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OF THE

REPUBLIC OF NAMIBIA

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General Notice

COMMUNICATIONS REGULATORY AUTHORITY OF NAMIBIA

No. 417

2020

REGULATIONS SETTING OUT FEES FOR SPECTRUM LICENCES, CERTIFICATES AND EXAMINATIONS: COMMUNICATIONS ACT, 2009

In terms of section 38(5), 101 and 129 of the Communications Act, 2009 (Act No. 8 of 2009) the Communications Regulatory Authority of Namibia-

- (a) makes the Regulations set out in the Schedule;
- (b) with effect from 1 January 2021 repeals the Regulations Setting Out Fees for Spectrum Licences, Certificates and Examinations, which were published under General Notice No. 155 of 1 June 2017.

H. M. GAOMAB II
CHAIRPERSON OF THE BOARD
COMMUNICATIONS REGULATORY AUTHORITY OF NAMIBIA

SCHEDULE

Definitions

1. In these Regulations, any word or expression to which a meaning is assigned in the Act, has the same meaning and -

“AM” means amplitude modulation;

“Authority” means the Communications Regulatory Authority of Namibia;

“certificate” means a certificate of proficiency referred to in section 101(3)(i) of the Act;

“DAB” is an acronym for Digital Audio Broadcasting;

“DRM” is an acronym for Digital Radio Mondiale;

“examination” means an examination referred to in section 101(10) of the Act;

“Frequency Band Plan” means the Frequency Band Plan of Namibia published under General Notice No. 424 of 28 October 2016;

“HF” is an acronym for high frequency, which is the ITU designation for radio waves between 3 MHz and 30 MHz;

“IMT” is an acronym for International Mobile Telecommunications, which is the generic term used by the ITU to designate broadband mobile systems;

“ITU” is an acronym for International Telecommunications Union, which is a United Nations specialised agency for information and communications technologies;

“licensee” means any person to whom a spectrum license has been issued in terms of the Regulations Pertaining to Spectrum Licenses;

“MHZ” is an acronym for megahertz, which is the measurement used to indicate the transmission speed of electronic devices where a megahertz represents one million cycles per minute;

“non-urban area” means any location within the borders of the Republic of Namibia outside an urban area;

“Regulations Pertaining to Spectrum Licenses” means the Regulations Prescribing Procedures Regarding Application for, and Amendment, Renewal, Transfer and Cancellation of Spectrum Licenses published under General Notice No. 104 of 29 April 2019;

“satellite news gathering” means temporary and occasional transmission with short notice of television or sound for broadcasting purposes using portable or transportable uplink earth stations operating in the framework of a fixed satellite service;

“spectrum license” means a spectrum license conferred on a licensee in terms of the Regulations Pertaining to Spectrum Licenses;

“the Act” means the Communications Act, 2009 (Act No. 8 of 2009);

“VHF” is an acronym for very high frequency, which is the ITU designation for radio waves between 30 MHz and 300 MHz;

“UHF” is an acronym for ultrahigh frequency, which is the ITU designation for radio waves between 300 MHz and 3 GHz; and

“urban area” means any location within the area of a local authority established and declared under section 3 of the Local Authorities Act, 1992 (Act No. 23 of 1992).

Objects and application of Regulations

2. (1) The objects of these Regulations are to-
 - (a) utilise spectrum fees to enforce efficient use of radio frequency spectrum through optimum occupancy thereof and implementation of more spectrally efficient equipment and services;
 - (b) set spectrum fees to discourage hoarding of spectrum;
 - (c) set spectrum fees by taking into account the demand for radio frequency spectrum in a given spectrum band and the impact of inflation as indicated by the annual consumer price index published by the Namibia Statistics Agency on its official website from time to time;
 - (d) provide transparency in pricing of radio frequency spectrum;
 - (e) introduce bandwidth-dependent spectrum licence fees by utilising formula-based pricing set out in these Regulations in respect of spectrum licences awarded for fixed services, mobile services, IMT services and fixed or mobile satellite services; and
 - (f) achieve recovery of costs incurred by the Authority to execute its mandate in respect of spectrum management in terms of the Act.

(2) These regulations apply to all applicants for spectrum licenses, certificates or examinations contemplated in section 101 of the Act and licensees.

(3) These regulations do not apply to spectrum licences awarded in terms of regulation 6(1) of the Regulations Pertaining to Spectrum Licenses until the initial licence period has lapsed in terms of regulation 11(1)(b) of those Regulations and the Authority renewed the spectrum licence under regulation 13 of those Regulations.

General provisions

3. (1) A spectrum licence is issued and the right to utilise spectrum is conferred in accordance with the Regulations Pertaining to Spectrum Licenses.

(2) In accordance with regulations 11(1)(a) and 13(10)(a) of the Regulations Pertaining to Spectrum Licenses, a spectrum licence issued under Part 2 thereof automatically-

- (a) expires on 31 December of the year of issue;
 - (b) renews under regulation 13(10)(a) of those Regulations for the ensuing year upon settlement of the invoice that the Authority issued to the licensee.
- (3) These Regulations prescribe the following fees payable to the Authority-
- (a) annual and other fees payable with regard to the authorisation to utilise radio frequency spectrum conferred under the spectrum licence;

- (b) fees payable for the issue of a certificate;
- (c) fees payable with regard to an examination.

(4) The Authority may, at the end of July of each calendar year adjust the fees referred to in subregulation (3) with the percentage representing the inflation rate per annum as indicated by the annual consumer price index published by the Namibia Statistics Agency on its official website from time to time.

(5) The Authority may not issue or renew a spectrum licence or a certificate, or allow a person to write an examination, unless the applicable fees as set out in these Regulations are fully paid in advance to the Authority.

(6) Where the Authority determines that radio frequency spectrum will be conferred on a competitive basis in terms of regulation 6(1) of the Regulations Pertaining to Spectrum Licenses, the spectrum fee payable is the amount to be paid by the licensee to the Authority in terms of regulation 10(1)(c) of those Regulations.

Flat fees relating to spectrum licence, certificate or examination

4. (1) The fees set out for items 1, 2, 3, 4, 5, 6 and 9 of Table 1 below are payable annually in advance and in full, and are not refundable in full or in part, regardless if a spectrum licence or the authorisation to utilise spectrum in terms of such licence pertaining to such fees -

- (a) is issued during the course of a specific calendar year; or
- (b) expires, is forfeited, lapses or is discontinued for whatever reason:

Provided that licensees are bound to pay a minimum fee of N\$ 60.00 irrespective of the actual amount payable in terms of this subregulation.

