

Senate Standing Committee on Environment and Communications

Answers to Senate Estimates Questions on Notice

Additional Estimates Hearings February 2014

Communications Portfolio

Australian Communications and Media Authority

Question No: 6

Program No. Australian Communications and Media Authority (ACMA)

Hansard Ref: Page 10 (25/2/2014)

Topic: Digital radio technologies

Senator Urquhart asked:

Am I correct that the two technologies favoured in that review are DAB+ and DRM? Can you inform the committee of the difference between them?

Ms Cahill: Sorry, Senator, I do not have that information available. I would have to take the details on notice. But broadly speaking, you are right: those are the two technologies that are being canvassed. We will provide detailed information on the technologies.

Senator URQUHART: Can you tell me why technical trials are only being conducted on the DAB+?

Ms Cahill: Again, I would have to take that question on notice.

Answer:

The Australian Government's report on its *Review of technologies for digital radio in regional Australia* was published in October 2011. The review canvassed a range of digital radio technologies, however, submissions largely addressed the DAB+ and DRM technologies.

Some of the key differences are:

1. *Occupied bandwidth:* DAB+ signals take up 1536 kHz of spectrum whereas DRM30 occupies between 4.5 kHz and 20 kHz and DRM+ occupies 100 kHz.
2. *The number of program streams carried on one signal:* DAB+ as implemented in Australia typically carries up to 20 program streams, whereas a DRM30 signal would carry perhaps one or two program streams and a DRM+ signal could carry up to four program streams.
3. *Spectrum bands:* DAB+ operates in VHF Band III (174-230 MHz). DRM30 can operate in the LF, MF and HF broadcasting bands. DRM+ can operate in VHF broadcasting bands.
4. *Coverage:* DAB+ coverage from a single high power transmitter cannot completely match the coverage of a high power FM radio service without additional on-channel repeaters. DRM30 coverage is more like that of AM radio and depending on the operating mode could potentially offer similar coverage, although trials conducted in Australia have typically achieved less than equivalent coverage. DRM+ could potentially offer FM radio like coverage, however this technology has not been trialled in Australia.
5. *Availability of receivers:* DAB+ receivers are widely available in Australia and many other countries. DRM30 and/or DRM+ receivers are not available as consumer items anywhere in the world.
6. *Shared infrastructure:* Due to the large number of programs it can carry, DAB+ requires that multiple licensees share transmission infrastructure. There is little or no need for this with DRM30/DRM+ due to the smaller number of programs being transmitted.

The ACMA has a policy that facilitates trials of broadcasting technologies. The trial parameters and the technology are proposed by the applicant. The only current digital radio trials are using the DAB+ technology, however, DRM30 trials have been conducted on several occasions in the past.