Submission in response to the Information Memorandum on the High-Demand Spectrum Licensing Process

Dr David Harrison
Chief Executive Officer
DG Murray Trust

Contents

EXECUTIVE SUMMARY

This submission is in response to the invitation to stakeholders and prospective licensees to make recommendations and proposals on the type, scope, nature, criteria etc. of social obligations in respect of this licensing process. Specifically, it responds to the objectives of:

- Promoting the empowerment of historically disadvantaged groups ("HDGs"), in particular women, youth and persons with disabilities (3.1.1);
- Increasing universal service and universal access through prioritising rural connectivity and inclusivity (3.1.2); and
- Reducing the cost to communicate, specifically data cost (3.1.8).

It notes the Memorandum's statement that the focus of SA Connect and the Integrated ICT White Paper of 2016 remains 'universal provision of broadband services including in particular ensuring connectivity for public services i.e. education, health and government services (1.6). There is a general need to reduce the high cost of data in South Africa to enable participation in the socio-economy. However, there is also a specific imperative to ensure that information for socio-economic development – for health promotion, early learning and education, job-preparation and financial literacy – is made available to all who need it.

Historically, universal service obligations have focused on expanding fixed data networks to provide access at schools and other public nodes. The implementation of these supply-side obligations has proved inefficient, with rapid depreciation of hardware, theft-related loss and the challenge of software management. This facility-based approach to achieving universal access is not suitable for the 7.6 million South Africans aged 15-34 years of age who are not in employment, education or training; and poorer women, people with disabilities and rural people who are not in regular or easy contact with public services. Expansion of mobile broadband creates the opportunity to expand both access and services to these groups, through content accessible on their cellphones in their own homes.

Public benefit organisations (PBO's) in South Africa (registered in terms of the Income Tax Act) are major providers of content for socio-economic development.

We submit that, as one of the conditions of new spectrum licences, all mobile content provided by registered PBO's should be zero-rated (i.e. provided at no cost to the user), with the operational costs borne by the network operators who are successful bidders.

This demand-side solution should significantly increase the efficiency of universal service obligations and ensure access to critical information for socio-economic development for those who would not be able to afford data even at significantly reduced market rates.

This condition should apply to the full spectrum employed by network operators, and not only that provided through the additional spectrum. Costs can be capped at an appropriate level and systems

put in place to prevent abuse and to monitor use. Mechanisms for zero-rating and reverse billing already exist and are used by all network operators, enabling rapid and effective implementation, compared to existing universal service obligations.

Zero-rating of PBO's is part of the National Youth Policy and included in the final recommendations of the Competition Commission in its report of the Data Services Market Inquiry. This recommendation requires the network operators to reach agreement on a consistent industry-wide approach, which is then to be given regulatory status through the ICASA End-User and Subscriber Service Charter within six months of the report. Our view is that inclusion as a condition of new spectrum licences would give meaningful effect to this recommendation, and optimise its potential impact.

SECTION 1   THE CASE FOR ZERO-RATING MOBILE PLATFORMS OF PUBLIC BENEFIT ORGANISATIONS

Introducing the DG Murray Trust

The DG Murray Trust (DGMT) is a public innovator committed to developing South Africa's potential through strategic investment. Its aim is a flourishing people, economy and society (www.dgmt.co.za). Its three main goals are to help ensure that: i) All children are on Track by Grade 4; ii) All Young People get their first Decent Job and iii), Together we build an Inclusive and Innovative Society. Among others, DGMT supports projects promoting early childhood development, prevention of nutritional stunting, reading and learning, navigation into the world of work and youth leadership.

Through our work, we have become aware of the potential of mobile technology to transcend structural divides, and to enhance access to services that could accelerate socio-economic development. However, we have also seen the extent to which the high cost of mobile communication stifles these opportunities. In particular, we are concerned that mobile applications and value-added services that could link particularly marginalised groups (children and young people, women and people with disabilities, and those in rural areas) to valuable developmental and support resources are not able to be used effectively, because they cannot pay for the mobile connection costs. The net effect is exclusionary and a missed opportunity to use ICT to drive socio-economic development.

We welcome the opportunity to respond to the information memorandum on the high-demand spectrum licensing process, specifically the request for proposals of social obligations to be imposed on licensees. DGMT has advocated for the zero-rating of PBO's digital content by mobile network operators through a number of platforms, including a recent submission to the Data Services Market Enquiry by the Competition Commission. In addition, we have piloted a project to demonstrate the viability of our proposal. We believe the new high-demand spectrum licensing process presents an important opportunity to narrow the digital divide - and that embedding zero-rating of social, health and economic mobile content is a critical step.

