
GENERAL NOTICES • ALGEMENE KENNISGEWINGS

INDEPENDENT COMMUNICATIONS AUTHORITY OF SOUTH AFRICA**NOTICE 914 OF 2015****INFORMATION MEMORANDUM****FOR****RADIO FREQUENCY SPECTRUM PROSPECTIVE LICENCE****TO PROVIDE MOBILE BROADBAND WIRELESS ACCESS SERVICES FOR URBAN
AND RURAL AREAS USING THE COMPLIMENTARY BANDS, 700MHz, 800MHz AND
2.6GHz.**

The Independent Communications Authority of South Africa (“the Authority”) hereby, in terms of Section 31(3) of the Electronic Communications Act, 2005 (Act No. 36 of 2005) read with the Radio Frequency Spectrum Regulations 2015 Government Gazette number 38641 (Notice number 279 of 2015) hereby publishes a notice for the purpose of providing information to prospective applicants intending to apply for the radio frequency spectrum licenses within the designated range, 2500 – 2690MHz (“the 2.6GHz band”) and 790 – 862 MHz (“the 800 MHz band”) and 703 – 790 MHz (“the 700MHz band”) for the purposes of providing national broadband wireless access services.

On 15 December 2011 the Authority published a draft an ITA ¹on the combined licensing of 800 MHz and 2.6 GHz bands for broadband wireless access services. This was done in terms of section 31(3) of the Electronic Communications Act, 2005 (Act No. 36 of 2005) (“the Act”) read with Regulation 7 of the Radio Frequency Spectrum Regulations 2011, published in Government Gazette

¹ Government Gazette number 34872 (Notice Number 912 of 2011)

No. 34172, Notice 184 of 2011 (the regulations). The Authority through Government Gazette number 35123 (Notice Number 193 of 2012, deferred the process until further notice.

On the 14 November 2014, the Authority published the final International Mobile Telecommunications (IMT) Roadmap 2014 and on the 30th of March 2015, the Authority also published the Final Radio Frequency Spectrum Assignment Plan for the specific IMT frequency bands, setting out the rules for systems operating in specific bands.

The Authority hereby issues an Information Memorandum in order to provide guidance to prospective applicants regarding the process and criteria to be applied by the Authority in the licensing process.

All prospective applicants will be assessed based on criteria set out in the Invitation to Apply (“ITA”), the Electronic Communications Act, and applicable Regulations, including the National Radio Frequency Plan² 2013, Radio Frequency Spectrum Regulations³ 2015 (as amended⁴), the Frequency Migration Regulation⁵ 2013, the Radio Frequency Spectrum Fees Regulations⁶ 2010 (as amended) and Radio Frequency Spectrum Assignment Plans (RFSAP)⁷ for International Mobile Telecommunications (IMT).

Electronic copies of the Information Memorandum are available on the Authority's website (www.icasa.org.za).

Interested persons are hereby invited to submit written representations, including an electronic version of the representation in Microsoft Word, by no later than 16h00 on Friday, 16 October 2015

Written representations or enquiries may be directed to:

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² Government Gazette Number 36336 (Notice 354 of 2013) of 28 June 2013

³ Government Gazette Number 38641 (Notice Number 279 of 2015) of 30 March 2015

⁴ Government Gazette Number 38754 (Notice Number 386 of 2015) of 30 April 2015

⁵ Government Gazette Number 36334 (Notice Number 352 and 353 of 2013) of 03 April 2015

⁶ Government Gazette Number 33495 (Notice 754 of 2010) of 27 August 2010

⁷ Government Gazette Number 38640 (Notice 270 to 278 of 2015) of 30 April 2015

All written representations submitted to the Authority pursuant to this notice shall be made available for inspection by interested persons at the ICASA Library or website and copies of such representations and documents will be obtainable on payment of a fee.

Where respondents require that the representation or part thereof be treated confidential, then an application in terms of section 4D of the ICASA Act, Act No. 13 of 2000, must be lodged during the submission of representations. Respondents are requested to separate any confidential material into a clearly marked confidential annexure. If, however, the request for confidentiality is refused, the person making the request will be allowed to withdraw the representation or document in question.



