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OF THE

REPUBLIC OF NAMIBIA

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General Notices

COMMUNICATIONS REGULATORY AUTHORITY OF NAMIBIA

No. 291

2024

NOTIFICATION OF WITHDRAWAL OF REGULATIONS PRESCRIBING THE UNIVERSAL SERVICE LEVY UNDER SECTION 56 AND 129 OF THE COMMUNICATIONS ACT, 2009

The Communications Regulatory Authority of Namibia hereby gives notice in terms of regulation 11(b) of the Regulations regarding Rule-making Procedures as published under General Notice No. 334 dated 17 December 2010 that it has withdrawn the Notice of Intention to make regulations as published in the Government Gazette No. 7860, General Notice No. 342, dated 25 July 2022.

The reason for withdrawal of the said notice is that the Authority has revised the Universal Access and Gap Analysis report.

The Authority will publish a new notice of intention to make regulations in future.

DR. T. MUFETI
CHAIRPERSON OF THE BOARD OF DIRECTORS
COMMUNICATIONS REGULATORY AUTHORITY OF NAMIBIA

COMMUNICATIONS REGULATORY AUTHORITY OF NAMIBIA

No. 292

2024

NOTICE OF INTENTION TO MAKE REGULATIONS PRESCRIBING UNIVERSAL SERVICE LEVY UNDER SECTION 56(2) AND 129 OF THE COMMUNICATIONS ACT, 2009

The Communications Regulatory Authority of Namibia, in terms of section 56(2) read with section 129(1)(e) of the Communications Act, 2009 (Act No. 8 of 2009), and the Regulations regarding Rule-Making Procedures published under General Notice No. 334 dated 17 December 2010 –

- (a) publishes this notice of intention to make Regulations Prescribing Universal Service Levy under section 56(2) read with section 129(1)(e) of the Communications Act, 2009 as set out in Schedule 1; and
- (b) sets out the concise statement of the reasons and purpose for the proposed regulations in Schedule 2.

The public may make oral submissions on the proposed regulations to the Authority, at a time, date and place notified by the Authority.

The public are hereby invited to make written representations, comments, communications and submissions (hereafter collectively called “submissions”) to the Authority within thirty (30) consecutive days from the date of publication of this notice in the Government Gazette, in the manner set out below for making of written submissions.

All written submissions must –

- (a) contain the name and full contact details (physical and postal address, email address and telephone or cell phone number) of the person making the written submissions and the name

and similar contact details of the person for whom the written submission is made if different; and

- (b) be clear and concise.

In the event where any person making a submission wishes to designate any information contained in such submission as confidential, such information must be clearly marked as “confidential”.

Not with standing, if the Authority is of the opinion that information is not confidential it will inform the person thereof thereby –

- (a) allowing the person to withdraw the information from the rule-making proceedings;
- (b) agreeing with the person that it will not be treated anymore as confidential information; or
- (c) requesting a hearing on the issue of confidentiality to be conducted in accordance with section 28 of the Communications Act, 2009.

All written submissions must be send or submitted to be received by the Authority on or prior to the due date anticipated above in any of the following manners –

- (a) by hand to the head office of the Authority, namely Communications House, 56 Robert Mugabe Avenue, Windhoek;
- (b) by post to the head office of the Authority, namely Private Bag 13309, Windhoek, 9000; and
- (c) by electronic mail to the following address legal@cran.na.

DR T. MUFETI
CHAIRPERSON OF THE BOARD
COMMUNICATIONS REGULATORY AUTHORITY OF NAMIBIA

SCHEDULE 1

UNIVERSAL SERVICE LEVY REGULATIONS: COMMUNICATIONS ACT, 2009

In terms of section 56(2) read with section 129(1)(e) of the Communications Act, 2009 (Act No. 8 of 2009), Communications Regulatory Authority of Namibia makes the Regulations as set out in this Schedule.

Definitions

1. In these Regulations, any word or expression to which a meaning is assigned in the Act, has the same meaning and unless the context indicates otherwise –

“licensee” means the holder of a telecommunications licence or deemed to hold such licence as contemplated in terms of section 45 of the Act;

“universal service levy” means the levy contemplated in section 56 of the Act as imposed under these Regulations;

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

“turnover” means the revenue generated by a licensee during its financial year, from the provision services or business that is generated from the scope of work which is regulated under this Act for purposes of these regulations and excluding tax; and

Submission of documents to the Authority

2. Whenever documents are required to be delivered to the Authority, such documents must be delivered physically or electronically –

- (a) by hand-delivering them to any employee of the Authority at its principal place of business, being Communication House, No. 56 Robert Mugabe Avenue, Windhoek;
- (b) by post mailed to Private Bag 13309, Windhoek;
- (c) by electronic mail sent to economics@cran.na; or
- (d) in any other manner or to any other address specified in writing by the Authority from time to time.

Imposition of Universal service levy

3. The universal service levy is payable by every licensee.

Rate on which levy is payable

4. The rate of the levy is amounted to an amount not exceeding 5 percent of the annual turnover of the licensee concerned.

Payment of Universal service levy

5. (1) If the levy referred to in regulation (3) payable by the licensee is less than N\$ 500, such licensee must pay the amount of N\$ 500.

- (2) The universal service levy set out in Annexure A is indicated in Namibian dollars.
- (3) The universal service levy is paid based on a licensee's turnover as reflected in –
 - (a) the audited annual financial statements of a licensee where a licensee is required by law to have financial statements audited or where a licensee annually have its financial statements audited voluntary; or
 - (b) the annual financial statements signed and sworn by the licensee's accounting officer in the event where a licensee is not required by law to audit financial statements and does not voluntary have such financial statements audited,

subject thereto that in the event where a licensee's turnover is not accounted for separately and such licensee provides other products or services or conducts other business not regulated by or under the Act, the licensee must attach to the audited annual financial statements or annual financial statements a separate statement which must –

- (i) indicate the licensee's turnover;
- (ii) indicate the methodology used to extract and determine such turnover;
- (iii) contain such other information as the Authority may determine; and
- (iv) be signed and sworn to by the licensee's auditor or accounting officer, to be a true and correct reflection of the licensee's turnover to the best of the knowledge of such auditor or accountant.

(4) On receipt of a licensee's audited annual financial statements or signed and sworn annual financial statements referred to in regulation 6, the Authority must issue the licensee with an invoice stating the amount of the universal service levy payable by such licensee.

(5) A licensee must, subject to subregulation (6) pay the universal service levy within 30 days after receipt of the invoice.

(6) A licensee wishing to pay the universal service levy in instalments must submit a written application to the Authority at least three months prior to the due date of payment of the regulatory levy.

(7) The Authority may, upon written application and on good cause shown by a licensee, authorise a licensee to pay the universal service levy in equal monthly instalments of not more than six months.

(8) If a licensee is required to pay the levy and fails to pay such levy, the Authority may make a reasonable estimate of amount of levy payable based on the information provided in regulation (5) and impose a penalty as referred to in regulation 8.

Furnishing of information by licensees

6. (1) A licensee who is required to pay the levy must, subject to subsection (2), not later than six months after such licensee's financial year end, submit to the Authority –

- (a) its audited annual financial statements; or
- (b) signed and sworn annual financial statements.

(2) If the licensee is unable to submit the annual financial statements referred to in subsection (1), the licensee may, at least three months before the due date for such submission, apply to the Authority in writing for an extension and the Authority may grant such extension on good cause shown.

Manner of Payment of levy

7. Unless the Authority determines otherwise, a licensee who is required to pay the levy in terms of regulation (3) must pay the levy into the Universal Service Fund by –

- (a) electronic transfer; or
- (b) direct deposit.

Penalties

8. The Penalty Regulations, published in Government Gazette No. 7197 of 29 April 2020, General Notice No. 159 of 2020, apply to any contravention of or failure to comply with these Regulations.

Amendment of regulations

9. The regulations set out in Annexure B are amended as set out in the column 3 thereof.

Transitional provision and commencement

10. (1) In the event where these Regulations commence subsequent to the start of a licensee's financial year, the universal service levy payable by such licensee is only payable on

turnover derived by a licensee as from the commencement of these Regulations.

- (2) These Regulations will become effective on date of publication in the *Gazette*.

ANNEXURE A
(Regulation 5)

Column 1	Column 2
Licence Types	Universal Services Fund Levy
Telecommunications – Individual Comprehensive (ECNS and ECS)	Levy = (MAX(500(MIN(1%*Turnover)
Telecommunications – Class ECNS	Levy = (MAX(500(MIN(1%*Turnover)
Telecommunications – Class ECS	Levy = (MAX(500(MIN(1%*Turnover)
Telecommunications – Class Comprehensive (ECNS and ECS)	Levy = (MAX(500(MIN(1%*Turnover)
Telecommunications – Network Facilities	Levy = (MAX(500(MIN(1%*Turnover)
Telecommunications – Non-profit (ECNS and ECS)	Levy = N\$ 500.00

ANNEXURE B
(Regulation 9)

Column 1 Government Gazette and Government Notice	Column 2 Title of Regulations	Column 3 Extent of Amendment/Repeal
Government Gazette No. 6589 of 8 May 2018 General Notice No. 178 of 2018	Regulations Prescribing the Provision of Universal Service by Telecommunications Service Licensees	The amendment of regulation 8 by the insertion of the following subregulations after regulation 8(3): “(3A) The Universal Service Fund may additionally receive money from - (a) any donations or grants made or any other money accruing for the benefit of the Universal Service Fund from any other source; (b) any loan made to the Universal Service Fund subject thereto that interest on such loan may not exceed the prime interest rate of the banking institution where the Fund is opened.”.

SCHEDULE 2

CONCISE STATEMENT OF PURPOSE

Section 56 of the Communications Act, 2009 establishes the Universal Service Fund and authorises the Authority to, by regulation and subject to the rule-making procedure, impose a universal service levy payable to the Universal Service Fund.

Sections 23(1), 23(2), 23(6) and 23(9) of the Communications Act (as amended in 2020) apply with the necessary changes to the Authority when imposing the universal service levy. Section 56(3A) of the Communications Act (as amended) states that the universal service levy may not exceed more than 5% of the annual turnover of a licensee/service provider. Readers are advised to also take note of the Regulations Prescribing the Provision of Universal Service by Telecommunications Service

Licenses as published in the Government Gazette No. 6589 of 8 May 2018, General Notice No. 178 of 2018 (obtainable from CRAN's website www.cran.na).

Based on the above provisions of the Communications Act (as amended) factors which the Authority must consider when determining the size of the universal service levy are:

- the minimum set of services prescribed under section 57(1) of the Communications Act;
- the subsidies to be paid to licensees under section 57 of the Communications Act;
- any under- or over-recoveries by the Universal Service Fund (not applicable to the first imposition of the universal service levy);
- any other matter which the Authority deems relevant;
- the impact of the universal service levy on the sustainability of business and ensure that it does not have an unreasonable negative impact on such sustainability;
- ensure predictability, fairness, equitability, transparency and accountability in the determination and imposition of the universal service levy;
- the alignment of the universal service levy with regional and international best practices;
- to avoid, as far as possible, income from the universal service levy in excess of what is required;
- the necessity to manage any risks in the communications industry associated with the imposition of the universal access levy;
- any other fees, levies or charges which the providers of communication services are required to pay under the Communications Act.

The concise purpose of this regulation is therefore, to impose a universal service levy in line with the relevant provisions of the Communications Act (as amended). To amplify the reasons for the regulations and how the Authority arrived at the universal service levy percentage and how the levy will be implemented, a universal access gap analysis was conducted. The gap analysis is attached to this schedule for ease of reference and readers are encouraged to review the gap analysis in conjunction with this Notice of Intention to Make Regulations.

