NOTICE 305 OF 2009

RADIO FREQUENCY SPECTRUM LICENCE FEES REGULATION

DRAFT RADIO FREQUENCY SPECTRUM LICENCE FEES REGULATION

This draft regulation will replace Regulations E1 (Licence and Examination fees) of the Radio Regulations.

SCHEDULE

1. In exercise of the powers conferred on it **Section 4 (1) of the Electronic Communications Act 2005, (The Act")**, the Independent Communications Authority of South Africa (ICASA) hereby makes the following regulations.

2. Purpose of these regulations

(1) This Regulation is made to standardise Radio Frequency Spectrum Fees and Pricing in order to promote efficiency of spectrum use and conformity with international standards in the usage of spectrum in the Republic of South Africa.

3. The Objective of these regulations

(1) Is to establish a transparent, fair, competitive and non-discriminatory Radio Frequency Spectrum Pricing based on administrative incentive pricing and which does not preclude the use of auctions and other internationally accepted methods of determining Radio Frequency Spectrum Price;

(2) Is to encourage efficient and effective utilization of spectrum, encouraging, on an incentive basis, migration to lesser populated and low-demand bands;

(3) Is to ensure that the costs of managing and monitoring the radio frequency spectrum are at least covered by fee income;

(4) Is to promote efficiency and competition by simplifying and harmonizing the Radio Frequency Spectrum Pricing process; and

(5) To achieve government policy objectives of even development of telecommunications infrastructure across South Africa.

3. Definitions

In these Regulations, unless the context otherwise indicates, a word or expression to which a meaning has been assigned in the Act has the meaning so assigned,

"the Act"	means the Electronic Communications Act, 2005 (Act No. 36 of 2005);
"ASTER"	means the Area Sterilized Factor that is applied to reflect the area that is denied to other users of a frequency assignment;
"Authority"	means the Independent Communications Authority of South Africa as defined in section 1 of the Act;
"BW"	means Bandwidth expressed in MHz paired;
"CG"	means the Congestion Factor that is applied to reflect where a frequency spectrum is congested and demand exceeds supply;

"FREQ"	means the Frequency Factor that is applied to reflect the frequency band (spectrum location) in which the frequency assignment is positioned;
"GEO"	means the Geographic Factor that is applied to reflect the geographic area of South Africa covered by a frequency spectrum assignment;
"GHz"	means Gigahertz of Radio Frequency Spectrum
"HOPMINI"	means the Minimum Hop Factor that is applied to a point to point frequency spectrum assignment when the hop length is shorter than the minimum hop length identified for the frequency band;
"Khz"	means Kilohertz of Radio Frequency Spectrum;
"MHz"	means Megahertz of Radio Frequency Spectrum;
"Minimum Fee"	means the minimum fee paid for a radio frequency spectrum licence;
Republic of South Africa"	means the entire geographical area, the territorial waters and air limits of South Africa and any area to which the provisions of the Act apply;
"SHR"	means the Sharing Factor that is applied when the frequency spectrum that is the subject of an assignment can be shared;
"UNIBI"	means the Uni-directional factor that is applied when a single link only is assigned;
"UNIT"	means the Unit Price per Megahertz paired that is applied when the radio frequency spectrum licence fee is calculated by means of a formula;
"VSAT"	means Very Small Aperture Terminal;

4. **Fee Determination**

(a) The fees payable for each category of Frequency Spectrum must either be as determined by a pricing formula as described in these Regulations or by application of the minimum fee;

(b) The unit price per MHz of Frequency Spectrum is as stated in the Annexure "A" to these regulations and may be reviewed from time to time as may be determined by the Authority; and

(c) The minimum fee is as stated in these regulations and may be reviewed from time to time as may be determined by the Authority.

5. Exceptions

(1) Equipment that is licence-exempt is not subject to a radio frequency spectrum licence fee.

(2) Where the Authority determines that the assignment of frequency should be made on a competitive basis, the radio frequency spectrum licence fee may be determined on the basis of an auction.

(3)Unless the Authority determines otherwise, broadcast services are not subject to the radio frequency spectrum fees

6. Formulae

The following formulae will be used as indicated in the price schedules.

(a) Point-to-area formula

Applied to all point to area services except for Amateur, aeronautical and maritime with exclusive band allocations.