Weaknesses in implementation of current universal service obligations

Historically, universal service obligations have focused on expanding fixed data networks to provide access at schools and other public nodes. Network operators have been required to provide connectivity, hardware and software to a targeted number of schools. Given the difficulty of sustaining hardware and software in public facilities, and with few exceptions, we contend that this has resulted in massively inefficient expenditure. Unfortunately, the full costs and benefits of the implementation of universal service and socio-economic development obligations on network operators have not been made public. Thus, we stand to be corrected, but there appears to be little to show for the substantial investments made by network operators in this regard.

The implementation of these obligations have also not reached the most marginalized groups who are not in easy or regular contact with public services. These include the over 30% of 15-24 year olds and 46% of 25-34 year olds who are not in employment, education or training.[1]

The best way to communicate with these young people and other marginalized groups is through cellphone technology in their own hands and generally in their own homes. Mobile phone penetration in South Africa is high: a recent Pew Study shows 51% own smartphones, 49% a basic phone and only 1% report not owning a phone at all[2]. Additionally, the latest ICASA State of ICT Sector Report demonstrates that data usage has been steadily increasing over the past 5 years. However, 47% of South Africans over 15 years of age still don't use the internet and report unaffordability of devices and data services as the main barrier[3].

In its Broadband Policy published in 2013,[4] Government states: "In line with the broader vision of the NDP, the 2020 vision for broadband is that by 2020, 100% of South Africans will have access to broadband services at 2.5% or less of the population's monthly income." However, the half of South Africans categorised as poor (falling below the upper food poverty line) would currently have to spend a minimum of 5% of their monthly expenditure to buy a modest 1GB of mobile data. Those people who have failed to complete school would spend 10% (based on expenditure analysis by level of education) for 1 GB.[5] Income differentials are so severe in South Africa that even a substantial across-the-board reduction in data costs would be insufficient to facilitate universal access – with the poorest and most marginalized still at the bottom of the pile. While data costs should be reduced overall, it must be supported by a targeted strategy to enable access for the poorest 40% - and specifically to facilitate access for health, education and social development.

The high-demand spectrum licensing process offers an important opportunity to bridge this divide between network access and affordability. For too long, obligations have focused on supply-side infrastructural needs and failed to address the demand-side needs of consumers which would enable them to fully utilise the services and benefits of mobile technology. The fundamental question that should be considered in forming the social obligations in the new process is: *How can the specific advantages of mobile technology be used most effectively in expanding access to digital technology for national development?*

Zero-rating of mobile data costs for services provided by PBO's is one solution.

---

[1] Dept of Higher Education (2017). Factsheet on 'NEETS', Persons who are not in employment, education or training. http://www.dhet.gov.za/Planning%20Monitoring%20and%20Evaluation%20Coordination/Fact-sheet-on-NEETs-Final-Version-27-Jan-2017.pdf
[2] Pew Research Center, October, 2018, "Internet Connectivity Seen as Having Positive Impact on Life in Sub-Saharan Africa"
[3] Research ICT Africa 2018 Policy Brief 1: Africa Mobile Pricing
[4] Dept of Communications. South Africa Connect: Creating Opportunities, Ensuring Inclusion. South Africa's Broadband Policy, 20 November 2013, p15
[5] Statistics South Africa (2019). Inequality Trends in South Africa: A multidimensional diagnostic of inequality. Report No. 03-10-19

Proposal

Require successful licensees to zero-rate the data costs of mobile content provided by public benefit-organisations

We submit that the mobile content provided by registered PBO's should be zero-rated (i.e. provided at no cost to the user), with the costs borne by the network operators as an obligation forming part of the conditions of new spectrum licences. While this obligation would be imposed as part of the new spectrum licensing conditions, it should be applied to the full spectrum by mobile operators.

The network operators' monthly costs could be capped to prevent the risk of open-ended exposure to growing demand. This cap should be determined by ICASA taking into consideration current universal service obligations. We understand that the current obligatory contribution to the Universal Service and Access Fund is set at 0.4% of annual turnover, well within the 1% maximum prescribed by the Section 89 (2) of the Electronic Communications Act of 2005. We therefore submit that a reasonable cap for costs specifically associated with zero-rating of digital content of PBO's would be 0.5% of annual turnover.