(2) A monthly fee is payable in respect of a spectrum licence for a mobile or fixed satellite news gathering station referred to item 7.4 of the Table 1 below, irrespective whether the month is a calendar month or a consecutive period of 30 days (the latter which, for purposes of this subregulation is deemed to be a month), subject thereto that-

- (a) the full monthly fee is payable per month or part thereof, regardless if radio frequency spectrum under the licence is utilised only for part of a month;
- (b) if the licence is issued prior to the end of a calendar year and expires in the ensuing calendar year for which a higher monthly fee is payable, the licensee must pay the lower monthly fee for the duration of year in which the license is issued and pay the higher fee for the remaining months in the ensuing year; and
- (c) a licensee desiring to continue to use radio frequency spectrum under a license due to expire must apply for renewal thereof in accordance with regulation 13 of the Regulations Pertaining to Spectrum Licenses.

- (3) (a) Unless radio frequency spectrum is conferred by means of a spectrum auction in terms of Part 3 of the Regulations Pertaining to Spectrum Licenses, fees in respect of any spectrum licence issued in relation to items 7.1 to 7.3 and 8 (excluding item 8.5) in Table 1 below are payable annually in advance and in full.

(b) If such license is forfeited, lapses or is discontinued for whatever reason prior to its expiry in terms of the Regulations Pertaining to Spectrum Licences, the licensee concerned may be refunded for any month during which it did not utilise radio frequency spectrum following such forfeiture, lapse, or discontinuance in terms of those Regulations.

(c) For purposes of paragraph (a), a part of a month is regarded as a full month.

(4) The fee payable by a licensee intending to use radio frequency spectrum in accordance with item 8.5 in the Table below, is a once-off non-refundable fee as specified in item 8.5.1 or 8.5.2, as the case may be.

TABLE 1
SPECTRUM LICENCES, CERTIFICATES AND EXAMINATIONS FEES

TYPE OF SPECTRUM LICENCE, CERTIFICATE OR EXAMINATION		FEES (NS)
1.	AMATEUR RADIO	
1.1	All classes of amateur radio spectrum licences	109.00
1.2	Beacon	109.00
1.3	Examination	109.00
1.4	Guest or special event spectrum licence	109.00
1.5	Repeater station	109.00
2.	AERONAUTICAL	
2.1	Aircraft station	217.00
2.2	Glider / microlight	109.00
2.3	Ground station	130.00
2.4	Navigation aids / beacons	109.00
2.5	Operator certificate radiotelephony (including duplicate)	109.00
3.	MARITIME	
3.1	Beacon	109.00
3.2	Operator certificate radiotelephony (including duplicate)	109.00
3.3	Ship Station	
	3.3.1 ITU assigned frequencies	326.00
	3.3.2 Any additional VHF or HF frequencies	1,085.00
3.4	Coast Station	
	3.4.1 ITU assigned frequencies	326.00
	3.4.2 Any additional VHF or HF frequencies	1,085.00
	3.4.3 Yacht and ski-boat stations	109.00
4.	LAND MOBILE SERVICE	
4.1	Private alarm station (see item 6.1 for alarm systems)	362.00
4.2	Base Mobile Station	
	4.2.1 27/29 MHz band (including CB band)	109.00
	4.2.2 VHF/UHF per simplex frequency in urban areas	217.00
	4.2.3 VHF/UHF per simplex frequency in non-urban areas	130.00
4.3	Repeater (private and exclusive)	
	4.3.1 Duplex frequency urban areas	2,388.00
	4.3.2 Duplex frequency non-urban areas	868.00
	4.3.3 Simplex frequency (Parrot repeater)	391.00
	4.3.4 Any additional simplex frequency (per frequency)	217.00
4.4	Experimental Station	
	4.4.1 Experimental station valid for 6 months	217.00

4.6	National Occupancy (Base Mobile Station)		
	4.6.1	Not shared	1,737.00
	4.6.2	Shared	217.00
5.	HIGH FREQUENCY (HF) RADIO		
5.1	Fixed/mobile Station		326.00
5.2	Fixed radio station above 400Watt		2,171.00
6.	RADIO COMMUNICATIONS SYSTEMS		
6.1	Alarm		
	6.1.1	Urban complexes (per control room and per frequency)	7,236.00
	6.1.2	All other areas (per control room and per frequency)	1,809.00
6.2	Load management (including telemetry)		7,236.00
6.3	Paging (one-way)		
	6.3.1	Commercial	
		6.3.1.1 Application	2,261.00
		6.3.1.2 Per control room	10,854.00
	6.3.2	Private	
		6.3.2.1 Per control room and per frequency	217.00
6.4	Radio trunking		
	6.4.1	For a maximum of one control channel per base station	1,085.00
	6.4.2	For each additional double frequency or if only one channel is used at a base station	5,426.00
6.5	Repeater (Community/Shared)		
	6.5.1	Urban area per duplex frequency (commercial use)	4,992.00
	6.5.2	All other areas per duplex (commercial use)	2,605.00
	6.5.3	All other areas per duplex (farmers associations only)	1,085.00
7.	SATELLITE SERVICES (LAND, MOBILE, MARITIME)		
7.1	Immarsat		
	7.1.1	A terminal	3,256.00
	7.1.2	B,C and M terminal (64 kbit/s)	1,303.00
	7.1.3	D terminal (data only) RB GAN	543.00
7.2	Uplink Broadcasting Signal Distribution Fixed Satellite Earth Station		38,640.00
7.3	Mobile or fixed satellite news gathering station (per month or part thereof)		3,864.00
8.	BROADCASTING SERVICES		
8.1	Analogue FM Radio Broadcasting Transmitter		
	8.1.1	0.000 up to 100.999 Watt (ERP)	773.00
	8.1.2	101.000 up to 999.999 Watt (ERP)	1,546.00
	8.1.3	1000 Watt (ERP) and above	2,318.00
8.2	Digital Terrestrial Television Broadcasting Transmitter		
	8.2.1	0.000 up to 100.999 Watt (ERP)	8,424.00
	8.2.2	101.000 up to 999.999 Watt (ERP)	10,356.00
	8.2.3	1000 Watt (ERP) and above	12,905.00
8.3	DAB Digital Radio Broadcasting Transmitter		<i>(12 channels per frequency)</i>
	8.3.1	Regional	10,476.00 per transmitter
	8.3.2	National Single Frequency Network	10,476.00 per transmitter
8.4	DRM30 Digital Radio Broadcasting Transmitter		<i>(4 channels per frequency)</i>

