

Community Digital Radio

Creating diversity, extending choice



CBA submission in relation to reviews conducted into digital radio

under section 215B of the Broadcasting Services Act 1992 and section 313B of the Radiocommunications Act 1992

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Digital Radio

Reviews conducted under section 215B of the Broadcasting Services Act 1992 and section 313B of the Radiocommunications Act 1992

1. Introduction

- 1.1 The Community Broadcasting Association of Australia (CBAA) welcomes the opportunity to submit comments in relation to two statutory reviews of digital radio issues being conducted in accordance with section 215B of the Broadcasting Services Act 1992 (**BSA**) and section 313B of the Broadcasting Services Act 1992 (**Radiocommunications Act**).
- 1.2 The Minister for Communications has caused these two reviews to be conducted by 1 January 2014. The two reviews are being considered in a combined process.
- 1.3 A discussion paper was prepared by the Department of Communications and distributed on 24 December 2013. The review process is to be informed by responses to the discussion paper as well as consultations with stakeholders.
- 1.4 The CBAA is the peak body for community broadcasting in Australia, representing over 350 licensed radio broadcasters.
- 1.5 The CBAA acts under agency arrangements as a single point of co-ordination with respect to community broadcasting licensees eligible to provide digital radio services under the Radiocommunications Act.
- 1.6 In the preparation of this submission the CBAA draws on its expertise and experience of co-ordinating and implementing digital radio services with 37 eligible licensees in the metropolitan cities of Sydney, Melbourne, Brisbane, Adelaide and Perth.
- 1.7 The CBAA also draws on corporate and consultant expertise with digital radio policy, spectrum and regulatory framework development through Ministerial Digital Advisory Committees and Broadcast Planning Task Groups dating back to the early 1990's.
- 1.8 The first phase of digital radio commenced in Sydney, Melbourne, Brisbane, Adelaide and Perth. Hobart was initially in scope but, in 2008, after industry representations, its implementation was deferred, instead to be part of next phase regional services.
- 1.9 The then Minister for Communications (Information Technology and the Arts), Helen Coonan, announced the current legislative framework for digital radio in October 2005. This was followed by legislation in 2007.
- 1.10 The framework and legislation provides digital radio multiplex transmission capacity for national, commercial and community digital radio services.
- 1.11 National and commercial services commenced as from July 2009. Community digital radio services commenced as from October 2010.¹

¹ Funding was committed by the Howard Government in line with long-standing commitments to ensure affordable access to digital radio for community broadcasting. Funding was deferred twelve months by the Rudd Government, resulting in implementation on-air in 2010 rather than 2009.

2. First phase implementation to metropolitan areas

Community digital radio services are expanding choice for listeners, adding diversity and extending access to new communities

- 2.1 The first phase of digital radio rollout has been to implement digital radio services in Sydney, Melbourne, Brisbane, Adelaide and Perth.
- 2.2 Alongside commercial and national radio services, thirty-seven wide-coverage community broadcasting services are included in the first phase digital radio rollout.
- 2.3 Community broadcasting in each city provides a diverse mix of cultural and specialist talks, educational, music, Indigenous, print handicapped, youth, seniors, religious and ethnic language and multi-cultural radio services.
- 2.4 Guiding principles underpin the significant contribution these services make to media diversity and social inclusion, including to:
 - (a) Promote harmony and diversity and contribute to an inclusive, cohesive and culturally diverse Australian community.
 - (b) Pursue the principles of democracy, access and equity, especially for people and issues not adequately represented in other media.
 - (c) Enhance the diversity of programming choices available to the public and present programs that expand the variety of viewpoints broadcast in Australia.
 - (d) Demonstrate independence in programming as well as in editorial and management decisions.
 - (e) Support and develop local arts and music.
 - (f) Increase community involvement in broadcasting.
- 2.5 Audience research has shown strong listener support for the provision of free-to-air community digital radio services. The community sector listener figures exceed or are broadly in line with other digital radio audience research ².
- 2.6 Latest figures available in early 2014 show listening to community digital radio services in the previous week, is tracking at 13.3% of total listening to community radio services, and that the time spent listening is averaging 15.4 hours per week. ³
- 2.7 The DAB+ digital radio platform adopted in Australia is future facing. It employs high efficiency audio coding, and uses a shared contribution and transmission infrastructure.
- 2.8 The presence of community broadcasting services on digital radio is meeting long-standing Federal Government commitments to community broadcasting, local content and media diversity.
- 2.9 More generally, the provision of free-to air digital radio services is pivotal to the developing convergent multi-platform environment.
- 2.10 The uptake of digital radio has been strong with market research figures showing receiver sales exceeding 1.4 million since digital radio start-up.
- 2.11 While progress has been made further work is needed to encourage integration into cars in Australia. International trends are positive with 42% of new UK car registrations now having digital radio fitted.

² Attachment 1. 37+ metropolitan wide community services are on-air in Sydney, Melbourne, Brisbane, Adelaide and Perth.

³ Attachment 2. December 2013 National Listener Survey, McNair Ingenuity, 13.3 % listened in the last week to community digital radio services. November 2013 CRA Nielsen 12.7% listened in the last week to digital radio, all services.

- 2.12 Further work is needed to integrate digital radio into mobile tablet and smartphone devices.
- 2.13 The CBAA supports multi-platform delivery and complementary online and broadcast hybrid digital delivery. It has been developing service outcomes with integration and complementarity. It is active in industry development forums to that end.
- 2.14 In the metropolitan areas, community digital radio services expand choice for listeners, support local content and information, add diversity and engage communities. Out of thirty-seven services, there are fourteen new and unique digital services on-air from the community sector, and include:
- (a) Full-time ethnic services are innovating by adding extra languages and extending access to new communities. The Global service in Brisbane is a new full-time ethnic service.
 - (b) New full-time digital services are also being broadcast by print handicapped radio, youth, specialist and classical music, and religious stations.⁴
- 2.15 Recent service development and innovative special event broadcasts indicate the unique contributions of the community radio services to cultural issues and debate, and include:
- (a) Radio Survival. A multi-city digital service with content produced by Indigenous broadcast stations on both Indigenous and reconciliation issues.
 - (b) Star Observer Radio. A collaboration between 2SER in Sydney and JOY in Melbourne, with input from GBLTQI program makers across the country to profile gender and sexuality issues.
 - (c) Girls to the Mic. A multi-city digital service to coincide with International Women’s Day featured young women’s perspectives, ethnic and Indigenous women broadcasters and broad-ranging social commentary by women on issues that affect all Australian communities.
 - (d) Inspire and Christmas Hope. Inspire is an on-going multi-city and multi-platform collaboration with a special focus on Christian faith issues. Christmas Hope features Christian perspectives through November and into January.
- 2.16 Building on the success of the first phase, further work is needed to extend digital radio to regional areas of Australia. There is strong interest from regional services to participate in digital radio and collaboration is being encouraged.⁵
- 2.17 A number of digital development initiatives are underway to engage regional stations. SYN, Melbourne’s youth broadcaster, is operating a regional youth multi-platform project to develop digital services in collaboration with regional community radio stations. The project provides youth training and development opportunities and supports youth engagement in regional communities.
- 2.18 Regional community radio services play a critical role in regional communities for provision of local news, information and discussion of local issues. They support social inclusion, community capacity and provide cultural infrastructure in a period when regional communities are experiencing extensive economic challenges and change. Over 70% of community radio services are located in regional areas. In over 30% of regional areas they are the only radio services producing local content and presenting a local voice.
- 2.19 The community sector is excited at the challenges presented by the evolving digital environment for radio. It is vitally concerned to ensure all Australians have access to a diverse range of free-to-air services in digital form.