NOMVUYISO BATYI

COUNCILLOR

ICASA

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1. OVERVIEW

- 1.1. The Authority started a process of licensing the International Mobile Telecommunications (IMT) spectrum on the 2.6 and 3.5 GHz bands, back in 2006. In 2011, the Authority developed the licensing process by publishing a draft Spectrum Licensing Plan and a draft Invitation to apply for a combined licensing of the 800 and 2600 MHz bands in terms of the Radio Frequency Spectrum Regulations 2011.
- 1.2. In 2013, South Africa Connect, a broadband policy was published. South Africa Connect gives expression to the vision set out in the National Development Plan of a “*seamless information infrastructure by 2030 that will underpin a dynamic and connected vibrant information society and a knowledge economy that is more inclusive, equitable and prosperous*”. The focus remains on education, health and government services. It is further seen to operationalise the New Growth Path and the Strategic Integrated Project⁸ (SIP) 15, which deals with expanding access to communications technology by ensuring universal service and access to affordable and secure broadband services by all South Africans, prioritising rural and under-serviced areas and stimulating economic growth.
- 1.3. South Africa Connect acknowledges that the slow deployment of fixed broadband services (e.g. ADSL), and its relatively high cost, has meant that over the last five years mobile broadband rapidly became the primary form of broadband access rather than providing a complementary service to fixed broadband services as it has done in more developed economies.
- 1.4. Mobile services play a crucial role in providing communication services (voice and data) to consumers but also to many enterprises, especially small offices. Additionally, various econometric analyses have demonstrated that broadband has a positive impact on economic growth in both developing and developed markets. World Bank statistics show that in developing markets an expansion of broadband access (population penetration) of ten percentage points can result in expansion of the GDP by 1.4 percentage points. Also every 1000 new subscribers to broadband internet services can result in the creation of 80 new jobs. These indicators are critical to South Africa, which needs to breach the digital divide, improve its economic growth and create new jobs.
- 1.5. In order to realise the Government’s rollout targets for broadband services in line with SA-Connect Policy, the Authority is to commence with the licensing process for International Mobile Telecommunications (IMT) spectrum bands.

⁸ Expanding Access to Communications Technologies

The Authority has concluded that mobile telecommunication technologies are a critical component in achieving the goal of ‘broadband for all citizens’ in South Africa.

2. INTRODUCTION

- 2.1. South Africa experiences continued growth in demand for more Spectrum as a result in significant growth in traffic. The lack of availability of Spectrum for IMT brings constraints and challenges in the provision of broadband services. In order to address South Africa’s bandwidth deficiency, the current assignment of 374 MHz used for IMT and 80 MHz for GSM needs to be increased.
- 2.2. There is a need to achieve a minimum 1011 MHz and a maximum of 1036 MHz for use by IMT (incl. GSM) by 2020 in order to achieve SA Connect Targets. It is the Authority’s view that the licensing of 700, 800 and 2600 MHz will contribute towards achieving the SA connect Targets.
- 2.3. The 700 MHz, 800MHz and 2.6 GHz bands have been identified worldwide for International Mobile Telecommunication (IMT) services.
- 2.4. These bands complement each other in the sense that they fulfil the requirements for capacity and coverage which make them suitable for rural and urban areas and for bridging the digital divide.
- 2.5. It is for the above reasons that the Authority has decided on the simultaneous licensing of the 700 MHz, 800MHz and 2.6 GHz bands, to enhance competition and to increase broadband coverage, and in so doing bridge the digital divide and disparities between urban and rural access to broadband networks.

3. OBJECTIVES

The main aim of licensing 700MHz, 800MHz and 2600MHz is to ensure nationwide broadband access for all citizens by 2020. This will be achieved by:

- increasing universal service and access by ensuring rural connectivity
- giving consumers more choice,
- introducing a wholesale open access network, and
- Promote Investment in the sector and economic growth
- Ensure quality of service and experience
- Ensure affordability of services

4. LEGAL FRAME WORK

4.1. This Information Memorandum is guided broadly by the provisions set out in the Independent Communications Authority of South Africa Act 13 of 2000 (ICASA Act), Electronic Communications Act, Act 36 of 2005 (ECA), National Radio Frequency Plan 2013⁹ (NRFP), the Radio Frequency Spectrum Regulations¹⁰ 2015 (RFSR), as well as the broader policy objectives of South Africa as set out in amongst other documents the National Development Plan and South Africa Connect (National Broadband Policy), Broadcasting Digital Migration Policy 2008 (as amended) Radio Frequency Spectrum Policy 2010¹¹.

