

Chapter 2

Introduction

2.1 Submissions to this inquiry were very supportive of the bill's intent and the majority of its provisions. Broadcasters generally were positive about the capabilities that the new digital medium will give them in terms of content and new services. Sony Australia, the only manufacturer of digital receivers which lodged a submission, was also very positive about the introduction of digital radio and encouraged consumer marketing and education.¹

Issues

2.2 All media and communications policy reforms involve interactions between a complex business environment, multiple policy objectives, and important technological opportunities and constraints. The committee recognises that the process of policy development in this environment is demanding on all parties, and commends the government and stakeholders for having worked together toward a bill that appears to have broad support.

2.3 In the transition to digital radio, one of the significant hurdles to be cleared involves the scarcity of radiofrequency spectrum available in what are known as the broadcasting services bands. As the explanatory memorandum states:

In most major markets, there is currently insufficient spectrum to enable all existing analogue radio services to move to digital broadcasting. (Prior to analogue television closure, the only VHF Band III spectrum likely to be available in the capital city markets is the 6 MHz Channel 9A, which can accommodate a maximum of three DAB multiplex ensembles. VHF Band II (FM) and Medium Frequency (AM) spectrum is also heavily utilised in most major population areas.)

Nor is there a technical solution to offer digital conversion (were it financially feasible) to the large number of localised services provided by community broadcasters and low powered open narrowcasters (such as tourist radio).²

2.4 There are hopes that further spectrum may become available in future.³ There may also be future technological developments which increase the data transmission capacity within any given amount of spectrum bandwidth. However, in the current

1 Sony Australia, *Submission 4*, p. 2.

2 Explanatory Memorandum (EM), p. 12, including footnote 6.

3 Broadcasting Australia, *Submission 2*, p. 4. Broadcasting Australia (BA) understands that the suitability of using Channel 13, currently being used by the Department of Defence, is under examination – but actual use would require agreement from the Department of Defence. BA believes that Channel 13 would be a better outcome than Channel 9A described in the above text as 13 would not require the utilisation of another frequency band (the L-band).

context, the government has had to develop a system for allocating potentially scarce spectrum amongst participants in the market.

2.5 A second technical issue that is important to understanding the implementation of digital radio is the way in which the signals are transmitted, which is different to analogue radio. The bill provides for the implementation of digital radio based on European DAB standard known as Eureka 147. The DAB platform requires a number of digital radio services to be jointly broadcast on the one wideband channel using a shared transmission infrastructure known as a ‘multiplex’. In other words, multiplexes merge multiple audio and data content streams into a single data stream so that it can be broadcast from a common transmission facility.⁴ The bill amends the *Radio Communications Act 1992* to provide for a new category of transmitter licence called a ‘digital radio multiplex transmitter licence’ to facilitate the introduction of the new technology.⁵

2.6 These two factors – the scarcity of spectrum, and the need for broadcasters to co-operate in the use of a single data stream – have combined to create a challenging policy implementation environment. The committee concluded that in broad terms this challenge has been successfully met in the government's framework. These issues are however the setting for concerns brought to the committee's attention by broadcasters, particularly:

- Claims that the multiplex capacity framework will leave community radio at a disadvantage;⁶ and
- Arguments that the requirement that national broadcasters and community radio stations form companies in order to have digital broadcast licences will be an unnecessary administrative burden (bill items 146 & 161).⁷

2.7 While not precluded by the bills, some submitters also commented that ultimately for full, nation-wide coverage, Digital Audio Broadcasting (DAB) technology will need to be complemented by Digital Radio Mondiale (DRM) technology. The Australian Broadcasting Corporation (ABC) argued that this is something that should be resolved now rather than later.⁸

2.8 These issues are discussed further below. In addition, late in the inquiry process, Commercial Radio Australia (CRA) made a detailed submission in which it raised a number of technical issues regarding the wording of individual elements of

4 Gordon Niel (from DCITA), 'The digital radio introduction framework for Australia', *Telecommunications Journal of Australia*, vol. 56, no. 1, 2006, p. 6.

5 EM, p. 39.

6 3RRR, *Submission 6*; CBAA, *Submission 5*.

7 Triple R Broadcasters (3RRR), *Submission 6*, p. 2; Community Broadcasting Association of Australia (CBAA), *Submission 5*, p. 5; Australian Broadcasting Corporation (ABC), *Submission 1*, p. 6).