⁴ Attachment 3. Community digital radio services add significant diversity. Digital radio is a free-to-air platform.

⁵ Attachment 4. Community digital radio services are constructed to be multi-platform. The infrastructure encourages collaboration and development.

3. Planning and spectrum

A timetable should be announced to plan delivery of digital radio services to all Australians

- 3.1 The existing digital radio legislation provided for initial digital radio services in Sydney, Melbourne, Brisbane, Adelaide and Perth; and gave power to ACMA set a digital start up day to be on or before 1 July 2009.
- 3.2 The Minister for Communications has power to declare a commencement date for other areas but the legislation does not set down a specific timetable and/or trigger. Timing is a matter for Federal Government policy decision.
- 3.3 As an immediate next step, the CBAA has been calling for the Government to initiate convening a transparent and inclusive digital radio planning process. A key outcome of that planning process would be an agreed national channel plan for digital radio.
- 3.4 The CBAA considers each broadcasting sector has invaluable expertise to bring to the table and an industry wide planning process, convened by ACMA, is the appropriate mechanism.
- 3.5 A significant body of work is required and there are complex matters to address for sensible aggregation of services to ensure best efficiency and service provision.
- 3.6 The national channel plan will necessarily both provide for existing requirements and anticipate the likely future entitlements and requirements for digital radio multiplex capacity of the community, commercial and national broadcasters.
- 3.7 One key determinant in developing a channel plan for digital radio is the amount of radio-frequency spectrum available for the purpose.
- 3.8 As part of digital television restack planning, the previous Minister, Stephen Conroy, issued a direction to ACMA that 14 MHz of VHF spectrum be set aside for digital radio.⁶
- 3.9 It is well known that the limit of 14 MHz of VHF spectrum presents challenges to being able to allocate DRMT channels sufficient to accommodate all broadcasters; in particular affecting areas adjacent to the existing metropolitan areas. It is short of the 21 MHz allocation the industry previously and collectively considered workable for digital radio implementation.
- 3.10 Responses to this spectrum challenge include identifying further spectrum for digital radio use:
 - (a) L band (1452-1492 MHz) remains reserved for digital radio purposes and the CBAA, while preferring that digital radio be planned on VHF at this stage, would strongly oppose release of L Band spectrum for other purposes unless and until a full national channel plan for digital radio has been completed with pathways identified in that plan to accommodate all existing and likely services.⁷
 - (b) VHF spectrum above television channel 12 (230-240 MHz) currently allocated to Defence purposes is also an option. This band is used for digital radio in the UK and Europe. Digital radio receivers currently sold in Australia already scan this band. In some locations the band could be used for digital radio on a co-primary basis with Defence.

⁶ To facilitate the rollout of digital radio to rural and regional Australia, in July 2010 the Minister gave ACMA a direction to reserve 14MHz of spectrum within the range 174-230 MHz in each metropolitan area. This allows equivalent spectrum to be used in adjacent regional areas without interference to television and radio services already operating in metropolitan areas.

⁷ Given a shortage of VHF Band III spectrum, L band should remain an option. While L Band will not be a wide-area solution it may well be required to support in-fill and new services in urban areas and for various aspects of regional rollout. Multi-band DAB+ receivers are available. L band antennae are compact.

- 3.11 Alternatively, within the 14 MHz BSB VHF band III limitation, several options are possible:
- (a) Use of a Single Frequency Network approach across major adjacent centres, such as, for example, Sydney, Wollongong and Newcastle. A common DRMT channel, co-channel in frequency with the main city channel and licensed in Category 3, would carry all 'national' services of the ABC and SBS, and be augmented with city-by-city based DRMT channels, licensed in Category 2, to carry the 'local' ABC radio service, as well as the community and commercial services. This would give major spectrum efficiencies in some of the highly congested areas.
 - (b) Channels used for high power implementation in adjacent regional areas can be re-used at lower power in metropolitan areas to provide a solution for limited coverage sub-metropolitan digital radio services. This provides a pathway for these community services, hitherto though to be excluded from a digital radio future. It also provides options for a 'distributed emission' approach to coverage, rather than adherence to the 'single major site in the centre' approach traditionally used for broadcasting provision.
- 3.12 The CBAA has undertaken and commissioned preliminary planning work to demonstrate the viability of the distributed emission approach in concept for additional metropolitan capacity. Using a small number of example sites, coverage prediction analysis and population counts have been determined. The concept provides additional metropolitan capacity in the examples applied for Sydney and Melbourne sub-metropolitan services. To achieve best multiplex occupancy and efficiency, the approach is assisted through mild aggregation of licence areas in sub-metropolitan areas.⁸
- 3.13 The CBAA has been forced to engineer solutions to provide many radio services within a heavily limited amount of overall digital capacity. In some cases it has had to accommodate seven community digital radio services into the space of two commercial radio entitlements. These extreme scenarios are in Perth and Adelaide with only one available multiplex but the same process has been necessary to a greater or lesser extent in all five cities.
- 3.14 Due to capacity limitations, the CBAA has garnered years of expertise and experience in configuring services with audio, transmission and error protection arrangements atypical of other services. It has conducted wide-ranging and international research on this aspect. It has undertaken and documented city-wide drive tests in all five cities to A-B compare reception outcomes with services operating with more generous capacity arrangements.
- 3.15 The CBAA would be pleased to have this matter considered further as part of a transparent and inclusive digital radio planning process.
- 3.16 The CBAA suggests that inputs from all broadcast sectors and broadcast infrastructure providers would assist in the formulation of the most efficient national plan for digital radio.
- 3.17 The CBAA is aware that Commercial Radio Australia has undertaken some internal planning work with its own constituents to develop a national channel plan. The CBAA has done significant work on the number of community services to be in scope for digital rollout.
- 3.18 Whatever plan is ultimately adopted and agreed, the channel raster must be planned for the whole country, and must be one that is the best fit to accommodate the requisite community, commercial and national services in appropriate balance for a diversity of free-to-air services. The next step cannot be piece-meal.

⁸ Attachment 5 Shows the concept of aggregating existing sub-metropolitan licence areas in Sydney.

Attachment 6. Shows the same concept applied to sub-metropolitan licence areas in Melbourne.

Re-use of adjacent market frequencies limits the coverage of individual services. Population counts are included and demonstrate viability. Other groupings and approaches are possible.