	8.4.1	0.000 up to 1000 kW (ERP)			9,272.00 per transmitter
8.5	Other broadcasting services				
	8.5.1		Special event broadcast spectrum licence maximum 10 Watt (fee per day up to a maximum capped fee equal to 30 days' daily fee. If period thereafter exceeds 30 days the maximum fee shall then apply)		773.00 Maximum fee: 23,184.00
	8.5.2		Outside broadcasting vehicle links (per event irrespective of duration)		5,152.00
9.	MISCELLANEOUS				
9.1	National Security Forces				85,008.00
9.2	Namibia Defence Force				85,008.00
9.3	Competency certificate (radios above 400 Watt)				109.00
9.4	Duplicate spectrum licences				109.00
9.5	Amendment of spectrum licence				99.00
9.6	Photocopies per A4 sheet				2.00

Formula-based fees

5. (1) For purposes of this regulation-
- (a) "BV" is an acronym for base value measured in Namibian Dollars per MHz and is currently set at-
- (i) N\$ 1,607.00 for mobile services;
- (ii) N\$ 113.00 for fixed services; and
- (iii) N\$ 5,844.00 for fixed and mobile satellite services;
- (b) BV is calculated to fully recover the Authority's spectrum management costs in accordance with the formula:

$$BV = \frac{\text{Total expected spectrum management costs} - \text{expected revenue raised from flat spectrum fees}}{(BWF \times FBF \times CF \times SHRF \times GEOF \times TF)}$$

- (c) "BWF" is an acronym for bandwidth factor and refers to the bandwidth indicated in MHz, which is assigned to a licensee in terms of a spectrum licence;
- (d) "CF" is an acronym for coverage factor, which indicates the extent to which access to the radio frequency spectrum assigned to a licensee under a spectrum license is denied to other licensees;
- (e) "FBF" is an acronym for Frequency Band Factor, which sets out the spectrum fee for 1 MHz of similar usage in different spectrum bands as contained in the Frequency Band Plan specified in Tables 2 and 3;
- (f) "GEOF" is an acronym for geographical factor, which indicates whether radio frequency spectrum is assigned for use in an urban or non-urban area, or assigned for an area that comprises both types of area;

- (g) “SHRF” is an acronym for sharing factor, which indicates whether radio frequency spectrum is assigned exclusively or whether it is shared with another licensee or service as allocated in the Frequency Band Plan; and
- (h) “TF” is an acronym for the time factor, consisting of a period of 12 months.

(2) Subject to subregulation (3), in respect of spectrum licences for which a flat fee set out in regulation 4 is not payable, an annual fee must be paid calculated in accordance with the following formulas:

(a) for mobile services and fixed services:
 $annual\ spectrum\ fee = BWF \times FBF \times CF \times SHRF \times GEOF \times BV$; and

(b) for fixed and mobile satellite services:
 $annual\ spectrum\ fee = BWF \times BV$.

(3) Notwithstanding subregulation (1), spectrum licenses awarded by means of spectrum auctions in accordance with Part 3 of the Regulations Pertaining to Spectrum Licenses are not subject to the annual fee contemplated in that subregulation, provided that if any spectrum license awarded in accordance with the aforesaid Part 3 lapses or is not renewed, and is consequently awarded in a manner other than by a spectrum auction, those annual fees apply to the licensee to whom such license is awarded.

- (4) FBF is as set out in Tables 2 and 3 below:

TABLE 2
FREQUENCY BAND FACTOR (FBF):
FIXED SERVICES (INCLUDING POINT-TO-POINT AND POINT-TO-MULTIPOINT
FIXED LINKS)

Frequency Range		FBF
From	To	
0 MHz	1350 MHz	0.5
1350 MHz	1427 MHz	0.75
1427 MHz	1675 MHz	1.5
1785 MHz	1805 MHz	1
2023 MHz	2300 MHz	1
2300 MHz	2400 MHz	1
2483.5 MHz	2500 MHz	1
2500 MHz	2690 MHz	1
3400 MHz	3600 MHz	2.5
3600 MHz	4200 MHz	1
4400 MHz	8500 MHz	0.75
10 GHz	15.35 GHz	0.75
17.7 GHz	100 GHz	0.5

TABLE 3
FREQUENCY BAND FACTOR (FBF):
MOBILE SERVICES (Time Division Duplex and Frequency Division Duplex)

Frequency Range		FBF
From	To	
450 MHz	960 MHz	0.5
1427 MHz	1675 MHz	0.75
1710 MHz	1785 MHz	0.75
1805 MHz	1880 MHz	0.75
1920 MHz	1980 MHz	0.75
2110 MHz	2170 MHz	0.75
2300 MHz	2400 MHz	1
2500 MHz	2690 MHz	1
3300 MHz	3600 MHz	0.75

(5) CF is as set out in Table 4 below:

TABLE 4
COVERAGE FACTOR (CF)

	CF = 1	CF = 2	CF = 3	CF = 30
Coverage Area	Small Area Network $A \leq 5 \text{ km}^2$	Large Area Network $5 \text{ km}^2 < A \leq 600 \text{ km}^2$	Wide Area Network $600 \text{ km}^2 < A \leq 105,300 \text{ km}^2$	National network

(6) SHRF is as set out in Table 5 below:

TABLE 5
SHARING FACTOR (SHRF)

Exclusive Use	1
Shared	0.5

(7) GEOF is as set out in Table 6 below:

TABLE 6
GEOGRAPHICAL FACTOR (GEOF)

High density of population	1
Low density of population	0.5
Mixed high/low density of population	1

(8) (a) Unless radio frequency spectrum is conferred by means of a spectrum auction in terms of Part 3 of the Regulations Pertaining to Spectrum Licenses, spectrum fees calculated in accordance with this regulation are payable annually in advance and in full, subject thereto that if a spectrum license is forfeited, lapses or is discontinued for whatever reason prior to its expiry in terms of those Regulations, the licensee concerned may be refunded such portion of the fees the licensee paid for any period during which it did not utilise radio frequency spectrum following such forfeiture, lapse, or discontinuance.

- (b) For purposes of paragraph (a), a part of the month is regarded as a full month.

Transitional provisions

6. (1) The flat fees and formula-based fees and flat fees contemplated by regulation 4 and regulation 5 respectively will be payable with effect from 1 January 2021.