8 ABC, *Submission 1*, p. 7.

the bill and the explanatory memorandum (EM). The committee is aware of how complex the process of developing the digital radio framework and legislation has been, and was satisfied with the quality of the EM. However, recognising that CRA is a significant stakeholder in the process, the committee wrote to the Department of Communications, Information Technology and the Arts (DCITA), drawing attention to the submission from CRA, and seeking its response. The committee was satisfied by that response, and has included it as an appendix to this report.

Community radio and the multiplex framework

2.9 Concerns were raised on behalf of community radio licensees about how the multiplex capacity will be allocated and managed. The Community Broadcasting Association of Australia (CBAA) found the bill's proposed arrangements regarding multiplex allocation categories unsatisfactory, and at odds with the Minister's initial announcement in October 2005 that all available multiplexes would provide guaranteed capacity for community radio broadcasting.⁹ CBAA argued that:

access rights to digital capacity for the community broadcasting radio services can only arise where a multiplex is first brought into existence by virtue of commercial radio licensees exercising rights for digital capacity.

As the only path to digital for community radio broadcasting, this is not equitable or acceptable. There is a structural inequity in this arrangement that needs to be addressed.

Community radio broadcasting licensees should at least have access to digital capacity on the basis of 1/9th of a multiplex per existing analogue licensee and be able to access that capacity on any available multiplex, or even initiate the implementation of such a multiplex if resources permit.

That is, community radio broadcasting licensees should be able to assert an access entitlement on any available multiplex.¹⁰

2.10 This reaction appears to originate in the CBAA's concern that there will be more community radio broadcasters wanting access in some capital city markets than there will be space on the available multiplexes. In these circumstances, they see the arrangements as giving commercial broadcasters better access to spectrum than community broadcasters.

2.11 In its response to the committee's inquiry DCITA argued that, while the policy framework did not provide wide-coverage community radio broadcasters with equivalence to the commercial radio broadcasters or the national radio broadcasters in terms of capacity allocation, it did provide wide-coverage community radio

9 CBAA, *Submission 5*, p. 4. The actual words of Minister Coonan's Media Release of 14 October 2005 were "Jointly, wide-coverage community broadcasters in any market will have access rights to 128 kbps per analogue service (up to a maximum of 256 kbps per available multiplex) on the basis that they collectively determine how this is to be shared".

10 CBAA, *Submission 5*, pp 3–4.

broadcasting licensees with the right to access the equivalent of two-ninths of the capacity on multiplex transmitter licences.¹¹

2.12 The bill establishes a right for digital community radio broadcasting licensees in an area to access an amount of multiplex capacity reserved for the sector on all foundation category 1 or foundation category 2 multiplex transmitter licences. These rights are known as standard access entitlements and the capacity reserved for these entitlements is two-ninths of the capacity of a multiplex. Standard access entitlements are not the only means by which digital community radio broadcasting licensees may be able to access multiplex capacity:

- Digital community radio broadcasting licensees may also seek access to multiplex capacity on a foundation multiplex licence via excess-capacity access entitlements;
- The bill sets out a process to distribute any excess capacity in an equitable manner to content service providers entitled to provide digital radio services in the relevant area. This includes the digital community radio broadcasting licensees for the area; and
- The bill also includes provision for community broadcasters to access capacity on non-foundation category 1 and non-foundation category 2 multiplex transmitter licences via distributed-capacity access entitlements.

2.13 The submissions received from Triple R Broadcasters (3RRR) and CBAA both expressed concerns about the ability of community radio to adequately respond to the bill provisions. 3RRR found the licensing provisions too restrictive in terms of cooperation with other community stations in different cities.

Each station requires the flexibility to pool resources that strengthen that identity and retain relationships with their communities which is an inherent part of creating content that is both relevant to and reflective of those communities.

To do this stations require an allocation of digital capacity that is licence specific so that they can continue to have a level of ownership and control over their broadcast services in both an analogue and digital framework.

Given the limited digital capacity available, especially in markets such as Melbourne, it is understood that the initial digital licence allocation to existing metro wide community stations may not be able to be at a full 1/9th of a multiplex level. However, 3RRR considers it essential that there be at least a fraction of that capacity allocated in the early stages providing the station with choices as to how it might collaborate with other community services and also creating the framework to eventually reach parity with commercial services at the full 1/9th capacity.¹²

11 DCITA's response to the committee is in the Appendix to this report.

12 See also Triple R Broadcasters (3RRR), *Submission 6*, p. 3.

2.14 This same potential shortage of bandwidth capacity gives rise to the need to put in place a mechanism to arbitrate the shared access by stations to capacity. Item 146 of the bill proposes a collective arrangement 'for the effective administration of the licensing and access provisions of the Bill':¹³

the community broadcasters in a license area will be required to establish a [community radio broadcasting representative company] to enable their participation with the commercial radio broadcasters in the joint venture company controlling the multiplex transmitter license.¹⁴

Only when this company is formed can the community broadcasters access a multiplex.

