



SENTECH
—connecting You

Draft Digital Sound Broadcasting Services Regulations

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1. Introduction

SENTECH thanks the Independent Communications Authority of South Africa (“Authority”) for the opportunity to make submissions on the *Draft Digital Sound Broadcasting Services Regulations* (“Draft DSB”) as published for public comments in Government Gazette No. 43900, dated 13 November 2020.

SENTECH in principle supports the intention of the Draft DSB and the Authority’s decision to expediently introduce terrestrial digital sound broadcasting services in the Republic of South Africa.

2. Impact of COVID-19 on the South African Radio Broadcasting Industry

It has been two (2) years, seven (7) months and sixteen (16) days, between the publication of the *Discussion Document on Digital Sound Broadcasting* (Government Gazette No. 41534, 29 March 2018) and the gazetting of the *Draft Digital Sound Broadcasting Services Regulations, 2020* (Government Gazette No. 43900, 13 November 2020). Two (2) significant events have occurred in that period that have proven to have existential impact on the sound broadcasting services. The impact of these events forces us to re-consider the principles discussed during the the Authority’s public process on the *Discussion Document on Digital Sound Broadcasting*.

When taking into consideration inputs on the Draft DSB, the Authority must deliberate on the impact of South Africa dealing with a recession prior to COVID-19 and how the pandemic exacerbated the troubling economic position the country found itself in. It is also important to note the important role radio plays, not just as a reliable and trust source of information, but also how the platform was used as part of mitigation measures to increase access to education during the country’s lockdown. It is also evident that radio listenership increased drastically during the country’s lockdown¹. The increase in listenership happens during a period when sound broadcasting is experiencing blows from multiple areas, such loss of advertising, donations and subsidies; the loss of sports and other events, etc.

¹ <https://www.bizcommunity.com/Article/196/859/203186.html>

3. Frameworks for Digital Sound Broadcasting Services

3.1. Primary vs Secondary Markets

Taking into consideration the impact of COVID-19, SENTECH is of the view that the Authority's proposal regarding the "introduction of DSB services...in a phased approach²" must be reconsidered. SENTECH presents that the Authority's proposal is not compliant with the Object of EC Act and creates an environment of unfair competitive behaviour. The Authority's proposal is specifically inconsistent with the following sections of Object of the EC Act:

- 2(g) promote an environment of open, fair and non-discriminatory access to broadcasting services, electronic communication networks and to electronic communications services;*
- 2(h) promote broad-based black economic empowerment, with particular attention to the needs of women, opportunities for youth and challenges for persons with disabilities;*
- 2(r) promote the development of public, commercial and community broadcasting services which are responsive to the needs of the public;*
- 2(s)(iii) cater for a broad range of services and specifically for the programming needs of children, women, the youth and the disabled;*
- 2(x) provide access to broadcasting signal distribution for broadcasting and encourage the development of multi-channel distribution systems in the broadcasting framework;*

The Authority is well aware of terrestrial audio broadcasters operating in both primary and secondary markets. The phased approach proposal will likely create unfair competition challenges, inconsistent programme offering and unequal platform. Terrestrial audio broadcasters operating in both primary and secondary markets will unfairly compete against services only operating in secondary markets.

In the event the Authority is contemplating only allowing terrestrial audio broadcasters operating in both primary and secondary markets to only digitise services in primary markets, this will create inconsistency in programme offering particularly for mobile reception. Both scenarios contradict the spirit of S2(g), (h) and (r) of the EC Act as mentioned above.

² Section 4(1) of Draft DAS

DSB offers the industry the opportunity to improve inclusivity and access of services in line with S2(s)(iii) of the EC Act. This point was previously made in SENTECH's submission on the Discussion Document on Digital Sound Broadcasting ("Discussion document") Government Gazette No. 41534, as published on 29 March 2018. The importance of DSB for listeners, broadcasters, ECNS licensees and the Government can be summarised as following:

- i. Listeners are exposed to greater choice in terms of language, variety and format; better reception quality; programming for niche markets and value added services such as OTT services;
- ii. Broadcasters are empowered to provide innovative services in view of increased competition from other platforms; improved ability to target audience; and improved cost-efficiencies with regards to signal distribution;
- iii. ECNS licensees are empowered to diversify services and revenue whilst making use of existing infrastructure as a consequence of the huge range of receiver products and developments in interactivity;
- iv. Innovations such a "pop-up" / on-demand radio is primed for Government imperatives;
- v. DSB will assist in the annihilation of historic borders based on language and culture, radio services based on all languages can be available nationally.

The sustainability of audio services, analogue and digital, is paramount to the existence of SENTECH signal distribution services. For operational, technical and cost implication considerations, SENTECH supports the national implementation of DSB to "*provide access to broadcasting signal distribution for broadcasting and encourage the development of multi-channel distribution systems in the broadcasting framework*".

3.2. Analogue switch-off

SENTECH advances the view that analogue switch-off (ASO) of terrestrial audio services should be the prerogative of the broadcasting industry, especially since there is no expectation of support from the fiscus. That is, ASO must solely be based on commercial consideration in compliance with Objects of the Act (S2 of EC Act). The framework for ASO can be discussed and agreed to through the DSB technical advisory group (DTAG).

3.3. DSB Technical Advisory Group

SENTECH requests the Authority to take note and consider the principles outlined in sub-regulation 14 of the Digital Migration Regulations, Government Gazette No. 36000 as published on 14 December 2012. The implementation of the sub-regulation 14 and the lessons learned will provide the required teachings crucial to ensuring that the roles and

responsibilities of DTAG enable the required output of the Group. As an advisory Group to Council on matters within the objectives of the DSB Regulations, SENTECH posits that the interaction between DTAG and Council must include timeframes. The experiences with Joint Spectrum Advisory Group (JSAG) constituted in terms of sub-regulation 14 of the Digital Migration Regulations, makes the interaction and timeframes obligatory for the effectiveness of DTAG.