(2) A person or a spectrum licensee who applies in the year 2020 for a spectrum licence, or to renew authorisation to utilise spectrum for the ensuing calendar year as contemplated in regulation 13 of the Regulations Pertaining to Spectrum Licenses, must if the spectrum license or the renewal of authorisation is granted in-

(a) the year 2020, pay the applicable fee set out in the Regulations Setting Out Fees For Spectrum Licenses, Certificates and Examinations published under General Notice No. 155 of 1 June 2017 by the due date for payment determined by those Regulations;

(b) the year 2021, pay the applicable fee set out in these Regulations.

(3) Subregulation (2) applies in the same manner, but with the necessary changes, to certificates contemplated in items 2.5, 3.2 and 9.3 of the table in regulation 4.

Commencement

7. Subject to regulation 6(2) these regulations will become effective on 1 January 2021.

ANNEXURE A

REPLY COMMENTS IN RESPECT OF PUBLIC COMMENTS RECEIVED ON GOVERNMENT GAZETTE NO. 7216, GENERAL NOTICE NO. 187 PUBLISHED ON 19 MAY 2020

The table set out below reflects all comments received from stakeholders and the Authority's response thereto -

COMMENTS RECEIVED	RESPONSE FROM THE AUTHORITY
Paratus Telecommunications (Pty) Ltd	
Please indicate how the fees were calculated. Was a specific rate or percentage applied?	<p>As set out in regulation 2(f), the fees are set to achieve recovery of costs incurred by the Authority to execute its mandate in respect of management in terms of the Act. As such the Authority calculated the fees as follows (taking into account that the Authority has not reviewed spectrum fees since June 2017, the fees were based on CPI increases up to 2015):</p> <p>(i) Flat fees for existing services as set out in regulation 4 is based on CPI for 2016, 2017, 2018 and 2019; However, after consideration of the comments at the oral hearing, the Authority capped the increase at 12%.</p> <p>(ii) Formulae based fees are based on the formula contained in regulation 5(4). After consideration of the oral and written comments, the base value was reduced by 23%..</p>

Is it possible to delay or postpone the implementation of these fees to next year or as soon as we have fully recovered from the current status of emergency caused by Covid-19.	As set out in regulation 7, these regulations will become effective on 1 January 2021.
Please clarify 7.2 of Table 1. Will the spectrum be charged and paid in kbps.	Taken into consideration the comments of the licensees' spectrum for fixed and mobile satellite will be changed on formula-based fees.
Please indicate when point 7.2 has to be paid	All spectrum fees are payable on or before 31 December in advance for the forthcoming year as set out in regulation 3(2)
What is the definition of the areas "CF" Wide Area Network? Must this be a single area, or can it be split over several patches across the country?	"CF" Wide area network comprises of a network of 600 km ² < A ≤ 105,300 km ² and may comprise of a single area or be made up of several areas which amount to the size of the network as specified and in accordance with the authorized area operation stated in the service licence e.g. Erongo region.
There are no frequencies indicated for mobile service over 3.6 GHz. Does that mean that there are no 5G networks possible for millimeter wave?	The current frequency band plan as published on 28 October 2016 does not allow for the implementation of MOBILE services above 3.6 GHz. Once the Authority has reviewed the Frequency Band Plan to ensure compliance with the Final Acts of World Radio Conference 2019 (WRC-19), the Authority will make a decision on the assignment method to be utilised for 5G spectrum as provided for in the spectrum licensing regulations. Note that the regulations under discussion only apply to spectrum assigned on a first-come-first-serve basis and not to spectrum assigned by way of auction.
ISM-Band is not clearly excluded from the cost	Although no spectrum fees are levied on licence exempt spectrum band, the Authority still incurs costs in managing the utilisation of this spectrum and enforcing adherence to technical requirements set out in the regulations. As such, the ISM-bands are not excluded from the cost of spectrum management.
Telecom Namibia Limited	
<p><u>Regulation 2(1) (c)</u> <i>"The objects and application of the regulation is to set spectrum fees by taking into account the demand for radio frequency spectrum in a given spectrum band and the impact of inflation as indicated by the annual consumer price index published by the Namibia Statistics Agency on its official website from time to time"</i></p> <p>We submit that the proposed factors that will be considered in setting spectrum fees are too limited. There are various other factors that the Authority must consider in determining spectrum fees. This include, <i>inter alia</i></p> <p>a. Anticipated management costs for the spectrum: The Authority must consider that the purpose of the fees collected from spectrum users on annual basis should be specifically geared to recover cost of spectrum management activities of the Authority, in an effort to defer expenses only and not for the purpose of generating profit from that activity.</p>	<p>The Authority has specifically taken into account the total cost of spectrum management.</p> <p>The spectrum fees have also taken into account the tendency to hoard spectrum and inefficient utilisation of spectrum by licensees, and thus set fees to discourage this practice and encourage licensees to only hold the amount of spectrum necessary to provide their services.</p> <p>Spectrum is a finite resource and therefore it is important that the demand for certain bands of spectrum must be considered when determining the value and price of such spectrum. The Authority has taken into consideration the total cost of managing spectrum and has determined the prices and value of spectrum based on economic and technical factors.</p>

<p>b. Promoting economic and technical efficiency: The Authority should consider the impact that current and changing levels of fees will have on the viability of particular segments of the telecommunications/radio-communications sector as well as the overall economic climates of the Country. Spectrum fees set too high combined with income taxes, VAT, regulatory fees, and other charges can negatively impact growth, opportunities and attractiveness, sector evaluations and investment levels.</p>	
<p>Regulation 3(3)(a) <i>“These Regulations prescribe the following fees payable to the Authority – (a) annual and <u>other fees payable</u> (our own emphasis) with regard to the authorisation to utilise radio frequency spectrum conferred under the spectrum licence”</i></p> <p>We submit that for the sake of transparency and fairness of what is payable, the Regulations must explicitly identify the <u>other fees payable</u>, as indicated in the aforesaid regulation.</p>	<p>Other fees payable are set out in the Table 1 under regulation 4. Point 9 titled “ MISCELLANEOUS” refers.</p>
<p>Immarsat terminal fees as indicated in Table 1; Clause 7.1 indicate that the proposed annual, fee per terminal which is currently charged as N\$1,163.00 per terminal per annum, will increase to N\$1,425.00. This represents an increment of 18%, which in our opinion is extreme and unreasonable. While Telecom appreciates that the Authority must defer its costs for management of the spectrum, it is equally important to consider the financial impact that changing levels of fees will have on participants within segments of the telecommunications/ radio-communications sector, particularly during these challenging economic times. Furthermore, it is important to understand that the determination of spectrum prices and establishment of spectrum fees are close linked to and must be informed by the economic and market conditions. Accordingly, Telecom requests the Authority to justify the 18% increment, which we maintain is extreme and unreasonable.</p>	<p>Administrative fees were initially set in accordance with the CPIs of 2016,2017, 2018 and 2019 as well as the total cost of spectrum management. However, after considering the oral and written submission, the total increase was capped at 12%.</p>
<p>Regulation 4, Table 1, Item 7 Satellite Services (Land, Mobile, Maritime) Ad Item 7.2</p> <p>We highlight that technology has changed to HTS (High Throughput Satellite) and Telecom has upgraded its satellite hub to higher throughput satellite, enabling it to provide faster internet access to end users on a cost effective basis.</p> <p>What is proposed by the Regulator will no longer allow these services to be cost effective, if a satellite digital uplink is offered at 128 kbits/s at the cost of N\$ 3,959.00. Essentially to offer a customer the speed of 1 meg, we will have to pay the proposed payment (x) 8 to achieve the speed and service offered to customers as per our approved fee structure. The charges proposed are more than what we are currently charging our customers. We are assuming that the pricing and proposal was made in error without consideration of the actual current fees and consequences to end users, should this however</p>	<p>The Authority has taken note of Telecom’s comment and accordingly reconsidered the proposed pricing of Item 7.2.</p>

