

**Representations by Orbicom (Pty) Ltd and
Electronic Media Network (Pty) Ltd on the Draft
Update of the Terrestrial Broadcasting
Frequency Plan 2013**

18 March 2013

Introduction

- 1 Orbicom (Pty) Ltd and Electronic Media Network Limited ("M-Net") welcome the Authority's invitation for written representations on the Draft Update of the Terrestrial Broadcasting Frequency Plan 2013 ("the draft Broadcast Frequency Plan").
- 2 The draft Broadcast Frequency Plan raises important issues for current and future broadcasting services, electronic communications services and electronic communications network services.
- 3 Orbicom and M-Net request an opportunity to participate in the oral hearings, should the Authority decide to conduct oral hearings.

Legislative considerations

- 4 Chapter 5 of the Electronic Communications Act ("the ECA") deals with spectrum management. Section 30(2)(a) obligates the Authority to "comply with the applicable standards and requirements of the ITU and its Radio Regulations, as agreed to or adopted by the Republic".
- 5 Section 34 of the ECA outlines the responsibilities of the Minister of Communications ("the Minister") and the Authority respectively in the planning of spectrum in the country. The Minister is responsible for representing the country in international fora in respect of the allotment of spectrum in different bands and the international co-ordination of spectrum usage.
- 6 The Authority, in this draft Broadcast Frequency Plan, has decided to change the allocation of broadcasting from the current agreed band of 470 MHz to 862 MHz, and to limit broadcasting to the band 470 MHz to 694 MHz. This has been done through a proposal in Annexure J of the draft Broadcast Frequency Plan.
- 7 It is our submission that the proposal in Annexure J goes against the position that South Africa agreed to and signed at WRC-12. Resolution 232 of WRC-12 does not require the migration of broadcasters out of the band 694-790MHz and yet the Authority persists with this proposal.

- 8 It is also not clear why the Authority persists with this proposal when the DoC is currently conducting a study on the future needs of broadcasting with a view to establishing South Africa's position for WRC-15, particularly with reference to the band 694 MHz to 790 MHz. We expect the DoC to hold further public discussions on this matter as part of its consultation process.
- 9 It is of great concern that the Authority (through its proposals in Annexure J) has unilaterally taken a decision to move broadcasters out of this band completely while the responsible authority (the DoC) is still in the process of developing a position for South Africa on this band. The Authority has no right to do this, since such competency lies with the Minister. We therefore urge the Authority to delete Annexure J until such time that the Minister has pronounced on the South Africa position concerning this band.
- 10 In a number of previous submissions to the Authority concerning this band, we have made substantial comments on the Authority's approach to the ITU Radio Regulations and applicable standards, which submissions the Authority seems to have completely ignored, without providing any justification for doing so.
- 11 We are therefore compelled to repeat our submissions as to why the Authority's approach is wrong, and why that approach falls foul of the ITU Radio Regulations.

Failure by Authority to adhere to ITU WRC-12 resolutions

- 12 The International Telecommunications Union ("ITU") primarily manages spectrum by convening a conference called the World Radio Communications Conference ("WRC") every three to four years. At this Conference, member states decide on the allocation of spectrum for different purposes through a consensus building exercise. In many instances, spectrum in a particular band is allocated on a shared basis. There are also instances where services are allocated on a secondary or co-primary basis.

- 13 In December 2012 the Authority gazetted the second draft of the Frequency Migration Regulations and Plan. Orbicom and M-Net, in their submissions, raised a fundamental concern, namely that the Authority misinterpreted the requirements of the applicable WRC-12 resolutions.
- 14 The Authority's proposal to migrate existing users out of this band is contrary to the decisions of WRC-12. Importantly, WRC-12 has made allocations on a shared basis with current users of particular bands. Yet, instead of exploring co-allocation, the Authority appears to have interpreted co-allocation to mean that existing users must be migrated. This is not only incorrect, but a violation of radio regulations which should form the basics of spectrum management.
- 15 It is not clear why the Authority has totally ignored the content of the WRC-12 resolutions with regard to co-allocation. If it is the Authority's intention to invoke Article 4.4 of the radio regulations, which allows member states to deviate from the ITU Table of Allocations on a non-interference basis, then the Authority should make this clear. However, even if this were the case, it is our view that such a process should be done separately for each band because the migration processes in each band would be different.

Authority's proposals re band 694–790 MHz

- 16 The second draft Frequency Migration Regulations and Plan proposed the migration of existing broadcasters in the band 694-790 MHz (pgs 39 – 40) and further stated that the migration will end in 2015. The Authority is well aware that WRC-12 made an allocation on a co-primary basis in this band to IMT pending the outcome of WRC-15. It is our view that the migration of existing users in this band is not only premature, but also contrary to the decision of WRC-12.
- 17 The allocation on a co-primary basis means that both services enjoy equal rights to the particular band, and in this case it will mean that both broadcasting and IMT have equal rights to this spectrum. The resolution that accompanied the decision to allocate this band on a co-primary basis pending the decision of WRC-15 is Resolution 232.

- 18 The resolution is clear on the considerations each member state needs to take into account prior to deciding on the allocation to IMT services in this band. One such consideration is the spectrum requirements of existing users of this band. For some reason, the Authority has given no consideration to the needs of the current broadcasters occupying the band. The Authority has not commissioned a single study to understand whether migrating broadcasters out of this band will leave enough spectrum for the immediate and future needs of broadcasters. The resolution makes it clear what steps each member state should follow prior to making a decision. The Authority has not undertaken any of the steps identified in this resolution. The resolution also makes it clear that this spectrum is for broadcasting and the deployment of IMT should take into account the existing services in the band.
- 19 Furthermore, the resolution invites the ITU to conduct studies on the compatibility between broadcasting and IMT services. However, the results of such studies are only going to be made available at WRC-15.

