



SUBMISSION BY SENTECH LIMITED

TO THE INDEPENDENT COMMUNICATIONS AUTHORITY

OF SOUTH AFRICA ON

RADIO FREQUENCY SPECTRUM REGULATIONS, 2010

19 November 2010

TABLE OF CONTENTS

1	INTRODUCTION	3
2	SPECIFIC COMMENT ON THE REGULATIONS.....	3
2.1	PART I – Preliminary	3
2.2	PART II – Radio Frequency Spectrum Planning	3
2.3	PART III – Radio Frequency Spectrum Licence Exemptions	3
2.4	PART IV – Standard Terms and Conditions for Radio Frequency Spectrum Licences 4	
2.4.1	<i>Regulation 8 – Standard Conditions for radio frequency spectrum License and Assignment.....</i>	<i>4</i>
2.4.2	<i>Regulation 9 – Duration of radio frequency spectrum License and Renewal.....</i>	<i>4</i>
2.4.3	<i>Regulation 11 – Withdrawal (Suspension or Cancellation) of a radio frequency spectrum License</i>	<i>5</i>
2.4.4	<i>Regulation 12 – Transfer of a radio frequency spectrum License; Regulation 14 - Leasing/Third Party Authorisation of a radio frequency spectrum License Assignment.....</i>	<i>6</i>
2.5	PART V – Procedures for Radio Frequency Spectrum Licensing and Assignment 7	
2.5.1	<i>Regulation 17 – Applications for Spectrum in High Demand.....</i>	<i>7</i>
2.6	PART VI – Sharing and Co-ordination of Radio Frequency Spectrum Assignments 8	
2.6.1	<i>Regulation 23 – Terms and Conditions of sharing of radio frequency spectrum.....</i>	<i>8</i>
2.6.2	<i>Regulation 24 – Procedures for co-ordination within shared frequencies.....</i>	<i>9</i>
2.6.3	<i>Regulation 25 – Dispute Resolution in shared frequencies</i>	<i>9</i>
2.7	PART VII – Withdrawal of the Right to Spectrum.....	9
2.8	PART VIII – [BLANK].....	10
2.9	PART IX – Regulations for Specific Services.....	10
2.10	PART X - Miscellaneous.....	10
2.10.1	<i>Regulation 35 – Modifications to a Station</i>	<i>10</i>
2.10.2	<i>Regulation 36 – Interference, Condition of Station and Compliance with the Requirements of the Authority and Local Municipality.....</i>	<i>10</i>
2.10.5	<i>Regulation 37 – Indecent Language and Fraudulent Transmissions over Stations prohibited.....</i>	<i>11</i>
2.10.6	<i>Regulation 42 – Recognition of licences issued by other countries</i>	<i>12</i>
3	CONCLUSION.....	12

1 INTRODUCTION

- 1.1 Sentech Limited ("**Sentech**") thanks the Independent Communications Authority of South Africa (the "**Authority**") for this opportunity to submit comments on the *Draft Radio Frequency Spectrum Regulations, 2010* (the "**Regulations**")¹.
- 1.2 Sentech requests an opportunity to make oral representations to the Authority should public hearings be held as part of the consultative process.
- 1.3 Sentech's comments are set out below.

2 SPECIFIC COMMENT ON THE REGULATIONS

2.1 PART I – Preliminary

Sentech supports the general principle set out by the Authority in the Reasons Document as well as the stated purpose of the Regulations contained at regulation 2 of the Regulations. Sentech also supports a technologically neutral and flexible approach to frequency regulation which promotes efficiency and innovation whilst still protecting the interests of the end users who receive services conveyed wirelessly.

2.2 PART II – Radio Frequency Spectrum Planning

Sentech notes that the Authority will engage in extensive consultation when preparing the Radio Frequency Band Plan and the Radio Spectrum Assignment Plan. Sentech will engage with the Authority when these Plans are ready for public comment.

2.3 PART III – Radio Frequency Spectrum Licence Exemptions

Sentech has no comment on this Part.

¹ Published under Notice 95 of 2010 *Government Gazette* No. 33590 on 29 September 2010.

2.4 **PART IV – Standard Terms and Conditions for Radio Frequency Spectrum Licences**

2.4.1 ***Regulation 8 – Standard Conditions for Radio Frequency Spectrum License and Assignment***

2.4.1.1 Regulation 8(1) requires that the licensee–

"must use or operate only approved apparatus in the spectrum specified in the radio frequency spectrum licence"

2.4.1.2 Sentech suggests that the clause should read –

"must use or operate only type approved apparatus in the spectrum specified in the radio frequency spectrum licence"

2.4.2 ***Regulation 9 – Duration of Radio Frequency Spectrum License and Renewal***

2.4.2.1 In Regulation 9(4) specific provision is made for the issuance of radio frequency spectrum licenses to broadcasting service licensees.