<p>not be the case then we note the not only creates major concerns, but also major challenges. Telecom cannot double the speed, the service or better the experience for customers without financially prejudicing customers if the proposal as it is stands is upheld.</p> <p>The formula considered is normally the following:</p> <p>Price = costs <i>(which include the cost of the regulator which is now higher than the price to the customer)</i> + Profit <i>(which is no longer viable if the pricing proposed is intended to be passed on to operators)</i>.</p> <p>We therefore request that this option be reconsidered in its entirety and we remain available for further inputs and/or queries.</p>	
<p>Regulation 5(a) <i>“BV” is an acronym for base value measured in Namibian Dollars per MHz and is currently set at N\$ 1,686.00 for mobile services and N\$118.00 for fixed services.”</i></p> <p>Telecom appreciates the intentions of the Authority to ensure transparency within the sector as regards to the proposed regulations, however regulation 5(a) does not disclose how the base value which is set as N\$1686.00 was arrived at. Although the proposed regulations indicate the formula for BV as;</p> $BV = \frac{\text{total expected spectrum management costs} - \text{expected revenue raised from flat spectrum fees}}{(BWF \times FBF \times CF \times SHRF \times GEO \times TF)}$ <p>Kindly explain and/or justify to ensure complete transparency. Telecom submits that the Authority is in a position to indicate at the very least the total expected spectrum management costs as well as expected revenue raised from the flat spectrum fees as this has been one of the core functions of the Authority over the years (i.e to manage spectrum costs and raise revenue from the spectrum fees).</p> <p>Accordingly, for the sake of transparency, we insist that the formulae as contained in the proposed regulations contain actual values.</p>	<p>The base value was calculated taking into consideration that the total cost of managing spectrum over the next three years would be N\$ 92,397,268. The expected revenue from flat fees would be N\$ 47,264,881 resulting in N\$ 45,132,387 from which the base value was calculated.</p>
<p>Regulation 5: Formula based fees: In the 900 MHz band, Telecom has 10 MHz paired (905-915/950-960 MHz) for which Telecom currently pays N\$ 690 000.00 per annum. With the new envisage fees as per the formula contained in the proposed regulations, it is not clear whether this stills refers to the paired bands. If the spectrum will not be paired as it is now, the charge will double to N\$ 758 700.00, which then results in an increment of 9%, which seems unreasonable considering that the spectrum charge currently is already high.</p> <p>In addition, we also note that in the 1800 MHz band, Telecom has 20 MHz paired (1775-1795/1870-1880 and 1765-1775/1860-1870 MHz) for which Telecom currently pays N\$1 104 000.00 per annum. With</p>	<p>As per Table 3 contained in regulation5(5) the spectrum for 900 MHz and 1800 MHz is clearly indicated on different rows in the able and is thus not paired.</p> <p>When assessing the impact of spectrum fees, it is not necessary to evaluate each spectrum band individually, but assess spectrum holdings (fixed and mobile services) in totality. The Authority has created a balance between spectrum fees to be paid for mobile and fixed services by setting separate base values. By doing, so the Authority was able to reduce spectrum fees for spectrum utilized for transmission/backhauling which has a positive effect on the overall cost of spectrum</p>

<p>the new envisaged fees and as per the new formula (BWF x FBF x CF x SHRF x GEO x BV), it is not clear whether the spectrum remains paired, although the Regulations also do not suggest otherwise, as this would be unfair in our view. However, if the spectrum will not be paired as it currently is, the charge will double to N\$ 1 517 400.00, which results in an increment of 27%. We submit that an increment of 27% is simply unsustainable for any business and accordingly, we beg for reasoning to accommodate these proposed modalities.</p> <p>We strongly object to the proposed fees and corresponding charges as contained in the proposed regulations, which we regard as extremely high and unreasonable to Operators such as ourselves. We are of the view that the costs/fees induced by the Authority herein will increase the costs of providing services to the consumers, and as such: especially considering that Operators are already subject to various other annual levies fees; the ripple effect of charges passing on to consumers cannot be evaded.</p> <p>In conclusion, Telecom appeals to CRAN to keep the current pairing of spectrum when charging spectrum fees and should, consequently, amend section 5(1)(a) to reflect paired or unpaired in order to clarify the charging formula.</p>	<p>The Authority has also formulated the pricing, in line with the following objects: -</p> <ul style="list-style-type: none"> i) The change in utilization of spectrum previously used for fixed services to IMT services (FDD and TDD) e.g. 2300 MHz, 2600 MHz and 3500 MHz; ii) To curb the tendency of licensees to hoard spectrum; iii) To discourage the continued use of old outdated technologies for a period of 5 years and more after the spectrum band has been allocated to a different service in and more spectrally efficient technologies in the Frequency Band Plan of Namibia; iv) To ensure that Licensees return spectrum to the Authority when no longer utilized thereby reducing their spectrum fees, which will allow the Authority to consider assignment of this spectrum to other Licensees <p>The percentages referred to by Telecom Namibia were reduced by 23% after consideration of oral and written comments received from licensees.</p>
Multichoice Namibia	
<p><u>Reg.2: Object of the Regulations</u></p> <p>Reg 2(1)(a) provides that one of the objects of this proposed regulations is to “utilized spectrum fees to enforce efficient use of radio frequency spectrum through optimum occupancy thereof and implementation of more spectrally efficient equipment”.</p> <p>We suggest that the Authority not confine the object of achieving efficient use of spectrum equipment alone, and recommend that spectrally efficient services be included as well. Spectrum efficiency is not only achieved through the deployment of equipment, but is also achieved through technologically advanced services that align with such equipment i.e. digital wireless services that accommodate several compression techniques deployed through various equipment</p> <p>According, we submit that reg. 2(1)(a) should be amended to include the words “and services” following the phrase “implementation of more spectrally efficient equipment.</p>	<p>The Authority considered this recommendation and the change was made accordingly to add the words “and services” to regulation 2.</p>
<p><u>Reg. 4(3): Refund of fees for paid forfeited, lapse or discontinued licences</u></p> <p>In terms of reg. 4(3)(b), if a spectrum licences, other than a licence conferred by means of a spectrum auction, is forfeited, lapses or is discontinued prior to its expire, the licensee may be refunded for any month during which it did not utilise that radio frequency spectrum following such forfeiture, lapse, or discontinuance.</p>	<p>All conditions for a spectrum conferred by spectrum auctions are set out in the Request to Bid and subsequently the Award for the Bid and licence conditions to the successful bidder. This includes payment of licence fees and consideration of refunds on forfeiture, lapsing or discontinuance as pertaining to that specific spectrum licence.</p>