This proposal would be enhanced by the establishment of a small registry for vetting, registering and monitoring the content provided by PBO's and reporting to ICASA on a monthly basis on the utilization and rand value of the zero-rated services. The form of such a registry is outlined below.

In the medium term, such a registry should be part of the mandate of the Universal Service and Access Agency of South Africa (USSAASA), funded through the Digital Fund (Universal Service Access Fund). We are aware that both USAASA and the Universal Service and Access Fund are in a process of restructuring, and DGMT would be willing to set up, pilot and fund the initial costs of such a registry (which we estimate should not cost more than about R8-R10 million per annum, depending on the level of monitoring required).

Notwithstanding the potential benefits of creating such a registry, it should be noted that the proposal for zero-rating of PBOs is not contingent on a registry – and network operators may opt to report directly to ICASA in meeting this specific condition of licence.

Alignment with the NDP, ICT White Paper, SA Connect, Competition Commission recommendations and National Youth Policy

Our proposal is aligned with the overall intention articulated in the National Development Plan and the policy recommendations of the ICT commissions, has been endorsed by the Competition Commission and supports the specific proposals of the National Youth Policy.

The **National Development Plan** stipulates that "by 2030, ICT will underpin the development of a dynamic and connected information society and a vibrant knowledge economy that is more inclusive and prosperous."[6]

---

[6] The National Planning Commission, National Development Plan: 2030, Pg. 190

The **National Integrated ICT Policy White Paper** states that, "everyone in South Africa, regardless of who they are, where they live or their socio-economic status can improve the quality of their lives through accessing the benefits of participating in the digital society."[7].   A significant opportunity exists to improve usage of ICT content and applications for existing and bona-fide social services delivered via mobile internet data services at no cost to end users. The ICT Policy Paper outlines several challenges faced with previous policies and efforts to create an inclusive information society;

- There is uneven access across society to the skills and capacity to meaningfully engage with ICTs and take advantage of all the opportunities offered.

- The content and service available on the Internet is predominantly in English and produced outside South Africa[8].

Our proposal seeks to address these challenges by making social, health and economic development content more widely accessible and encouraging the development of local, culturally relevant content from local providers.

SA Connect, the national broadband strategy, notes that "new innovative ways….to fund not only infrastructure rollout, but also critical content development and the provision of public services online" are necessary if its targets for broadband access for all by 2020 are to be realised.[9]
Currently, social innovation through mobile technology is stifled by the high costs of data. Developers and service providers are reluctant to invest in mobile solutions because they recognize end-users won't be able to access the services at current prices. Should zero-rating of PBO- related content be mandated, we anticipate many more solutions and services would be brought to market and more users would stand to benefit as the demand-side is stimulated.

This will further the objectives of South Africa Connect and the national ICT Policy, the latter of which states that "(i)n line with South Africa Connect, any mechanisms or systems put in place to provide support for universal service and access will also address the 'people side' (i.e. demand side) and will thus promote access to and the use of ICTs by all potential end users. The priorities in this regard will be support for persons with disabilities, public institutions fulfilling specific public needs, the poor and digital literacy programmes".[10]

The **National Youth Policy 2020** states that "(t)he Independent Communication Authority of South Africa should be lobbied to issue regulations that make specific public-benefit apps, websites and services that are accessible on mobile phones zero-rated by networks. Network operators could recoup these costs through their ICT code (social development) or obligations to the Universal Services and Access Fund)."[11]

---

[7] National Integrated ICT Policy White Paper, September 2016, Pg. 1
[8] National Integrated ICT Policy White Paper, 2016, Pg. 116
[9] DTPS, "South Africa Connect: Creating Opportunities, Ensuring Inclusion, South Africa's Broadband Policy",
20 November 2013, page 22
[10] National Integrated ICT Policy White Paper, 2016, Pg. 32
[11] The Presidency, Republic of South Africa (2015). National Youth Policy 2015-2020, pg 17 Section 17.1

The final report of the **Data Services Market Inquiry** released by the Competition Commission on 2 December 2019 recommended that "[a]ll mobile operators must reach agreement with the Commission within three months on a consistent industry-wide approach to the zero- rating of content from public benefit organisations and educational institutions to ensure broad application. This agreement should then be given formal regulatory status through the ICASA End-User and Subscriber Service Charter within six months of the report. The starting point for such a list of zero-rated sites should be the existing collective list of zero-rated content in this category from all operators, but that process should seek to establish clear principles and criteria to be applied as well as an application process for those Public Benefit Organisations (PBOs) and educational institutions that seek zero-rating. These criteria should expressly include greater zero-rated access to content in African languages."[12]

Section 488.3 of the preliminary report of Data Services Market Inquiry had noted that "(a)ll MNOs agreed with this idea [of zero-rating of PBO content] and they indicated that they are already actively involved in the zero-rating of some applications and some content such as content provided by academic institutions". (This statement was not included in the final report, publicly released in summary form).

