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BROADBAND INFRACO - SUBMISSION TO THE INFORMATION MEMORANDUM ON RADIO FREQUENCY SPECTRUM PROSPECTIVE LICENCE TO PROVIDE MOBILE BROADBAND WIRELESS ACCESS SERVICES FOR URBAN AND RURAL AREAS USING THE COMPLIMENTARY BANDS 700 MHz, 800 MHz AND 2.6 GHz

Dear Mr Dikgale,

Broadband Infraco SOC Limited ("Broadband Infraco") would like to thank the Authority for providing it with the opportunity to make this written submission regarding the Information Memorandum on Radio Frequency Spectrum Prospective Licence to provide mobile broadband wireless access services for urban and rural areas using the complimentary bands 700 MHz, 800 MHz and 2.6 GHz (the "Information Memorandum").

Broadband Infraco's written submission will largely focus on the objectives as well as the licensing process for the High Demand frequencies as outlined in the Information Memorandum.

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1.1 **Combinational Licensing Process**

The licensing methodology proposed by the Authority in the Information Memorandum suggests that a portion of the spectrum in the 700 MHz band will be licensed via an auction in Lot E, whilst another portion in this frequency band will be licensed separately as part of Lot A. It is further stated, in the Information Memorandum, that applicants will only be allowed to bid for one Lot Category except for Lot A. It is therefore not clear, in the Information Memorandum, whether a qualifying applicant who wishes to participate in the licensing process of the 700 MHz band will be allowed to bid for this frequency band in Lot E in addition to submitting its application in Lot A.

1.2 **Wholesale Open Access Network**

The successful applicant for Lot A is expected to make its wholesale open access network available to other operators on a non discriminatory basis and at a transparent, fair and reasonable pricing which must be cost-orientated (taking into a reasonable rate of return). Broadband Infraco is of the view that the viability of this business model needs to be investigated prior to an issue of an ITA. The business case and coverage obligations of the wholesale open access network operator must be established to ensure that the objectives of SA Connect are met.

- 1.3 Given the challenges of deploying a wireless wholesale open access network in under-serviced areas, and the extended time to realise a return on investment, a feasibility study to explore creative funding models and proposals to ensure the sustainability of service provisioning to this market segment must be pursued.

1.4 **Alignment to Broadband Policy**

- 1.4.1 In terms of the Information Memorandum's alignment to the National Broadband Policy ("SA Connect"), SA Connect contemplates a public-private partnership ("PPP") for the ownership of the National Broadband Network ("NBN"). Wireless access is a key component of the NBN.
- 1.4.2 Broadband Infraco seeks clarity from the Authority as to whether a PPP model is envisaged for the ownership, management and operation of the 700 MHz frequency band licensee.

1.5 Defining Obligations

- 1.5.1 Broadband Infraco assumes that the obligations for the 800 MHz and the 2.6 GHz Radio Frequency Spectrum licences will be published in a draft regulation for comments prior to their respective auctions.
- 1.5.2 This is necessary to enable prospective bidders to undertake preliminary network design and costing, which will inform the amounts they are willing to bid for these Radio Frequency Spectrum licences.

2. Specific Comments

2.1 Auctioning of 700 MHz Radio Frequency Licence

- 2.1.2 Broadband Infraco questions the rationale for auctioning a portion of the 700 MHz Radio Frequency Spectrum band in Lot E given a potentially low ARPU profile of a large segment of the customer base this frequency will be used to provide services to.
- 2.1.3 SA Connect contemplates a Public Private Partnership (“PPP”) model for ownership of the National Broadband Network, which critically includes a wireless access layer. The Authority speaks of aligning the Information Memorandum to SA Connect. However, on this essential issue of market structure / ownership of the wholesale open access RAN that may be awarded the 700 MHz Radio Frequency Spectrum licence, the Authority has not provided any particular insight into how it interprets the alignment of the Radio Frequency Spectrum licence in this band to the socio-economic and policy objectives of SA Connect.
- 2.1.4 Broadband Infraco proposes that prior to the Information Memorandum being finalised, the Authority either canvass this pivotal issue with the Department of Telecommunications and Postal Services or provide clarity on how it sees the alignment between the prospective licence holder and the market structure best being established and implemented.