4. Planning priorities, resourcing and timetable

Coverage of major regional centres to be achieved within 5 years,
followed by all major population centres within 10 years

- 4.1 Through existing digital radio legislation, the Government has already set down broad principles to guide the formulation of a national digital radio channel plan.
- 4.2 In each regional area, to cater for the existing mix of community, commercial and national services, there would be either:
 - (a) a single Category 2 digital radio multiplex transmitter (DRMT); or
 - (b) a Category 3 DRMT as well as a further, single, Category 1 or Category 2 DRMT.
- 4.3 The initial DRMT will be foundational, whether it be Category 1 or Category 2. Each commercial sector service will thus be entitled to one-ninth capacity, and the community sector, on a joint basis, will have two-ninths capacity reserved.
- 4.4 There are wide-ranging public policy considerations to be worked through as part of the planning process, and a need for independent assessment to balance what will inevitably be a complex set of competing interests at play.
- 4.5 While there may no need of additional resources, the Government needs to maintain a commitment to ensure there are adequate resources within ACMA to properly develop and work with the community, commercial and national broadcasters in formulating a full national channel plan for digital radio as a priority.
- 4.6 The CBAA suggests the following broad approach and timetable.
 - (a) Government declares support to plan for the extension of digital radio and causes an inclusive and transparent planning process to be established, convened by the ACMA.
 - (b) Government confirms there are adequate resources within the ACMA to properly develop and work with the community, commercial and national broadcasters.
 - (c) A target rollout timetable be adopted, with major population centres as the next focus.
 - (d) A timeline for coverage of major population centres to be achieved within 5 years, with next level population centres to be achieved within 10 years.
 - (e) Triggers are considered for analogue radio closure based on digital listening, in all forms, exceeding 50% in each area and coverage by DAB+ exceeding 95%.
- 4.7 The CBAA strongly supports extending digital radio using DAB+ technology and considers regional extension and full planning as a critical next step to consolidate and further engage digital broadcast technology.
- 4.8 In addition to the metropolitan-wide services already operating on DAB+, the community sector has a significant number of sub-metropolitan services. A body of work has been undertaken to model implementation of these services using DAB+ technology. There is no reason not to plan metropolitan enhancement alongside regional extension.

5. Planning by licence areas: coverage, overspill, overlap and deeming

Shared infrastructure brings about the need to align coverage of each participating broadcaster

- 5.1 The digital radio framework contemplates planning and rollout based on designated BSA radio licence areas, effectively equating to commercial radio licence areas.
- 5.2 Prevention of overspill to adjacent licence areas may be a demarcation for commercial business markets but, when planning services for public interest purposes, coverage, including at the licence area boundary, is the primary consideration.
- 5.3 Digital radio using DAB+ technology relies on shared multiplex infrastructure. Shared infrastructure brings about a need to align coverage of each participating broadcaster.
- 5.4 Coverage of national analogue radio services does not necessarily align with commercial or community broadcasting licence areas. In regional areas many community broadcasting services have licence areas which intersect and overlap but may not fully align with commercial broadcasting service licence areas.
- 5.5 While there may be benefits through infrastructure sharing and service planning based on a common building block approach, the planning metric of commercial radio licence areas is a pragmatic approach and should not be (mis)taken as being the only basis or consideration required to calculate what digital radio services should be available in an area.
- 5.6 There may be locations where community broadcasting services or national broadcasting services might be an appropriate first step. Neither should be prevented.
- 5.7 Under section 8AD of the BSA or under a determination made by the ACMA, a community radio broadcasting licensee may be a designated community digital broadcasting licensee if its licence area is 'deemed' to be the same as the relevant commercial radio broadcasting licence area.
- 5.8 The ACMA has already made two such determinations in respect of print handicapped radio services in order that these services were included as part of the initial capital city digital radio rollout. Further determinations were also anticipated for Hobart.
- 5.9 As noted, in regional areas there are many community broadcasting services that have licence areas which intersect and overlap but may not fully align with commercial licence areas.⁹
- 5.10 That this issue would arise in regional areas was the key reason the ACMA was conferred the power under subsection 8AD(3) of the BSA to deem that specified licence areas of a radio broadcasting licence be taken to be the same as the designated BSA licence area.
- 5.11 The concept of deeming in the existing legislation thus provides the flexibility required to ensure an appropriate mix of services is provided on each DRMT.
- 5.12 The CBAA submits that, for planning and policy guidance, any service that overlaps the designated BSA radio licence area be in consideration for standard access entitlements; while any service which overlaps the designated BSA radio licence area by greater than 25%, in either population or geography, be automatically deemed eligible for standard access entitlements.

⁹ Attachment 7 Map of Australia with current community metropolitan-wide digital radio services, followed by maps showing examples - in Canberra, Darwin, Hobart and regional areas near Sydney - where regional services overlap but do not fully align with commercial licence areas. Many other licence areas have similar overlap characteristics.

6. Foundation multiplexes

Multiplexes should be declared foundational until each community entitlement is able to access equivalent capacity to a commercial entitlement

- 6.1 ACMA can declare Category 1 or Category 2 DRMTs as foundation licences. Foundation multiplexes provide for standard access entitlements for incumbent commercial and community licensees:
- (a) each incumbent commercial radio licensee is entitled to access one-ninth of multiplex capacity.
 - (b) two-ninths of multiplex capacity is reserved for the use of community broadcasting licensees on a collective shared basis.
- 6.2 The ACMA is not able to licence more foundation DRMTs in an area than is necessary to meet standard access entitlements for commercial broadcasters.
- 6.3 If the ACMA were to licence any further DRMTs in Sydney, Melbourne, Brisbane, Adelaide or Perth these licences would not be foundation DRMTs.
- 6.4 There is no entitlement to, or reservation of, standard access entitlements to multiplex capacity under non-foundation DRMT licences.
- 6.5 The number of foundation DRMT licences in an area has been determined only on the basis of existing or likely commercial broadcasters in that area. This is an inadequate public policy framework and creates a structural inequity.
- 6.6 The Act provides that each community broadcasting service be entitled to the same capacity as each commercial broadcasting service, one-ninth of a multiplex. It then places an over-arching cap of two-ninths on capacity afforded to community broadcasting licensees collectively.
- 6.7 Under the current framework, and digital radio multiplex arrangements for metropolitan areas, community broadcasters have significant limitations on capacity available per service. The equivalent of two standard access entitlements is shared among many wide-area community broadcasters in an area, as many as six in Adelaide and seven in Perth where there is only one available multiplex. This presents severe challenges to the community broadcasters to provide basic digital radio services.¹⁰
- 6.8 It is desirable to make additional multiplex capacity available. Were an additional multiplex initiated it should be able to be declared as a foundation DRMT, which will require amendment to the current rules in the Act.
- 6.9 A foundation DRMT licence would be preferable because:
- (a) a price-based allocation system is not required; and
 - (b) it provides reservation of two-ninths multiplex capacity for community broadcasters.

¹⁰ Attachment 8. Community sector services are being squeezed. In Adelaide as many as six community broadcasters share the equivalent capacity of two commercial entitlements. In Perth seven community services share the equivalent capacity of two commercial entitlements.