2.4.2.2 Section 31 of the Electronic Communications Act, 2005 ("**ECA**") provides that–

"(1) Subject to subsections (5) and (6) no person may transmit any signal by radio or use radio apparatus to receive any signal by radio except under and in accordance with a radio frequency spectrum License granted by the Authority to such persons in terms of this Act.

(2) A radio frequency spectrum License is required in addition to any service contemplated in Chapter 3 where the provision of such service entails the use of radio frequency spectrum.

[Sentech's emphasis added]

2.4.2.3 Sentech submits that it is clear from the ECA that the signal distributor contracted to the broadcasting service licensee (which is not providing its own signal distribution) should also hold a radio frequency spectrum licence. Thus, if radio frequency spectrum is to be assigned to broadcasting service licensees such frequencies should also be assigned (on a secondary basis) to

the entity which provides signal distribution services (i.e. a co-assignment) for that broadcasting service licensee.

2.4.2.4 The ECA does not preclude the possibility radio frequency spectrum being assigned on a primary and secondary basis. If the Authority adopted this approach it would allow signal distributors to operate in full compliance with section 31 of the ECA.

2.4.2.5 It is not Sentech's intention to frustrate the broadcasting service licensees' use of their licences but, rather, it wishes to operate within the parameters of the ECA. A co-assignment of radio frequency spectrum can easily be made subject to the condition that the assignment will expire on the date that the radio frequency spectrum licence issued to the broadcast service licensee expires or on the date that the Authority is notified of the termination of Sentech's contractual arrangement with the broadcasting service licensee concerned.

2.4.2.6 Sentech respectfully submits that it is incorrect and not permissible in law to give Sentech or any other signal distributor a mere "deemed" right to operate radio apparatus under a licence awarded to a broadcasting service licensee. The Digital Migration Regulations² allow for such a "deemed" right but Sentech remains of the view that this is incorrect and does not allow for compliance with section 31 of the ECA.

2.4.3 ***Regulation 11 – Withdrawal (Suspension or Cancellation) of a radio frequency spectrum License***

2.4.3.1 Users may not have a right of tenure of a frequency but they do have certain legitimate expectations that they will be assigned frequencies to discharge their service licence obligations.

2.4.3.2 Withdrawal of a licence should not be used as a blunt instrument to achieve frequency planning objectives. Section 31(4) allows the Authority to amend a licence to implement a change in a radio frequency plan.

2.4.3.3 The ECA sets out the circumstances in which a frequency licence may be withdrawn as well as the process that must be followed at clauses 31(8) and 31(9) -

² Published under Notice No. 97 in *Government Gazette* No. 32956 on 15 February 2010.

"(8) Subject to subsection (9), the Authority may withdraw any radio frequency spectrum licence when the licensee fails to utilise the allocated radio frequency spectrum in accordance with the licence conditions applicable to such licence.

(9) Before the Authority withdraws a radio frequency spectrum licence in terms of subsection (8), it must give the licensee prior written notice of at least 30 days and the licensee must have 7 (seven) business days in which to respond in writing to the notice (unless otherwise extended by the Authority) demonstrating that it is utilising the radio frequency spectrum in compliance with this Act and the licence conditions."

2.4.3.4 Regulation 11 is wider than what is contemplated in the ECA. If the Authority wishes to impose obligations to use frequencies and provide services within stipulated time periods it must do so in the frequency licence document itself.

2.4.4 **Regulation 12 – Transfer of a radio frequency spectrum License; Regulation 14 - Leasing/Third Party Authorisation of a radio frequency spectrum License Assignment**

2.4.4.1 Sentech welcomes the provisions that allow some trade (whether by transfer of lease) in radio frequency spectrum licenses.

2.4.4.2 Spectrum trading contributes to a more economically efficient use of frequencies as trade takes place only if the spectrum is worth more to the new user than it was to the old user.

2.4.4.3 It is important however to ensure that trading of frequencies can occur without too many regulatory obstacles. The ITC Regulatory Toolkit published by the International Telecommunications Union suggests that –

"In order for spectrum trading to be both transparent and efficient, it makes sense to give all interested parties direct access to information on current spectrum usage. To this end it is advisable to set up a central database, which, for practical purposes should be the direct responsibility of the spectrum regulator."

2.4.4.4 Sentech agrees with this statement and therefore encourages the Authority to

set up an accessible central database to facilitate the transfer and leasing of radio frequency spectrum.