UNIVERSAL ACCESS AND GAP ANALYSIS REPORT 2023

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Abbreviations

4G	fourth-generation wireless
ACT	Act No 8 of 2009
BC	Beauty Contest
dBm	dBm or dBmW (decibel-milliwatts) is a unit of level used to indicate that a power level is expressed in decibels (dB) with reference to one milliwatt (mW).
MSP	Managed Spectrum Park
MTC	Mobile Telecommunications Company
RAN	Radio Access Network
TN	Telecom Namibia
UAS	Universal Access and Service
USF	Universal Service Fund
USO	Universal Service Obligation

1. Introduction

Telecommunications play a crucial role in economic development, with infrastructure deployment key to innovation and growth. Namibia recognises the importance of Information Communication Technologies (ICTs) for socio-economic advancement. To achieve significant growth, the country focuses on universal access to ICT infrastructure and services for all citizens, aiming to provide quality and affordable services. This goal is detailed in the National Broadband Policy of Namibia for 2018 to 2022. The goal of the National Broadband Policy is to provide reliable and affordable broadband access infrastructure for all, aiming to bring internet speeds of at least 2 Mbps to 80% of the population. It should be noted that the 3G network in Namibia does not qualify as broadband, due to its average speeds of around 1 Mbps.

The General policy guidelines on universal access and service in communications of 2013 makes provision for the availability, affordability and accessibility for all Namibians to the full range of information and communications technology infrastructure, services and content. The policy goals for access and service to information and communications technologies are envisaged as follows:

- (i) Schools, post-school institutions and libraries has the highest priority amongst all segments of society, because these institutions are the foundations for Namibia's future economy and society;
- (ii) SMEs and informal businesses;
- (iii) Hospitals, clinics and health services;
- (iv) The non-governmental sector;
- (v) Mines, farms, nature reserves and conservancies; and
- (vi) Households in cities, towns, villages, settlements.

This study will analyse the progress made on achieving universal access and discuss and propose new geographic locations for Radio Access Network sites (RAN sites), as part of the broadband policy objectives.

The following methodologies were used to arrive at the recommendations in this report:

- (I) **Systematic Analysis:** Identifying potential new locations for network expansion involves using a systematic approach. This approach included overlaying a hexagon grid with an 8km radius on a map that details educational facilities such as schools, health centers (clinics), and population, along with current 4G network coverage. The number of people covered or not covered by 4G is then calculated for each square kilometer in Namibia. The cost of a new RAN site can be matched with the unmet demand for each hexagon. For those sites that are not commercially viable, subsidies are calculated.
- (II) **Anchor Tenant Strategy:** Using schools as the primary anchor tenants, the tenders will require schools to be provided with an uncapped WiFi router for the lifetime of the project, i.e. seven years, for which the Universal Service Fund (USF) will pay. This safeguards that schools will be able to use the new 4G coverage and that mobile network operators have secured demand for their services.
- (III) **Grid Profitability:** Hexagons are selected based on expected subsidy requirements, choosing those first that need the least direct subsidy, i.e., after paying for schools for the uncapped routers. A second option is also included that prioritises regions that do not meet the 80% broadband coverage objective.

The CRAN GIS portal calculates the subsidy requirements based on the cost of supply, unmet demand and the number of institutions that should receive subsidised WiFi access.

2. Broadband Coverage

The analysis of broadband coverage gaps is based on updated RAN sites and antenna data from the telecommunications licensees (mobile network operators) based on international best practice parameters from the GSMA as illustrated in Table 1.

Table 1: Parameters for the CRAN radio propagation model

		4G	3G	2G	CRAN model
Dominant Handset mode		Lying in free space	Browsing holding in hand	By the head (BHH)	Free Space
GSMA (in dBm)		-94	-99	-97	-94
Radius in km	800 Mhz	12	10		12
	900MHz	12	10	15	12
	1800MHz	8	8	10	6
	2100MHz	6	6	8	6
	2600MHz	4	4	6	4

Source: modified from GSMA, <https://www.gsma.com/newsroom/wp-content/uploads/TS.24-v4.0.pdf>

The 4G broadband coverage increased from 79% in 2021 to 88% in 2024, exceeding the 80% 4G population coverage as per the Broadband Policy objective. This expansion is attributed to upgrades of existing sites, the erection of new RAN sites and the fulfillment of coverage obligations as part of the conditions of the allocation of 700 and 800 MHz spectrum by CRAN in 2023.¹ School and Clinic 4G coverage also increased in the last two years, 117 schools and 34 clinics have been connected with 4G broadband since 2022 (Figure 2).

¹ In 2023 CRAN auctioned spectrum for the 700MHz and 800MHz band with for rural roll-out requirements for specific regions.

Table 2: 4G Population coverage and Fibre routes

Region	4G Population Coverage			People not covered in 2023	Schools not covered by 4G in 2023	Clinics not covered by 4G in 2023	Policy Objective of minimum of 80%	Increase
	2021	2022	2023					
!Karas	73%	81%	80%	21,464	7	4	Above	7.3%
Erongo	92%	94%	95%	12,524	6	5	Above	3.1%
Hardap	72%	77%	79%	22,569	11	1	Below	7.0%
Kavango East	69%	83%	91%	19,404	54	6	Above	22.1%
Kavango West	40%	59%	70%	37,537	79	10	Below	29.9%
Khomas	96%	97%	98%	11,119	7	0	Above	1.7%
Kunene	33%	41%	49%	61,074	56	8	Below	15.7%
Ohangwena	90%	93%	94%	20,442	18	2	Above	3.7%
Omaheke	48%	57%	64%	37,275	8	0	Below	16.4%
Omusati	82%	95%	96%	11,901	13	3	Above	14.1%
Oshana	96%	98%	99%	2,890	4	0	Above	2.8%
Oshikoto	73%	80%	84%	42,415	41	3	Above	10.9%
Otjozondjupa	72%	75%	78%	48,264	17	6	Below	6.0%
Zambezi	60%	78%	92%	11,384	18	2	Above	31.6%
Namibia	79%	85%	88%	360,261	339	50	Above	9.0%

Source: CRAN UAS Portal, 2024

Only five regions remain below the 80% broadband coverage target: Hardap, Otjozondupa, Kavango West, Omaheke, and Kunene. Currently, 360,000 Namibians (12% of the population,) do not have 4G (Broadband) coverage, along with 339 educational facilities and 50 health facilities. This is where the Universal Service Fund assists in filling these gaps.

Figure 2: Schools and Clinics without 4G coverage in 2024 compared to 2022

Omaheke, and Kunene have a very low population density and it may not be commercially viable to cover 80% population with 4G broadband. This is where the Universal Service Fund is required to assist in filling these gaps. However, some gaps can be closed using community -based approaches and satellite services.

3. Selection locations for New RAN sites

The Universal Access and Services interventions approach is based on a grid analysis to identify underserved areas. RAN sites are indirectly subsidised by funding institutions such as schools and clinics and through direct subsidies, if necessary. The selection of geographic areas requiring a USF intervention is based on an 8km radius hexagon grid overlaid on Namibia. The grid size is determined by the radio propagation characteristics of 4G mobile broadband.

For each hexagon, the number of people not covered by the 4G signal is computed by overlaying the network coverage and population layers using GIS software. The unmet demand is calculated by multiplying the number of people not currently covered by the expected monthly average revenue per user (ARPU) of NAD 60 with the broadband adoption rate of 30%:

$$\text{Unmet demand} = \text{people not covered} * \text{NAD } 60 * 30\%$$

Each Hexagon is tendered as a separate lot, comprising demand stimulation and new RAN sites. The USF will pay subsidies to the successful bidder of each lot, by providing uncapped WiFi routers for all schools currently outside of broadband coverage. Additionally, schools without access to the

electricity grid will receive a solar kit from the MNO, funded by the USF. The successful MNO is responsible for providing routers, solar kits, and seven years of uncapped service to selected institutions. While a WiFi router with an uncapped 4G connection may not be sufficient for all learners, it can adequately serve teachers and support an ICT curriculum where learners can learn computer and Internet skills.

Hexagons of 1,500 uncovered people or more are deemed sustainable in the long run. This leaves 14 new RAN sites for Namibia that are commercially viable. This study selected 79 RAN sites with at least 700 uncovered people, knowing that many of these sites may not be profitable after the life time of the subsidy, which is 7 years. The towers are thus written off over 7 years instead of over 20 years.

**Table 3: Selected cells for new RAN sites with at least 700 people without 4G coverage
(source: CRAN Portal)**

#	Grid ID	Region	Constituency	latitude	longitude	Without 4G		
						People	Schools	Clinics
1	2090	Oshikoto	Omuthiyagwiipundi	-18.1892	16.5129	2,925	4	0
2	4276	Kavango West	Musese	-17.8988	19.2264	2,441	1	1
3	2182	Oshikoto	Okankolo	-17.8752	16.6234	2,400	3	1
4	4686	Kavango East	Rundu Rural	-18.0730	19.7961	2,315	2	1
5	4935	Kavango East	Ndonga Linena	-18.0115	20.5843	1,940	2	1
6	4271	Kavango West	Ncamagoro	-18.5232	19.2415	1,861	1	1
7	2088	Oshikoto	Omuthiyagwiipundi	-18.4395	16.5150	1,798	2	0
8	4360	Kavango West	Ncamagoro	-18.3334	19.3501	1,795	2	0
9	699	Omusati	Onesi	-17.6312	14.5852	1,740	0	0
10	2179	Oshikoto	Omuthiyagwiipundi	-18.2510	16.6269	1,737	0	0
11	2000	Oshikoto	Onyaanya	-18.1277	16.3989	1,711	2	1
12	2092	Oshikoto	Okankolo	-17.9389	16.5107	1,707	2	0
13	2093	Ohangwena	Epembe	-17.8137	16.5097	1,607	1	0
14	4534	Kavango West	Ncuncuni	-18.0785	19.5700	1,556	2	0
15	2002	Ohangwena	Epembe	-17.8770	16.3970	1,458	1	0
16	364	Kunene	Epupa	-17.5020	13.6813	1,413	1	0
17	3737	Kavango West	Mpungu	-17.5547	18.5162	1,412	2	0
18	2266	Oshikoto	Eengondi	-18.3124	16.7410	1,364	1	0
19	2183	Ohangwena	Epembe	-17.7501	16.6223	1,343	1	0
20	5049	Kavango East	Mukwe	-17.9528	21.1501	1,337	1	1
21	174	Kunene	Epupa	-17.8717	12.9992	1,300	1	1
22	396	Kunene	Epupa	-17.8158	13.7922	1,270		
23	4361	Kavango West	Ncamagoro	-18.2086	19.3470	1,247	2	0
24	2352	Oshikoto	Eengondi	-18.3741	16.8551	1,244	1	0
25	432	Kunene	Epupa	-17.7537	13.9058	1,212	1	0
26	3550	Kavango West	Mpungu	-17.6664	18.3174	1,199	4	0
27	1911	Oshikoto	Onayena	-17.9405	16.2842	1,155	1	0
28	5156	Zambezi	Linyanti	-18.1091	23.9680	1,154	1	0
29	4608	Otjozondjupa	Tsumkwe	-19.5109	19.7230	1,133	2	1
30	2444	Oshikoto	Okankolo	-17.8097	16.9624	1,129	1	0
31	2001	Oshikoto	Onyaanya	-18.0023	16.3979	1,126	2	0
32	4685	Kavango West	Ncuncuni	-18.1978	19.7995	1,092	3	1
33	5047	Kavango East	Mukwe	-18.1590	21.1549	1,073	3	0
34	4265	Otjozondjupa	Tsumkwe	-19.2724	19.2604	1,057	1	0
35	2178	Oshikoto	Omuthiyagwiipundi	-18.3761	16.6281	1,057	1	0
36	2005	Ohangwena	Eenhana	-17.5015	16.3941	1,050	2	0
37	2488	Hardap	Rehoboth East Urban	-23.2513	17.1504	1,045	1	0