<p>It appears that this provision for a refund has been provided because reg. 4(3)(a) states that fees in respect of any spectrum licence, other than a licence conferred by a spectrum auctions, is payable annually in advance and in full.</p> <p>The possibility of a refund for fees paid in respect of a licence conferred by means of spectrum auction hasnot been provided for in the proposed regulations.</p> <p>While we appreciate that the terms and conditions for the payment of the auction price for spectrum conferred by means of an auction is likely to differ from bid to bid, and will be included in the Award for the Bid, reg. 10(2) of the regulations pertaining to spectrum licences provides that that the spectrum licences will only be issued to the successful bidder once the auction prici is paid. In other words, reg. 10(2) of the regulations pertaining to spectrum licences contemplates that fees for spectrum licences conferred by means of an auction are paid in advance.</p> <p>Accordingly, we submit that the provision for a refund following a forfeiture, lapse, or discontinuation of a spectrum licence should be extended to include spectrum conferred by means of an auction.</p> <p>In addition, we note that the reference to “paragraph (a)” in reg. 4(3)(c) should in fact read “paragraph (b).</p>	<p>The proposed regulations thus correctly do not apply to spectrum licences conferred by means of an auction.</p> <p>The Authority takes note of the comments made in respect of the correct referencing of paragraph (b) under regulation 4(3).</p>
<p><u>Para 8.2 of Table 1: Fees payable for spectrum utilised for broadcasting services</u></p> <p>Para 8.2 of Table 1 of the proposed regulations prescribes the following fees for digital terrestrial television broadcasting transmitters (“DTT spectrum fees”)</p> <ul style="list-style-type: none"> (i) N\$ 9 251 for 0.000 to 100.999 Watt (ERP) (ii) N\$ 11 373 for 101.000 to 999.999 Watt (ERP) (iii) N\$ 14 173 for 1000 Watt (ERP) and above <p>This represents a 23% increase in fees from those that are prescribed in the Regulations Setting out Fees for Spectrum Licences, Certificates and Examinations, 2017.</p> <p>We support the inclusion of reg 2(1)(c) of the proposed regulations which contemplates that the setting of spectrum fees must take into account the demand for spectrum and the impact of inflation. We believe that this is important and necessary to contained the fees for spectrum licences.</p> <p>We do not know how the Authority arrived at the increase in fees of 23% in the DTT spectrum fees. While we are cognizant of the objectives in reg. 2(1) of the proposed regulations to, among other things, encourage the efficient use of spectrum, discourage spectrum hoarding and recover costs incurred by the Authority, that an increase of 23% is excessive and not justified.</p>	<p>The spectrum fees published in 2017 were based on CPI up to 2015. The Authority has not implemented annual increases since 2017, but kept the spectrum fees at the same level for 4 years. The proposed fees will only come into effect 1 January 2021.</p> <p>Administrative fees have been set in accordance with the CPIs of 2016,2017,2018 and 2019 amounting to 23%, but the increase is 23% cumulatively, as well as the total cost of spectrum management. The Authority has however taken into consideration the oral and written input from licensees and capped the total increase to 12%. Spectrum fees will be adjusted annually by the CPI as published by NSA.</p> <p>The migration from analogue to digital terrestrial television services did not lower the cost of spectrum management in that the Authority still has to manage spectrum in the spectrum band 174-230 MHz and 470-694 MHz now allocated to DTT television services. The Authority is thus of the opinion that the aforementioned migration has no effect that requires a reduction in spectrum fees.</p>

