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Manager, Major Spectrum Allocations Section
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By email: majorspectrumallocations@acma.gov.au

Dear Sir/Madam

Draft spectrum reallocation recommendations for the 700 MHz digital dividend and 2.5 GHz bands

Free TV Australia represents all of Australia's commercial free-to-air television broadcasters. In 2011 commercial free-to-air television is the most popular source of entertainment and information for Australians, with our members providing nine channels of content across a broad range of genres, as well as rich online and mobile offerings, all at no cost to the public.

Free TV appreciates the opportunity to comment on the Australian Communications and Media Authority's (ACMA) information paper on *Draft spectrum reallocation recommendations for the 700 MHz digital dividend and 2.5 GHz bands*.

Incumbent television services will be adjacent to the new services to be introduced into the 700 MHz and 2.5 GHz bands. The proposed arrangements for these bands are therefore of particular significance and importance to the free-to-air television industry and to viewers of free-to-air television services. It is vital that the procedures for the introduction of new services into these bands are appropriately managed so as to avoid large-scale disruption to television viewers.

As an overriding priority, prior to the introduction of the wireless access services into the 700MHz and 2.5GHz bands there must be further research into the impact of interference from the wireless access services on existing adjacent services in the Australian environment.

This submission addresses a number of issues arising from the ACMA's proposed recommendations.

1. 700MHz band

a. Frequency boundaries of the 700MHz band

Free TV notes that the Information Paper states:

"The ACMA intends to recommend frequency boundaries which align with regionally and internationally harmonised spectrum agreements for the 700 MHz and 2.5 GHz bands.

International harmonisation:

- > *Facilitates uniform technology standards for equipment and services across a large international market area.*
- > *Enables Australia, traditionally a 'technology-taker' country and one with a relatively small population, to join these large market areas."*

Free TV also notes:

"The ACMA does not propose to recommend the reallocation of the mid-band gap (748–758 MHz), guard bands (694-703 MHz and 803-806 MHz) and the extension band (806 MHz to 820 MHz) in this process."

Free TV is concerned that ACMA is making this recommendation despite the fact that the issue of LTE user handset interference into DVB-T receivers below 694 MHz has yet to be resolved.

This is an issue which remains under investigation in the Asia Pacific Telecommunity Wireless Group (AWG). Free TV notes that the ACMA proposes accepting the AWG's technical judgements for the implementation of WAS in the 700MHz band.

We also note the ACMA's support for aligning Australia's digital dividend configuration with the AWG paired band. The ACMA states that Australia's digital dividend will accommodate this band configuration whilst also allowing for an extra guard band at the lower frequency boundary to further reduce any risk of interference with broadcasting services.

However, overseas studies indicate whilst this may reduce interference into DVB-T receivers from LTE user handsets, it will not remove interference entirely. In particular we note that the originating interferer levels (i.e. user handset out-of-band emission levels) have not yet been determined.

b. Application of the Radiocommunications Low Interference Potential Devices Class Licence

Free TV seeks clarification regarding the continued application of the LIPD class licence in the band 520-694MHz. Further clarification regarding the proposed arrangements for the mid-band gap (748–758 MHz) and guard bands (694-703 MHz and 803-806 MHz) would also be useful.

Free TV note that the ACMA website¹ indicates "520-694 MHz will continue to be used by television, and it is expected that wireless audio equipment will continue to operate in this range under similar arrangements to the current LIPD licence".

It is unclear from these statements as to whether the ACMA is proposing to shift the LIPD class licence from 520-694MHz to 694-703MHz and 748-758MHz. Free TV is concerned of the potential disruption such a shift would cause to wireless microphone users.

Free TV believes that the national standardisation of frequency assignments for wireless microphones is an outstanding issue which needs to be resolved.

c. 700 MHz reallocation period

Free TV notes that the ACMA is recommending that 31 December 2014 as the most appropriate date for the end of the reallocation period. This is premised on the completion of the restack process by this time.

However, restacking is a major logistical exercise requiring changes to over 500 transmission sites across the country. Free TV is concerned that the proposed date for the end of the reallocation period does not take into account any "slippage" in the restack schedule that may occur at some locations as a result of unforeseen events.

¹ http://www.acma.gov.au/WEB/STANDARD/pc=PC_312475

Despite the best efforts of broadcasters, certain work cannot commence until the ACMA notifies key elements of the process such as the restack channel assignments. There may also be delays in equipment manufacture, weather and other unforeseen events may delay the restack, not to mention if problems are encountered by the public in retuning receivers. All of these factors are outside of the control of broadcasters and may lead to a situation where broadcasters still have to occupy the band after the "Period End" date. If arrangements were such that the new spectrum licensees were to charge for access to spectrum in such circumstances, broadcasters would seek protection against such charges.

Free TV believes it would be prudent for the ACMA to outline how it would licence broadcast services in the band post 31 December 2014 to accommodate potential schedule slippages in the restack schedule.