#	Grid ID	Region	Constituency	latitude	longitude	Without 4G		
						People	Schools	Clinics
38	395	Kunene	Epupa	-17.9410	13.7914	1,031	2	0
39	5104	Zambezi	Kongola	-17.8445	22.9448	1,027	2	0
40	5205	Zambezi	Kabbe South	-17.6284	24.9507	1,023	1	0
41	3030	Hardap	Mariental Urban	-24.4900	17.8811	1,014		
42	5045	Kavango East	Mukwe	-17.9919	21.0379	986	1	0
43	2358	Ohangwena	Oshikunde	-17.6229	16.8473	954	1	0
44	4264	Otjozondjupa	Tsumkwe	-19.3973	19.2637	941	1	1
45	2004	Ohangwena	Eenhana	-17.6267	16.3950	934	1	0
46	4730	Kavango East	Rundu Rural	-18.0076	19.9073	931	1	0
47	319	Kunene	Opuwo Rural	-18.8159	13.5575	913	1	0
48	5054	Kavango East	Mukwe	-18.2684	21.3849	904	2	0
49	321	Kunene	Opuwo Rural	-18.5654	13.5596	894		
50	1819	Oshikoto	Omuntele	-18.1292	16.1721	891	2	0
51	578	Omusati	Ruacana	-18.6324	14.3553	872	1	0
52	5000	Kavango East	Ndiyona	-18.2317	20.8184	860	5	1
53	362	Kunene	Epupa	-17.7523	13.6795	843	2	1
54	4523	Otjozondjupa	Tsumkwe	-19.4515	19.6073	831	1	0
55	547	Omusati	Ruacana	-17.4479	14.2480	819	1	0
56	3918	Kavango West	Tondoro	-18.0331	18.7770	814	2	1
57	1466	Oshana	Ompundja	-18.0060	15.7179	807	1	0
58	2531	Oshikoto	Nehale LyaMpingana	-17.8709	17.0763	805	2	0
59	3466	!Karas	Karasburg East	-28.1614	18.5841	800	1	1
60	4798	Kavango East	Mashare	-18.0018	20.1332	794	2	0
61	4362	Kavango West	Kapako	-18.0838	19.3439	791	2	0
62	3639	Kavango West	Mpungu	-18.1020	18.4387	787	2	0
63	2807	Oshikoto	Nehale LyaMpingana	-17.8046	17.4150	785	1	0
64	3735	Kavango West	Mpungu	-17.7874	18.5457	784	1	1
65	2445	Ohangwena	Oshikunde	-17.6846	16.9610	783	0	0
66	2447	Ohangwena	Oshikunde	-17.4406	16.9584	775	2	0
67	5191	Zambezi	Katima Mulilo Rural	-17.9446	24.6225	764	1	0
68	4449	Kavango West	Kapako	-18.0186	19.4554	759	1	0
69	2835	!Karas	Berseba	-25.7443	17.6716	759	1	0
70	430	Kunene	Opuwo Urban	-18.0043	13.9043	753		
71	204	Kunene	Epupa	-17.4347	13.1169	747	1	0
72	2619	Oshikoto	Nehale LyaMpingana	-18.3077	17.1949	746	1	0
73	385	Kunene	Sesfontein	-19.1930	13.7825	743	1	0
74	4447	Kavango West	Ncamagoro	-18.2682	19.4618	727	1	0
75	2718	Ohangwena	Okongo	-17.4084	17.2964	718		
76	2180	Oshikoto	Eengondi	-18.1259	16.6257	716	1	0
77	2901	Ohangwena	Okongo	-17.4903	17.5238	711	0	1
78	3644	Kavango West	Mpungu	-17.4795	18.4216	705	1	1
79	5145	Zambezi	Linyanti	-17.8727	23.7321	701	1	0
Total						90,345	109	18

The hexagons can be tendered simultaneously, with the subsidy paid annually. It is expected that sufficient coverage will be achieved in the first year, but demand stimulation will continue throughout the entire 7-year period. The required subsidy for the 7 years is annualised, and the winning MNO of

the tender will receive seven payments at the beginning of each year.

Table 4: Subsidies for cells with at least 700 uncovered people (source: CRAN Portal)

#	Grid ID	Unmet demand per month	USF subsidy				
			Demand Stimulation month	Direct Subsidy month	Total Subsidy Month	Total Subsidy per year	Total Subsidy for 7 years
1	2090	52,647	3,996	0	3,996	47,952	335,664
2	4276	43,945	1,998	5,009	7,007	84,085	588,594
3	2182	43,196	3,996	3,760	7,756	93,077	651,537
4	4686	41,679	2,997	6,277	9,274	111,283	778,981
5	4935	34,913	2,997	13,042	16,039	192,470	1,347,288
6	4271	33,492	1,998	15,463	17,461	209,529	1,466,702
7	2088	32,361	1,998	16,594	18,592	223,102	1,561,716
8	4360	32,312	1,998	16,642	18,640	223,679	1,565,753
9	699	31,315	0	19,637	19,637	235,644	1,649,510
10	2179	31,261	0	19,691	19,691	236,292	1,654,046
11	2000	30,789	2,997	17,166	20,163	241,959	1,693,710
12	2092	30,725	1,998	18,229	20,227	242,724	1,699,069
13	2093	28,917	999	21,036	22,035	264,423	1,850,961
14	4534	28,001	1,998	20,953	22,951	275,416	1,927,911
15	2002	26,236	999	23,717	24,716	296,595	2,076,168
16	364	25,439	999	24,515	25,514	306,164	2,143,146
17	3737	25,411	1,998	23,543	25,541	306,495	2,145,465
18	2266	24,558	999	25,395	26,394	316,727	2,217,088
19	2183	24,166	999	25,787	26,786	321,433	2,250,033
20	5049	24,061	1,998	24,893	26,891	322,693	2,258,853
21	174	23,400	1,998	25,554	27,552	330,625	2,314,372
22	396	22,866	0	28,087	28,087	337,040	2,359,279
23	4361	22,442	1,998	26,512	28,510	342,125	2,394,878
24	2352	22,391	999	27,563	28,562	342,741	2,399,185
25	432	21,821	999	28,133	29,132	349,582	2,447,076
26	3550	21,576	3,996	25,380	29,376	352,513	2,467,594
27	1911	20,796	999	29,157	30,156	361,876	2,533,135
28	5156	20,764	999	29,189	30,188	362,262	2,535,834
29	4608	20,386	2,997	27,570	30,567	366,800	2,567,599
30	2444	20,326	999	29,628	30,627	367,519	2,572,636
31	2001	20,266	1,998	28,689	30,687	368,241	2,577,685
32	4685	19,665	3,996	27,291	31,287	375,449	2,628,145
33	5047	19,306	2,997	28,650	31,647	379,760	2,658,323
34	4265	19,021	999	30,932	31,931	383,177	2,682,239
35	2178	19,019	999	30,934	31,933	383,198	2,682,383
36	2005	18,899	1,998	30,055	32,053	384,639	2,692,471
37	2488	18,801	999	31,152	32,151	385,814	2,700,700
38	395	18,555	1,998	30,400	32,398	388,774	2,721,415
39	5104	18,494	1,998	30,461	32,459	389,504	2,726,531
40	5205	18,419	999	31,534	32,533	390,395	2,732,765
41	3030	18,256	0	32,696	32,696	392,353	2,746,470
42	5045	17,750	999	32,203	33,202	398,424	2,788,967
43	2358	17,176	999	32,777	33,776	405,316	2,837,209
44	4264	16,944	1,998	32,010	34,008	408,097	2,856,676
45	2004	16,808	999	33,145	34,144	409,728	2,868,094

#	Grid ID	Unmet demand per month	USF subsidy				
			Demand Stimulation month	Direct Subsidy month	Total Subsidy Month	Total Subsidy per year	Total Subsidy for 7 years
46	4730	16,750	999	33,203	34,202	410,427	2,872,992
47	319	16,442	999	33,512	34,511	414,127	2,898,890
48	5054	16,265	1,998	32,689	34,687	416,248	2,913,737
49	321	16,083	0	34,869	34,869	418,427	2,928,991
50	1819	16,034	1,998	32,920	34,918	419,015	2,933,106
51	578	15,687	999	34,266	35,265	423,181	2,962,265
52	5000	15,481	5,994	29,477	35,471	425,656	2,979,591
53	362	15,173	2,997	32,782	35,779	429,350	3,005,452
54	4523	14,959	999	34,995	35,994	431,924	3,023,470
55	547	14,741	999	35,213	36,212	434,542	3,041,795
56	3918	14,657	2,997	33,298	36,295	435,540	3,048,780
57	1466	14,534	999	35,419	36,418	437,018	3,059,125
58	2531	14,492	1,998	34,462	36,460	437,523	3,062,664
59	3466	14,396	1,998	34,558	36,556	438,676	3,070,730
60	4798	14,289	1,998	34,666	36,664	439,963	3,079,744
61	4362	14,233	1,998	34,721	36,719	440,628	3,084,397
62	3639	14,172	1,998	34,783	36,781	441,367	3,089,566
63	2807	14,130	999	35,823	36,822	441,866	3,093,065
64	3735	14,121	1,998	34,833	36,831	441,978	3,093,843
65	2445	14,094	0	36,859	36,859	442,305	3,096,135
66	2447	13,954	1,998	35,000	36,998	443,981	3,107,870
67	5191	13,759	999	36,195	37,194	446,326	3,124,280
68	4449	13,669	999	36,285	37,284	447,406	3,131,841
69	2835	13,663	999	36,291	37,290	447,474	3,132,320
70	430	13,550	0	37,402	37,402	448,825	3,141,777
71	204	13,452	999	36,501	37,500	450,006	3,150,042
72	2619	13,427	999	36,526	37,525	450,305	3,152,133
73	385	13,380	999	36,573	37,572	450,869	3,156,086
74	4447	13,088	999	36,865	37,864	454,368	3,180,575
75	2718	12,928	0	38,025	38,025	456,298	3,194,088
76	2180	12,895	999	37,058	38,057	456,683	3,196,782
77	2901	12,806	999	37,148	38,147	457,760	3,204,319
78	3644	12,691	1,998	36,264	38,262	459,138	3,213,969
79	5145	12,618	999	37,336	38,335	460,018	3,220,126
Total						28,808,962	201,662,733

Subsidising 79 new RAN sites will provide 4G coverage for 90,000 people and 109 schools and 18 clinics that currently do not have 4G coverage. Each of the new RAN sites covers at least 700 people per hexagon as illustrated in Table 3. Table 4 depicts a demand stimulation plan with an annual subsidy expected at N\$29 million or N\$202 million over seven years.

Table 5: Impact of the 79 proposed RAN sites (source: CRAN Portal)

	Population	Current		After 40 RAN sites			
		4G Population Coverage	Policy Objective 80%	People reached	Coverage Increase	4G Population Coverage	Policy Objective 80%
!Karas	109,893	81%	Above	1,559	1.4%	82%	Above
Erongo	240,206	95%	Above		0.0%	95%	Above
Hardap	106,680	79%	Below	2,059	1.9%	81%	Above

Kavango East	218,421	91%	Above	11,139	5.1%	96%	Above
Kavango West	123,266	70%	Below	17,971	14.6%	84%	Above
Khomas	494,605	98%	Above		0.0%	98%	Above
Kunene	120,762	49%	Below	11,120	9.2%	59%	Below
Ohangwena	337,729	94%	Above	10,332	3.1%	97%	Above
Omaheke	102,881	64%	Below		0.0%	64%	Below
Omusati	316,671	96%	Above	3,430	1.1%	97%	Above
Oshana	230,801	99%	Above	807	0.3%	99%	Above
Oshikoto	257,302	84%	Above	23,295	9.1%	93%	Above
Otjozondjupa	220,811	78%	Below	3,962	1.8%	80%	Above
Zambezi	142,373	92%	Above	4,670	3.3%	95%	Above
Namibia	3,022,401	88.4%	Above	90,344	3.0%	91.4%	Above

Table 5 shows the number of regions that will benefit from this intervention. The Kunene and the Kavango West regions are among those identified below the 80% coverage threshold. Kunene's population coverage is set to increase from 49% to a promising 59%, while Kavango West is projected to experience a jump from 70% to 84%. The hexagons for Omaheke had fewer than 500 people per hexagon and a new suitable site could be identified.