<p>According to the Namibia Statistics Agency, the annual inflation rate was 2.1% as at May 2020. We submit that the current demand for spectrum in Namibia and the current inflation rate does not warrant a 23% increase in DTT spectrum fees.</p> <p>Additionally, the move of broadcasters from providing analogue to digital services, has opened up a considerable portion of spectrum to be utilized by other services and reduced the Authority's cost of managing spectrum.</p> <p>Accordingly, we request that the Authority reconsider the percentage increase in DTT spectrum fees.</p>	
<p>We request that the Authority consider the impact of a flat fee for spectrum licences (as opposed to a formula based fee that is applicable to telecommunications service providers) on the incentive for broadcasters to provide services in non-urban areas with low population density in terms of the proposed regulations. Broadcasters may pay a flat fee regardless of whether their services are provided in urban or non-urban areas. Providing services in areas with low population density is costlier and it takes longer to achieve a return on investment, since the costs are spread across lesser number of subscribers than in urban areas. A flat fee regardless of whether services are provided in urban or non-urban areas potentially has the effect of discouraging broadcasters from rolling out equipment and services to non-urban areas.</p>	<p>The Authority is of the opinion that flat fees are appropriate for the broadcasting industry in that provision has been made for higher and lower power output. Broadcasting licensees thus have the opportunity to apply for a spectrum licence with a lower power output when it serves a smaller community e.g. community broadcasters or a spectrum licence with a higher power output to service multiple communities or a major town e.g. commercial broadcasters.</p> <p>Furthermore, the introduction of digital sound broadcasting allows for the use of a single frequency to broadcast up to 12 different channels thereby reducing spectrum licence cost <i>versa via</i> broadcasting one channel per frequency utilising analogue broadcasting technology</p>
Editors' Forum of Namibia	
<p>The Editor's forum of Namibia (EFN) speaking on behalf of its broadcast members, believes that an increase of spectrum and other regulatory fees at this stage would impact negatively on the industry.</p> <p>It is also our view that CRAN has existing regulatory measures at its disposal, in the current legislation, to enforce efficient use of spectrum and manage hoarding of spectrum.</p> <p>Any closure of or further capacity reductions at private radio or television stations would not only work against free expression and the vibrant democracy in our country, but would probably see Namibia lose its number one spot in Africa on the Reporters without Borders indexes, these ratings, among others are based on the plurist media that allowed to flourish in any given country.</p> <p>We wish to emphasize that since the downturn of the Namibian economy three years ago, the majority of broadcasters have had to significantly reduce their costs and look for innovative ways to deal with the declining revenues. We can only hope that the regulatory authority will do the same.</p>	<p>The spectrum fees published in 2017 was based on CPI up to 2015. The Authority has not implemented annual increases, but kept the spectrum fees at the same level for 4 years. The proposed fees will only come into effect 1 January 2021.</p> <p>Administrative fees has been set in accordance with the CPIs of 2016,2017, 2018 and 2019 as well as the total cost of spectrum management. The fees have however been capped at 12% taking into account the oral and written submissions from stakeholders.</p> <p>In addition, the Authority is introducing spectrum fees for digital sound broadcasting in alignment with the publication of the frequency channelling plan for digital sound broadcasting.</p> <p>Not only will digital sound broadcasting provide for more efficient use of spectrum but also give the broadcasting industry the opportunity to share spectrum resources and adopt more innovative business models for digital radio <i>in lieu</i> of legacy analogue broadcasting.</p>

<p>Based on the above, we kindly request CRAN to shelve the proposed increase in spectrum fees and replace this with amendments that are cognizant of the economic realities of the broadcasting industry that CRAN is mandated to uphold.</p>	
Namibian Broadcasting Corporation	
<p>The proposed fees for the spectrum licences, certificates and examinations falls outside the current CPI which stands at 2.1 percent for the month of May 2020.</p> <p>Currently the corporation is paying an annual amount of N\$1,439,805, with the current proposed fee adjustment, the corporation will be paying an annual amount of N\$1,669,786, which is 16 percent more compared to the previous fees.</p>	<p>The spectrum fees published in 2017 was based on CPI up to 2015. The Authority has not implemented annual increases, but kept the spectrum fees at the same level for 4 years. The proposed spectrum fees will only come into effect 1 January 2021. The increase has now been capped at 12%.</p> <p>The spectrum fees have also taken into account the tendency to hoard spectrum and inefficient utilization of spectrum by licensees, and thus set fees to discourage this practice and encourage licensees to only hold the amount of spectrum necessary to provide their services, while at the same time also allowing the regulator to defray the cost of spectrum management</p>
Mobile Telecommunications Limited	
<p><u>Ad Regulation 2 – Objects and application of Regulations</u></p> <p>Although these objects read fairly, it is advisable to add “achieving economic and social development goals and spectrum users paying for actual spectrum resource usage” to the list of objects. Radio Frequency Spectrum serves and end result and it is important that the fees charged for spectrum also speak to the purpose for which the licensee would need spectrum.</p>	<p>The Authority is of the opinion that the objects as stated already provides for efficient utilisation to ensure that licensees only utilise the minimum spectrum necessary to provide services and not hoard or use spectrum inefficiently to serve as a barrier to entry for other licensees.</p> <p>The formulae based fees ensures that the fees charged speaks to the purpose for which the licensee will need the spectrum e.g. fixed spectrum for fixed services will be charged as per Table 2 and mobile spectrum for mobile services will be charged as per table 3.</p> <p>Rollout obligations to achieve targets set for economic and social development forms part of spectrum license conditions as is thus not part of the spectrum fee regulations.</p> <p>The Authority thus does not accept the proposed change to regulation 2.</p>
<p><u>Ad Regulation 3 – General Provisions</u></p> <p>These provisions are in line with the Regulations Prescribing Procedures regarding Application for, Amendment, Renewal, Transfer and Cancellation of Spectrum Licenses, safe for a typo at Regulation 3(b) which incorrectly references regulation 13(1)(a). It should read regulation 13(1) instead.</p>	<p>The Authority takes note of the comments submitted and the error has been corrected accordingly.</p>
<p><u>Ad Regulation 4 – Flat fees relating to Spectrum Licences, Certificates or Examinations</u></p> <p>Apart from the fact that ITU standards allow for formulae based fee calculations, the Authority must point out the short comings of sticking to the current spectrum fee method and substantiate the need to introduce a formulae based method, which introduction will increase the current fees quite considerably as will be detailed hereinafter by show of current spectrum fees vs proposed formula-based calculations</p>	<p>The Authority is of the view that formula based fees providemore flexibility in that the formula provides for variation in fees when spectrum is assigned for-</p> <ul style="list-style-type: none"> (i) A smaller geographical area vs national use; (ii) Exclusive use vs shared use (iii) High demand vs low demand spectrum, etc.