Sydney	8 community stations share the space of 4 commercials
Melbourne	9 community stations share the space of 4 commercials
Brisbane	7 community stations share the space of 4 commercials
Adelaide	6 community stations share the space of 2 commercials
Perth	7 community stations share the space of 2 commercials

- 6.10 A non-foundation DRMT licence has drawbacks because:
- (a) the issue is subject to a price-based allocation system;
 - (b) there is no reservation of multiplex capacity for community broadcasters or reservation of standard access entitlements; and
 - (c) distributed-capacity access entitlements may be free issue (if demand for capacity is less than available capacity) or determined by auction (if demand for capacity is less than available capacity) and in an auction situation, there is no guarantee that community broadcasters would be able to secure any of that capacity.
- 6.11 The CBAA therefore submits that section 98E and 102F should be amended to allow for the issue of an additional foundation digital radio multiplex transmitter licence in an area where additional capacity is required for community broadcasting services in the area and as overflow capacity for commercial broadcasters.
- 6.12 The amendment would need to modify the current limitation on the number of foundation digital radio multiplex transmitter licences. The provision of sufficient multiplex capacity to fulfil existing or likely standard access entitlements of commercial broadcasters would need to include sufficient additional reserved multiplex capacity to fulfil existing or likely community broadcaster needs (which could again be limited to part of the total multiplex capacity made available under the additional foundation licence).
- 6.13 For the most efficient use of spectrum in providing additional capacity to an area, it may be appropriate to issue a category 2 digital radio multiplex transmitter licence. This would mean that overflow capacity could be made available to the national broadcasters (who each have a standard access entitlement) and commercial broadcasters and two-ninths of capacity reserved for community broadcasters and it may be desirable to confirm this in the Act.
- 6.14 Depending on the position reached with respect to providing additional foundation capacity as proposed, amendments may also need to be made to sections 102C or 102D. For example providing a right to the existing category 1 or 2 foundation digital radio multiplex transmitter licensee to also apply for the issue of the additional foundation licence.
- 6.15 Minor amendments to sections 102D(3) or 102C(3) may suffice. Any modifications giving entitlements to additional capacity to commercial and community broadcasters could be made to sections 118NQ and 118NR, as necessary.
- 6.16 Access to the additional capacity can be managed through the existing nomination procedures in section 118NR.

7. Excess capacity

Where excess capacity is available, additional capacity should be reserved to meet community broadcasting requirements

- 7.1 As outlined in the previous section, following the digital radio rollout in the metropolitan areas, community broadcasters have significant limits on capacity available per service. The equivalent of two standard access entitlements is shared among many community broadcasters in an area, currently as many as six in Adelaide and seven in Perth.
- 7.2 It is desirable to make additional multiplex capacity available.
- 7.3 As the digital radio rollout extends there will be some areas where there will be a significant number of community broadcasters and few commercial broadcasters. This may influence decisions as to the nature of the DRMT licences to be issued in the area – for example whether there would be two multiplexes – a category 1 and category 3 or a single category 2 multiplex.
- 7.4 In order to ensure efficient allocation and equitable broadcast outcomes, the CBAA proposes that the rules with respect to Excess Capacity access entitlements are revised to allow for additional community broadcasting capacity to be reserved out of what may otherwise be Excess Capacity.
- 7.5 It would be necessary to make additional provision in the Act for this proposal.
- 7.6 The procedure may be for ACMA to ascertain the level of requirement for community broadcasting multiplex capacity in the area and, where each community broadcaster is unable to access the equivalent capacity to a commercial entitlement, the ACMA could declare a special class of category 1 or 2 multiplex that gives additional rights to reserve part of Excess Capacity for community broadcasting purposes.
- 7.7 Access to the additional capacity can be managed through the existing nomination procedures in section 118NR.

8. Trading access entitlement obligations

- 8.1 The CBAA suggest consideration be given to amending the Act to allow flexibility in how access entitlements might be technically provided.
- 8.2 For example, where more than one multiplex is licensed in an area it might, by agreement, be technically or operationally efficient to carry all or some community broadcasting services on one or other multiplex. In effect, this would be to allow for trading of the access obligation.

9. Electronic Program Guide

- 9.1 The CBAA suggest the Act be amended to provide for Electronic Program Guide (EPG) capacity to be reserved as an overhead. Requiring this be drawn from Excess Capacity is suggested.
- 9.2 It is desirable that all multiplex EPG data is displayed in a common manner on all multiplexes broadcasting to each licence area. The Act should also ensure an EPG system does not discriminate against any Access Seeker or its services.
- 9.3 While digital radio receivers display image and text, few yet exploit full EPG operation. This is no reason to overlook the need for EPG capacity on each multiplex. The CBAA notes the national broadcasters have set aside a small amount of capacity for EPG use. Typically 8 - 32 kbps is required.

10. Standard access entitlement

Division of multiplex capacity by eighteen for Category 2 multiplexes

- 10.1 The digital radio framework announced in 2005 envisaged EU147 DAB technology, where a common multiplex provides the means of transmission and is divided into nine as the basic increment of digital capacity.
- 10.2 The division into ninths results in a nett bit rate of 128 kbps, assuming standard transmission parameters and error protection.
- 10.3 At the time the framework was announced the existing audio coding technology was the very old MPEG1 Layer2. This coding is still in use in the UK, and the overall system is known as DAB. It provides only adequate quality at 128 kbps.
- 10.4 After the announcement of the framework and before implementation in 2009, much work was done, particularly in and by Australia, to gain world agreement to adopt a new coding standard, using HE-AAC. The standard as applied to digital radio became known as DAB+. ¹¹
- 10.5 Observations made in each city of nett bit rates typically used by Australian broadcasters indicate the benchmark for service provision is overwhelmingly in the range 48-80kbps, typically 64 kbps. ^{12 13} In every multiplex, more than nine services are being provided. The mean number of services being provided per multiplex calculates to 18.5.
- 10.6 The standard access entitlement of one-ninth is therefore providing capacity for multiple services in digital. This begs the question as to whether the standard entitlement ought be revised, given current limited capacity available to community broadcasters.
- 10.7 Were the standard entitlement to be adjusted to one-eighteenth, it would afford 64 kbps per broadcaster, using standard transmission parameters and error protection.
- 10.8 In regional areas there may be cases where a single Category 2 multiplex may be called upon to provide a mix of core radio services: community, commercial and national. Clearly the ability to fit a nominal eighteen services per multiplex would be a significant advantage in that scenario.
- 10.9 In the scenario where each broadcaster was allocated one-eighteenth, should there be Excess Capacity available it would remain open for broadcasters to bid for part of Excess Capacity.
- 10.10 The overall cap on the reservation of capacity for community broadcasters would remain as two-ninths (four-eighteenths) on each foundation multiplex. In all licence areas there is a case for at least 4 community broadcasting services per multiplex. Community services provide valuable public interest outcomes: adding a diverse mix of local content, cultural and specialist talks, educational, music, indigenous, print handicapped, religious and ethnic language services.