While the final report recommends agreement on a consistent industry-wide approach (which would then be given regulatory status), the spectrum auction provides the opportunity to embed this approach in the conditions of licence – as a clear and unequivocal requirement which cannot be diluted over time. Our experience over the past seven years in trying to obtain voluntary co-operation from the network operators is that the extent of their commitment and willingness to expand service access is closely linked to the scope of their regulatory obligations.

The following sections describes the proposal in greater detail, providing examples of existing digital platforms that could rapidly expand access to information for health, education and social development and discusses risks and other factors that should be considered.

SECTION 2: IMPLEMENTING ZERO-RATING OF PBO's AS A LICENCE CONDITION

Restriction to public benefit organisations

Over the past ten years, public benefit organisations (PBO's) have taken the lead in the development of digital platforms for socio-economic development. PBO's are registered in terms of Section 30(3) of the Income Tax Act no. 58 of 1962. The Act requires that the PBO conducts its activities in a non-profit manner and with an altruistic or philanthropic intent. The specific activities which constitute public benefit activities are defined in Part 1 of the Ninth Schedule of the Income Tax Act. The main categories include, among others: welfare and humanitarian; health promotion and care; education and

---

[12] Competition Commission of South Africa (2019). Data Services Market Inquiry Final Report: Summary of Findings and Recommendations. Section 48.5, p20

development. Registration as a PBO is more stringent than registration as a non-profit organisation in terms of the Non-Profit Organisations Act 71 of 1997, and for that reason, it would be appropriate to limit the obligation to PBO's.

We submit that it would be logical to extend to this condition to health, education and social development information services of government. However, we are not in a position to understand or address the factors that would be taken into consideration in this regard, and thus we restrict our submission to the digital services of PBO's.

Viability and risks

The technology for zero-rating for users already exists in network operators, both in supporting specific non-profit projects and in commercial partnerships. Currently, there are disparate and fragmented offerings on different networks. This makes access to zero-rating for PBO's, intermittent and difficult. MTN and Cell C currently offer Free Basics, a limited basket of social media, health, education and career services free to Cell C and MTN users. Vodacom offers access to a range of educational and social benefit services to subscribers of their Siyakha platform. The selection processes for sites to be included on these platforms aren't transparent nor easy for public benefit organisations to navigate. However, the existence demonstrates the viability of zero-rating and that mobile network operators understand the value zero-rating of certain content can provide to end-users.

If zero-rated services are to be optimally used for socio-economic development, users seeking information for health, education, social development and access to opportunity should be able to move freely from one website to another. Our proposal is aimed at ensuring that network operators that successfully bid for new broadband spectrum offer zero-rating of digital content of public benefit organisations in order to standardize this process and make available a wider offering of education, health and economic development resources to a broader base of South Africans.

The main risk of this proposal is the possibility of 'tunneling' or 'hacking' in which free-riders might attempt to bypass billing systems for websites other than those offered by public benefit organisations. However, this risk is already addressed by the network operators, either by their own security systems or by outsourcing responsibility for reverse billing to a third party (such as biNu.com) While security monitoring is a continuing requirement, the level of security is such that even banks offer zero-rated banking platforms.

A smaller risk is potential misuse by PBO's, where the possibility exists of featuring content which would not qualify as a public benefit activity. However, this risk would be easy to monitor and would result in contravention of the conditions of registration of PBO.

Registration and monitoring

Ideally, there should be an independent central process of vetting, registration, monitoring and reporting to the Universal Service and Access Agency and to ICASA.

This could be quite easily achieved through a small registry to which public benefit organisations would apply (Figure 1 below). Their content would be vetted to ensure that it complies with Schedule 9 of the Income Tax Act (list of public benefit activities) and meet the technological requirements for zero-rating and reverse billing.

A company which manages reverse billing on behalf of the network operators would be contracted to provide this function and provide the analytics on use and geographical spread of access.

It is reiterated that the implementation of this proposal does not depend on the establishment of a registry, and licensees may be granted the right to opt out and report directly to the relevant authorities. However, this arrangement would make processes of vetting and reporting more difficult and less transparent. It would also give practical effect to the recommendation of the Competition Commission requiring a "consistent industry-wide approach to the zero-rating of content from public benefit organisations and educational institutions to ensure broad application".