2.15 This requirement that national broadcasters and community radio stations form companies in order to have digital broadcast licences appeared to be the most contentious issue. Of the seven submissions received, three raised similar concerns over this provision essentially arguing that the requirement to form a company would constitute an unnecessary administrative and managerial burden on the broadcaster.

2.16 The CBAA said:

The Bill sets out a collaborative framework for management of access to multiplex capacity by way of a 'digital representative company' in each city. This is one of a number of possible structural approaches and imposing this extra layer of management obligation in such detail seems unduly prescriptive... The extra layer of city based companies is judged to be onerous and unwieldy, needing newly created management entities... Instead [CBAA] prefers a direct licensing model similar to that which applies for commercial broadcasting.¹⁵

2.17 Part of their concern may be that the community radio broadcasting representative company, formed for purpose of broadcasting into the multiplex, will comprise potentially competing stations representing differing communities of interest that are seeking access to the same limited multiplex bandwidth. The CBAA has expressed concern that as well as being a potentially financially expensive governance arrangement for the stations to have to maintain, there is no obvious way for these conflicts to be arbitrated. The CBAA's view is that arbitration and resolution is best achieved through a single community broadcasting industry-based process in accordance with industry-agreed guidelines – those guidelines being registered with ACMA. This would be a process similar to that already in place for the industry agreed codes of practice, which self-regulate governance and content issues for the community sector.

13 EM, p. 58.

14 EM, p. 58.

15 CBAA, *Submission 5*, p. 5. See also 3RRR, *Submission 6*, p. 2.

2.18 Commercial Radio Australia (CRA) had a different view. They argued that the approach in the bill was the right one:

Commercial Radio Australia also considers that the proposed “community broadcasting representative company” approach that is contained in the Bill is a far more workable approach than that which has been suggested by the CBAA.¹⁶

2.19 However, CRA's subsequent remarks suggest they may have been labouring under the misapprehension that the alternative suggested by CBAA would mean that 'commercial radio licensees [would have] to become involved with any competing claims by individual community licensees'.¹⁷ The committee does not believe that was the CBAA's suggestion. The CBAA was suggesting that ACMA deal with licensing, and that issues be resolved by a community radio industry body (which could, but did not need to, be CBAA) under guidelines registered with ACMA.¹⁸ This need not involve commercial radio licensees.

2.20 In response to a request from this committee, DCITA examined the CBAA's proposal where by an industry body representing the community radio broadcasters takes on these functions. DCITA believes there are possible concerns and risks that could arise in relation to the proposed involvement of an industry body in digital radio on behalf of particular community broadcasting licensees.¹⁹

2.21 DCITA argued that the nomination by the industry body of particular persons/licensees to hold shares in a joint venture company on behalf of a broader group of individual digital community radio broadcasting licensees would appear likely to increase the risk of disputes between community broadcasters.

An alternative approach to the nomination process would be simply to provide that relevant digital community radio broadcasting licensees may hold shares directly in the joint venture company. However, this approach would seem unlikely to yield any significant gains.

Firstly, it would be likely to increase the administrative and operational burden on the joint venture company, with many voices rather than a single entity representing the community broadcasters in the area.

Secondly, the nomination of persons/licensees by an industry group would require the establishment of complex rules to ensure that the collective shareholding of the individual community broadcasters in the joint venture company was distributed equitably between the broadcasters concerned.²⁰

16 CRA, *Submission 7*, p. 14.

17 CRA, *Submission 7*, p. 14.

18 CBAA, *Submission 5*, p. 6.

19 See DCITA's correspondence in the Appendix to this report.

20 DCITA Correspondence, Attachment B, pp 6–7.

2.22 DCITA also thought the proposal would not necessarily resolve capacity distribution issues:

The proposal for an industry body to make decisions on the distribution of the reserved capacity would not appear likely to minimise the potential for disputes between individual digital community radio broadcasting licensees.

At a minimum, the industry body would need to develop detailed rules on such matters as the making and revoking decisions on access to capacity, entry of new community licensees, and resolving disputes. It is likely that these rules would be necessarily complex as they would need to accommodate the circumstances that might arise in any licence area, rather than dealing with a specific licence area alone.²¹

2.23 The ABC had concerns about the separate company arrangements required to be entered into by national broadcasters using digital multiplexes:

A major concern is that the formation of a company has the potential to place additional and unnecessary burdens on the national broadcasters. These include tax obligations, administrative and compliance costs, audit costs and directors' insurance.