¹¹ New coding standards, such as (Extended) xHE-AAC may result in further efficiencies but are aimed at very low bit rate limited quality audio outcomes. Integration to DAB+ cannot be assured.

¹² Observations of number of services by multiplex, January 2014

Sydney	A 19 services	B 19 services	National 19 services plus EPG
Melbourne	A 15 services	B 21 services	National 19 services plus EPG
Brisbane	A 15 services	B 12 services	National 19 services plus EPG
Adelaide	A 23 services		National 19 services plus EPG
Perth	A 22 services		National 19 services plus EPG

¹³ Early in its own planning the community sector adopted a benchmark for 64 kbps per service. With its severe overall capacity limitation this was a necessity. In fact, this rate has not been achieved in some cases. In all cities, compromises have had to be made on transmission parameters and error protection settings.

11. Trials and permanent services

Trial licenses in Canberra and Darwin
are being regarded as permanent services

- 11.1 Much work is yet to be done to extend and bring permanent digital radio services to regional and remote areas of Australia.
- 11.2 The discussion paper notes first phase implementation has brought digital radio coverage to 64% of the Australian population.
- 11.3 That does not mean 64% of Australia has digital radio. Measured by geography, coverage of digital radio services would be around 0.4%.¹⁴ Much work is needed to enhance metropolitan capacity and extend digital radio to regional communities as the next step.
- 11.4 The figure of 64% seems to also include Canberra and Darwin. This is not an accurate reflection of the current digital radio framework or licensing arrangements. Neither Canberra nor Darwin have permanently licensed digital radio services. Both have trial licenses, issued for research and scientific purposes. The Canberra and Darwin trials do not include community radio services.
- 11.5 Twelve month trial licenses for Canberra and Darwin were first granted in 2010 and have been renewed three times.
- 11.6 The Canberra and Darwin trial licence services are, by default, now being wrongly regarded as permanent digital services.
- 11.7 Perceptions are further confused by the fact that the trial transmissions carry service audio and content from standard broadcasters in Canberra and Darwin and are able to be received free-to-air by commonly available equipment.
- 11.8 The CBAA supports research and trials, and also supports a degree of flexibility to allow early experimentation with service provision. But, approaching four years, there is a line to be drawn.
- 11.9 The trial licenses are not operating with responsibilities that apply to permanent services. There is not two-ninths of capacity reserved for community broadcaster participation. The multiplex transmitters do not operate with an ACCC approved access regime.
- 11.10 The current trial licences in Canberra and Darwin expire on 31 August 2014.
- 11.11 If the Canberra and Darwin transmissions are to continue as trials, then:
 - (a) the audio content should be replaced by looped audio or similar non-broadcast content audio; or else
 - (b) two-ninths of multiplex capacity should immediately be reserved for community broadcasting purposes in both Canberra and Darwin to be consistent with provisions of the Act for permanent licences; and
 - (c) broadcast transmission related costs should be shared in an accountable and transparent manner consistent with permanently licensed foundation services.
- 11.12 Otherwise the Canberra and Darwin trial services should be closed, pending permanent licensing.

¹⁴ Aggregate geographic area of relevant ACMA licence areas, expressed as a percentage of the total geographic areas of Australia. Percentage of total Australian population: Sydney & Western Sydney RA1 19.1%; Melbourne RA1 18.3%; Brisbane RA1 9.1%; Adelaide RA1 5.9%; Perth RA1 7.3%. Canberra RA1 1.9%; Darwin RA1 0.6%.

12. Access regime

A process for ex-ante consultation is required for material changes in the provision of DRMT infrastructure

- 12.1 The discussion paper seeks comment on whether the access regime established in Part 3.3 of the Act is operating effectively and whether the system of access undertakings is working as it should. The ACCC administers the access regime set out in Part 3.3 of the Act.
- 12.2 Irrespective of shareholding status, the intention of the access undertaking and access agreement administered by the ACCC is to allow eligible broadcasters to obtain access to digital radio transmission on reasonable terms and conditions. Access is not to discriminate in terms of technical and operational quality of the multiplex transmission service. The terms and conditions of access specified in the access undertaking are to include prices or pricing methodologies that are fair and reasonable.
- 12.3 There are currently 37 community broadcasting licensees eligible to be Access Seekers. All 37 have current status as Access Seekers with on-air digital radio services. There are currently 42 commercial Access Seekers.
- 12.4 The CBAA provided comments to the ACCC in relation to initial access undertakings submitted by the DRMT Joint Venture Companies. The ACCC rejected the initial access undertakings and proposed its own modified access undertakings, which came into force in May 2009.
- 12.5 The CBAA had argued that, while there may be only one main transmitter site in each city initially, it would be likely that multiple transmitter sites would be established, and that there ought be a consultative process to enable on-going re-definition of the basic RF Service, coupled with an ability for Access Seekers to opt in or opt out for additional service levels.
- 12.6 More recently, during 2013, each of the DRMT Joint Venture Companies sought variations to the access undertakings, including to vary the definition of the RF service to include in-fill transmitters and on-channel repeaters.
- 12.7 In its responses to the ACCC, the CBAA indicated it fully supported deployment of on-channel repeaters, provided that each repeater deployment is agreed as being a necessary and efficient measure to ensure adequate quality and coverage of digital radio services.
- 12.8 If counted as part of the basic RF Service, the deployment of each on-channel repeater adds capital and operational costs, thus increasing the total cost of operating the multiplex, and therefore increasing costs for all Access Seekers, commercial and community.
- 12.9 A fair and reasonable mechanism is required through which to negotiate agreement to materially alter the scope or cost of DRMT infrastructure. Whether that mechanism is administered as part of the ACCC access regime is a point for consideration. The access regime should at least require reference to a side-mechanism, most likely by requiring that ACMA consult all affected parties, including all Access Seekers.
- 12.10 A related point is that each multiplex re-transmitted by each on-channel repeater site requires an individual licensing process, even though operating on the same frequency and within the Licence Area of the main transmit site service. Conceivably, an on-channel repeater could be established by an entity other than the DRMT licensee. This might be initiated by an entity concerned to improve reception in an area that has been accorded low priority by a significant number of Access Seekers. Implementation of such an on-channel repeater would obviously require co-ordination with the DRMT licensee but would sit outside of what constitutes the set of sites that make up the basic RF Service.