2.4.4.5 Sentech takes no issue with the requirement that the Authority's approval be obtained prior to the transfer/lease of radio frequency spectrum but suggests that the Authority bind itself in the Regulations to time periods during which such applications must be processed. If the Authority's approval is not capable of being expeditiously obtained the benefits of spectrum trading will be eroded.

2.4.4.6 Sentech has also noted that the Regulations have not dealt enough with issues affecting spectrum trading, such as:

2.4.4.6.1 Property rights

2.4.4.6.2 Unnatural monopolies or anti-competitiveness market behaviour

2.4.4.6.3 Forms of spectrum trading: full-on transfer, temporary transfer, geographic leasing, etc...

2.5 **PART V – Procedures for Radio Frequency Spectrum Licensing and Assignment**

2.5.1 ***Regulation 17 – Applications for Spectrum in High Demand***

2.5.1.1 Sentech notes that, in paragraph 6(3) of the Reasons Document, the Authority states that the procedures for applications for frequency in High Demand will be contained in a specific ITA, "*including the rules that were contained in the repealed High Demand Regulations*"³.

2.5.1.2 The High Demand Regulations require that an applicant be disqualified from the application process where an applicant has less than 30% (thirty percent) direct ownership by historically disadvantaged individuals ("**HDI**").

2.5.1.3 Sentech is a state owned entity and, as such, has no HDI shareholding although its shares are held, indirectly, by all South Africans. If it is the intention of the Authority to apply the requirement that applicants have no less than 30% (thirty percent) direct ownership by HDI's then Sentech and every

³ The "High Demand Regulations" are presumably the *High Demand Radio Frequency Spectrum Licensing Framework Regulation* published under Government Notice R469 *Government Gazette* No. 33248 on 28 May 2010.

other state owned entity will be precluded from applying for valuable frequencies that are in high demand. Given that the indirect "owners" are South African citizens Sentech asks that the Authority take cognisance of this fact when issuing ITA's for frequencies in high demand and specifically provide that applicants that are state owned entities need not comply with the 30% (thirty percent) HDI requirement.

2.6 **PART VI – Sharing and Co-ordination of Radio Frequency Spectrum Assignments**

2.6.1 ***Regulation 23 – Terms and Conditions of sharing of radio frequency spectrum***

2.6.1.1 Existing licensees have deployed specific technologies and have constructed their systems to meet specific coverage and capacity requirements. Compulsory sharing could have very serious financial consequences for existing licensees if they are obliged to change their systems to accommodate a new licensee that has different technologies and/or different coverage and capacity requirements.

2.6.1.2 It is also not clear what types of sharing are contemplated by the Authority. It would have been useful if the Explanatory Document had given some indication of whether sharing will be on a time and/or geographic basis.

2.6.1.3 Sentech suggests that the Regulator should initiate another public consultation process separate to this one to solicit views on spectrum sharing; Administrative, Market based and Technology based (overlay and overlay).

2.6.1.4 The purpose of the public consultations will be to deal with issues such as:

2.6.1.4.1 Sharing rules for radio system performance:

2.6.1.4.1.1 Time

2.6.1.4.1.2 Geographic

2.6.1.4.1.3 Space

- 2.6.1.4.1.4 Power
- 2.6.1.4.1.5 Polarisation
- 2.6.1.4.1.6 Spectral power density
- 2.6.1.4.1.7 Cognitive Radio (CR)
- 2.6.1.4.1.8 Software-defined Radio (SDR)
- 2.6.1.4.1.9 Smart Antennas, etc...
- 2.6.1.4.2 Applicable technical standards
- 2.6.1.4.3 Spectrum white-space
- 2.6.1.4.4 Equipment specifications, etc...

2.6.2 ***Regulation 24 – Procedures for co-ordination within shared frequencies***

- 2.6.2.1 This regulation does not provide a full dispute resolution procedure in the event that disputes arise.
- 2.6.2.2 A robust and fair dispute resolution procedure is required if frequency sharing is to be successful.
- 2.6.2.3 It is also not clear why it is a requirement that frequency spectrum co-ordination agreements be submitted to the Authority when the Authority has no authority to approve or reject such agreements.

2.6.3 ***Regulation 25 – Dispute Resolution in shared frequencies***

Sentech is of the view that it is not within the Authority's powers to withdraw a radio frequency spectrum licence as a means to resolving a dispute. The extent of the Authority's power to withdraw a licence are limited by subsections 31(8) and 31(9) of the ECA.

2.7 **PART VII – Withdrawal of the Right to Spectrum**

As stated above, Sentech is of the view that the Authority may not withdraw a frequency licence to facilitate frequency planning. The correct procedure is to amend a licence to comply with the frequency plan.