Figure 1. Proposed structure of zero-rated mobile services for PBOs
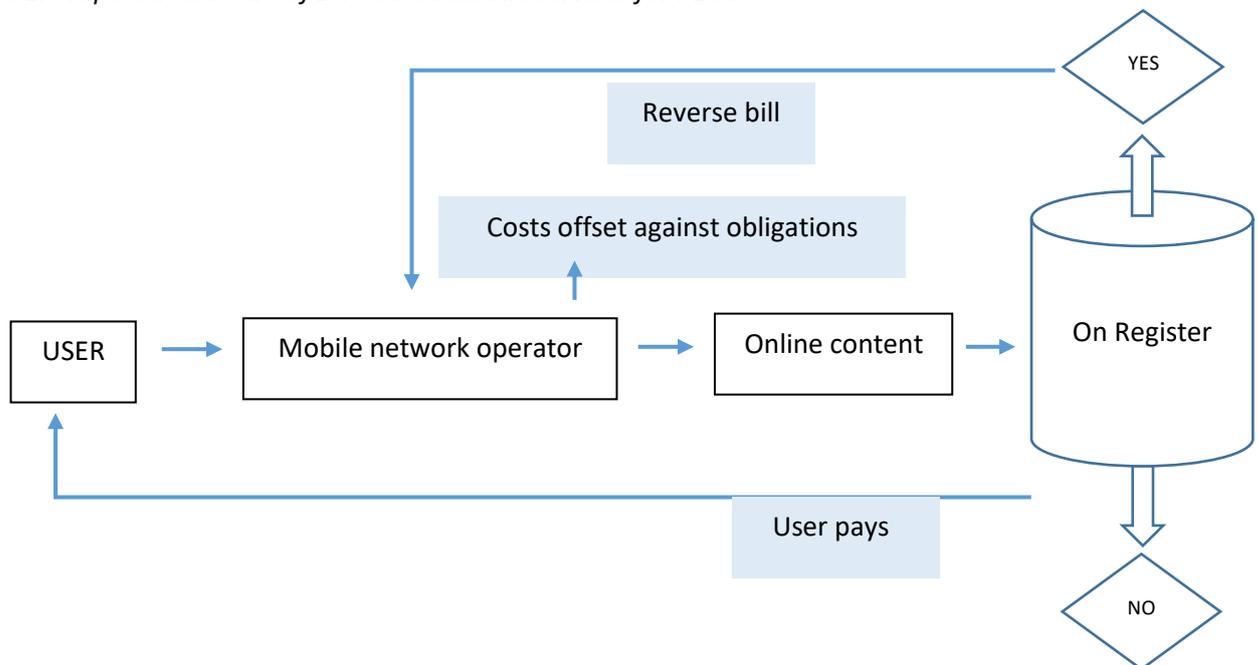
DGMT has already invested in demonstrating the processes and systems required to make this work, as well as the potential impact it could have. In partnership with the DGMT, the new network operator RAIN has already started to implement zero-rated services for PBOs. Our pilot project with RAIN has enrolled seven PBOs in its first year onto a proto-registry for zero-rating on RAIN's network. The PBOs represented offer services ranging from literacy development to connecting young people to jobs. Through this partnership we have found that it is possible to achieve zero-rating of specific services of the PBO, while alerting the user to paid-for data when they leave the zero-rated site.

Examples of digital platforms for health, education and social development

The DG Murray Trust and its funding and implementing partners have together designed and tested a number of mobile platforms for development. These applications could be more widely used, and more effective and beneficial if zero-rating were standardized and mandated across mobile network operators. These mobile platforms include:

- **Nal'ibali** – a national reading-for-joy campaign (including mobisite) that provides access to reading material in six of South Africa's official languages (Afrikaans, English, isiXhosa, isiZulu, Sepedi, Sesotho) and is targeted specifically at children; where literacy begins. The Nal'ibali MobiSite enables users to have personalised access to reading materials. Nal'ibali aims to inspire everyone to get involved in telling and reading stories everywhere – at home or at a reading club, on the bus or the train, at clinics or at school. Average utilization of 13,500 new users per month. http://nalibali.mobi
- **CareUp** – resources for practitioners and young parents on early learning and parenting for 4-5 year olds) http://careup.mobi
- **FunDza** – a mobile platform for teenage readers who download chapter-by-chapter and can publish their own stories. Current readership about 60,000 per month. https://live.fundza.mobi/
- **SmartStart** – an early learning social franchise of over 3,500 practitioners and 35,000 children who need continuing training and support (www.smartstart.org.za)
- **JobStarter** – a mobile platform for work-seekers (combining information, on-line training and work links). It currently has about 40,000 users a month. (http://jobstarter.co.za)
- **Activate! leadership** – a network of over 4,500 young innovators across South Africa who require mentorship and the benefits of networking. (www.activateleadership.co.za).

