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10 March 2017

Radio Spectrum Management
Ministry for Business, Innovation and Employment
Stout Street
WELLINGTON

By email: radiospectrum@mbie.govt.nz

Dear Ministry

This submission is made on behalf of Television New Zealand Limited (**TVNZ**), in response to Radio Spectrum Management's *DRAFT Five Year Spectrum Outlook* (the **Outlook**).

TVNZ thanks MBIE for the opportunity to make this submission.

TVNZ notes that while reviews have been undertaken over recent years, these have invariably resulted in a reduction of broadcast spectrum.

RSM's declaration on page 19 of the Outlook that it wishes to facilitate development in television and audio broadcasting is welcomed. However future changes in the use of the spectrum within the 600 MHz band (currently allocated to Television) will stifle future development in broadcasting.

The UHF spectrum allocated to broadcast has already been markedly reduced during recent spectrum reviews. The remaining spectrum is either currently in use or is necessary for broadcasters to launch any additional or new services, such as delivery in ultra-high definition (or **UHD**) format.

Denying broadcasters the ability to transition to new services in parallel with incumbent services would hamper technological advances. As with the transition experienced migrating from standard definition (**SD**) to high definition (**HD**), during a future transition to UHD TVNZ would need to maintain simulcast broadcast streams. If the current spectrum allocation was to be reduced further, TVNZ and other broadcasters would be commercially disadvantaged in launching UHD (or other similar future) television broadcast services, as the risk of alienating a large part of the audience would be too high. There would also be no capacity to migrate to the higher modulation schemes mentioned in the RSM paper.



As the Outlook notes, a further reduction in the use of the 600 MHz band would also impact the use of wireless microphones which currently share this band with television. This would be particularly problematic with regard to sporting and other major events which rely on wireless microphone communications in their delivery.

TVNZ also has concerns about the replanning of the C-band for IMT allocations due to the risk of interference to international television programme links incoming to New Zealand.

TVNZ would be happy to meet with MBIE to discuss these concerns if that was useful.

Yours sincerely

A handwritten signature in blue ink, appearing to read "Brent McNulty".

Brent McNulty
General Counsel and Corporate Affairs Director