4. Budget Projections

The revenue obtained from a USF levy of 0.5% on the telecommunication sector is expected to yield about NAD 26 million per year. With revenues continuing to increase it is expected that the NAD 28 million per year can be matched. In 2023 revenues increased by 2.6% annually and it is expected to continue into 2024.

Table 6: ICT revenue trends

	2017	2018	2019	2020	2021	2022	2023	2024
Revenue NAD million	4,499	4,821	4,902	5,102	5,090	5,237	5,373	5,513
YoY		7.1%	1.7%	4.1%	-0.2%	2.9%	2.6%	2.6%
0.5% UAS contribution	22.5	24.1	24.5	25.5	25.5	26.2	26.9	27.6
1% UAS contribution	45.0	48.2	49.0	51.0	50.9	52.4	53.7	55.1

5. Conclusion

In conclusion, the study's thorough analysis and proposed interventions represent significant steps in achieving universal ICT access in Namibia, ensuring that schools and the population at large will have 4G coverage. The emphasis on leveraging technology to narrow socio-economic disparities and propel the country towards a digital economy reflects Namibia's commitment to inclusive development.

The systematic approach utilised, including demand analysis, anchor tenant strategy, and grid profitability assessments assisted in identifying site selection for new RAN site deployment to address coverage gaps, especially in areas with high unmet demand.

A universal service levy of 0.5% would be able to fund 4G coverage for more than 90,000 Namibians and provide uncapped wifi to 109 schools and 18 clinics. Increasing the levy to 1% would cover an additional 32,000 Namibians with 4G and provide 49 schools and 8 clinics with WIFI.

By utilising the Universal Service Fund (USF) to subsidise mobile broadband expansion and stimulate demand, the strategy aims to ensure no citizen is left behind in the digital revolution. Moreover, the intervention strategy not only focuses on providing connectivity but also emphasises the role of schools as anchor tenants, thereby fostering sustainable long-term solutions. The collaboration between the regulator, mobile network operators, and the government is crucial to realising the vision of universal access for all.

6. References

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5. Appendix URLs for selected 79 RAN site locations

Table 7: URLs for 79 RAN sites

Grid ID	Region	Constituency	url_hex
2090	Oshikoto	Omuthiyagwiipundi	https://dy58s6rtmt652.cloudfront.net/#g=2090
4276	Kavango West	Musese	https://dy58s6rtmt652.cloudfront.net/#g=4276
2182	Oshikoto	Okankolo	https://dy58s6rtmt652.cloudfront.net/#g=2182
4686	Kavango East	Rundu Rural	https://dy58s6rtmt652.cloudfront.net/#g=4686
4935	Kavango East	Ndonga Linena	https://dy58s6rtmt652.cloudfront.net/#g=4935
4271	Kavango West	Ncamagoro	https://dy58s6rtmt652.cloudfront.net/#g=4271
2088	Oshikoto	Omuthiyagwiipundi	https://dy58s6rtmt652.cloudfront.net/#g=2088
4360	Kavango West	Ncamagoro	https://dy58s6rtmt652.cloudfront.net/#g=4360
699	Omusati	Onesi	https://dy58s6rtmt652.cloudfront.net/#g=699
2179	Oshikoto	Omuthiyagwiipundi	https://dy58s6rtmt652.cloudfront.net/#g=2179
2000	Oshikoto	Onyaanya	https://dy58s6rtmt652.cloudfront.net/#g=2000
2092	Oshikoto	Okankolo	https://dy58s6rtmt652.cloudfront.net/#g=2092
2093	Ohangwena	Epembe	https://dy58s6rtmt652.cloudfront.net/#g=2093
4534	Kavango West	Ncuncuni	https://dy58s6rtmt652.cloudfront.net/#g=4534
2002	Ohangwena	Epembe	https://dy58s6rtmt652.cloudfront.net/#g=2002
364	Kunene	Epupa	https://dy58s6rtmt652.cloudfront.net/#g=364
3737	Kavango West	Mpungu	https://dy58s6rtmt652.cloudfront.net/#g=3737
2266	Oshikoto	Eengondi	https://dy58s6rtmt652.cloudfront.net/#g=2266
2183	Ohangwena	Epembe	https://dy58s6rtmt652.cloudfront.net/#g=2183
5049	Kavango East	Mukwe	https://dy58s6rtmt652.cloudfront.net/#g=5049
174	Kunene	Epupa	https://dy58s6rtmt652.cloudfront.net/#g=174
396	Kunene	Epupa	https://dy58s6rtmt652.cloudfront.net/#g=396
4361	Kavango West	Ncamagoro	https://dy58s6rtmt652.cloudfront.net/#g=4361
2352	Oshikoto	Eengondi	https://dy58s6rtmt652.cloudfront.net/#g=2352
432	Kunene	Epupa	https://dy58s6rtmt652.cloudfront.net/#g=432
3550	Kavango West	Mpungu	https://dy58s6rtmt652.cloudfront.net/#g=3550
1911	Oshikoto	Onayena	https://dy58s6rtmt652.cloudfront.net/#g=1911

Grid ID	Region	Constituency	url_hex
5156	Zambezi	Linyanti	https://dy58s6rtmt652.cloudfront.net/#g=5156
4608	Otjozondjupa	Tsumkwe	https://dy58s6rtmt652.cloudfront.net/#g=4608
2444	Oshikoto	Okankolo	https://dy58s6rtmt652.cloudfront.net/#g=2444
2001	Oshikoto	Onyaanya	https://dy58s6rtmt652.cloudfront.net/#g=2001
4685	Kavango West	Ncuncuni	https://dy58s6rtmt652.cloudfront.net/#g=4685
5047	Kavango East	Mukwe	https://dy58s6rtmt652.cloudfront.net/#g=5047
4265	Otjozondjupa	Tsumkwe	https://dy58s6rtmt652.cloudfront.net/#g=4265
2178	Oshikoto	Omuthiyagwiipundi	https://dy58s6rtmt652.cloudfront.net/#g=2178
2005	Ohangwena	Eenhana	https://dy58s6rtmt652.cloudfront.net/#g=2005
2488	Hardap	Rehoboth East Urban	https://dy58s6rtmt652.cloudfront.net/#g=2488
395	Kunene	Epupa	https://dy58s6rtmt652.cloudfront.net/#g=395
5104	Zambezi	Kongola	https://dy58s6rtmt652.cloudfront.net/#g=5104
5205	Zambezi	Kabbe South	https://dy58s6rtmt652.cloudfront.net/#g=5205
3030	Hardap	Mariental Urban	https://dy58s6rtmt652.cloudfront.net/#g=3030
5045	Kavango East	Mukwe	https://dy58s6rtmt652.cloudfront.net/#g=5045
2358	Ohangwena	Oshikunde	https://dy58s6rtmt652.cloudfront.net/#g=2358
4264	Otjozondjupa	Tsumkwe	https://dy58s6rtmt652.cloudfront.net/#g=4264
2004	Ohangwena	Eenhana	https://dy58s6rtmt652.cloudfront.net/#g=2004
4730	Kavango East	Rundu Rural	https://dy58s6rtmt652.cloudfront.net/#g=4730
319	Kunene	Opuwo Rural	https://dy58s6rtmt652.cloudfront.net/#g=319
5054	Kavango East	Mukwe	https://dy58s6rtmt652.cloudfront.net/#g=5054
321	Kunene	Opuwo Rural	https://dy58s6rtmt652.cloudfront.net/#g=321
1819	Oshikoto	Omuntele	https://dy58s6rtmt652.cloudfront.net/#g=1819
578	Omusati	Ruacana	https://dy58s6rtmt652.cloudfront.net/#g=578
5000	Kavango East	Ndiyona	https://dy58s6rtmt652.cloudfront.net/#g=5000
362	Kunene	Epupa	https://dy58s6rtmt652.cloudfront.net/#g=362
4523	Otjozondjupa	Tsumkwe	https://dy58s6rtmt652.cloudfront.net/#g=4523
547	Omusati	Ruacana	https://dy58s6rtmt652.cloudfront.net/#g=547
3918	Kavango West	Tondoro	https://dy58s6rtmt652.cloudfront.net/#g=3918
1466	Oshana	Ompundja	https://dy58s6rtmt652.cloudfront.net/#g=1466
2531	Oshikoto	Nehale LyaMpingana	https://dy58s6rtmt652.cloudfront.net/#g=2531
3466	!Karas	Karasburg East	https://dy58s6rtmt652.cloudfront.net/#g=3466
4798	Kavango East	Mashare	https://dy58s6rtmt652.cloudfront.net/#g=4798
4362	Kavango West	Kapako	https://dy58s6rtmt652.cloudfront.net/#g=4362
3639	Kavango West	Mpungu	https://dy58s6rtmt652.cloudfront.net/#g=3639
2807	Oshikoto	Nehale LyaMpingana	https://dy58s6rtmt652.cloudfront.net/#g=2807
3735	Kavango West	Mpungu	https://dy58s6rtmt652.cloudfront.net/#g=3735
2445	Ohangwena	Oshikunde	https://dy58s6rtmt652.cloudfront.net/#g=2445
2447	Ohangwena	Oshikunde	https://dy58s6rtmt652.cloudfront.net/#g=2447
5191	Zambezi	Katima Mulilo Rural	https://dy58s6rtmt652.cloudfront.net/#g=5191
4449	Kavango West	Kapako	https://dy58s6rtmt652.cloudfront.net/#g=4449
2835	!Karas	Berseba	https://dy58s6rtmt652.cloudfront.net/#g=2835
430	Kunene	Opuwo Urban	https://dy58s6rtmt652.cloudfront.net/#g=430
204	Kunene	Epupa	https://dy58s6rtmt652.cloudfront.net/#g=204
2619	Oshikoto	Nehale LyaMpingana	https://dy58s6rtmt652.cloudfront.net/#g=2619
385	Kunene	Sesfontein	https://dy58s6rtmt652.cloudfront.net/#g=385
4447	Kavango West	Ncamagoro	https://dy58s6rtmt652.cloudfront.net/#g=4447
2718	Ohangwena	Okongo	https://dy58s6rtmt652.cloudfront.net/#g=2718
2180	Oshikoto	Eengondi	https://dy58s6rtmt652.cloudfront.net/#g=2180

Grid ID	Region	Constituency	url_hex
2901	Ohangwena	Okongo	https://dy58s6rtmt652.cloudfront.net/#g=2901
3644	Kavango West	Mpungu	https://dy58s6rtmt652.cloudfront.net/#g=3644
5145	Zambezi	Linyanti	https://dy58s6rtmt652.cloudfront.net/#g=5145

