

## **SUMMARY: ABC Digital Transmission Options**

**It is important for the health of our democracy and the quality of our society that the ABC fulfills its Charter to inform, educate and entertain. Australians in all parts of the country including those in remote and regional areas, must be able to access ABC (and SBS) services free or at minimal expense.**

- The main footprint of ABC programming is transmitted under contract by BAI Communications, via transmitters previously owned by the Commonwealth. The ABC pays BAI for this service.
- In many areas outside the main footprint of the ABC's signals, its radio and TV transmission depends heavily on the re-transmission of signals across some 200 smaller localized towers. A myriad of businesses and organisations pay for booster re-transmission towers to get signals into their areas and the maintenance of many sites is funded by local councils, Aboriginal Corporations and mining companies.
- Around a sixth of the ABC's budget already goes to radio and TV transmission expenses, but until recently it has not been asked to fund the costs of re-transmission.

### **ABC/SBS TV Transmission**

- In relation to ABC TV, the most important re-transmitter is Regional Broadcasting Australia Holdings (RBAH).
- RBAH is no longer prepared to fund the ongoing repair, upgrade and maintenance of the ABC and SBS transmission services without any financial contribution from the national broadcasters or federal government. Some regional areas have already lost ABC/SBS signals for a period of time due to RBAH seeking compensation for maintenance costs.
- The recent request by RBAH for ABC and SBS to cover the maintenance costs of its re-transmitters will increase the financial burden on the public broadcasters.
- There is a risk that this precedent of payment to RBAH and general cost pressures will result in at least some other re-transmission providers seeking funding for the maintenance of their services, putting additional pressure on the public broadcasters and jeopardizing rural and regional communities' access to services.
- This is an arguably inefficient and fragile arrangement and there is the real potential to impact the funding assigned to operational costs of the ABC if transmission costs rise.

### **ABC Digital Radio Transmission**

**To ensure reliable and accessible radio transmission across Australia, it is proposed that: ABC commits to switching all radio broadcasting from analog (AM/FM) to all digital (DRM and DAB+) within 10 years, with a capital city analog switch off in 5 years. (Note: the conversion from analog to digital TV across Australia was completed in 2013).**

**DIGITAL RADIO TECHNOLOGY** has many positive attributes compared with analog AM and FM:

- FM uses line of sight transmission from high towers, and AM uses ground waves which also absorbs the signal. In both cases obstructions and terrain can block the signal.
- **Digital Radio Mondiale (DRM) is digital High Frequency (HF) radio.** DRM uses HF signals which are reflected from the ionosphere back to earth, making the terrain irrelevant and covers long distances. DRM delivers better sound quality than traditional AM/FM radio and adds additional features such as emergency warnings, images and text.
- **Very High Frequency (VHF) DRM (DAB+)** is already being broadcast in capital cities.
- **Band 1 HF DRM** is suitable for regional areas. A single Band 1 DRM transmitter would support ABC/SBS radio (18 ABC/SBS programs) transmitting on each of 66 existing medium to high powered ABC TV/FM towers and will service regional areas.
- **High Powered HF DRM** is suitable for remote areas. If a high powered HF DRM transmitter was installed in the centre of Australia and transmitted in all directions, it could cover the whole continent. Such a central transmitter could be solar powered, located in a geologically stable area free of floods and fires, and hence protected from naturally occurring interruptions.

**Benefits of the switchover from analog to digital (DAB+/Band 1 DRM/HF DRM) for radio:**

- Rural and regional areas would receive all 18 ABC/SBS programs with ABC Local Radio for the region in place of capital city local radio.
- A central high-powered HF DRM transmitter would extend Emergency Warning System coverage for all Australians, regardless of where they are in Australia and its surrounding waters. The Emergency Warning System, would provide voice announcements, map images, detailed text instructions, redirection of vehicle navigation around closed roads, to those in the affected area.
- A central high-powered HF DRM transmitter would be able to carry ABC News and ABC Sport on radio for remote area audiences who currently have no access when mobile.
- **The financial motivation** for the switchover from analog to digital radio is the cost savings of decommissioning 1287 transmitters, saving on potential maintenance and operations costs. AM broadcast transmitter sites can be sold. Some of these sites are quite valuable.
- As for the switch in Australia from analog to digital TV, such a change to digital radio transmissions would need to occur over a set period of time. The transition will occur when the Band 1 transmitter (on 66 existing medium to high powered ABC TV/FM towers across regions) is on air and listeners have time to buy DRM/DAB+ radios.
- The switch to digital services will provide savings for businesses, councils, community groups, Aboriginal Corporations and mining companies that currently support re-transmission/booster re-transmission of ABC signals in regional areas. Conversion of commercial radio will also have reduced transmission costs.