The Corporation strongly supports the view, reflected in the legislation, that the most efficient model for Category 3 licences involves the ABC and SBS owning and managing a common ensemble multiplex and other shared infrastructure, rather than a third party. However, this does not of itself require the formation of company. In discussion, the ABC and SBS have been considering less formal instruments, such as a Memorandum of Understanding. The ABC believes that the legislation should not specify the precise instrument that is used for this purpose.²²

2.24 The committee recognises the concerns of community radio and national broadcasters. At the same time, all participants in this new broadcasting regime need to recognise that a complicated set of policy objectives are being pursued under some difficult technical constraints. It may be that the community radio sector's concerns are unduly pessimistic. It appears access issues may only be going to emerge under a particular set of circumstances:

- Less bandwidth than desired for enough multiplexes to meet the interest of all existing broadcasters wanting to commence digital broadcasting;
- This would in turn imply a very high level of interest in the short term by both commercial and community radio licensees wanting to commence digital broadcasting; and
- Intractable conflict amongst community broadcasters as to who should get access to spectrum, *if* the total amount available is less than desired.

21 DCITA Correspondence, Attachment B, p. 7.

22 ABC, *Submission 1*, p. 6.

2.25 The committee sought the view of the Department. It responded by indicating the company approach has been adopted as it was considered to be the simplest, most well-understood and equitable means of facilitating the collective involvement of the digital community radio broadcasting licensees in digital radio.

2.26 Shares in a representative company may only be held by the digital community radio broadcasting licensees for the licence area concerned. This provides a direct line of control for these broadcasters to manage their participation in digital radio.

- It will be these community broadcasters alone who make decisions concerning their involvement – together with the commercial broadcasters – in the joint-venture companies that will own and operate foundation multiplex transmitter licences.
- It will be these broadcasters alone who making decisions regarding how much capacity they are nominated to access – as individual licensees – as standard access entitlements.

2.27 The proposed representative company has no greater role in digital radio than in nominating the fractions of multiplex to be claimed by its shareholders – which are the community broadcasters themselves – and being involved in the operation of multiplex transmitter licences, again, on behalf of its shareholders. It is not intended that the representative company would have any involvement in the day-to-day operation of individual community broadcasting stations.

2.28 The committee also notes that the ACMA and the ACCC do have roles to play in helping ensure disputes are resolved in a way that implements the framework, prevents anti-competitive conduct and ensures a fair access regime.

2.29 Nevertheless, the committee understands that under the proposed model, any conflict between community broadcasters over which amongst them gets to use the limited bandwidth available will have to be resolved within the community radio broadcasting representative company. The Department explained that it would be open to the shareholders of a representative company to establish appropriate dispute resolution mechanisms in relation to the capacity nomination through the constitution of the representative company, should they consider this to be necessary. It will be these broadcasters alone who make decisions regarding how much capacity they are nominated to access – as individual licensees – to bandwidth entitlements. There will be no external party making decisions for the broadcasters which they may not consider to be in their interest.

DAB, DRM and regional and remote broadcasting

2.30 There was broad agreement from all submissions that DAB was the most appropriate technology through which to operate digital radio in Australia. However, there is also a recognition that DAB alone will not provide a full national coverage. The Explanatory Memorandum recognises this reality and indicates that the Government will continue to monitor developments with digital radio technologies,

including Digital Radio Mondiale (DRM), to determine whether supplementary platforms may be appropriate to address regional and remote coverage issues.²³

2.31 The ABC was, however, of the view that an additional digital radio standard that is appropriate for wide-area coverage of regional and remote Australia be adopted from the start:

[O]ther platforms, such as DRM, will probably be required to address regional and remote area coverage issues, including delivering digital radio broadcasts that are able to be received on the highways between towns. The ABC believes that such a wide-area digital radio standard should be determined before the provisions of the current Bill come into effect.

The primary reason is that if, for example, DRM is ultimately adopted as the wide-area digital radio standard, it will be necessary for receiver manufacturers to produce multi-format devices that are able to receive both DAB and DRM, as well as AM and FM analogue radio. In the absence of a second digital radio standard for regional areas, no incentives currently exist for manufacturers to consider the need for such multi-format receivers in their forward planning. The likely result will be that by the time a second digital radio standard is settled, digital tuners that are only able to receive DAB broadcasts will be in the marketplace in significant numbers.