6. Appendix: Extra Ran Sites to reach 1% USF fee

Table 8: 55 additional RAN sites to reach 1% USF levy

#	Grid ID	Region	Constituency	latitude	longitude	Without 4G			Total Subsidy Annually
						People	Schools	Clinics	
1	2622	Oshikoto	Nehale LyaMpingana	-17.9324	17.1903	698	1	0	460,618
2	2096	Ohangwena	Omundaungilo	-17.4432	16.5066	697	0	0	460,829
3	5043	Kavango East	Mukwe	-18.2247	21.0442	689	3	0	462,588
4	325	Kunene	Opuwo Rural	-18.0646	13.5638	682	1	0	464,200
5	2620	Oshikoto	Nehale LyaMpingana	-18.1826	17.1934	666	1	1	467,490
6	5033	Kavango East	Ndiyona	-18.1661	20.9292	652	3	0	470,700
7	3364	Kavango West	Mpungu	-17.6701	18.0914	650	2	0	470,954
8	5044	Kavango East	Mukwe	-18.1002	21.0399	648	2	0	471,397
9	2534	Ohangwena	Oshikunde	-17.4955	17.0720	648	1	0	471,465
10	587	Omusati	Ruacana	-17.5053	14.3594	647	0	0	471,704
11	5055	Kavango East	Mukwe	-18.1516	21.3804	645	2	1	472,194
12	5200	Zambezi	Kabbe South	-17.8054	24.8448	644	1	0	472,424
13	577	Omusati	Ruacana	-18.7576	14.3549	627	1	0	476,038
14	3336	Otjozondjupa	Omatako	-21.1709	18.1584	627			476,095
15	5192	Zambezi	Katima Mulilo Rural	-17.8303	24.6265	619	0	0	477,620
16	178	Kunene	Epupa	-17.3712	13.0047	615	1	0	478,571
17	2269	Oshikoto	Okankolo	-17.9370	16.7373	614	1	0	478,699
18	4729	Kavango East	Rundu Rural	-18.1324	19.9108	612	1	0	479,273
19	4274	Kavango West	Musese	-18.1485	19.2323	611	2	1	479,408
20	2440	Oshikoto	Nehale LyaMpingana	-18.3102	16.9680	608	1	0	480,076
21	682	Kunene	Kamanjab	-19.7600	14.5800	607	1	1	480,369
22	4096	Kavango West	Mankumpi	-18.4031	19.0118	603	1	0	481,128
23	2184	Ohangwena	Epembe	-17.6249	16.6212	600	0	0	481,918
24	3920	Kavango West	Tondoro	-17.7931	18.7659	598	0	0	482,233
25	2792	Otjozondjupa	Otavi	-19.6815	17.4418	598			482,297
26	2533	Ohangwena	Oshikunde	-17.6207	17.0734	586	1	0	484,800
27	636	Omusati	Ruacana	-18.3196	14.4701	583	2	1	485,564
28	399	Kunene	Epupa	-17.4399	13.7947	580	2	0	486,120
29	260	Kunene	Epupa	-17.9376	13.3382	578	1	0	486,603
30	3155	Otjozondjupa	Okakarara	-20.5501	17.9155	576			486,976
31	420	Kunene	Sesfontein	-19.2565	13.8962	569			488,467
32	3556	!Karas	Karasburg East	-28.4702	18.7169	567	1	1	489,014
33	2003	Ohangwena	Epembe	-17.7518	16.3960	566	0	0	489,265
34	509	Kunene	Epupa	-17.4317	14.1481	562			490,098
35	2717	Ohangwena	Okongo	-17.4931	17.2979	558	0	0	490,932
36	3825	Kavango West	Tondoro	-18.0979	18.6651	552	1	0	492,115

#	Grid ID	Region	Constituency	latitude	longitude	Without 4G			Total Subsidy Annually
						People	Schools	Clinics	
37	2006	Ohangwena	Omundaungilo	-17.4121	16.3931	552	1	1	492,146
38	3361	Kavango West	Mpungu	-18.0451	18.0979	540	1	0	494,696
39	1211	Oshana	Uuvudhiya	-17.9444	15.3777	530	1	0	496,896
40	4098	Kavango West	Musese	-18.1534	19.0060	522	2	0	498,775
41	1912	Ohangwena	Eenhana	-17.8153	16.2833	521	0	0	498,953
42	259	Kunene	Opuwo Rural	-18.0628	13.3371	519	1	1	499,228
43	4142	Omaheke	Aminuis	-23.7074	19.2743	519			499,315
44	4764	Kavango East	Mashare	-18.0673	20.0221	517	3	0	499,695
45	2625	Ohangwena	Okongo	-17.5569	17.1857	517	1	0	499,733
46	1465	Oshana	Uuvudhiya	-18.1314	15.7184	516			499,956
47	2714	Oshikoto	Nehale LyaMpingana	-17.8684	17.3027	509			501,531
48	390	Kunene	Opuwo Rural	-18.5670	13.7870	508			501,617
49	3059	Otjozondjupa	Okakarara	-20.8643	17.8062	508			501,778
50	3734	Kavango West	Tondoro	-17.9123	18.5482	505	2	0	502,281
51	423	Kunene	Opuwo Rural	-18.8806	13.8987	504	1	0	502,560
52	355	Kunene	Opuwo Rural	-18.6288	13.6728	502	0	0	502,997
53	1910	Oshikoto	Onyaanya	-18.0657	16.2851	500	1	0	503,484
54	3560	!Karas	Karasburg East	-27.9711	18.6997	498	0	0	503,775
55	2993	Ohangwena	Okongo	-17.5514	17.6376	495	1	0	504,431
Total						31,964	49	8	26,724,089

Table 9: 55 additional RAN sites to reach 1% USF levy - URLs

#	Grid ID	Region	Constituency	URL
1	2622	Oshikoto	Nehale LyaMpingana	https://dy58s6rtmt652.cloudfront.net/#g=2622
2	2096	Ohangwena	Omundaungilo	https://dy58s6rtmt652.cloudfront.net/#g=2096
3	5043	Kavango East	Mukwe	https://dy58s6rtmt652.cloudfront.net/#g=5043
4	325	Kunene	Opuwo Rural	https://dy58s6rtmt652.cloudfront.net/#g=325
5	2620	Oshikoto	Nehale LyaMpingana	https://dy58s6rtmt652.cloudfront.net/#g=2620
6	5033	Kavango East	Ndiyona	https://dy58s6rtmt652.cloudfront.net/#g=5033
7	3364	Kavango West	Mpungu	https://dy58s6rtmt652.cloudfront.net/#g=3364
8	5044	Kavango East	Mukwe	https://dy58s6rtmt652.cloudfront.net/#g=5044
9	2534	Ohangwena	Oshikunde	https://dy58s6rtmt652.cloudfront.net/#g=2534
10	587	Omusati	Ruacana	https://dy58s6rtmt652.cloudfront.net/#g=587
11	5055	Kavango East	Mukwe	https://dy58s6rtmt652.cloudfront.net/#g=5055
12	5200	Zambezi	Kabbe South	https://dy58s6rtmt652.cloudfront.net/#g=5200
13	577	Omusati	Ruacana	https://dy58s6rtmt652.cloudfront.net/#g=577
14	3336	Otjozondjupa	Omatako	https://dy58s6rtmt652.cloudfront.net/#g=3336
15	5192	Zambezi	Katima Mulilo Rural	https://dy58s6rtmt652.cloudfront.net/#g=5192
16	178	Kunene	Epupa	https://dy58s6rtmt652.cloudfront.net/#g=178
17	2269	Oshikoto	Okankolo	https://dy58s6rtmt652.cloudfront.net/#g=2269
18	4729	Kavango East	Rundu Rural	https://dy58s6rtmt652.cloudfront.net/#g=4729
19	4274	Kavango West	Musese	https://dy58s6rtmt652.cloudfront.net/#g=4274
20	2440	Oshikoto	Nehale LyaMpingana	https://dy58s6rtmt652.cloudfront.net/#g=2440
21	682	Kunene	Kamanjab	https://dy58s6rtmt652.cloudfront.net/#g=682

#	Grid ID	Region	Constituency	URL
22	4096	Kavango West	Mankumpi	https://dy58s6rtmt652.cloudfront.net/#g=4096
23	2184	Ohangwena	Epembe	https://dy58s6rtmt652.cloudfront.net/#g=2184
24	3920	Kavango West	Tondoro	https://dy58s6rtmt652.cloudfront.net/#g=3920
25	2792	Otjozondjupa	Otavi	https://dy58s6rtmt652.cloudfront.net/#g=2792
26	2533	Ohangwena	Oshikunde	https://dy58s6rtmt652.cloudfront.net/#g=2533
27	636	Omusati	Ruacana	https://dy58s6rtmt652.cloudfront.net/#g=636
28	399	Kunene	Epupa	https://dy58s6rtmt652.cloudfront.net/#g=399
29	260	Kunene	Epupa	https://dy58s6rtmt652.cloudfront.net/#g=260
30	3155	Otjozondjupa	Okakarara	https://dy58s6rtmt652.cloudfront.net/#g=3155
31	420	Kunene	Sesfontein	https://dy58s6rtmt652.cloudfront.net/#g=420
32	3556	!Karas	Karasburg East	https://dy58s6rtmt652.cloudfront.net/#g=3556
33	2003	Ohangwena	Epembe	https://dy58s6rtmt652.cloudfront.net/#g=2003
34	509	Kunene	Epupa	https://dy58s6rtmt652.cloudfront.net/#g=509
35	2717	Ohangwena	Okongo	https://dy58s6rtmt652.cloudfront.net/#g=2717
36	3825	Kavango West	Tondoro	https://dy58s6rtmt652.cloudfront.net/#g=3825
37	2006	Ohangwena	Omundaungilo	https://dy58s6rtmt652.cloudfront.net/#g=2006
38	3361	Kavango West	Mpungu	https://dy58s6rtmt652.cloudfront.net/#g=3361
39	1211	Oshana	Uuvudhiya	https://dy58s6rtmt652.cloudfront.net/#g=1211
40	4098	Kavango West	Musese	https://dy58s6rtmt652.cloudfront.net/#g=4098
41	1912	Ohangwena	Eenhana	https://dy58s6rtmt652.cloudfront.net/#g=1912
42	259	Kunene	Opuwo Rural	https://dy58s6rtmt652.cloudfront.net/#g=259
43	4142	Omaheke	Aminuis	https://dy58s6rtmt652.cloudfront.net/#g=4142
44	4764	Kavango East	Mashare	https://dy58s6rtmt652.cloudfront.net/#g=4764
45	2625	Ohangwena	Okongo	https://dy58s6rtmt652.cloudfront.net/#g=2625
46	1465	Oshana	Uuvudhiya	https://dy58s6rtmt652.cloudfront.net/#g=1465
47	2714	Oshikoto	Nehale LyaMpingana	https://dy58s6rtmt652.cloudfront.net/#g=2714
48	390	Kunene	Opuwo Rural	https://dy58s6rtmt652.cloudfront.net/#g=390
49	3059	Otjozondjupa	Okakarara	https://dy58s6rtmt652.cloudfront.net/#g=3059
50	3734	Kavango West	Tondoro	https://dy58s6rtmt652.cloudfront.net/#g=3734
51	423	Kunene	Opuwo Rural	https://dy58s6rtmt652.cloudfront.net/#g=423
52	355	Kunene	Opuwo Rural	https://dy58s6rtmt652.cloudfront.net/#g=355
53	1910	Oshikoto	Onyaanya	https://dy58s6rtmt652.cloudfront.net/#g=1910
54	3560	!Karas	Karasburg East	https://dy58s6rtmt652.cloudfront.net/#g=3560
55	2993	Ohangwena	Okongo	https://dy58s6rtmt652.cloudfront.net/#g=2993

7. Appendix: Lifting Kunene and Omaheke above 80%

Table 10: Extra RAN sites for Omaheke

#	Grid ID	Constituency	latitude	longitude	Without 4G			Total Subsidy Annually
					People	Schools	Clinics	
1	4142	Aminuis	-23.7074	19.2743	519			499314.9204
2	4316	Aminuis	-23.8256	19.5134	482			507347.3358
3	4422	Epukiro	-21.3890	19.5499	457			512632.0912
4	4232	Aminuis	-23.3922	19.3813	453			513547.1534
5	4164	Otjinene	-20.9611	19.1913	445			515263.4082
6	4491	Aminuis	-23.4443	19.7347	390			527108.7757
7	4938	Otjombinde	-21.7855	20.8354	375			530336.7074
8	3787	Gobabis	-22.8456	18.7798	372			531146.2748
9	4578	Aminuis	-23.2535	19.8450	367			532166.5047