Grounds upon which the Authority may initiate the process of radio frequency migration

- 20 The Authority, in the second draft Frequency Migration Plan, attempted to explain the instances where the current allocations in the Table of Frequency Allocations had to be changed or amended, stating that this would be required to give effect to recent decisions. The Authority stated the following:

"Bands are identified for radio frequency migration according to the following hierarchy:

- First Level – where the ITU radio regulations/decision of a World Radio Conference (WRC) require a change in national allocation that will require existing users to be migrated;
- Second Level – where a Regional Radio Conference require a change in national allocation that will require existing users to be migrated;"

- 21 These statements seem to suggest that services allocated in a particular band must migrate if the ITU has made a new allocation. However, this interpretation is incorrect. If, despite a new allocation, services could co-exist, then migration may not be necessary.
- 22 However, the Authority, in the Table of Allocations in the Draft Update of the National Radio Frequency Plan, correctly recognises that the whole band from 470 MHz to 854 MHz is still allocated to broadcasting.
- 23 It is difficult to understand why the Authority has adopted these contradictory positions.
- 24 It would seem that the Authority is proposing a migration contrary to its own National Radio Frequency Plan, for reasons unknown and not explained in any of the documents published by the Authority.
- 25 Furthermore, the migration of users from specific bands should only happen once a consultative process has been followed and where the DoC has pronounced on the need to change a particular frequency allocation of a band to the ITU.

Concerns in relation to existing radio frequency spectrum licences

- 26 The Authority has also failed to explain how the plan as it appears in Annexure J is going to be assigned to current and future broadcasters. This suggests that the Authority has not applied its mind to the needs of broadcasters.
- 27 In addition to these concerns, it would appear that the Authority has failed to conduct any studies to ascertain the spectrum needs of broadcasters, and therefore cannot know whether the band below 694 MHz sufficiently covers the needs of broadcasters in the long term.

- 28 Orbicom and M-Net have considered these future needs. It is clear that the broadcasting community is growing and technology keeps on improving. In the short term, broadcasters will definitely require more spectrum for high definition services and in the long term, the advent of new television technology like ultra high definition and 3D will require even more spectrum. We submit that the seven muxes proposed in Annexure J would not fulfil even half of the expected requirements of broadcasting in the future.
- 29 At the same time, the Authority has indicated that it will be licensing more free-to-air and pay television operators in the future. It is difficult to understand how the Authority plans to allocate spectrum to such additional broadcasters, since it will result in yet more broadcasters competing for a smaller share of the limited capacity. The failure to provide adequately for the spectrum needs of existing and future broadcasting service licensees has the potential to undermine any plans for the growth of the broadcasting industry in South Africa.
- 30 The Authority also seems to fail to appreciate that existing terrestrial television broadcasting service licensees are being required to relinquish valuable spectrum, and it is those licensees which are creating the digital dividend. Those licensees ought to be properly compensated through the assignment of other spectrum so that post analogue switch-off they are each assigned sufficient spectrum to have their own multiplex. There also has to be greater consideration given as to who has to bear the costs of migration.

Concerns about consultative process

- 31 As we've indicated, a separate process should be undertaken if the Authority is considering the migration of existing users of a band.
- 32 Prior to proposing a migration from a band, the existing services should be carefully considered to determine whether there are less intrusive measures available than requiring a licensee to migrate.
- 33 If it appears that there is no alternative to migration, then the Authority must consider the capacity of the spectrum to which these services would be

migrated. It makes no sense to propose a migration when a detailed study of whether the services can be properly accommodated in another band has not been concluded.

- 34 Our view is that the Authority should first look at the spectrum needs of the current services and then determine whether the capacity is sufficient in the proposed band of migration. It is only once this has been determined that the Authority can propose such a migration of services.
- 35 If the Authority determines that sufficient capacity exists to cater for the migrating users, it should then publish a detailed plan, with specifics (e.g. the proposed assignment plan, the details of how the migration will work, the time frames of such a migration, how any possible interference is to be dealt with, the costs of the migration and who is to bear those costs), and invite comments from the public.
- 36 However, the way in which the gazette is currently drafted suggests that the Authority has made a determination to migrate existing users without sharing any plans for such a migration. This does not accord with spectrum management best practice.

Specific comments on technical aspect of the draft Plan

- 37 Orbicom and M-Net have undertaken a detailed study of the technical aspects of the Plan, including issues related to the correctness of technical information, potential interference concerns and related issues. Due to time constraints, the results of this study have not yet been finalised. We request permission to supplement our written submissions with further comments on technical aspects of the draft Plan, as soon as the final results are available. We believe this detailed analysis will be of great assistance to the Authority.

Concluding comments

- 38 Our analysis of the draft terrestrial broadcasting frequency plan has revealed that the proposals made by the Authority do not correctly reflect the resolutions

adopted at WRC-12. We urge the Authority to adhere fully to the outcomes of WRC-12 resolutions.

- 39 The migration of services should also not be automatic, but rather be based on the need for such a migration to keep the table of allocations in line with the ITU table of allocations.
- 40 Once again, Orbicom would like to thank the Authority for this opportunity to make written representations. The draft Broadcast Frequency Plan raises complex issues which require input from the sector and careful consideration by the Authority.