16 September 2020

The Manager

Wireless Broadband

Spectrum Planning and Engineering Branch

Australian Communications and Media Authority

PO Box 78

Belconnen ACT 2616

**RE: ACMA’s Replanning of the 3700-4200 MHz band options paper**

The Australian Broadcasting Corporation (“the ABC”) welcomes the opportunity to comment on the Australian Communications and Media Authority (“the ACMA”) discussion paper: Replanning of the 3700-4200 MHz band options (“Options paper”).

The ABC is of the view that none of the presented options will satisfactorily balance the needs of all current and proposed users of this band. The ABC does not believe that the ACMA’s preferred option (Option 3), nor the alternative Option 2, would be in the public benefit. The ABC is of the view that the ACMA analysis which has led it to prefer Option 3 is fundamentally flawed for two key reasons: it is not technically feasible for all users to share the spectrum in the way proposed, and ACMA has failed to consider key inputs in its cost benefit analysis. While Option 1 would be acceptable to the ABC, we understand it is flawed as it does not permit Local Area WBB users to operate effectively.

***Technical feasibility***

The ABC submits that frequency separation between wireless broadband (“WBB”) and Fixed Satellite Service (“FSS”) also known as C-Band satellite services is the only way to ensure useable spectrum for all users within this band. The proposed operation of shared spectrum for WBB and FSS will result in frustration for WBB users and wide service failures for FSS users accessing services in a shared band. Although the ACMA has investigated some mitigation measures, most of these protection measures do not apply to the majority of FSS users, including the ABC, utilising spectrum in the 3700-4200 MHz band without a licence as TV receive-only (TVRO) users, but nonetheless still providing or receiving critical public services.

As the ACMA is aware, the ABC (like other broadcasters and individuals in Australia) currently utilises spectrum in the band in this manner through its use of C-band satellite systems. The ABC uses these satellite services to gather, produce and distribute content to its broadcast television audiences, both in Australia and internationally. These services are a critical input into the ABC’s newsgathering functions (among other things). As such, use of these services is critical for the ABC delivering against its Charter obligations in the *Australian Broadcasting Corporation Act 1983* (Cth).

The ABC considers that most of the proposed technical band sharing options outlined in the referenced 2019 ACMA spectrum sharing paper and evaluated in the Options paper are not viable for public or individual TVRO FSS users operating without a licence, as these technologies are beyond their reach. It is therefore not a viable alternative to the preservation of the TVRO FSS services by moving them to the exclusive band.

TVRO receive equipment is extremely sensitive and is in use at all times of the day. The only viable interference mitigation equipment available to the average TVRO user is band-pass filtering. It has been the ABC’s experience that even band-pass filtering proves to be challenging to implement on a practical level for adjacent bands let alone to prevent in-band interference from an everchanging emerging WBB market.

The ABC can agree that some of the lower spectrum in the 3700-4200 MHz band should be reserved for Local Area (“LA”) WBB services. However, this spectrum too should be cleared of incumbent FSS services to ensure those FSS services are not made redundant by WBB swamping the users of FSS services. International satellite providers also need to have a clear understanding of the spectrum market in Australia to have confidence their services are reaching their audiences.

Continuing to have sections of the spectrum classified as open for business, but in reality unusable on the ground is not in the interest of those Australians currently relying on services which are delivered using this spectrum. TVRO users are not in a position to dictate the frequencies to be used by international C-band satellite service providers. If the band remains designated for FSS use but is shared with WBB, international FSS providers are unlikely to move at the request of Australian TVRO users experiencing reception difficulties.

One of ACMA’s overarching objectives in its spectrum planning and management function is to maximise the overall public benefit from the use of spectrum; taking into account the services and benefits provided by all users, including international use for such bands. To this end, the ABC submits that any planning option which includes band sharing (and in particular, the favoured Option 3) will disproportionately and adversely affect the majority of FSS users, and will not maximise the overall public benefit from use of this spectrum band.