#	Grid ID	Constituency	latitude	longitude	Without 4G			Total Subsidy Annually
					People	Schools	Clinics	
10	4836	Otjombinde	-21.8599	20.4913	361			533509.5065
11	4229	Aminuis	-23.7666	19.3938	354			534985.8475
12	3985	Otjinene	-21.0916	18.9643	331			540021.639
13	4406	Aminuis	-23.3855	19.6155	326			540954.0368
14	4838	Otjombinde	-21.6108	20.4818	319			542470.1121
15	4407	Aminuis	-23.2606	19.6112	319			542560.3922
16	4248	Okarukambe	-21.3952	19.3191	318			542638.1881
17	3802	Otjinene	-20.9718	18.7306	312			543996.8571
18	4230	Aminuis	-23.6419	19.3896	310	1	0	544379.7977
19	4322	Aminuis	-23.0771	19.4880	309			544772.7335
20	3882	Gobabis	-22.5307	18.8877	303	1	0	545898.3059
21	4150	Kalahari	-22.7088	19.2426	298	1	0	547062.9671
22	4237	Kalahari	-22.7682	19.3611	287			549449.7694
23	3895	Otjinene	-20.9068	18.8442	287			549456.8835
24	4071	Okarukambe	-21.5260	19.0917	280			550842.9831
25	4420	Epukiro	-21.6387	19.5577	279			551136.6348
26	3986	Otjinene	-20.9666	18.9610	274			552160.0417
27	4654	Kalahari	-22.0654	19.9194	270	1	0	553194.3796
28	4149	Kalahari	-22.8338	19.2465	268			553540.9573
29	4250	Epukiro	-21.1454	19.3118	260			555200.8768
30	4508	Epukiro	-21.3235	19.6633	260			555374.1812
31	3984	Otjinene	-21.2165	18.9676	258			555744.5265
32	4245	Okarukambe	-21.7697	19.3302	257			555833.6556
33	4903	Otjombinde	-21.9611	20.7273	254			556497.1177
34	4737	Otjombinde	-21.4347	20.1288	250			557440.5686
35	4405	Aminuis	-23.5104	19.6198	250			557508.0792
36	4063	Kalahari	-22.5249	19.1205	248			557882.9205
37	4318	Aminuis	-23.5760	19.5048	242			559107.0829
38	3610	Okarukambe	-21.7263	18.5181	232			561232.8574
39	4871	Otjombinde	-21.7935	20.6044	226			562604.9527
40	3692	Aminuis	-23.1605	18.6716	225			562730.7189
41	4403	Aminuis	-23.7598	19.6286	222			563539.0541
42	4159	Okarukambe	-21.5853	19.2090	220			563998.3374
43	4587	Kalahari	-22.1310	19.8056	212			565,597
44	4802	Otjombinde	-21.8012	20.3733	211			565922.3842
45	3893	Otjinene	-21.1565	18.8507	211			565956.1907
46	3973	Gobabis	-22.5900	19.0059	208	1	0	566570.7942
47	3698	Gobabis	-22.4111	18.6515	207			566630.3414
48	3701	Okarukambe	-22.0363	18.6418	206			567016.5603
49	3968	Aminuis	-23.2145	19.0243	201			568017.9781
50	3507	Gobabis	-23.0409	18.4344	196			569119.3667
51	3885	Okarukambe	-22.1558	18.8773	194			569584.2173
52	4981	Otjombinde	-20.5986	20.9036	185	0	0	571437.2596
53	3509	Gobabis	-22.7911	18.4281	180			572634.9355
54	4701	Otjombinde	-21.6254	20.0199	179			572672.7546
55	4061	Kalahari	-22.7745	19.1280	175			573537.0639
56	3327	Okarukambe	-22.2958	18.1831	166			575648.6297
57	4317	Aminuis	-23.7007	19.5091	159			577139.989
58	4972	Otjombinde	-21.7193	20.9437	159			577182.0818

#	Grid ID	Constituency	latitude	longitude	Without 4G			Total Subsidy Annually
					People	Schools	Clinics	
59	3708	Okarukambe	-21.1616	18.6200	158			577245.3198
60	3600	Gobabis	-22.9760	18.5496	154			578121.3251
Total					16,430	5	0	33136623.89

Table 11: Extra RAN sites for Omaheke -URL

#	Grid ID	Constituency	URLs
1	4142	Aminuis	https://dy58s6rtmt652.cloudfront.net/#g=4142
2	4316	Aminuis	https://dy58s6rtmt652.cloudfront.net/#g=4316
3	4422	Epukiro	https://dy58s6rtmt652.cloudfront.net/#g=4422
4	4232	Aminuis	https://dy58s6rtmt652.cloudfront.net/#g=4232
5	4164	Otjinene	https://dy58s6rtmt652.cloudfront.net/#g=4164
6	4491	Aminuis	https://dy58s6rtmt652.cloudfront.net/#g=4491
7	4938	Otjombinde	https://dy58s6rtmt652.cloudfront.net/#g=4938
8	3787	Gobabis	https://dy58s6rtmt652.cloudfront.net/#g=3787
9	4578	Aminuis	https://dy58s6rtmt652.cloudfront.net/#g=4578
10	4836	Otjombinde	https://dy58s6rtmt652.cloudfront.net/#g=4836
11	4229	Aminuis	https://dy58s6rtmt652.cloudfront.net/#g=4229
12	3985	Otjinene	https://dy58s6rtmt652.cloudfront.net/#g=3985
13	4406	Aminuis	https://dy58s6rtmt652.cloudfront.net/#g=4406
14	4838	Otjombinde	https://dy58s6rtmt652.cloudfront.net/#g=4838
15	4407	Aminuis	https://dy58s6rtmt652.cloudfront.net/#g=4407
16	4248	Okarukambe	https://dy58s6rtmt652.cloudfront.net/#g=4248
17	3802	Otjinene	https://dy58s6rtmt652.cloudfront.net/#g=3802
18	4230	Aminuis	https://dy58s6rtmt652.cloudfront.net/#g=4230
19	4322	Aminuis	https://dy58s6rtmt652.cloudfront.net/#g=4322
20	3882	Gobabis	https://dy58s6rtmt652.cloudfront.net/#g=3882
21	4150	Kalahari	https://dy58s6rtmt652.cloudfront.net/#g=4150
22	4237	Kalahari	https://dy58s6rtmt652.cloudfront.net/#g=4237
23	3895	Otjinene	https://dy58s6rtmt652.cloudfront.net/#g=3895
24	4071	Okarukambe	https://dy58s6rtmt652.cloudfront.net/#g=4071
25	4420	Epukiro	https://dy58s6rtmt652.cloudfront.net/#g=4420
26	3986	Otjinene	https://dy58s6rtmt652.cloudfront.net/#g=3986
27	4654	Kalahari	https://dy58s6rtmt652.cloudfront.net/#g=4654
28	4149	Kalahari	https://dy58s6rtmt652.cloudfront.net/#g=4149
29	4250	Epukiro	https://dy58s6rtmt652.cloudfront.net/#g=4250
30	4508	Epukiro	https://dy58s6rtmt652.cloudfront.net/#g=4508
31	3984	Otjinene	https://dy58s6rtmt652.cloudfront.net/#g=3984
32	4245	Okarukambe	https://dy58s6rtmt652.cloudfront.net/#g=4245
33	4903	Otjombinde	https://dy58s6rtmt652.cloudfront.net/#g=4903
34	4737	Otjombinde	https://dy58s6rtmt652.cloudfront.net/#g=4737
35	4405	Aminuis	https://dy58s6rtmt652.cloudfront.net/#g=4405
36	4063	Kalahari	https://dy58s6rtmt652.cloudfront.net/#g=4063
37	4318	Aminuis	https://dy58s6rtmt652.cloudfront.net/#g=4318
38	3610	Okarukambe	https://dy58s6rtmt652.cloudfront.net/#g=3610
39	4871	Otjombinde	https://dy58s6rtmt652.cloudfront.net/#g=4871
40	3692	Aminuis	https://dy58s6rtmt652.cloudfront.net/#g=3692
41	4403	Aminuis	https://dy58s6rtmt652.cloudfront.net/#g=4403
42	4159	Okarukambe	https://dy58s6rtmt652.cloudfront.net/#g=4159
43	4587	Kalahari	https://dy58s6rtmt652.cloudfront.net/#g=4587

#	Grid ID	Constituency	URLs
44	4802	Otjombinde	https://dy58s6rtmt652.cloudfront.net/#g=4802
45	3893	Otjinene	https://dy58s6rtmt652.cloudfront.net/#g=3893
46	3973	Gobabis	https://dy58s6rtmt652.cloudfront.net/#g=3973
47	3698	Gobabis	https://dy58s6rtmt652.cloudfront.net/#g=3698
48	3701	Okarukambe	https://dy58s6rtmt652.cloudfront.net/#g=3701
49	3968	Aminuis	https://dy58s6rtmt652.cloudfront.net/#g=3968
50	3507	Gobabis	https://dy58s6rtmt652.cloudfront.net/#g=3507
51	3885	Okarukambe	https://dy58s6rtmt652.cloudfront.net/#g=3885
52	4981	Otjombinde	https://dy58s6rtmt652.cloudfront.net/#g=4981
53	3509	Gobabis	https://dy58s6rtmt652.cloudfront.net/#g=3509
54	4701	Otjombinde	https://dy58s6rtmt652.cloudfront.net/#g=4701
55	4061	Kalahari	https://dy58s6rtmt652.cloudfront.net/#g=4061
56	3327	Okarukambe	https://dy58s6rtmt652.cloudfront.net/#g=3327
57	4317	Aminuis	https://dy58s6rtmt652.cloudfront.net/#g=4317
58	4972	Otjombinde	https://dy58s6rtmt652.cloudfront.net/#g=4972
59	3708	Okarukambe	https://dy58s6rtmt652.cloudfront.net/#g=3708
60	3600	Gobabis	https://dy58s6rtmt652.cloudfront.net/#g=3600
Total			

Table 12: Extra RAN sites for Kunene

#	Grid ID	Constituency	latitude	longitude	Without 4G			Total Subsidy Annually
					People	Schools	Clinics	
1	325	Opuwo Rural	-18.0646	13.5638	682	1	0	464,200
2	178	Epupa	-17.3712	13.0047	615	1	0	478,571
3	682	Kamanjab	-19.7600	14.5800	607	1	1	480,369
4	399	Epupa	-17.4399	13.7947	580	2	0	486,120
5	260	Epupa	-17.9376	13.3382	578	1	0	486,603
6	420	Sesfontein	-19.2565	13.8962	569			488,467
7	509	Epupa	-17.4317	14.1481	562			490,098
8	259	Opuwo Rural	-18.0628	13.3371	519	1	1	499,228
9	390	Opuwo Rural	-18.5670	13.7870	508			501,617
10	423	Opuwo Rural	-18.8806	13.8987	504	1	0	502,560
11	355	Opuwo Rural	-18.6288	13.6728	502	0	0	502,997
12	541	Opuwo Urban	-18.1937	14.2435	484			506,785
13	320	Opuwo Rural	-18.6907	13.5586	484			506,975
14	957	Kamanjab	-19.6353	15.0382	483			507,173
15	626	Sesfontein	-19.5719	14.4661	480			507,842
16	202	Epupa	-17.6853	13.1144	477			508,493
17	360	Epupa	-18.0028	13.6776	468	2	0	510,270
18	297	Epupa	-17.3752	13.4563	463	1	0	511,433
19	354	Opuwo Rural	-18.7540	13.6719	457	1	0	512,778
20	507	Epupa	-17.6297	14.1328	451	2	0	514,092
21	393	Opuwo Urban	-18.1913	13.7896	449	1	0	514,501
22	470	Epupa	-17.5666	14.0200	444	0	0	515,525
23	425	Opuwo Rural	-18.6303	13.9003	440	1	1	516,484
24	460	Opuwo Rural	-18.8188	14.0130	438			516,800
25	571	Sesfontein	-19.5090	14.3519	433			517,932
26	500	Opuwo Rural	-18.5063	14.1285	431	1	0	518,302
27	1028	Khorixas	-20.4492	15.1534	408	1	0	523,232
28	328	Epupa	-17.6891	13.5668	408			523,265

