION

3.1 Cell C supports the updates to the National Radio Frequency Plan which was published in *Government Gazette 53637 dated 7 November 2025* with respect to the MOBILE allocations for IMT applications in the designated bands. These updates must be accompanied by and read with the Resolutions and Footnotes as contained in the Final Acts of the World Radiocommunication Conference WRC 23. In this respect, Cell C encourages the Authority to ensure that due process is followed to ensure that the prescribed requirements under 34 of the ECA are met.

3.2 Cell C encourages the Authority to review the NRFP periodically when the need arises. The need may arise from ITU-R Sector recommendations and resolutions, Regional and National requirements and obsolete technologies. The NRFP must also embrace the framework of the ECA and create an environment for technological innovation and economic growth.

3.3 Cell C again commends the Authority for updating the NRFP and encourages the Authority to ensure that the NRFP is the foundation to which all other spectrum regulations are referenced from and contribute to the future IMT Roadmaps and RFAP's. Cell C further recommends that any current and future radio spectrum migration plans emanating from changes to the NRFP based must be accompanied with definitive timelines applicable to the migrating users to provide certainty to the rest of the sector.

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