4.2. Section 31(3) (a) of the ECA mandates the Authority to develop regulations setting out the procedures and criteria for radio frequency spectrum licenses in instances where there is insufficient spectrum available to accommodate demand.

4.3. The RFSR, apply generally to all areas of radio frequency spectrum and to all types of Radiocommunications services. The RFSR established the framework through which the Authority may allocate and assign radio frequency spectrum under the Spectrum Table of Frequency Allocations for South Africa (National Radio Frequency Plan 2013). The RFSR also sets out the procedure and criteria for awarding spectrum licenses in instances where there is insufficient spectrum available to accommodate demand. The RFSR seek to ensure transparent, fair and efficient procedures for radio frequency spectrum license applications, and allow greater flexibility such that special conditions and procedures for specific frequency bands may be applied.

4.4. On 04 April 2013, the Authority published the Radio Frequency Migration Regulations and Plan 2013¹² which sets out the regulatory procedure and process for the migration of use and users of Spectrum, and on 30 March 2015, the Authority published the Radio Frequency Spectrum Assignment Plans¹³ (RFSAP) for International Mobile Telecommunications (IMT) 2015 which sets out the Technical Conditions on the use of IMT Spectrum.

4.5. Section 192 of the Constitution of the Republic of South Africa, 1996¹⁴ gives the Authority the **sole mandate to regulate** broadcasting [and Electronic Communications] in the public interest. Furthermore, Section 30(2) of the ECA, mandates the Authority to control, plan, administer, manage, license and assign the use of radio frequency spectrum. In executing the afore mentioned **exclusive mandate**, the Authority

⁹ Government Gazette Number 36336 (Notice 354 of 2013)

¹⁰ Government Gazette number 38641 (Notice number 279 of 2015)

¹¹ Government Gazette number 33116 of 16 April 2010

¹² Government Gazette Number 36334 (Notice Number 352 and 353 of 2013)

¹³ Government Gazette Number 38640 (Notice 270 to 278 of 2015)

¹⁴ Section 192; of the Constitution of South Africa

must ensure compliance with applicable standards and requirements of the International Telecommunications Union's (ITU) Radio Regulations, and the National Radio Frequency Plan.

4.6. It is important to adopt global harmonization channel arrangement and alignment with other regional agreements on the appropriate channel plans for the 700, 800 and 2600 MHz frequency bands for the ITU Region 1 in order to achieve economies of scale, global roaming and the maturity of the ecosystem.

4.7. The Southern African Development Community (SADC) Frequency Allocation Plan (FAP) of 2013 creates a framework for harmonization across SADC on the use of the radio frequency spectrum. The 2010 SADC FAP was developed taking into account international best practice in the development of Frequency Band Plans and considering the needs of the SADC Members.

5. SPECTRUM FOR THE AWARD

5.1. The spectrum available for assignment in this process will be as follows:

5.1.1 2×30MHz in the 700MHz band (703MHz-733MHz/758-788MHz)

5.1.2 2×29.305MHz in the 800MHz band (791-821MHz/832.695-862MHz)

5.1.3 2×70MHz and 1×25MHz in the 2.6GHz band (2500-2570MHz/2620-2690MHz and 2595-2615MHz)

5.2. The spectrum will be awarded on a national basis covering the entire territory of South Africa.

5.3. The spectrum available for award is packaged into two (2) Lot Categories and six (6) Lots as follows:

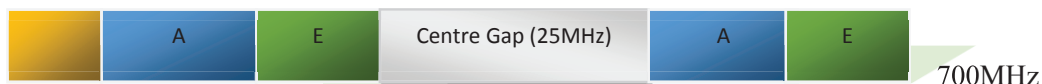
Lot Category	Lot	700MHz	800MHz	2.6GHz
Lot A (Wholesale Open Access)	Lot A	2 x 20MHz (703-723MHz/ 758-778MHz)		
Lots B/C/D/E/F (Operators)	Lot B		2 x 9.305MHz (791-801MHz/ 832.695-842MHz)	2 x 20MHz (2500-2520MHz/ 2620-2640MHz)

