



**Submission by
Free TV Australia Limited**

Australian Communications & Media
Authority

Draft allocation and technical instruments
for the allocation of spectrum in the 2.5
GHz band

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EXECUTIVE SUMMARY

- Free TV Australia welcomes the opportunity to comment on the ACMA's draft legislative instruments to the digital dividend auction comprised in both the 'allocation' and 'technical' instruments.
- This submission outlines some observations that Free TV member organisations have made in relation to the legislative instruments that relate to the 2.5 GHz band.
- Free TV submits that there be a requirement in the 'Assignment Stage' of the auction that the narrowest winning bids with the lowest contiguous bandwidth be assigned closest to the 2.5 GHz Mid Band Gap.
- Free TV looks forward to consulting with ACMA on the commencement dates for new spectrum licences in the second quarter of 2012.
- The draft instruments provide for an exemption for registration of transmitters with a radiated maximum of true mean power no more than 35 dBm per 5 MHz. Free TV queries whether transmitters falling within this exemption are intended to be captured in the Register of Radiocommunication Licences.
- Free TV seeks clarification from the ACMA on whether the region maps included in the Marketing Plan will be used for co-ordination with the usage of 2.5 GHz Mid Band Gap frequencies by the electronic news gathering systems.
- Free TV notes that the emission limits included in the draft instruments are consistent with those determined by the Technical Liaison Group (TLG) on 2.5 GHz band.
- Free TV seeks clarification from the ACMA on whether the Explanatory Notes discussing the emission limits outside the area and band should make reference to the 2.5 GHz Mid Band Gap.
- Free TV is supportive of the provisions in the guidelines relating to the management of interference to receivers operating in the electronic news gathering systems.
- Free TV supports the inclusion of protection requirements for electronic news gathering systems. Broadcasters will endeavour to register their collection sites in the 2.5 GHz Mid Band Gap.
- Free TV seeks clarification from the ACMA on the application of compatibility requirements and notional receiver requirements outlined in the guidelines to the 2.5 GHz Mid Band Gap.



1 Introduction

Free TV Australia represents all of Australia's commercial free-to-air television broadcasters. Commercial free-to-air television remains the most popular source of entertainment and information for Australians.

Over the past 50 years, Australia's broadcasting policy framework and technical standards have delivered the best free-to-air television services in the world. Although there are a growing number of platforms for the delivery of audio-visual content, free-to-air television is the only service that does not require a paid subscription of some form.

The service is free for all Australians, providing valuable public goods such as access to news and current affairs, as well as an investment in the production and distribution of a diverse range of quality Australian content. On any given day, free-to-air television is watched by more than 14 million Australians.

The digital dividend auction and licensing of allocated spectrum raise a number of significant technical issues for broadcasters which have the potential to impact negatively on delivery of essential program content to viewers. The most pressing of these issues in the immediate and medium future is that of interference from mobile services into television systems.

2 Spectrum Licence Allocation - Combinatorial Clock Auction

2.1 Assignment Stage

Free TV notes that the Combinatorial Clock Auction will comprise of two rounds.

The second round, referred to as the 'Assignment Stage', involves the auction manager informing bidders of the frequency ranges that have been assigned to lots won by bidders and the frequency ranges assigned to unallocated lots.

Free TV submits that the instrument be amended to include a requirement that the narrowest winning bids with the lowest contiguous bandwidth be assigned by the auction manager closest to the 2.5 GHz Mid Band Gap. Winning bids should be assigned in accordance with their bandwidth size in this manner to assist compatibility between the ENG services in the 2.5 GHz Mid Band Gap and the spectrum licenced services to minimise interference.

3 Marketing Plan 2.5 MHz Band

3.1 Commencement of licences

Parts 3.4 and 3.7 list the commencement date of new spectrum licences to be 1 October 2014 for all regions except the Metro Perth and Regional Western Australia region which will have a commencement date of 1 February 2016.

Free TV notes that the ACMA will be consulting on the timing of access to spectrum in the second quarter of 2012. Free TV looks forward to participating in this consultation and working with the ACMA to agree on workable timeframe.



3.2 Registration of transmitters

Free TV notes that section 3.8(3) provides an exemption for the requirement of registration for a transmitter with a radiated maximum of true mean power no more than 35 dBm per 5 MHz.

Free TV seeks clarification from the ACMA whether transmitters falling within this exemption will still be captured in the Register of Radiocommunication Licences for reference purposes.

3.3 Region Maps

Schedule 3 defines the areas comprised in the separate 'regions' for the purposes of allocating spectrum in the 2.5 GHz band. Areas are displayed through maps providing indicative pictorial representation of the different regions.

Free TV seeks clarification from the ACMA as to whether the maps of the regions (titled 'Indicative Pictorial Representation') will be used for co-ordination with the usage of 2.5 GHz Mid Band Gap frequencies by the electronic news-gathering (ENG) systems.

3.4 Emission limits

Schedule 4 and 5 deal with the base emission limits for outside the area and band. Free TV notes that the listed limits are consistent with those agreed by the TLG.

Free TV seeks clarification from the ACMA as whether reference should be made to the 2.5 GHz Mid Band Gap in sections of the Explanatory Notes discussing the emission limits outside the area and band.

4 Managing Interference from Transmitters - Advisory Guidelines

4.1 Background

Free TV notes that the Advisory Guidelines apply to the management of interference to ENG system receivers operating in and adjacent to the 2.5 GHz band.

Part 2.1 (3)(a) specifies that this includes licensed ENG receivers operating under the other licences in the 2570 – 2620 MHz band (also referred to as 2.5 GHz Mid Band Gap), this being the ENG systems.

Free TV is supportive of the inclusion of this section in the final Advisory Guidelines.

4.2 Protection requirements

Part 3.3 (1) and (2) of the Advisory Guidelines deal with the protection requirements for the ENG fixed receivers or otherwise known as collection sites.

Free TV supports the inclusion of these protection requirements in the final guidelines and acknowledges that these provisions make it imperative for broadcasters to register their collection sites in the 2.5 GHz Mid Band Gap.



5 Managing Interference to Receivers – Advisory Guidelines

5.1 Interpretation issues

The Advisory Guidelines are defined as applying to the lower and upper bands of the 2.5 GHz band, unless contrary intention appears.

Free TV seeks clarification from the ACMA on the application of the following parts of the Guidelines to the 2.5 GHz Mid Band Gap:

1. Compatibility requirements for receivers under Part 5; and
2. Notional receiver requirements identified in Schedule 1 as they relate to the notional antenna for a fixed receiver having a maximum gain of 17 dBi and the minimum notional adjacent channel selectivity measurements of:
 - 43.5 dB, measured for a wideband unwanted signal operating between offsets of 0 and 5 MHz from the edge of the licence; and
 - 85 dB, measured for a wideband unwanted signal operating at offsets greater than 5 MHz from the edge of the licence.