<p>There is no indication that the formula-based method is the singular way to reach the stated objectives.</p>	<p>Furthermore, it allows the Authority to ensure optimal use of spectrum and discourage utilisation of spectrum for legacy services when bands have been allocated to new services, hoarding of spectrum and geographical license sharing of spectrum. The fees to be charged will not differ irrespective of the method of calculation.</p>
<p><u>Ad Table 1 – Spectrum Licences, Certificates and Examination Fees</u></p> <p>The prices in table 1 under Regulation 4 principally increase by 23%. How does the authority justify this increase given that one of the objects under regulation 2 refers to the annual consumer price index published by the Namibia statistics Agency? That index currently stands at 2.1% in stark contrast ICASA increase the fees by 4.6%, in 2017, in 2018 by 5.3% and 4.7% in 2019. All increase were in line with the consumer price index.</p> <p>It is noted that the fee for Satellite Digital uplink per 128 kbits (VSAT spectrum) reduced to N\$ 3,595.00. Although gazetted, this fee was never invoiced to MTC. This fee should not be charged to start with as VSAT spectrum does not belong to the Authority and is instead allocated by the Satellite Operators:</p> <p>(i) As it stands, and because VSAT is only deployed in very remote areas of extremely low-density population, the licensees subsidize up to 80% of the end product to the customer, by paying the satellite operators. It is not revenue generating, but merely and economic development responsibility' to satisfy and insure coverage for the remote areas.</p> <p>(ii) With the Authority also charging for VSAT spectrum, it will simply cause a licensee to cease VSAT services and for MTC that means cutting approximately 15000 customers as the cost of running the service is not commensurate of the revenue generated from those customers.</p> <p>(iii) It remains unclear why the Authority seeks to recover fees from a resource they do not manage. It is our understanding that Satellite spectrum is an international resource. The following is a practical example should this fee remain:</p> <p>a. At N\$3,959.00 per 128Kbits to CRAN 36 MHz will then cost $3959 \times 36 / 0.128 = 1,113,468.75$ per annum</p> <p>b. Spectrum at US\$600/Mbps to satellite operators 36 MHz translates to roughly 108 Mbps $600 \times 108 = \text{US\\$ } 59\,400/\text{month}$ which translates to about 1m NAD per month and 12m per year</p>	<p>The spectrum fees published in 2017 was based on CPI up to 2015. The Authority has not implemented annual increases, but kept the spectrum fees at the same level for 4 years. Thus in contrast with ICASA, the Authority has not increased fees for the period 2016-2019.</p> <p>Administrative fees have been set in accordance with the CPIs of 2016 (6.7%), 2017 (6.2%), 2018 (4.3%) and 2019 (3.7%) as well as the total cost of spectrum management. The fees have however been capped at 12% taking into account the oral and written submissions from stakeholders.</p> <p>MTC has not been charged for fixed satellite spectrum (VSAT) because MTC does not hold a spectrum license for fixed satellite. (Government Gazette 5037 and all subsequent gazette notices refers.) MTC applied for fixed satellite spectrum in 2020.</p> <p>The allocation of spectrum, including satellite spectrum is set out in the Frequency Band Plan of Namibia indicating which satellite service may be provided within which band as well as whether the service to be offered is on an Earth-to-space, space-to-Earth or space-to-space basis. The Authority is the only entity mandated by sections 99-101 of the Communications Act to issue spectrum licences for assignment of spectrum for use by licensees. Satellite operators have no mandate to assign spectrum for fixed satellite services in Namibia.</p> <p>Namibia grants permission to satellite operators to beam over Namibia as per ITU procedures. The Authority is mandated to manage this spectrum resource for the terrestrial segment of satellite. Licensees lease facilities from satellite operators for the space segment in that they do not operate their own satellites. Fixed satellite services comprises of a space segment and a terrestrial segment.</p> <p>Be that as it may, the cost of satellite will now come down by 23% due to the consideration of the input made by licensees</p>

Ad regulation 5 – Formula-based fees

Proposed formula: A practical application of the proposed formula to existing spectrum allocated to MTC is as follows:

Annual Spectrum fee = BFWxFBFxCFxSHRFxGEOFxBV				
Spectrum	900MHz	1800MHz	2100MHz	Comments
BWF	18	35	20	MTC BW allocation
FBF	0.75	0.75	0.75	Table 3
CF	30	30	30	Table 4
SHRF	1	1	1	Table 5
GEOF	1	1	1	Table 6
BV	30.348	59,010	33,720	@1686.00

Annual spectrum fee (900MHz)	12,290,940
Annual spectrum fee (1800MHz)	46,470,375
Annual spectrum fee (2100MHz)	15,174,000
Total for RAN spectrum (new)	73,935,315

The proposed formula will thus result in an increase of 1632%. It is simply not feasible economically.

An increase of 73% is equally unreasonable and cannot be justified, which percentage is obtained by using a coverage factor of 3 instead of 30 and totaling the spectrum fee at N\$7,393,531.50.

Spectrum should be priced at a value commensurate to its use and potential for revenue generation. The proposed increase is untenable and cannot be justified even by the objectives set by the proposed regulation.

The proposed formula for point-to—multipoint does not cover a scenario that is used by MTC currently. MTC uses this technology to connect multiple customers from a specific sector on the tower. A point-to-multipoint sector has a limitation of the number of customers it can connect. It is not about the coverage, but about the capacity it has.

Ad table 4 – Coverage Factor

Kindly advise what informed the Authority's decision on a factor of 30 for National network. This discrepancy between coverage factor 3 and coverage factor 30 is rather great, which has significant cost impact on a dominant operator.

Ad table 5 – Sharing Factor

In the absence of express definitions for the words—“exclusive” and “shared”, one is left to use their normal meaning. It is not certain what the Authority's intention is with the term “sharing” as it could include shared roaming or MVNO. Clarity is required in this regard.

The Authority is of the view that MTC did not apply the formula correctly. It seems MTC is under the mistaken belief that the Authority is charging spectrum fees on a monthly basis. This is not the case.

The correct application of the formula is that the annual spectrum fee for mobile services as per spectrum licence awarded to MTC will amount to N\$ 5,538,510 per annum and not N\$73,935,315 as shown in MTC's comments.

The remainder of the comments by MTC are similarly based on the incorrect application of the formula.

Spectrum fees for fixed services are based on the bandwidth assigned to the licensee as well as the geographical area, within which the licensee may utilize spectrum. In the case of MTC, it is assigned for national use within the borders of Namibia. MTC may also re-use the same frequencies in different geographical areas within the borders of the Republic of Namibia without incurring additional spectrum fees.

Spectrum fees are thus not based on a case by case scenario of implementation carried out by the Licensee. The choice of technology and implementation thereof is at the discretion of the Licensee.

The coverage factor is not based on classification of a licensee as being dominant. The coverage area refers to the geographical area within which a licensee may provide services utilising the assigned spectrum. Spectrum assigned on a national basis thus authorises a licensee to provide services anywhere within the borders of the Republic of Namibia, with no restriction on the number of customers from which it generates revenue, whilst spectrum assigned within a specific geographical area e.g. between 5km² and 600 km² authorised the licensee to provide service only within that specific area e.g. a community network.

The Authority's definition of the words “exclusive” and “shared” is based on the Oxford Dictionary.

For clarity in as far as the words applies to spectrum use-

- (i) “Exclusive” means that the spectrum license is awarded for the sole use of a single licensee within the geographical area set out in the spectrum licence. as in the case of MTC.

	<p>(ii) “Shared” means the specific frequencies is awarded to more than one licensee albeit in different geographical areas or tiered licensing of spectrum allowing for use of different services in the same spectrum band as set out in the frequency band plan</p> <p>National roaming and MVNO’s have no bearing on spectrum regulations but is addressed in the Authority’s infrastructure sharing regulations in that both constitutes forms of active infrastructure sharing.</p>
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