These are just some examples of the range of resources for which there should be universal access, and where such access would be of disproportionate benefit to historically disadvantaged groups and people living in rural areas, who have little access to alternative resources.

The importance of a standardized system of zero-rating is illustrated by the following two examples:
- FunDza's latest user survey (December 2018) found that 78% of respondents spend R50 or less on data each month. Given competing data needs, it has concluded that without free data it would have no active readership at all. It has spent the past three years trying to cobble together affordable working arrangements with each network operator. Its mobile platform is one of several which Rain has zero-rated. It also has a portal on FreeBasics platform, which is organised by Facebook (and available free on Cell C and MTN). The Moya Messenger platform allows it to be zero-rated to the user, but to incur the charge through reverse billing.
- JobStarter attracts 45,000 users a month, mainly from young people not in education, employment or training. Of these, 13,000 access the website directly (and incur the data charge), whereas the more than twice as many access it via Moya Messenger.

International examples of zero-rating

While there is no international standard or best practice established on zero-rating, there are many examples where it is being used to promote access to social development applications and content. A recent report by the Organisation for Economic Co-operation and Development (OECD) evaluated the economic effects of zero-rating and found that "different approaches which regulators and policy makers around the world are taking to zero-rating exhibits substantial variation"[13]. However, zero-rating has been used in multiple countries in various ways to increase user access to specific services.

Many countries allow access to services such as free mobile Wikipedia and Internet.org.[14]
In New Zealand in 2016, the government entered into an agreement with the three mobile network operators to zero-rate the content of the Social Development Ministry enabling users to access their entitlements and declare wages at no cost. Another example where zero-rating has been used to grant access to an important social service is in the United Kingdom where the website of *Childline*, a counselling service for children and young people, is zero-rated on one mobile network so that subscribers can utilise their online counselling chat service free of cost.

By zero-rating the mobile services of all PBO's, South Africa would be a world leader in strategies of universal service and access.

The question of net neutrality

The national ICT Policy White Paper notes that, as a way of promoting affordable access to key public services and information, "government, however, wants to extend this investigation by the regulator [into zero-rating] to consider the viability of zero-rating data fees to access clearly defined public interest digital applications, content and services, including emergency services"[15].

A few countries (notably India) have banned the use of zero-rating, arguing that it violates net neutrality (practices that create unequal access to the Internet). In these cases, the intention has been to prevent uncompetitive **commercial** practices. Additionally, the introduction of new operators has dramatically driven down the costs of data in India making it among the cheapest in the world at $0.26 per 1GB compared to $7.19 per 1GB in South Africa[16]. Given to the relative affordability of mobile data in India, zero-rating initiatives are far less compelling. Other countries (such as the Netherlands and Slovenia) have introduced selective bans to prevent anti-competitive practices In Chile, an initial ban on zero-rating was subsequently clarified to exempt non-profit entities.[17]

---

[13] The Effects of Zero Rating, OECD Digital Economies Papers, July 2019, Pg. 30
[14] See a list of countries allowing free Wikipedia and Internet.org https://en.wikipedia.org/wiki/Zero-rating
[15] National Integrated ICT Policy White Paper, 2016, Pg. 114
[16] See list of mobile data pricing of 230 countires: https://www.cable.co.uk/mobiles/worldwide-data-pricing/
[17] BEREC (2016), 'Guidelines on the Implementation by National Regulators of European Net Neutrality Rules', BoR (16) 94, June, http://berec.europa.eu/
eng/document_register/subject_matter/berec/public_consultations/6075-draft-berec-guidelines-on-implementation-by-national-regulators-european-netneutrality-rules.

Our view is that this proposal does not violate net neutrality, in that the mobile services will be available to any person who chooses to access them. The very intent of this proposal is to level the playing fields and ensure that those people who are currently excluded by price, have equal access to crucial resources for health, education and social development.

Thank you for the opportunity to make this submission.

Dr David Harrison
DG Murray Trust
021 670 9840
www.dgmt.co.za