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Manager
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By email: WAS-planning@acma.gov.au

Dear Sir/Madam

Towards 2020 – Future Spectrum Requirements for Mobile Broadband

Free TV Australia is the peak industry body representing all of Australia's commercial free-to-air television licensees. Free TV welcomes the opportunity to comment on the Australian Communications and Media Authority's paper on Future Spectrum Requirements for Mobile Broadband.

Free TV supports the need for transparency and certainty in spectrum planning and decision-making and welcomes the consultation on future spectrum requirements. Spectrum planning decisions involve enormous commercial and financial implications for industry. There are also serious implications for consumers, in regards to the availability, capacity and quality of communications services.

Free TV would also like to comment on a number of specific issues raised in the ACMA's paper.

Baseline Demand Modelling (Questions 6 & 7)

As a general principle, Free TV supports a thorough analysis of demand issues to ensure that overall public benefit supports the allocation of further spectrum for mobile broadband. Any proposal to re-locate existing spectrum users should be based on sound analysis of likely demand. ACMA should critically examine estimates from prospective mobile broadband operators to ensure they are accurate.

Free TV would encourage the ACMA to extend this modelling to include market aspects such as pricing sensitivity and its impact on demand. Currently most wireless broadband demand is generated by "early adopters" from the business community where payment is not necessarily borne by the end user, so projections based on this to use by self-funded individuals may reveal a significantly different demand projection, as intimated for example by recent announcements by some mobile operators to introduce a speed cap in lieu of extra payment.

As the assignment of additional spectrum for mobile broadband is disruptive to other reallocated spectrum users, the process of converting demand estimates based on data volume and traffic into spectrum required should be made publicly available for scrutiny by potentially displaced users to allow a balanced input to the discussion on highest value use and overall public benefit. This

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should include the factors included in Sections 4.1 and 4.2 of the Issues Paper, but extended to include consideration of traffic attributes such as mobile device use (e.g. whether use is essentially portable (i.e. within an office or home environment) rather than roaming widely over a network) and implications for data offload of this traffic to other networks via wifi and the NBN. Consideration should also be given to the practical upper limits of mobile demand; whether they be population density including transit densities at major events, practical cell densities, or realistic broadband consumption by mobile device users.

In Section 4.1 considering advancements in technology, the Issues Paper notes the 2007 baseline spectral efficiency as 1.85 bits/sec/Hz. Digital television introduced in Australia in 2001 achieves for widespread reliable broadcast, 3.2 bits/sec/Hz and the recent implementation of newer technology in the UK achieves 5.03 bits/sec/Hz. As these are SISO technologies, Free TV supports the ACMA view that by 2020 15 bits/sec/Hz will be achievable including MIMO technologies.

Furthermore, the impact of the NBN cannot be under estimated. As current smartphone users effectively offload to wifi networks currently, Free TV believes the offloading of data to the NBN will become an important determinant of demand in the future. Such offload should be possible using higher frequency spectrum bands, offering considerable capacity, being less disruptive to existing spectrum users but requiring fresh thinking in overall network planning.

Co-existence of mobile broadband services with existing spectrum users

Free TV welcomes ACMA's acknowledgement of the potential impact on existing spectrum users arising from the introduction of mobile broadband services. Given Australia reliance on overseas standards and trends, Free TV considers that co-existence / sharing arrangements should be developed on a case-by-case basis depending on the operating frequency band and after a considerable consultation process that ascertains the proposed co-existence / sharing scenarios being sought. It is important that co-existence studies between mobile broadband services and existing spectrum users should be in line with ITU-R studies as guidance in developing and implementing such co-existence / sharing arrangements.

Mobile Satellite Services Bands (Section 5.4)

The Issues Paper discusses the overlap between the Australian and American MSS bands and canvasses the idea of whether equipment built for the American market might be used in Australia. As noted in the Issues Paper, the bands 1980 – 2010 and 2170 – 2200 MHz are proposed for ENG operators with a caveat that MSS may be introduced in the future. Should this change and these bands be allocated to mobile broadband, this will place a mobile broadband allocation immediately adjacent to the proposed ENG bands at 2010 and 2200 MHz. Co-existence issues may arise which would require a guard band between the services. In this case, the guard band would have to be part of the MSS band and not encroach into the adjacent ENG band.

2010 – 2025 MHz Band (Section 5.6)

Free TV notes the identification of this band as an alternative band to support ENG services transitioned from the 2.5 GHz band. Free TV supports the designation of this band for exclusive use by ENG services in metropolitan areas and notes that discussions are continuing between ENG licensees and the ACMA in regards to this band.

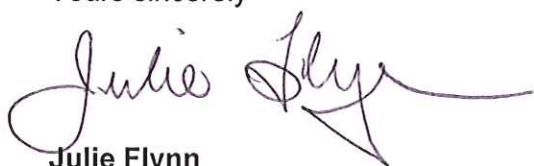
In response to Issue 20, ENG operators require clear access to these bands across Australia and are prepared to work around some existing fixed links. The addition of mobile broadband services in the future ENG bands would severely constraint ENG from an operational perspective.

C-Band (Section 5.9)

The ACMA's paper includes the C-Band (3.8 GHz) as a candidate band for mobile broadband services. Broadcasters rely on satellites in this band to receive video feeds typically containing news and current affairs content from overseas broadcasters and content providers. As noted in Free TV's submissions to ACMA's previous WAS Spectrum consultations, any proposal to introduce mobile broadband services in this band would not be supported by broadcasters.

Thank you once again for the opportunity to comment.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Julie Flynn', with a long, sweeping horizontal stroke extending to the right.

Julie Flynn
CEO