	Lot C		2 x 10MHz (801-811MHz/ 842-852MHz)	2 x 20MHz (2520- 2540MHz/2640- 2660MHz)
	Lot D		2 x 10MHz (811-821MHz/ 852-862MHz)	2 x 20MHz (2540-2560MHz/ 2660-2680MHz)
	Lot E	1 x 10MHz (723- 733MHz/ 778- 788MHz)		2 x 10MHz (2560- 2570MHz/ 2680-2690MHz)
	Lot F			25MHz(2595- 2620MHz)

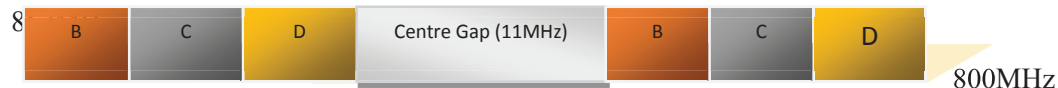
Note: Lot A is to be licensed through a separate process. Also see item 5.5 of this information memorandum.

Diagram of proposed spectrum packaging within each band

694MHz 703MHz 723MHz 733MHz 758MHz
778MHz 788MHz



791MHz 801MHz 811MHz 821MHz 832.65MHz 842MHz



2520MHz 2560MHz 2570MHz 2595MHz 2640MHz
2680MHz



2500MHz 2690MHz	2540MHz	2575MHz	2620MHz	2600MHz 2660MHz
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Proposed Lot Categories

5.4. The six (6) Lots are grouped follows:



5.5. Applicants are eligible to bid only on one of the proposed Lot Categories except for Lot A which is to be dealt with through a separate licensing process.

6. Obligations

The following obligations will form part of the license conditions of the Radio Frequency Spectrum License to be issued:

6.1. Coverage obligation

- 6.1.1. The Authority has been studying approaches used internationally to incentivise network deployment and is particularly impressed by the success of the model adopted in Germany, where operators that acquired 800MHz spectrum were required to provide coverage in less populated areas before they were able to utilise the spectrum in more populated regions. This led to LTE services being available across the whole country in a period of less than two years.
- 6.1.2. The Authority plans to place a coverage obligation following similar principles on the holders of Lots B, C, D and E (i.e. the winners of packages which contain low-frequency spectrum).
- 6.1.3. The Authority will identify areas which should be covered by the holders of Lot B, C, D and E. Licensees will be required to rollout 70% of the broadband network in the identified areas before rolling out in the cities.

- 6.1.4. Licensees will be required to provide sufficient quality of network coverage to provide data services in the areas with an average downlink user throughput of 30Mbit/s in the period from 07:00 to 20:00 (time in the local region). This time period has been chosen to cover the vast majority of mobile data usage in the public area.
- 6.1.5. The holders of Lots B, C, D and E will each have a maximum of three years from the date that the 700MHz/800MHz spectrum becomes available to provide services to all identified underserved areas. If the holder fails to meet this obligation, this will be regarded as a serious breach of the licence conditions.

6.2. Wholesale Open a Wireless wholesale open access obligation

- 6.2.1. One of the objectives of the Authority is to stimulate competition in the provision of broadband services while ensuring innovative, affordable and universally accessible at acceptable quality levels.
- 6.2.2. The auction of the 700MHz spectrum is important for the future of broadband services in South Africa.
- 6.2.3. The 700MHz spectrum has much better propagation characteristics, which enables better coverage at relatively lower cost of network deployment suitable for sparsely populated areas.
- 6.2.4. The 700MHz spectrum is important in shaping the future and role of the ICT industry in ensuring that South Africa meet broadband targets set out in the SA Connect Broadband Policy.
- 6.2.5. An important provision contained in the broadband policy is the vision of the creation of a wholesale wireless broadband network. Although a detailed roadmap regarding its development has not been finalised, it is expected to address structural constraints in the market and enhance service- based competition.
- 6.2.6. The wireless wholesale open access network is becoming even more relevant now given the recent wave of market consolidation in the ICT industry, which might reverse competition gains introduced in the market since the implementation of the ECA.
- 6.2.7. The wireless wholesale open access network operator would be expected to deploy wholesale Radio Access Network (RAN) for mobile broadband.