4. Multi-channel distributor for Digital Sound Broadcasting Services

SENTECH commends the Authority for the progressive considerations as outlined in sub-regulations 5(1), (2) and (3) of the Draft DSB. In relations to sub-regulation 5(4), the Authority is required to provide clarity on how this provision will be implemented taking into consideration the differences between existing conditions targeted to accommodate DRM, DRM+ and DAB+ services. Unlike DRM and DRM+, DAB+ will be implemented in a band that has historically been limited to the provisioning of terrestrial television services. There are no broadcasters assignment spectrum in the DAB+ band for terrestrial audio services, whilst AM and FM spectrum is currently assigned to terrestrial audio broadcasters. How does the Authority contemplate issuing ITAs for spectrum currently assigned to analogue terrestrial broadcasting services?

The Terrestrial Broadcasting Plan 2013, as amended, advances MFN frequency plan for AM and FM services. DRM enables up to 2 audio programmes accompanied by text-based data applications on a distinct frequency channel. DRM+ enables the provisioning of up to three audio services with various accompanying and stand-alone data applications on a distinct frequency channel. For both DRM and DRM+, the intended use influences total available bit stream when considering channel use for audio with a data application service or without one; for error protection and correction; and for data transfer³.

The consideration of DAB+ is based on SFN frequency plan and the digital system is expected to accommodate 10 to 20 programmes. The Authority must be cognizant that DAB is a family of standards that includes DAB, DAB+ and T-DMB and collectively referred as DAB. The Draft DSB only refers to DAB+, is the Authority excluding the implementation of T-DMB?

³ World Broadcasting Union: Digital Radio Guide (April 2019)

5. Standards Applicable to DSB Service

SENTECH is acquainted with and supports the digital standards preferred by the South African broadcasting industry. Taking into consideration the fact that the EC Act promotes technology neutrality, SENTECH proposes the following amendment:

- Replacement of the following wording:

The DSB services must be provided using one of the following digital standards:

- Proposed new wording:

Digital standards considered for terrestrial DSB services in South Africa must be able to co-exist with the following technologies:

6. DSB Mux Allocation

SENTECH will like to make the Authority aware of the *Notice of the radio frequency spectrum exempted for use within the Karoo Central Astronomy Advantage Areas (KCAAA)*, Government Gazette 42531 as published on 14 June 2019, gazetted in terms of the Astronomy Geographic Advantage Act (21/2007) (“AGA Act”). The Authority must take into consideration the limited use of MUX allocation for the Northern Cape, as the Terrestrial Broadcasting Frequency Plan refers to two (2) provincial DAB+ SFNs. It is important to note that the Terrestrial Broadcasting Frequency Plan only refers to a DAB+ frequency plan, no consideration for the digitisation of the AM and FM bands was considered.

It is on this basis that SENTECH requests the Authority to initiate a re-planning workshop, similar to that undertaken for the DTT frequency plan. The main purpose of the workshop is to review Annex D of the Terrestrial Frequency Plan within the perimeters of the coordinated plan and to consider lessons learned from the DTT planning and implementation project. Annex D as gazetted will not effectively accommodate public, commercial and community DSB services. The SFN principle will be expensive for current analogue single transmitter terrestrial radio broadcasters.

6.1. Terrestrial Radio Frequency Plans

SENTECH believes that the workshop is an opportune vehicle to address principles not covered in the Terrestrial Frequency Plan. In terms of DSB, the Terrestrial Frequency Plan does not include assignment plans for DRM, DRM+ and DAB+. It is also important to note that the DAB+ plan is an allotments plan, therefore:

- Nothing is known of the actual location of the transmitter sites, or of the specific transmission characteristics that must be used;
- The following parameters must be determined: definition of the area to be covered, the channel and the interference potential of the allotment;
- Assignment planning requires defining reference transmission conditions to calculate potential interference and facilitate compatibility calculations; and
- The allotment plan provides frequencies to be used in particular areas without specifying the stations to which the frequencies are assigned;

Therefore, ensure a technically implementable frequency plan, the following issues must be addressed, amongst others:

- Reception modes;
- Minimum field-strength predictions/level (DRM. DRM+ and DAB+);
- Antenna gain based on mode of reception and type of device (DRM. DRM+ and DAB+);
- Receiver parameters (DRM. DRM+ and DAB+);
- Frequency plan: SFN/MFN/Hybrid? (DAB+);
 - SFNs have proven to be more expensive for Class licensees, since they are required to have more transmitters than they currently have;
- Protection parameters (DRM. DRM+ and DAB+); and
 - Including distance between stations;
- Infrastructure Requirements;

7. Expected outcome: Final Regulations

SENTECH believes that the Final Regulations must take into consideration the current context of Public, Commercial and Community broadcasting services. The principles to be considered for DRM, DRM+ and DAB+ are different for each technology, and therefore they must be addressed separately. SENTECH supports the introduction of multiplex operators, it is therefore important for the Authority to strongly consider and incorporate into the final regulations the need for assignments plans for each technology.

Taking into consideration that the Authority's efforts during the *Discussion Document on Digital Sound Broadcasting* preparations, including benchmarking and the public participation process undertaken, SENTECH is of the view that the Authority must still deliberate on the impact of South Africa dealing with a recession prior to COVID-19 and how the pandemic exacerbated the troubling economic position the country found itself in.

South Africa is currently battling keeping the economy open whilst striving to address the additional socioeconomic issues as a result of the second wave.

8. Conclusion

SENTECH thanks the Authority for the opportunity to make submissions on the Draft DSB and the intents on making oral representation in the event they are scheduled.