- 12.11 Such an on-channel repeater, having obtained the necessary licensing approval after a consultation administered by ACMA, would incur costs that would be borne by the initiating entity. Its costs should not form part of the costs that make up the total operating cost of the DRMT as reflected in Access Seeker fees.
- 12.12 On-channel repeaters are not the only infrastructure change to be contemplated. While it is true that there is a high level of redundancy built into each main transmission site, without full main site redundancy, unavoidable outages of the RF service remain a possibility.
- 12.13 The matter of whether to augment the main site with a redundant site is unlikely to arise for several years. However, it may arise as digital radio becomes the primary radio broadcast platform.
- 12.14 The issue this presents for Access Seekers is one of risk versus cost. Duplication of a main multiplex transmission site would significantly increase the cost of supplying the RF Service.
- 12.15 Faced with this cost, an Access Seeker may prefer an option to bear the risk of an outage should the main multiplex transmission site fail in its entirety or require unavoidable maintenance. Removal of the option, if coupled with a hike of cost, would act to hinder or become a barrier to access. Government funding support for community broadcasting may well exclude costs for site redundancy if it were to mean a steep increase in transmission costs.
- 12.16 While this issue is particularly acute for not-for-profit community broadcaster Access Seekers, commercial broadcaster Access Seekers may also operate with business models of different scales and so have varying views about whether the extra cost of main site redundancy represents an efficient cost of supplying the RF Service.
- 12.17 It is understood that there are complexities in providing multiplex services that have a different composition of Access Seekers, depending on whether the main transmit site is in use or whether a redundant site is in use. Even so, taking all these matters into account, a more sophisticated approach to defining the RF Service is needed.
- 12.18 At the very least, the current Access Undertaking should include a process to require a Variation Request be lodged should the nature of the Service change materially in scope or anticipated costs.
- 12.19 The Access Agreement provides for DRMT licensee initiated reviews and Access Seeker initiated reviews of fixed recurring costs. Establishment of an on-channel repeater inevitably results in an increase in fixed recurring costs. Either mechanism provides an opportunity for consultation in relation to an adjustment of those costs which are reflected in Access Fees. It is too late for review if the new on-channel repeater has already been established – it is unlikely that any such review would alter the DRMT licensee's desire to increase Access Fees to cover the costs.
- 12.20 The CBAA suggests that the Act should be amended so that if the DRMT licensee proposes to establish an on-channel repeater, add a redundant main site, or materially change the scope or cost of DRMT infrastructure, then there should be a separate consultation process.
- 12.21 In line with that proposal for consultation to be embedded more clearly in the Act, the CBAA proposed an amendment to the Access Undertaking itself in its recent responses to the ACCC. The amendment and a summary of comments made to ACCC on this matter are attached. As yet, the matter has not been taken up.¹⁵

¹⁵ Attachment 12 Summary of recent submissions to ACCC, covering definition of the RF service and suggesting a need for consultation in relation to material changes in scope or cost of DRMT service infrastructure.

13. **Moratorium on new commercial digital radio services**

Extending the moratorium will lock community digital radio
into severe capacity constraints long-term

- 13.1 The discussion paper notes that the initial digital radio regulatory framework features a six year moratorium on the issue of new digital commercial broadcasting licences.
- 13.2 The moratorium expires on 30 June 2015 for digital radio services in Sydney, Melbourne, Brisbane, Adelaide and Perth.
- 13.3 The period of protection from new commercial entrants was included to provide incumbent commercial broadcasters a level of stability and certainty during the initial digital radio investment phase.
- 13.4 The emergence of new digital radio services provided for commercial purposes is not an agenda priority of the CBAA.
- 13.5 The CBAA does not consider additional commercial digital radio services will contribute in any substantial way to service diversity or address specialist, cultural, social, educational, Indigenous, print handicapped or various other community of interest based audience needs.
- 13.6 Community broadcast services, while a valuable part of the social and democratic framework, by definition seem unlikely to ever attract large-scale commercial support. Community services tend to address areas of commercial market failure. Often the services will be progressive and on the leading edge of opinion and society. There is no easy dollar to be made.
- 13.7 However, a quirk of the digital radio framework means that additional commercial digital radio services will bring about the need to licence and build additional multiplex transmitters.
- 13.8 In turn, where these multiplexes are declared foundational, additional access entitlements accrue to address the requirements of community broadcasting services.
- 13.9 As has been outlined, severe capacity constraints apply to community broadcasting services and so any activity that will relieve that circumstance is welcomed by the community sector.
- 13.10 Unless some other measure is taken to allow community sector services the ability to initiate a DRMT multiplex of its own with a guarantee of entitlement to access capacity for its own purposes, the CBAA would not support the extension of the moratorium on new commercial digital radio services beyond 30 June 2015.
- 13.11 If the moratorium is extended for any significant length of time, and no counter-measure is taken by Government to provide for additional community sector capacity, the moratorium will, effectively, lock community digital radio broadcasting into severe capacity constraints long-term.
- 13.12 In that circumstance, the ability for digital community broadcasting services to increase their self-reliance and, in fact, to exist in a way that is equitable or comparable with other digital radio broadcast services, is severely compromised.

14. The digital environment and radio

Digital delivery of radio can no longer be considered an optional extra:
only as an augmentation to analogue delivery

- 14.1 Public and democratic discourse is shifting from analogue to digital platforms. The policy precepts of the digital radio framework in 2005 need revision. Digital delivery of radio can no longer be considered an optional extra: only as an augmentation to analogue delivery.
- 14.2 Take-up and penetration of DAB+ digital radio listening in the first phase metropolitan areas is successful, being above expectation to date: 12.7% of all radio listening is by DAB+ digital radio.
- 14.3 As well as DAB+ listening, it is useful to track all forms of digital listening to radio. That measure embraces radio listening via DAB+, digital television, DTH satellite as well as fixed online and mobile broadband. In effect, it tracks the extent to which analogue listening is being side-lined.
- 14.4 In countries where analogue radio closure is being contemplated, closure is typically to be triggered when digital listening, all forms, reaches a target. The UK continues to contemplate a trigger of 50%, with digital listening now tracking at 36%. Norway has already passed the 50% trigger point and, subject to improvements in DAB+ coverage, is set for analogue closure in 2017.
- 14.5 DAB+ coverage within each licence area and across an entire country is important, and Australia presents a different set of geographic challenges than do many countries. That is no reason to delay. That it will take time to implement only underlines the need to immediately tackle and properly plan for the extension of radio digitisation.
- 14.6 The discussion paper covers some alternate digital radio technologies. These have already been dealt with as part of decisions leading to the introduction of DAB+ in Australia and again as part of the 2011 review of digital radio technologies for regional Australia.
- 14.7 The CBAA remains fully supportive of DAB+ as the pre-eminent technology for provision of digital radio services in metropolitan, regional and rural Australia. There is no question as to its maturity and efficacy for the purpose. It is spectrum and energy efficient. When apportioned on a per broadcaster basis, its costs are already less than equivalent analogue services. It provides a good set of feature enhancements. It has the ability to operate in hybrid with other non-broadcast digital platforms for improved user experience and access.
- 14.8 Alternative US digital radio technologies are overly proprietary and flawed. They have been rejected for Australian consideration long ago.
- 14.9 DRM30 technology may have potential long term utility in remote areas. DRM+ technology may have potential long term utility for some localised services. However, widespread receiver availability is not evident for DRM in any flavour at this stage. The first priority has to be the extension of digital radio services to regional areas and enhancement to coverage and capacity of metropolitan areas using DAB+ technology.
- 14.10 It is claimed that DRM is being rolled out in India. It is early days, and if that proves successful and receivers become ubiquitous, then there will be further options in addition to DAB+ for remote Australia. The arc of time for those matters to unfold parallels the likely timeline for a staged regional rollout. There will be time to further assess options for the next stage remote rollout in Australia.
- 14.11 Satellite delivery to handheld devices remains an unlikely and non-viable proposition for Australia given the limited population density, business and cost considerations.