Fee = (UNIT * FREQ * BW * CG * GEO * SHR * ASTER * UNIBI)

The fee is the multiplication of the unit price (UNIT) by the frequency factor (FREQ), the bandwidth in MHz, the congestion factor (CG), the Geographic factor (GEO) the sharing factor (SHR), the area sterilized factor (ASTER) and the unidirectional factor (UNIBI) where this is applicable for point to area.

(b) Point-to-point formula

Applied to all fixed links whether below or above 1GHz. The formula is as follows:

Fee = (UNIT * FREQ * BW * CG * GEO *SHR * HOPMINI * UNIBI)

The fee is the multiplication of the unit price (UNIT) by the frequency factor (FREQ), the bandwidth (BW) in MHz, the congestion factor (CG), the Geographic factor (GEO), the sharing factor (SHR), the minimum hop length (HOPMINI) and the unidirectional factor (UNIBI).

(c) Satellite Hub Ground Station Formula

The fee for a principle hub station for uplink is determined by the following fee

Hub ground station Fee = Max ($\$_{UL}$; UNIT * BW)

The fee is the multiplication of the unit price (UNIT) by the bandwidth (BW) in MHz, and $\$_{UL}$ is the minimum fee for satellite uplink connections.

(d) Satellite VSAT subordinate ground station Formula

The fee for subordinate Very Small Aperture Station for uplink is determined by the following fee

VSAT Fee = (UNIT * BW)

The fee is the multiplication of the unit price (UNIT) by the bandwidth (BW) in MHz.

7. **Unit Price** – the Unit Price (UNIT) is applied per MHz paired of bandwidth. UNIT is as stated in the Annexure "A".

8. Factors and Look Up Tables

(a) Bandwidth (BW)

The Bandwidth factor is expressed per MHz paired.

(b) Frequency factor (FREQ)

(i) The following are the ranges and the relevant frequency band factor:

Area (km2)		ASTER Factor
From	To	
0	1	0.6
1	10	2
10	100	6
100	1,000	18
1,000	10,000	56
10,000	100,000	180
100,000	500,000	400
100,000	1,000,000	600

(c) Geographic factor (GEO)

(i) The following is the table of geographic factors:

GEO Area	GEO Factor Value
High Density	1
Medium Density	0.75
Low Density	0.5

(ii) The definition of high, medium and low density is stated in the Annex to this regulation.

(iii) Where the geographic area that is covered by a licence includes more than one GEO area, the highest GEO factor will be applied.

(d) Congestion factor (CG)

(i) The following is the table of congestion factors:

CONGESTION	CG Factor Value
Congested	1.5
Not Congested	1

(ii) 'Congested' applies where there is a waiting list for the frequency spectrum that is the subject of the licence, while 'Not Congested' applies when there is no waiting list.

(e) Degree of sharing (SHR)

(i) The following is the table of Share factors

Sharing	Value of sharing factor
Exclusive	1
Shared	0.5

(ii) 'Shared applies where two or more licensees share the frequency spectrum

(f) Area sterilized (ASTER)

(i) The following is the table of ASTER factors

Area (km2)		ASTER Factor
From	To	
0	1	0.6
1	10	2
10	100	6
100	1,000	18
1,000	10,000	56
10,000	100,000	180
100,000	500,000	400
100,000	1,000,000	600

(g) Minimum hop length (HOPMINI)

(i) The following is a table of minimum path lengths by frequency. Frequencies not appearing specifically in this table shall be rounded to the next highest value in the table.

Frequency Band (MHz)	Min Path Length (Km)
400	100
800	60
1.4/1.6/2	30
4 and 5	16
7.5	14
10 and 11	10
13/14/15	9
17/18	4
22/23	3
25/26	3
28	2
31 and 32	1.5
38	1
Higher	0

(ii) Where the actual path length of the licensee's link is shorter than the minimum path length for the frequency, the HOPMINI factor in the formula shall be calculated as the square root of the ratio between the minimum path length for the frequency requested and the actual path length of the licensee's link SQRT(Minimum Path Length for the Frequency / Actual Path Length).

(iii) Where the actual path length is equal to the minimum path length for frequency spectrum or the length is not known, the value of HOPMINI in the formula will be 1.

(h) Unidirectional factor (UNIBI)

(i) The following is a table of UNIBI factors as applied in the respective Point to Point formula and the Point to Area formula.