2.8 **PART VIII – [BLANK]**

There appears to be a numbering error in the Regulations as there is no Part VII.

2.9 **PART IX – Regulations for Specific Services**

2.9.1 ***Regulation 29 – Amateur Communications***

2.9.1.1 Sentech seeks clarity Authority regarding section 28: Television transmissions. Sentech would like to know under which licence the amateur radio station will be allowed to transmit television. Sentech is of the view that this section should be removed from the Final Radio Frequency Spectrum Regulations.

2.9.1.2 Sentech would also like to bring to the attention of the Authority that section 28 and 29 are in conflict with section 22.

2.10 **PART X - Miscellaneous**

2.10.1 ***Regulation 35 – Modifications to a Station***

2.10.1.1 Regulation 35 provides that the Authority may direct a licensee to effect, at his or her own cost, any modifications to his or her radio-communication system that the Authority directs.

2.10.1.2 Sentech is concerned that this regulation may be applied arbitrarily without consultation as the regulation does not oblige the Authority to consult with effected parties. Also there is no indication as to what circumstances will permit the Authority to take what could be a very drastic measure with significant financial implications.

2.10.1.3 Certainly, if a licensee is operating its radio apparatus within the parameters of the apparatus' type approval, the terms of its licence and if it is not causing harmful interference (as defined in the ECA), the Authority should not be entitled to direct that a licensee modify its radio communications system unless there is a pressing public interest at stake.

2.10.2 ***Regulation 36 – Interference, Condition of Station and Compliance with the Requirements of the Authority and Local Municipality***

2.10.2.1 This regulation requires a licensee to maintain all radio apparatus in good

technical condition and to ensure at all times that it satisfies the requirements of the Authority and does not cause harmful interference.

2.10.2.2 It is already a requirement that radio apparatus be type approved. This regulation suggests that there may be additional requirements. Sentech asks that the Authority give some indication of what further requirements may be imposed over and above type approvals and the terms of the licence.

2.10.3 ***Regulation 37 – Indecent Language and Fraudulent Transmissions over Stations prohibited***

2.10.3.1 This regulation seeks to impose an obligation on licensees not to transmit certain prohibited language and fraudulent transmissions. The regulations require that this be "judged in context". In the absence of knowing what the "context" may be, this regulation is wide enough to include a prohibition on the conveyance of language that forms part of private indirect communications.

2.10.3.2 A licensee that is transmitting content for a content provider or for an end user has no control over the content or electronic communications conveyed and it would be all but impossible for these licensees to comply with the regulation.

2.10.3.3 Aside from the difficulty of monitoring all electronic communications/broadcasting content for prohibited language, the regulation effectively requires licensees to make a judgement on whether the "language" amounts to profanity, obscenity etc. The heading suggests that licensees must also make a legal determination as to whether a transmission is fraudulent.

2.10.3.4 Even if the context alluded to in this regulation is "broadcasting", it will still be impossible for licensees to comply if they have no control over the content that is provided to them by broadcasting service licensees to distribute. And, in the broadcasting context, there is already a code of conduct which is enforced against broadcasting service licensees.

2.10.3.5 It should not be for the radio frequency spectrum licensee to enforce these "language restrictions" which require the licensee to make a determination in the absence of any representations from the content provider.

2.10.3.6 It is not the function of radio frequency spectrum regulations to regulate

language carried on the radio waves. This regulation should be removed as it is inappropriate (and probably un-Constitutional) and unnecessary.

2.10.4 ***Regulation 42 – Recognition of licences issued by other countries***

2.10.4.1 This regulation allows the Authority to issue a licence to a person who has been issued a similar licence in another country.

2.10.4.2 Sentech is concerned that this regulation is too widely framed. Taken to its extreme, this regulation would allow the Authority (for example) to permit a person licensed to provide 3G services in another country to provide 3G services in South Africa. This cannot be the intention of the Authority.

2.10.4.3 This regulation is also of concern as the Authority will not always be cognisant of the standards or circumstances applied by the country that issued the licence.

2.10.4.4 Sentech suggests that the Authority's powers granted under the regulation be curtailed somewhat so as to allow it to grant licences in respect of frequencies that have been recognised as being assigned to a person (normally operating a satellite service) at an ITU level.

3 **CONCLUSION**

3.1 Sentech once again thanks ICASA for the opportunity to make these representations and trust that the representations will be of assistance in finalising the Regulations.

3.2 Should ICASA have any questions arising from these representations, ICASA is requested to contact Mr Dingane Dube on 011 691 7000.