#	Grid ID	Constituency	latitude	longitude	Without 4G			Total Subsidy Annually
					People	Schools	Clinics	
29	431	Epupa	-17.8789	13.9050	406	1	0	523,781
30	625	Sesfontein	-19.6973	14.4657	379			529,519
31	1276	Kamanjab	-20.2608	15.4979	379			529,646
32	1275	Kamanjab	-20.3860	15.4983	376			530,298
33	415	Sesfontein	-19.8822	13.8919	370			531,472
34	262	Epupa	-17.6874	13.3406	368	1	0	531,941
35	1110	Kamanjab	-20.2613	15.2681	357			534,334
36	400	Epupa	-17.3361	13.7819	354	1	1	534,861
37	1029	Kamanjab	-20.3239	15.1533	334			539,378
38	496	Sesfontein	-19.0072	14.1259	333			539,582
39	322	Opuwo Rural	-18.4401	13.5607	332			539,625
40	451	Sesfontein	-19.9456	14.0062	326			540,922
41	624	Sesfontein	-19.8224	14.4653	322			541,932
42	267	Epupa	-17.0612	13.3462	319			542,445
43	329	Epupa	-17.5638	13.5678	311	1	0	544,170
44	234	Epupa	-17.3733	13.2305	305			545,543
45	351	Sesfontein	-19.1298	13.6689	287	0	0	549,440
46	1280	Kamanjab	-19.7598	15.4964	277			551,604
47	167	Opuwo Rural	-18.7479	12.9891	276	1	0	551,773
48	952	Khorixas	-20.2615	15.0383	272	0	0	552,589
49	330	Epupa	-17.4384	13.5688	270			553,021
50	365	Epupa	-17.3768	13.6822	270			553,021
51	292	Epupa	-18.0012	13.4510	268			553,518
52	2079	Outjo	-19.5663	16.5253	267			553,734
53	574	Sesfontein	-19.1335	14.3534	265			554,201
54	1193	Kamanjab	-20.1984	15.3829	265			554,202
55	878	Khorixas	-20.1988	14.9234	255			556,245
56	2077	Outjo	-19.8167	16.5277	254			556,472
57	570	Sesfontein	-19.6342	14.3514	249	0	0	557,582
58	873	Khorixas	-20.8249	14.9231	248			557,810
59	569	Sesfontein	-19.7593	14.3509	246			558,279
60	1625	Outjo	-20.0084	15.9560	240			559,558
Total					23,704	23	4	31,565,211

Table 13: Extra RAN sites for Kunene - URLs

#	Grid ID	Constituency	URL
1	325	Opuwo Rural	https://dy58s6rtmt652.cloudfront.net/#g=325
2	178	Epupa	https://dy58s6rtmt652.cloudfront.net/#g=178
3	682	Kamanjab	https://dy58s6rtmt652.cloudfront.net/#g=682
4	399	Epupa	https://dy58s6rtmt652.cloudfront.net/#g=399
5	260	Epupa	https://dy58s6rtmt652.cloudfront.net/#g=260
6	420	Sesfontein	https://dy58s6rtmt652.cloudfront.net/#g=420
7	509	Epupa	https://dy58s6rtmt652.cloudfront.net/#g=509
8	259	Opuwo Rural	https://dy58s6rtmt652.cloudfront.net/#g=259
9	390	Opuwo Rural	https://dy58s6rtmt652.cloudfront.net/#g=390
10	423	Opuwo Rural	https://dy58s6rtmt652.cloudfront.net/#g=423
11	355	Opuwo Rural	https://dy58s6rtmt652.cloudfront.net/#g=355
12	541	Opuwo Urban	https://dy58s6rtmt652.cloudfront.net/#g=541
13	320	Opuwo Rural	https://dy58s6rtmt652.cloudfront.net/#g=320

#	Grid ID	Constituency	URL
14	957	Kamanjab	https://dy58s6rtmt652.cloudfront.net/#g=957
15	626	Sesfontein	https://dy58s6rtmt652.cloudfront.net/#g=626
16	202	Epupa	https://dy58s6rtmt652.cloudfront.net/#g=202
17	360	Epupa	https://dy58s6rtmt652.cloudfront.net/#g=360
18	297	Epupa	https://dy58s6rtmt652.cloudfront.net/#g=297
19	354	Opuwo Rural	https://dy58s6rtmt652.cloudfront.net/#g=354
20	507	Epupa	https://dy58s6rtmt652.cloudfront.net/#g=507
21	393	Opuwo Urban	https://dy58s6rtmt652.cloudfront.net/#g=393
22	470	Epupa	https://dy58s6rtmt652.cloudfront.net/#g=470
23	425	Opuwo Rural	https://dy58s6rtmt652.cloudfront.net/#g=425
24	460	Opuwo Rural	https://dy58s6rtmt652.cloudfront.net/#g=460
25	571	Sesfontein	https://dy58s6rtmt652.cloudfront.net/#g=571
26	500	Opuwo Rural	https://dy58s6rtmt652.cloudfront.net/#g=500
27	1028	Khorixas	https://dy58s6rtmt652.cloudfront.net/#g=1028
28	328	Epupa	https://dy58s6rtmt652.cloudfront.net/#g=328
29	431	Epupa	https://dy58s6rtmt652.cloudfront.net/#g=431
30	625	Sesfontein	https://dy58s6rtmt652.cloudfront.net/#g=625
31	1276	Kamanjab	https://dy58s6rtmt652.cloudfront.net/#g=1276
32	1275	Kamanjab	https://dy58s6rtmt652.cloudfront.net/#g=1275
33	415	Sesfontein	https://dy58s6rtmt652.cloudfront.net/#g=415
34	262	Epupa	https://dy58s6rtmt652.cloudfront.net/#g=262
35	1110	Kamanjab	https://dy58s6rtmt652.cloudfront.net/#g=1110
36	400	Epupa	https://dy58s6rtmt652.cloudfront.net/#g=400
37	1029	Kamanjab	https://dy58s6rtmt652.cloudfront.net/#g=1029
38	496	Sesfontein	https://dy58s6rtmt652.cloudfront.net/#g=496
39	322	Opuwo Rural	https://dy58s6rtmt652.cloudfront.net/#g=322
40	451	Sesfontein	https://dy58s6rtmt652.cloudfront.net/#g=451
41	624	Sesfontein	https://dy58s6rtmt652.cloudfront.net/#g=624
42	267	Epupa	https://dy58s6rtmt652.cloudfront.net/#g=267
43	329	Epupa	https://dy58s6rtmt652.cloudfront.net/#g=329
44	234	Epupa	https://dy58s6rtmt652.cloudfront.net/#g=234
45	351	Sesfontein	https://dy58s6rtmt652.cloudfront.net/#g=351
46	1280	Kamanjab	https://dy58s6rtmt652.cloudfront.net/#g=1280
47	167	Opuwo Rural	https://dy58s6rtmt652.cloudfront.net/#g=167
48	952	Khorixas	https://dy58s6rtmt652.cloudfront.net/#g=952
49	330	Epupa	https://dy58s6rtmt652.cloudfront.net/#g=330
50	365	Epupa	https://dy58s6rtmt652.cloudfront.net/#g=365
51	292	Epupa	https://dy58s6rtmt652.cloudfront.net/#g=292
52	2079	Outjo	https://dy58s6rtmt652.cloudfront.net/#g=2079
53	574	Sesfontein	https://dy58s6rtmt652.cloudfront.net/#g=574
54	1193	Kamanjab	https://dy58s6rtmt652.cloudfront.net/#g=1193
55	878	Khorixas	https://dy58s6rtmt652.cloudfront.net/#g=878
56	2077	Outjo	https://dy58s6rtmt652.cloudfront.net/#g=2077
57	570	Sesfontein	https://dy58s6rtmt652.cloudfront.net/#g=570
58	873	Khorixas	https://dy58s6rtmt652.cloudfront.net/#g=873
59	569	Sesfontein	https://dy58s6rtmt652.cloudfront.net/#g=569
60	1625	Outjo	https://dy58s6rtmt652.cloudfront.net/#g=1625
Total			

Table 14: Population coverage impact of extra RAN sites for Kunene and Omaheke

	Population	Current			After 40 RAN sites			
		4G Coverage	Policy Objective 80%	People reached phase 1	People reached extra	Coverage Increase	4G Population Coverage	Policy Objective 80%
Kunene	120,762	49%	Below	11,120	34,824	28.8%	78%	Below
Omaheke	102,881	64%	Below		16,430	16.0%	80%	Above

COMMUNICATIONS REGULATORY AUTHORITY OF NAMIBIA

No. 293

2024

NOTICE IN TERMS OF SECTION 53(7) OF THE COMMUNICATIONS ACT, 2009
READ WITH THE REGULATIONS REGARDING THE SUBMISSIONS OF
INTERCONNECTION AGREEMENTS AND TARIFFS

The Communications Regulatory Authority of Namibia, in terms of section 53(1) of the Communications Act, 2009 (Act No. 8 of 2009) read with regulation 8 of the “Regulations regarding the Submission of Interconnection Agreements and Tariffs”, in Government Gazette No. 4714, General Notice No. 126, dated 18 May 2011, herewith gives notice that it has approved: the Home and Business Air Fiber tariffs as set out below, submitted by **Rocketnet Internet Namibia**, which come into force and effect on **3 May 2024**, notwithstanding the date of publication of this notice in the Gazette;

Package Name	Speed in Mbps	Duration	Price to End User
Basic	30	12-month	N\$699.00
Premium	60	12-month	N\$899.00
Hyper	100	12-month	N\$1,299.00
Installation fee N\$ 1,500			

Please note that the full tariff submission and reasons for approval can be obtained from the Authority.

**E. NGHIKEMBUA
CHIEF EXECUTIVE OFFICER
COMMUNICATIONS REGULATORY AUTHORITY OF NAMIBIA**

COMMUNICATIONS REGULATORY AUTHORITY OF NAMIBIA

No. 294

2024

NOTICE IN TERMS OF REGULATION 19(1) OF THE REGULATIONS REGARDING
LICENSING PROCEDURES FOR TELECOMMUNICATIONS AND BROADCASTING
SERVICE LICENCES: COMMUNICATIONS ACT, 2009.

The Communications Regulatory Authority of Namibia, in terms of regulation 19(1) of the Regulations regarding Licensing Procedures for Telecommunications and Broadcasting Service Licences, published in Government Gazette No. 4785, as General Notice. 272, on 29 August 2011 (as amended), hereby gives notice of the following decisions:

1. Telecommunications Service Licences

- (a) The Authority resolved to award a Class (ECNS) Telecommunications Service Licence to **BANK OF NAMIBIA**.