2.2 Combinational Licensing Process

- 2.2.1 The Authority should ensure that new telecommunications operators benefit in each of the bands ear-marked for IMT services in the Information Memorandum. Instead of issuing most of the spectrum to the well-established large incumbent telecoms operators, the Authority should find creative ways to ensure diversity of licensees for Radio Frequency Spectrum licences in the 800 MHz or 2.6 GHz bands conditional upon successful licensees presenting sustainable business cases for their award. To this end, Broadband Infraco supports the combinational licensing approach espoused in the 2011 draft Policy Directive which envisaged *a combinational licensing approach to assist Government achieve the objectives of delivering an efficient, competitive and responsive infrastructure network.*
- 2.2.2 The combination of 700 MHz spectrum paired with either of the 800 MHz and 2.6 GHz spectrum bands will make for a more viable business case of the licensee operating in 700 MHz band. The licensee operating in 700 MHz band needs to be able to use revenues from operations in 800 MHz or 2.6 GHz bands to cross-subsidise its loss-making or less revenue generating services in the 700 MHz band.
- 2.2.3 Broadband Infraco is concerned that the Information Memorandum seeks to perpetuate the status quo by not bringing new thinking to the licensing of the High Demand spectrum. Sepcifically, we are of the view that the licensing methodology proposed by the Authority in the Information Memorandum does not allow for the Licensee who is awarded a Radio Frequency Spectrum licence in the 700 MHz band the opportunity to apply for a Radio Frequency Spectrum licence either in the 800 MHz or the 2.6 GHz bands.

2.3 Wholesale Open Access Network

- 2.3.1 Our research has informed us that *BMI-T* speculates that *wholesale-only operators can only become commercially viable businesses if they are able to attract substantial traffic from those existing operators with the largest customer bases*¹.

Effective wholesale regimes are necessary to realise this goal, and open access is one component of an effective regime, but it may not be sufficient.

¹ Author – Martyn Roetter, Source: 1 <http://allafrica.com/stories/201405200056.html>

An effective wholesale regime in this context means a regulatory framework in which the prices of the wholesale access provider are sufficiently regulated to enable a viable business case for licensees who lease capacity from the wholesale operator.

A major stumbling block or gating factor in the future of wholesale-only mobile networks will be their attractiveness to existing mobile operators that collectively have already achieved high penetration levels of mobile services among the population.

The BMI-T report goes on to suggest that:

The prospects for these networks will therefore depend to a significant degree on the power and ability of governments to persuade these operators to become wholesale customers of such a venture. This participation will be more likely if these operators are drawn in as investors in the wholesale-only mobile network in a public/private partnership, and if they see the wholesale-only venture as the only means of access to spectrum they value highly.

In relevant part, SA Connect provides further that:

Based on analysis of global practice and taking account of the local context as described above, South Africa's broadband extension has to be a collaborative initiative – one that establishes a high capacity, high quality network that builds on existing infrastructure and involves both public and private sector players and is accessible to all on a non-discriminatory basis through open access regulation.

- 2.3.2 In Broadband Infraco's view, the sustainability of a wholesale open access network will largely depend on its ability to attract large volumes of traffic from both Government and commercial operators.

2.2 Alignment to Broadband Policy

2.2.1 In terms of the Information Memorandum's alignment to the National Broadband Policy ("SA Connect"), SA Connect provides in relevant part that:

The Minister of Communications will be required to consider the need, structure and most viable business model for an open access wholesale national broadband network. Proposed as a voluntary public-private venture it will enable operators and investors who choose to participate in the NBN to contribute their network assets and new investments. This joint venture would be free to contract the supply and installation of additional fibre optic links and capacity to third parties through competitive bidding. This wholesale-only joint venture would offer services to all operators and service providers within an open access and non-discriminatory framework regulated by ICASA.

The nature of broadband extension, the architecture, business model, investment plan and detailed design of solutions, will be refined through a collaborative road-mapping process. The roadmap development will involve extensive consultation with all relevant role players.

The infrastructure roadmap will need to be flexible and dynamic with a first high level version completed by July 2014. Elements of the broadband and building blocks include planning inputs, activities and outcomes, and some of these are in progress through studies commissioned by National Treasury, Department of Communications and SIP 15 (See Addendum 2 for outline of the roadmap). The detail planning for implementation of any investment vehicle or network is likely to take at least another year to finalise commercially.