- 6.2.8. The Authority is of the view that the proposed 2x20MHz band would be sufficient to deploy wholesale RAN nationally.
- 6.2.9. The wireless open access network shall be given 3 years of obligation holiday from paying radio frequency spectrum license fees with regard to the 700MHz spectrum license.
- 6.2.10. The winner of Lot A must provide wholesale open access services on the following basis:
- Non-discriminations access;
 - Transparency;
 - Fair and reasonable pricing; and
 - Cost oriented with reasonable rate of return.

6.3. Digital Terrestrial Television (DTT) Obligations

- 6.3.1. In order to fast track the DTT migration project and utilisation of 700/800 MHz, applicants awarded this spectrum are obliged to provide set-top-boxes free of charge to households for Free To Air Terrestrial Television Service, to who may not qualify for the subsidy scheme for ownership for poor television owning household in the affected areas
- 6.3.2. The cost to provide set top boxes free of charge will be offset against the auction price.

6.4. BBBEE OBLIGATIONS

- 6.4.1 A licensee must achieve BBBEE level 2 status within twenty four (24) months from date of issue of the Radio Frequency Spectrum Licence; or
- 6.4.2 A licensee must increase equity ownership by Historically Disadvantaged Persons (HDP) by three percent (3%) within twenty four (24) months from date of issue of the Radio Frequency Spectrum Licence

7. THE AWARD PROCESS

- 7.1. This section provides an overview of the award process, including an indicative timetable for the completion of the auction.

The award process

7.2. The award will consist of three stages, as illustrated on the diagram below:

Diagram of award process



- 7.3. The award will be a three stage process which will include qualification, Auction and Licensing Stages.
- 7.4. In the Qualification Stage, parties are invited to submit applications, in which they must state on which Lot Categories (Lot B/C/D/E/F) they may wish to place Bids during the award process. The identities of all applicants will be announced. The Applications will then be assessed by the Authority, and Applicants who meet the requirements will be qualified.
- 7.5. Following Qualification Stage, the Auction Stage will commence. Qualified applicants (Bidders) will be requested to submit a Bid for the Lots that they would be prepared to acquire at Reserve Prices. The Auction Stage will take the form of a 'Simultaneous Multi-Round Ascending' (SMRA) auction.
- 7.6. Applicants will be free to switch between Lots within the Lot Categories for which they are qualified to bid during the SMRA auction process.
- 7.7. Following the Auction Stage, Licences will be issued to winning Bidders, subject to the payment of the Auction Fee.

8. AUCTION

- 8.1. Spectrum auctions has proven to be a “best practice” for assigning spectrum where demand exceeds supply.

- 8.2. The Authority has been following auction formats which has been used worldwide when licensing spectrum where demand exceed supply, and it is considering to use the SMRA auction or the Combinatory Clock Auction (CCA) with generic lots.

8.3. SMRA FORMAT

- 8.3.1. The SMRA is an open ascending multi-unit auction that takes place over a number of rounds. In this format, bids are placed for individual lots, and the auction proceeds in successive rounds with increasing prices, until there are no new bids. A points-based activity rule is often used, under which bidders may only decrease or maintain their level of demand from one round to the other, as measured by the number of eligibility points¹⁵. In each round, the highest bid placed on each lot is called a Standing High Bid. When the auction ends Standing High Bids become winning bids and the bidders pay the amounts they bid. The traditional implementation of the SMRA allows bidders to place bids for specific frequency lots.
- 8.3.2. The SMRA with generic lots has been used in several recent multi-band spectrum awards in Europe. Examples include Germany, Italy, Spain, Portugal, Greece and the Czech Republic.
- 8.4. The Reserve Price of each Lot will be published in the ITA.
- 8.5. The auction will take place in Johannesburg, with all Bidders co-located in the same building. The exact location of the auction will be communicated nearer to the auction date.

End/

¹⁵ A Bidder's Eligibility describes the maximum of Lots on which it may place Bids in the current Round.