- 14.12 Quite different is the case of digital radio services via free-to-air DTH satellite. In a similar way to VAST, radio by DTH satellite provides a policy solution to ensure all Australians can receive at least a basic set of core digital radio services to a fixed location, even where the full complement of terrestrial services may be currently unavailable. Satellite also has utility for cost-effective distribution of digital radio services to terrestrial re-transmission sites.
- 14.13 That leaves DAB+ as the key digital broadcast technology around which to plan the immediate next stage extension of digital radio service provision in regional and rural Australia.

15. Broadcast, broadband and both

Integrate fit-for-purpose broadcast and interactive broadband platforms in a hybrid service solution that is seamless to end-users

- 15.1 The discussion paper canvasses the impact of smartphones and connected devices on the future of radio listening, indicating that audio and music streaming services will impact upon the traditional concept of radio broadcasting in ways which are difficult to predict.
- 15.2 The CBAA has adopted a multi-platform approach to the digitisation of radio services. It does not see DAB+, or any digital radio broadcast platform, as being the only way users access radio content. From the outset it has developed community digital radio infrastructure with the idea that content will be available on multiple digital platforms and in ways that suit audience access.
- 15.3 The CBAA prefers the term ‘complementary’ rather than ‘convergence’ as best recognising the distinctive strengths of the various delivery platforms. Hybrid digital radio solutions bring the platforms together in end-user devices in ways that can be seamless to the end-user.
- 15.4 That said, digital radio broadcasting platforms are free-to-receive and, by design, enable concurrent delivery of services to an unlimited number of users. They are efficient for broadcasting. Other delivery technologies struggle to deliver live services to a significant number of concurrent users, especially in a mobile listening situation.
- 15.5 Applying mathematics to typical radio listening patterns quickly makes the case for a digital platform that is designed for broadcast delivery. In Australia, radio listening is 63% to fixed location receivers, either in the home or office. 35% of listening is in the car, the balance is mobile listening in other locations.¹⁶
- 15.6 While it is obviously possible to deliver radio as a stream to fixed location listeners there are significant infrastructure issues and costs should it become the mainstay listening platform. There are costs to the listener for data charges; the send-end cost to broadcasters multiplies by the number of concurrent users and, for typical broadcast sized audiences, quickly becomes a major broadcaster cost, including for community broadcasters. Multicast network protocols and edge servers would also need to be widely deployed.
- 15.7 Listeners on the move would need to rely on mobile broadband. A case study of the spectral demand that radio audiences place on mobile broadband is illuminating.¹⁷ A typical mobile broadband implementation of 100 cell site transmitters across a city, with an entire 20 MHz capacity dedicated to radio service delivery calculates to deliver a radio service to 50,000 concurrent listeners. That’s 50,000 listeners in total; not 50,000 for each station.

¹⁶ Attachment 9 Showing complementary roles for fixed broadband, mobile broadband, and digital radio broadcast technologies. Noting that user data charges are economic barriers to consistent use of broadband.

¹⁷ Attachment 10 Describing a case study where mobile broadband technology is dedicated for radio station use. Multi-media broadcast multicast mode would be required to serve radio station audience sizes, resulting in loss of transactional revenue. Legislation would be required to ensure certainty of radio service delivery.

- 15.8 There are typically 10-60 radio stations in each licence area in Australia. In the larger cities, each of them would command a peak concurrent audience well above 50,000. Typical metropolitan community stations each reach over 100,000 concurrent listeners. Typical small regional town stations each reach over 5,000 concurrent listeners.
- 15.9 Dedicating an entire 20 MHz mobile broadband LTE channel to radio delivery is not a realistic proposition: a relief may be to operate the LTE service in “multi-media broadcast multicast mode”, either per cell or across a single frequency network multi-cell implementation. While theoretically possible, this would require setting aside data capacity otherwise used to generate transactional revenue; a new handset design; and legislation to ensure provision of radio services remains a fixture on the LTE platform.
- 15.10 A further analysis into mobile broadband platform costs indicates the transmission costs would start in the region of \$200,000 per annum per station, already more than DAB+ and before adding the significant costs of linking 100 sites and revenue foregone, if the platform would otherwise be used for telecommunications.¹⁸
- 15.11 The obvious conclusion: mobile broadband is not suited to radio station audience sizes. It is suited to on-demand and boutique scale live delivery. The ideal is to integrate fit-for-purpose broadcast platforms together with mobile broadband platforms into the one receive device.
- 15.12 Radio listening via fixed online and mobile broadband platforms is a useful adjunct to mainstream broadcast delivery. It enables on-demand listening; out-of-area listening; and can act as a supplement where broadcast delivery is not available or impaired.
- 15.13 Worldwide, most research tracks radio listening via online, all forms, as being in the range 5-8% of total radio listening.¹⁹ In Australia, research indicates it is 7.7%.
- 15.14 Taking these trends, and the strengths and weaknesses of each platform into account, there is every reason for Government to ensure there is a core set of free-to-air digital radio broadcast services available in each area. Broadcasting, being free-to-receive, provides a policy basis to ensure a suitably diverse range of views, news, information and cultural discourse are available. Without Government intervention, fixed and mobile broadband services attract data usage fees.
- 15.15 The broadcast model of radio speaks to the ways in which users access information and cultural services. A significant live audience is a key defining feature. Its voice provides a sense of localism and social cohesion. It is a trusted source of news, comment, information, cultural content and analysis. Its voice and cultural output is the result of localised peer review which gives it relevance and status. It has a sense of community.
- 15.16 There is a case for regulatory oversight to ensure the availability of key broadcasting services, including community, commercial and national services in digital. Analogue broadcasting remains necessary for the time being but is not sufficient in an age where the primary user devices are increasingly digital only and democratic discourse is trending digital.

¹⁸ Attachment 11 Describing amortised capital and operational costs for delivery of radio services using mobile broadband platform. Costs exceed digital broadcast platform costs before adding significant further costs of linking each site, spectrum costs and telecommunications carrier revenue forgone.

¹⁹ UK RAJAR results track radio listening via online, all forms, as being around 5.8%. Figures published in Australia showed 7.7%, with time spent listening at 5.5 hours per week. Recent commercial industry reports indicate peak concurrent online listening as being 800 (Laws) and 6,000 (Hadley). High for online listening but low compared to radio broadcast audience concurrent listeners.