A better outcome would be achieved if all digital tuners sold in Australia from the outset were able to receive both digital radio standards.²⁴

2.32 Broadcasting Australia suggested in their submission that the specification of digital receivers for the Australian market was a key short term issue and one that must take into account Australia's particular requirements. They concurred with the observation that DRM is likely to provide a suitable technology for regional and rural broadcasting.²⁵

2.33 CBAA also referred to the different broadcasting technologies, however they were satisfied with the bill's provisions in terms of complementary broadcasting approaches.

The Bill is clearly drafted with the presumption of Eureka 147 DAB/DMB technology. The reasons for the focus on EU147 at this time are understood and agreed. It seems likely that other technologies may also have relevance to the radio industry, including Digital Radio Mondiale (DRM) and Digital Video Broadcasting, Handheld (DVB-H).

Since we last made comments of this nature it seems the Bill may have been examined to ensure that licensing of near term future alternate

23 EM, p. 21.

24 ABC, *Submission 1*, p. 8.

25 Broadcasting Australia, *Submission 2*, p. 5.

technologies for radio purposes is not excluded or made inadvertently difficult.²⁶

2.34 The second reading speech stated that the bill:

provides for a statutory review of issues surrounding the development of technologies that may be better suited to rollout in regional areas. This review, due to occur by 2011, will provide a timely consideration of the opportunities for regional digital radio in the context of the development of the platform in metropolitan areas as well as internationally.²⁷

2.35 The committee understands there may be several reasons for this cautious implementation:

- Fear of the high costs of roll-out, for government, broadcasters and consumers;
- Rapid evolution of both the technology and the standards underpinning manufacture of both transmitters and receivers;
- Desire to encourage adoption by consumers of the technology, perhaps informed by experiences with digital television; and
- Some questions over the technological advantages of DRM, which is the technology generally discussed for regional and remote Australia.

2.36 It is understandable that cost is an issue. If DRM is mandated in some way now, that may lead to all receivers having to include an extra digital radio technology and hardware. This might increase their retail cost, even though it may be several years before some of that technology is needed to listen to broadcasts. This may reduce the popularity of digital radio generally. There are also costs to other parties, including broadcasters and governments, which need to be taken into account.

2.37 The committee notes that the EM states that experience with DRM to date appears to show that this technology may be able to provide a limited quality of service – in some circumstances possibly not much better than analogue radio.²⁸ Taken together with strong evidence that consumer demand for digital radio is driven by new and innovative content,²⁹ it is understandable if the government wishes to carefully assess the benefits to consumers of the technology, particularly if there are high roll-out costs for all parties (including radio listeners).

2.38 The committee recognises there may also be other options for broadcasting outside major centres. The EM notes that some experience with digital radio to date

26 CBAA, *Submission 5*, p. 6.

27 The Hon. Bruce Billson, *House of Representatives Hansard*, 28 March 2007, p. 9.

28 See the EM, p. 6; DRM Consortium webpage, <http://www.drm.org/system/technicalaspect.php>, accessed May 2007.

29 See, for example, the EM, p. 17.

worldwide has been disappointing.³⁰ Of the successes identified in the EM, one is the use of satellite-based radio (SDARS) in the USA, which might be a potential alternative for coverage of a wide area (such as regional and remote Australia). The committee notes that the statutorily mandated review for regional area technology options³¹ is required to examine satellite as well as terrestrial technologies, suggesting the government is aware of this possibility. At the same time, the committee acknowledges that there are no serious suggestions of which it is aware that any technology other than DRM is considered a likely candidate for the delivery of digital radio in rural and remote areas of Australia.

2.39 The committee also notes that Broadcast Australia say in their submission that they have been involved in a DRM trial in Canberra since 2006, but say nothing about the results of this trial.³²

2.40 The committee understands the complexity of the issues involved. It recognises the merits in a careful and staged process of implementation for digital radio. However, it is also concerned that if the government does not signal a preferred standard for digital radio for the bush, the next generation of radios sold in the market may not be able to receive and decode these signals. Experience of digital radio in the UK highlights how existing receiver technology can hamper the evolution of digital radio services. The committee hopes that the government will take an approach that minimises the barriers to the adoption of digital radio in regional and remote areas.

Conclusion

2.41 The committee congratulates the government on its work in making digital radio a reality that will soon be enjoyed by Australians. It recognises that there may be fine tuning needed, and that as the government has pointed out, there are more challenges and opportunities ahead. The committee is satisfied with the bill as a whole.

Recommendation 1

2.42 The committee recommends that the bill be passed.

Senator Alan Eggleston
Chair

30 EM, p. 7.

31 See Item 70, p. 36 of the bill.

32 Broadcast Australia, *Submission 2*, p. 2.