- (b) The Authority resolved to amend the Class Network Facilities Telecommunications Service Licence to Class Comprehensive Telecommunications Service Licence (ECS and ECNS) awarded to **FIBER COMMUNICATIONS NAMIBIA (PTY) LTD.**
- (c) The Authority resolved to award a Class Comprehensive Telecommunications Service Licence (ECS & ECNS) to **VISTA FINANCIAL SERVICES CC.**

2. Spectrum Licences

- (a) The Authority resolved to award a Spectrum Licence in the KU band for the provision of Fixed Satellite services to **Africa Online (Pty) Ltd** as set out hereunder –

Licensee	Group of radio Frequencies applied for	Geographical coverage areas	Service to be provided
Africa Online (Pty) Ltd	Downlink 11293.500-11294.00 MHz Bandwidth = 0.5 MHz	National	FIXED SATELLITE
	Uplink 14399.400-14399.600 MHz Bandwidth = 0.2 MHz		
	Downlink 11724.640-11727.240 MHz Bandwidth = 2.6 MHz		
	Uplink 14017.650-14018.350 MHz Bandwidth = 0.7 MHz		
	Downlink 11861.040-11861.640 MHz Bandwidth = 0.6 MHz		
	Uplink 14120.400-14120.600 MHz Bandwidth = 0.2 MHz		
Africa Online (Pty) Ltd	Downlink 12616.900-12618.900 MHz Bandwidth = 2 MHz	National	FIXED SATELLITE
	Uplink 14487.750-14488.250 MHz Bandwidth = 0.5 MHz		

- (b) The Authority resolved to award a Spectrum Licence in the KA band for the provision of Fixed Satellite services to **Africa Online (Pty) Ltd** as set out hereunder –

Licensee	Group of radio Frequencies applied for	Geographical coverage areas	Service to be provided
Africa Online (Pty) Ltd	Downlink 19772.2 – 19772.8 MHz BW=0.6 MHz	National	FIXED SATELLITE
	Uplink 28072.4 – 28072.6 MHz BW=0.2 MHz		
	Downlink 19993.85-19994.65 MHz BW=0.8 MHz		
	Uplink 28072.35-28072.65 MHz BW=0.3 MHz		

(c) The Authority resolved to award a Spectrum Licence for the provision of broadcasting services to **Gospel Mission Ministries** as set out hereunder –

Radio frequency being considered for assignment by the Authority;	Maximum output power	Geographic coverage areas	Services to be provided
98.6 MHz	100 W	Windhoek, Khomas Region	BROADCASTING
88.1 MHz	500 W	Mariental, Hardap Region	BROADCASTING
87.7 MHz	100 W	Swakopmund, Erongo Region	BROADCASTING
88.2 MHz	100 W	Otjiwarongo, Otjozondjupa Region	BROADCASTING
88.2 MHz	250 W	Groot Aub, Khomas Region	BROADCASTING

(d) The Authority resolved to amend the spectrum licences in the 2600 MHz band awarded to **Paratus Telecommunication (Pty) Ltd** as set out hereunder –

Licensee Name	Percentage of Stock owned by Namibian Citizens or Namibian Companies controlled by Namibian Citizens	Grounds for amendment	Description of geographic coverage area(s)	Current frequencies Assigned;	New frequencies to be assigned after a amendment;	Service to be provided
Paratus Telecommunications (Pty) Ltd	100%	To obtain a contiguous block for orderly spectrum management and to ensure efficient utilization of spectrum	National	2505-2525 MHz (TDD) 2625-2645 MHz (TDD)	2650-2690 MHz (TDD)	MOBILE (IMT)

(e) The Authority resolved to amend the Spectrum Licences in the 2600 MHz band awarded to **Telecom Namibia Limited** as set out hereunder –

Licensee Name	Percentage of Stock owned by Namibian Citizens or Namibian Companies controlled by Namibian Citizens	Grounds for Amendment	Description of geographic coverage area(s)	Current Frequencies Assigned	New Frequencies to be assigned after amendment	Service to be provided
Telecom Namibia Limited	100%	To obtain a contiguous block for orderly spectrum management and to ensure efficient utilisation of spectrum	National	2540-2592 MHz (TDD) 2656-2690 MHz (TDD)	2500-2592 MHz (TDD)	MOBILE (IMT)

- (f) The Authority resolved to cancel the Spectrum Licence awarded to **Telecom Namibia Limited** as set out hereunder –

Radio Frequencies	Services	Date assigned
2348 – 2386 MHz	FIXED (TDD)	13 September 2012

- (g) The Authority resolved to award a Temporary Spectrum Licence for the provision of Mobile Satellite services to **Paratus Telecommunications (Pty) Ltd** as set out hereunder –

Licensee	Group of radio Frequencies applied for	Geographical coverage areas	Service to be provided
Paratus Telecommunications (Pty) Ltd	14.0625–14.1875 GHz (BW=125 MHz) Uplink	National National (Republic of Namibia or any part thereof)	MOBILE SATELLITE (Temporary testing of Eutelsat-One Web Non-Geostationary Satellite network for a period of 5 months)
	11.075 – 11.325 GHz (BW=250 MHz) Downlink		

- (h) The Authority resolved to award a Spectrum Licence for the provision of broadcasting services to **SHIPI FM** as set out hereunder –

Radio frequency being considered for assignment by the Authority;	Maximum output power	Geographic coverage areas	Services to be provided
96.2 MHz	100 W	Katima Mulilo, Zambezi Region	BROADCASTING
88.0 MHz	250 W	Karibib, Erongo Region	BROADCASTING
87.7 MHz	250 W	Luderitz, Karas Region	BROADCASTING
91.8 MHz	100 W	Oranjemund, Karas Region	BROADCASTING
93.5 MHz	100 W	Nkurenkuru, Kavango West Region	BROADCASTING
91.8 MHz	250 W	Gobabis, Omaheke Region	BROADCASTING

Save for the Authority's decision to amend all the Spectrum Licences in the 2600 MHz band awarded to **Telecom Namibia Limited** which is effective from 31 July 2024, all the other decisions are effective from the date of publication of this Notice.

The full reasons for the decisions can be requested from the Authority. In terms of section 31 of the Communications Act, 2009 (Act No.8 of 2009), the Authority may, on its own motion or on a petition filed by an aggrieved party to any proceedings, reconsider any order or decision that it has made, within 90 days of this notice.

DR. T. MUFETI
CHAIRPERSON OF THE BOARD OF DIRECTORS
COMMUNICATIONS REGULATORY AUTHORITY OF NAMIBIA

COMMUNICATIONS REGULATORY AUTHORITY OF NAMIBIA

No. 295

2024

**NOTICE IN TERMS OF THE REGULATIONS REGARDING LICENSING
 PROCEDURES FOR TELECOMMUNICATIONS AND BROADCASTING SERVICE
 LICENCES**

The Communications Regulatory Authority of Namibia, in terms of regulations 11 of the Regulations regarding Licensing Procedures for Telecommunications and Broadcasting Service Licence, published as General Notice No. 272, in Government Gazette No. 4785, on 29 August 2011 (as amended), hereby gives notice that the Applicant referred to in the table below has submitted the following application:

Application for a Telecommunications Service Licence

Applicant;	Applicant's place of incorporation;	Percentage of Stock owned or controlled by Namibian;	Category of Licence applied for;	Concise statement on Services intended to be provided;	Description of geographic coverage area(s);	Proof of Licence Application Fees Paid Up to Date Submitted?
Oryx Fibre Infrastructure Pty Ltd	Namibia	88%	Class Comprehensive telecommunications service licence (ECS & ECNS)	To create an infrastructure asset enabling large business owners and service providers to make use of high-speed bulk fibre backhaul services.	Namibia	Yes

The public may submit comments in writing to the Authority within a period of fourteen (14) days from the date of publication of this notice in the *Gazette*.

The applicant may submit written reply comments within fourteen (14) days from the due date of the written public comments.

All written submissions must contain the name and contact details of the person making the written submissions and the name and contact details of the person for whom the written submission is made, if different and be clear and concise.

All written submissions and reply comments must be made either physically or electronically –

- (1) by hand to the head offices of the Authority, namely Communication House, 56 Robert Mugabe Avenue, Windhoek;

- (2) by post to the head offices of the Authority, namely Private Bag 13309, Windhoek 9000; and
- (3) by electronic mail to the following address: legal@cran.na.

**E. NGHIKEMBUA
CHIEF EXECUTIVE OFFICER
COMMUNICATIONS REGULATORY AUTHORITY OF NAMIBIA**

COMMUNICATIONS REGULATORY AUTHORITY OF NAMIBIA

No. 296

2024

**NOTICE OF APPLICATION FOR RECONSIDERATION IN TERMS OF SECTION 31
OF THE COMMUNICATIONS ACT, 2009 AND REGULATIONS 36(2) OF THE
REGULATIONS PRESCRIBING PROCEDURES REGARDING APPLICATION FOR,
AND AMENDMENT, RENEWAL OR TRANSFER OF SPECTRUM LICENSES**

The Communications Regulatory Authority of Namibia, in terms of section 31 of the Communications Act, 2009 (Act No. 8 of 2009) read with regulations 36(2) of the “Regulations Prescribing Procedures Regarding Application for, and Amendment, Renewal or Transfer of Spectrum Licenses, published as General Notice No. 104, in Government Gazette No. 6888 dated 29 April 2019, herewith gives notice that **UCOM Mobile Namibia (Pty) Ltd** has submitted an application for reconsideration, in respect of a decision by the Authority to cancel all spectrum licences awarded as per a decision published in Government Gazette No. 8291, General Notice No. 8 dated 18 January 2024.

The reasons and grounds for the application for reconsideration are contained in the application that can be inspected at the offices of the Authority.

The public may submit comments in writing to the Authority within a period of fourteen (14) days from the date of publication of this notice in the *Gazette*.

The applicant may submit written reply comments within fourteen (14) days from the due date of the written public comments.

All written submissions must contain the name and contact details of the person making the written submissions and the name and contact details of the person for whom the written submission is made, if different and be clear and concise.

All written submissions and reply comments must be made either physically or electronically –

- (1) by hand to the head offices of the Authority, namely Communication House, 56 Robert Mugabe Avenue, Windhoek;
- (2) by post to the head offices of the Authority, namely Private Bag 13309, Windhoek 9000; and
- (3) by electronic mail to the following address: legal@cran.na.

**E. NGHIKEMBUA
CHIEF EXECUTIVE OFFICER
COMMUNICATIONS REGULATORY AUTHORITY OF NAMIBIA**

COMMUNICATIONS REGULATORY AUTHORITY OF NAMIBIA

No. 297

2024

NOTICE OF APPLICATION FOR RECONSIDERATION IN TERMS OF SECTION 31 OF THE COMMUNICATIONS ACT, 2009 AND REGULATIONS 36(2) OF THE REGULATIONS PRESCRIBING PROCEDURES REGARDING APPLICATION FOR, AND AMENDMENT, RENEWAL OR TRANSFER OF SPECTRUM LICENSES

The Communications Regulatory Authority of Namibia, in terms of section 31 of the Communications Act, 2009 (Act No. 8 of 2009) read with regulations 36(2) of the “Regulations Prescribing Procedures Regarding Application for, and Amendment, Renewal or Transfer of Spectrum Licenses, published as General Notice No. 104, in Government Gazette No. 6888 dated 29 April 2019, herewith gives notice that **TELECOM NAMIBIA LTD** has submitted an application for reconsideration, in respect of a decision by the Authority to cancel the spectrum licence (2348-2386 MHz) published as General Notice No. 294, in Government Gazette No. 8384 dated 21 June 2024.

The reasons and grounds for the application for reconsideration are contained in the application that can be inspected at the offices of the Authority.

The public may submit comments in writing to the Authority within a period of fourteen (14) days from the date of publication of this notice in the *Gazette*.

The applicant may submit written reply comments within fourteen (14) days from the due date of the written public comments.

All written submissions must contain the name and contact details of the person making the written submissions and the name and contact details of the person for whom the written submission is made, if different and be clear and concise.

All written submissions and reply comments must be made either physically or electronically –

- (1) by hand to the head offices of the Authority, namely Communication House, 56 Robert Mugabe Avenue, Windhoek;
- (2) by post to the head offices of the Authority, namely Private Bag 13309, Windhoek 9000; and
- (3) by electronic mail to the following address: legal@cran.na.

E. NGHIKEMBUA
CHIEF EXECUTIVE OFFICER
COMMUNICATIONS REGULATORY AUTHORITY OF NAMIBIA