2. 2.5GHz band

a. 2.5GHz geographic boundaries

Clarification is sought in regard to the following statement in the Information Paper

"The ACMA is proposing to recommend the reallocation of 2 x 70 MHz in the upper and lower parts of 2.5 GHz band nationwide, as it has been demonstrated that there is demand for this spectrum in metropolitan, regional and rural areas."

Free TV is not aware of information on the public record demonstrating demand for this spectrum in regional and rural areas so we request that the ACMA provides this information on the public record as evidence of this statement in the Information Paper.

Free TV notes that in IFC 01/2010 "Review of the 2.5 GHz band and long-term arrangements for ENG" at http://www.acma.gov.au/WEB/STANDARD/pc=PC_312013 the ACMA stated the new arrangements are:

- *re-allocation of 2500-2570 MHz and 2620-2690 MHz for spectrum licences, at least in major metropolitan areas, with technical frameworks that are technology flexible but optimised for wireless access services (WAS);*
- *conversion of electronic news gathering (ENG) apparatus licences to 15 year spectrum licences on an Australia-wide basis in 2570–2620 MHz ("the mid-band gap" of the 2.5 GHz band);*
- *ENG access via apparatus licences to additional parts of the 2.5 GHz band in regional areas of known high use, as well as access on a shared basis with WAS in other areas dependent on demand for WAS*

TOBN licensees understood from IFC 01/2010 ENG might be available in regional areas to ENG. Clarification is sought from the ACMA if this is no longer the case.

Free TV also notes the ACMA's statement that:

"Incumbents in the 2.5 GHz band use Australia-wide apparatus licences to provide nomadic television outside broadcast services. Alternative bands have been identified that will fully meet the functional requirements of these incumbents. The ACMA knows of no other reason to excise areas in order to minimise unnecessary clearance of the band. A national reallocation is the best way to enable other uses of the band, allowing the spectrum to move to its highest value use."

Until information on the demand for this spectrum is released by the ACMA the highest value use cannot be determined. Discussions with the ACMA are ongoing and TOBN licensees have yet to determine if the access to the "alternative" bands fully meets the functional requirements of incumbents.

b. 2.5GHz reallocation period

The Information Paper states:

".....the timing of the reallocation period for the 2.5 GHz band will be affected by the need to accommodate ENG services in alternative bands before new operators have access.

Arrangements in the alternative bands may not be fully settled until late 2013. Accordingly, commercial broadcasters and the ABC may not be able to finalise any significant relocation into the alternative bands until early 2014. To provide sufficient time for ENG relocation, the ACMA proposes to recommend that the reallocation period in the 2.5 GHz band should not end before 30 September 2014.

In the Perth area, the identified alternative bands for ENG services will not be available until January 2016. Consequently, the ACMA proposes to recommend a longer reallocation period in the Perth area, ending on 31 January 2016. This would not prevent an auction of spectrum licences for all areas, including Perth, being undertaken at the same time."

As stated in the Information Paper, it is the understanding of TOBN licensees that they will only gain access to the alternative ENG bands in the Perth area on 1 January 2016. The ACMA's proposed timing only provides for one month to transition ENG operations from the existing bands. This is not sufficient and there should be a minimum of 3 months provided for this transition. Therefore the reallocation period for the Perth area should end no sooner than 31 March 2016.

TOBN licensees have not been previously advised of the 30 September 2014 deadline. Free TV is unaware of any agreement that the clearance of the incumbent services in the "alternative" bands will be cleared by that time e.g. fixed links. Until all other incumbent users in the alternative ENG bands have clearance dates confirmed, TOBN operators cannot support this deadline.

3. Other issues

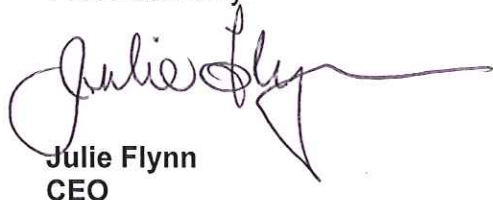
As a general comment, Free TV notes that in the Information Paper the ACMA describes Australia as a 'technology taker' country. Free TV suggests that it is more accurate to describe Australia as a 'technology follower'.

The term 'technology taker' is not appropriate where there is local regulation or standardisation of telecommunications and radiocommunications technologies, as is the case in Australia. For example, the ACMA registers industry codes (eg, Communications Alliance) which seek to minimise electromagnetic interference and enhance the compatibility of electrical and electronic products. The ACMA has also introduced regulatory arrangements to facilitate electromagnetic compatibility.

Australia has implemented overseas standards with a view to implementation of "best practice" and as such could more appropriately be considered as a 'technology follower'. This is similar to the situation in other countries, such as the UK where Ofcom has implemented additional regulatory provisions notwithstanding the harmonised practices established with the CEPT.

Thank you once again for the opportunity to comment.

Yours sincerely



Julie Flynn
CEO