Each of the three options under consideration fail to provide an adequate solution to both existing band users and new WBB users. Although the ABC would accept Option 1 as an FSS user, as noted by the ACMA it does not address the needs of Local Area WBB users. Options 2 and 3 do provide LA WBB users with access to the spectrum but at the expense of FSS users due to provision for sharing of the band, which the ABC would submit is not viable. It is not possible for FSS content services to operate part-time, or in interleaved frequency allotments in specific locations together with WBB services. Without clear and manageable access to TVRO, the ABC’s capacity to include international viewpoints in its own broadcasts of matters of significance would be severely limited.

The ABC submits that ACMA should consider an Option 4, which would segregate the band into three clear segments, as outlined below:

|  |  |  |  |
| --- | --- | --- | --- |
| 3700 MHz | 3800 MHz | 3900 MHz | 4200 MHz |
| Australia wide | Australia wide | Australia wide | |
| Planned uses: WA WBB  Access approach: Exclusive use  Licence type: Spectrum licence  Incumbent user licences: FSS Cleared | Planned uses: LA WBB, PTP  Access approach: Exclusive use  Licence type: Apparatus licence  Incumbent user licences: FSS Cleared / PTP Continued | Planned uses: FSS, PTP  Access approach: Exclusive use  Licence type: Apparatus licence  Incumbent user licences: Restacked / Continued | |

***Cost benefit analysis***

The three options evaluated by the ACMA using cost-benefit analysis do not factor in any expected increased costs or risks that would be incurred by unlicensed users of spectrum band for TV broadcasting services using FSS (“TVRO users”), such as the ABC. Based on its analysis, ACMA has indicated its preference is Option 3 because it has the highest net benefit.

The ABC submits that it is not appropriate to exclude TVRO users (and any additional costs or risks they would incur under each of the three options) from the cost benefit analysis on the basis outlined in the Options paper. The ABC, as a TVRO user, submits that its use of spectrum in the 3700-4200 MHz band is in the public interest, as this spectrum use is a key input into its newsgathering functions.

While the ABC accepts that Option 3 will involve short-term benefits (or avoided costs) from not having to pay all incumbent operators, as outlined in the technical discussion above, it would also fail to preserve effective access to the spectrum for existing newsgathering purposes. This will lead to increased costs and risks to service delivery, which are unaccounted for in ACMA’s analysis, and in turn will negatively impact audiences.

Not only is this not in the broader public interest, the ABC submits that individual users of this spectrum should not be disadvantaged by the inclusion of WBB operation within FSS band use. This is because public users of the band will not be in a financial position to take account of any specialised spectrum sharing equipment and WBB operators will be unaware of a public or private TVRO user or the interference they are causing them.

Failure to consider the existing public interest use of the spectrum by TVRO users (and by extension, the costs that would be incurred to these uses under each of the three options, but most acutely under Option 3) skews the cost benefit analysis towards prioritising financial benefits to the Commonwealth or WBB users from the allocation of spectrum in this band over other equally important interests arising from existing uses of the spectrum. Existing spectrum uses that have not been appropriately considered are the provision of news and information to the public, including from various international sources.

The inclusion of these factors would appear to be consistent with the ACMA’s stated methodology for implementing cost benefit analysis, which includes to assess “the impact that a regulatory proposal has on the public interest…measured as the sum of the effects on consumers, producers and government, as well as the broader social impacts on the community” (Options paper, pp. 109-110).

**Conclusion**

The ABC submits that all options outlined in the paper, including the preferred option identified by the ACMA would not maximise the overall public benefit from the use of the 3700-4200 MHz band into the future. Further, ACMA’s supporting analysis in framing its set of options and evaluating them using cost benefit analysis is fundamentally flawed both for technical and analytical reasons.

The ABC submits that the ACMA should give consideration to an alternative option (Option 4) outlined in this submission as a means of balancing the interest of existing users of the spectrum band and making new spectrum available for WBB services.

The ABC would welcome the opportunity to discuss these issues further with the ACMA.

Yours sincerely,

A close up of a device

Description automatically generated

Helen Clifton

**Chief Digital & Information Officer**