2.2.2 Broadband Infraco seeks clarity from the Authority whether the wholesale open access network envisaged in the Information Memorandum is as espoused in SA Connect? In other words, will the wireless wholesale open access network be a public/private joint venture as envisaged by SA Connect or will it assume a different operating model?

2.3 Defining Obligations

- 2.3.1 The Authority must clearly define the coverage obligations that would be imposed on the licensee expected to operate the wholesale open access network prior to issue of an ITA. These obligations must be accompanied by a maintenance framework which will ensure the sustainability of service provisioning in under-serviced area
- 2.3.2 There are various layers of under-serviced communities based upon levels of poverty and geographical location. Broadband Infraco suggests that the USOs associated with each of the IMT frequency bands discussed in the Information Memorandum, should be considered holistically as opposed to in a vacuum. Currently a situation exists wherein licensees have overlapping USOs to the extent where a particular licensee has schools roll-out obligation, it may find that such obligation has been allocated to another licensee.
- 2.3.3 Furthermore, with the Department of Basic Education and Training (“DBET”) also earmarking schools for connectivity as part of its own policy implementation efforts, much needed coordination should take place with the ICT regulatory agencies with the DBET and other Government departments.
- 2.3.4 A Discussion Document published by the Authority which provides indicative audited USO figures would be a good start to help industry understand what coverage and roll-out obligations have been met and which ones the Authority is contemplating for allocation to IMT Service licensees.
- 2.3.5 Broadband Infraco is encouraged by the Authority’s proposal to grant the licensee(s) awarded a Radio Frequency Spectrum licence in the 700 MHz band a three (3) year holiday from paying its spectrum licence fee. This progressive approach to licensing is an exceptional measure which needs to become standard to incentivise operators to expend the necessary capex to meet the proposed licence requirements in the Information Memorandum.
- 2.3.6 Besides USOs, other licensing conditions that prospective licensees should be made aware of prior to bidding for the Radio Frequency Spectrum licence in the 700 / 800 MHz bands include, but are not limited to:
- 2.3.6.1 regulatory and legal framework;
 - 2.3.6.2 frequency planning of the band;

2.3.6.3 case of frequencies uses at the borders; and

2.3.6.4 protection of the broadcasting service in the 470-790 MHz band.

2.4 Internet access via STBs will require either fibre or satellite connectivity

2.4.1 Notwithstanding the proposed licensing condition that an award for a Radio Frequency Spectrum licence in the 700 / 800 MHz frequency bands will trigger an automatic subsidy for *households who may not qualify for the subsidy scheme for ownership for poor television owning households for Free To Air Terrestrial television services in affected areas*, Broadband Infraco points out that Internet access via Set Top Boxes (“STBs”) will require either fibre or satellite connectivity. To enable this, Broadband Infraco seeks clarity from the Authority regarding the backhaul architecture the Authority envisages for the successful licensee utilising the 700 / 800 MHz frequency bands.

2.4.2 In Mexico, licensing in the IMT frequencies is contingent on the completion of the transition to digital TV broadcasting. This shared network will also use the fibre infrastructure of the national electricity company (Comisión Federal de Electricidad) operated in a Public-Private Partnership (PPP) by the state-owned Telecomunicaciones de México.²

3. Conclusion

3.2 Broadband Infraco welcomes the Authority’s initiative in attempting to provide regulatory certainty to a process that is long overdue in terms of freeing up IMT frequencies for the assignment of wireless broadband services.

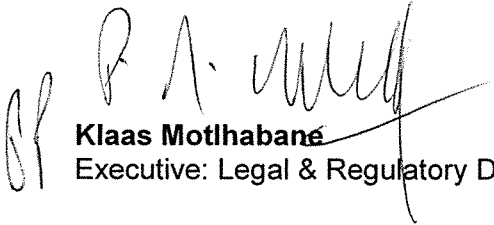
3.3 Broadband Infraco notes the Authority’s emphasis on its “sovereignty” to licence the frequency bands listed in the Information Memorandum due to the emphasis placed on certain language in paragraph 4.5 on page 7 of the Information Memorandum.

² Author – Martyn Roetter, Source: 1 <http://allafrica.com/stories/201405200056.html>

3.4 In terms of a roadmap forward, Broadband Infraco requests clarity from the Authority as to how it envisages the process unfolding.

3.5 Broadband Infraco would welcome the opportunity to amplify this written submission with an oral presentation should and when the Authority decide to hold same.

Yours sincerely,


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