27 October 2015

The Manager
Spectrum Planning Section
Spectrum Infrastructure Branch
Australian Communications and Media Authority

By email to freqplan@acma.gov.au

Dear Sir/Madam,

Beyond 2020 – mobile broadband spectrum management strategy

Foxtel welcomes the opportunity to comment on the ACMA's September 2015 discussion paper, *Beyond 2020 – A spectrum management strategy to address the growth in mobile broadband capacity* (the **Discussion Paper**).

Foxtel endorses the separate submission made in response to this Discussion Paper by the Australian Subscription Television and Radio Association (**ASTRA**). Among other things, Foxtel agrees with ASTRA that:

- A contingency based approach to planning future spectrum needs for mobile broadband is preferable to making quantitative estimates (given past challenges in making accurate quantitative forecasts).
- Comprehensive consultation with incumbent users will be essential when considering if mobile broadband is becoming the highest value use for a band.
- In making assessments of the highest value use for a band it will be important to take social and other non-economic benefits of particular uses into account—for example, by using the ACMA's total welfare standard methodology (or similar holistic methodologies found to be effective).
- The ACMA is correct to point out that additional spectrum is just one way to address increasing demand for mobile broadband capacity. Improving technology efficiency and ensuring appropriate network deployment are also important.

Spectrum used by Foxtel and our partners

In addition to endorsing the ASTRA submission, Foxtel wishes to address references in the Discussion Paper to bands that are essential to the delivery of subscription television services to our 2.8 million subscribing homes.

Ku band

A vitally important band for Foxtel is Ku band. Foxtel uses Ku spectrum in the 11.7 GHz to 12.7 GHz bands for direct-to-home delivery of our broadcasting service to a significant proportion of our subscriber base. These bands are particularly suitable for this use because they have high payload capacity, good reliability (including being relatively resistant to bad weather) and because the satellite beam used in these bands is contoured to suit the population density of Australia.

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The Discussion Paper notes that bands above 6 GHz, which would include the Ku bands, are being considered internationally for 5G mobile services, noting that this is being pursued as a new agenda item for the WRC-19. The ACMA notes that it will continue to closely monitor this issue and engage with stakeholders via the international preparatory process.[1]

Foxtel would not support any use of the Ku band for mobile broadband. In addition, in our view, any mobile broadband use in bands adjacent to the FSS and BSS Ku bands should also be considered very carefully. Robust sharing studies would need to be undertaken to show that mobile broadband use in these adjacent bands will not cause interference with direct-to-home Ku band services.

Should consideration of Ku for mobile broadband be progressed Foxtel would greatly appreciate direct engagement with the ACMA to discuss impacts on our business.

Bands adjacent to C-Band

The Discussion Paper notes that the 3575–3700 MHz bands, which are adjacent to C-Band spectrum used by Foxtel, are currently at stage 1 (initial investigation) in the ACMA's four stage process for identifying candidate bands for mobile broadband.[2]

Foxtel is neutral on the designation of these bands for mobile broadband, provided that licensed Earth stations in adjacent bands, used to receive international channels, are protected from interference. This should be ensured by way of emission masks and separation distances which are sufficient to protect against LNB overload. We understand that studies have shown that filters on Earth stations are relatively ineffective.

MSS bands

The Discussion Paper also identifies the 1980–2010 MHz and 2170–2200 MHz bands, the MSS bands, as falling within the ACMA's initial investigation stage.[3]

Foxtel's channel partner, Fox Sports Australia, currently holds a fixed licence in each of these bands and uses the licensed spectrum for outside broadcasting at sports events. As these bands will continue to be an important element of outside broadcasting at sports events for some time, substantial engagement and notice would be required should they be further considered for mobile broadband use.

If you have any questions about this submission please contact Michael Coonan, Foxtel's Manager of Broadcasting Policy, on (02) 9813 7633.

Yours sincerely,

Bruce Meagher
Group Director, Corporate Affairs

[1] Discussion Paper, page 49.
[2] Discussion Paper, page 49.
[3] Discussion Paper, page 49.