16. A policy response to ensure free-to-receive digital services to all Australians

A primary set of a free-to-receive digital radio broadcast services
should be available to all Australians

- 16.1 Digital radio broadcasting platforms are free-to-receive and, by design, enable concurrent delivery of services to an unlimited number of users. They are efficient for broadcasting.
- 16.2 Broadcasters have special responsibilities to operate for public interest and social good outcomes. This is especially true for community and national broadcasting services.
- 16.3 Social equity and inclusion principles underpin the need to avoid a community divide, based on the ability to pay, in the availability of a primary set of information and entertainment services on digital platforms.
- 16.4 Accordingly, Government policy, supported by appropriate regulation and legislation, should ensure a primary set of digital radio broadcast services are available to all Australians:
- (a) by way of DAB+ digital radio broadcast technology; or
 - (b) where DAB+ is unavailable - whether due to insufficient radio-frequency spectrum, multiplex capacity or other reason - by legislating to ensure that alternative options are available for users to receive the primary set of broadcast services on a free-to receive basis, by requiring:
 - (i) Telecommunications carriers and Internet Service Providers to enable access to the primary services on a non-metered basis to users of fixed location broadband services; and
 - (ii) Mobile Network Operators and Internet Service Providers to enable access to the primary services on a non-metered basis to users of mobile broadband services.

Furthermore, that telecommunications carriers, Mobile Network Operators and Internet Service Providers not be permitted to pass on costs for radio broadcast service dissemination to eligible community broadcasting licensees, or that the Government underwrite those costs.

- 16.5 Taking these matters into account, a timetable should be announced to plan to deliver digital radio services to all Australians. The timetable for planning should commence immediately
- 16.6 By legislating to ensure provision of radio services is available to all Australians on a free-to-receive basis, the question of whether digital radio broadcasting platforms can or might be supplanted by wholesale reliance on broadband platforms becomes less relevant.
- 16.7 In the absence of a DAB+ digital radio broadcast solutions in an area, the quality of service and delivery efficiency issues rest with the broadband platform provider to resolve in a manner of its choosing, whether by use of multicast techniques or otherwise.

Attachments

- 1 Overview - 37 metropolitan community digital radio stations on-air
- 2 Take up of digital radio - Australia, trends, international
- 3 Free-to-air community digital radio service extend choice and add diversity
- 4 Digital radio is multi-platform - collaboration and content development
- 5 Extending metropolitan capacity - Sydney. Sub-metropolitan aggregation
- 6 Extending metropolitan capacity - Melbourne. Sub-metropolitan aggregation
- 7 Extending digital radio beyond metropolitan - examples of regional service overlap
- 8 Spectrum and capacity impacts limitations – impact on metropolitan services
- 9 Role of digital radio broadcast delivery, with fixed and mobile broadband alongside
- 10 Mobile broadband - spectrum impact of radio delivery
- 11 Mobile broadband - cost impact of radio delivery
- 12 Access regime – recent comments to ACCC, consultation, changes to infrastructure

COMMUNITY SERVICES

Radio is evolving in a digital environment

Analogue broadcasting is no longer pre-eminent

Diversity of free-to-air services and local content is important to maintain on digital radio

GOVERNMENT COMMITMENT

To ensure community broadcaster access to digital broadcasting platforms on a basis affordable to community broadcasters

WHAT STATIONS ARE DOING

- squeezing more diversity into less digital capacity than other services
- investing in digital production facilities
- increasing content generation and community access
- creative collaborations and cross-media production
- generating enhanced digital services
- new, multi-channel and pop-up services
- covering station capital equipment change-out costs



Stations are fully committed to maintaining diversity on free-to-air digital radio
including Indigenous, educational, ethnic and multicultural, print handicapped, youth, religious, community access, specialist music and arts

TAKE UP

- Services are on-air in Sydney, Melbourne, Brisbane, Adelaide and Perth
- Metropolitan enhancement and regional areas now under consideration

AUSTRALIA
2014

1.4 MILLION
RECEIVERS SOLD

MAINLY DESKTOPS & PORTABLES⁴



INTEGRATION INTO CARS
IS BEGINNING¹



INTEGRATION INTO MOBILE PHONES & TABLETS
IS BEGINNING²



12.7%
DIGITAL RADIO
BROADCAST LISTENING³

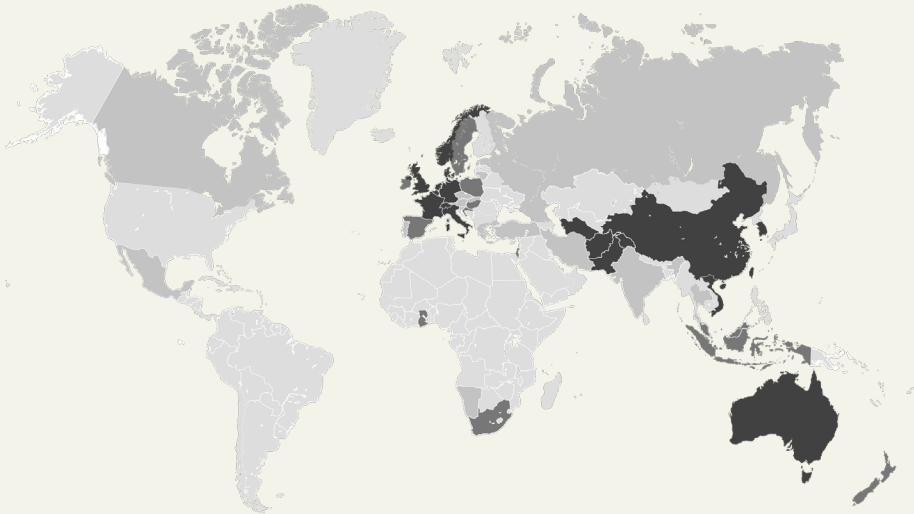


7.7%
ONLINE
LISTENING⁴



- **Countries shifting to digital**

Some early stage, some advanced with analog switch-over under debate.⁵



REGULAR SERVICES	Australia • Belgium • China • Czech Republic • Denmark • Germany • Hong Kong • Italy • Malta • Netherlands • Norway • South Korea • Sweden • Switzerland • United Kingdom
TRIALS AND PLANNING	Austria • Brunei • Chinese Taipei • Croatia • France • Ghana • Hungary • Indonesia • Ireland • Israel • Kuwait • Malaysia • New Zealand • Poland • South Africa • Spain • Vietnam
EARLY STAGE	Canada • Estonia • Greece • India • Lithuania • Mexico • Monaco • Namibia • Portugal • Russian Federation • Slovakia • Slovenia • Turkey • Thailand • Iran

1 November 2013: In Australia 11 have digital radio as standard, including Toyota, Lexus, Hino, Land Rover, Audi, BMW and Mercedes as option. 42% of all new car registrations in UK have digital radio as standard
 2 Samsung Galaxy devices in Germany and South Korea. Operates in Australia. Work under way on other devices to integrate.
 3 Nielsen CRA, November 2013. Digital radio listening all stations 12.7%, 12.5 hours per week
 National Listener Survey, McNair Ingenuity, December 2013. Community digital radio listening 13.3%, 15.4 hours per week
 RAJAR February 2014, 36% listening to radio by digital: 23.4% digital radio; 5.2% digital TV; 5.8% online, all
 4 Nielsen CRA, 2013, Australian figures Typical world figures are 5% to 8% for online listening, all forms. GfK Q3 2013 receiver sales
 5 Includes DAB and DAB+. Norway switch-over in 2017. UK contemplating switch-over based on 50% trigger

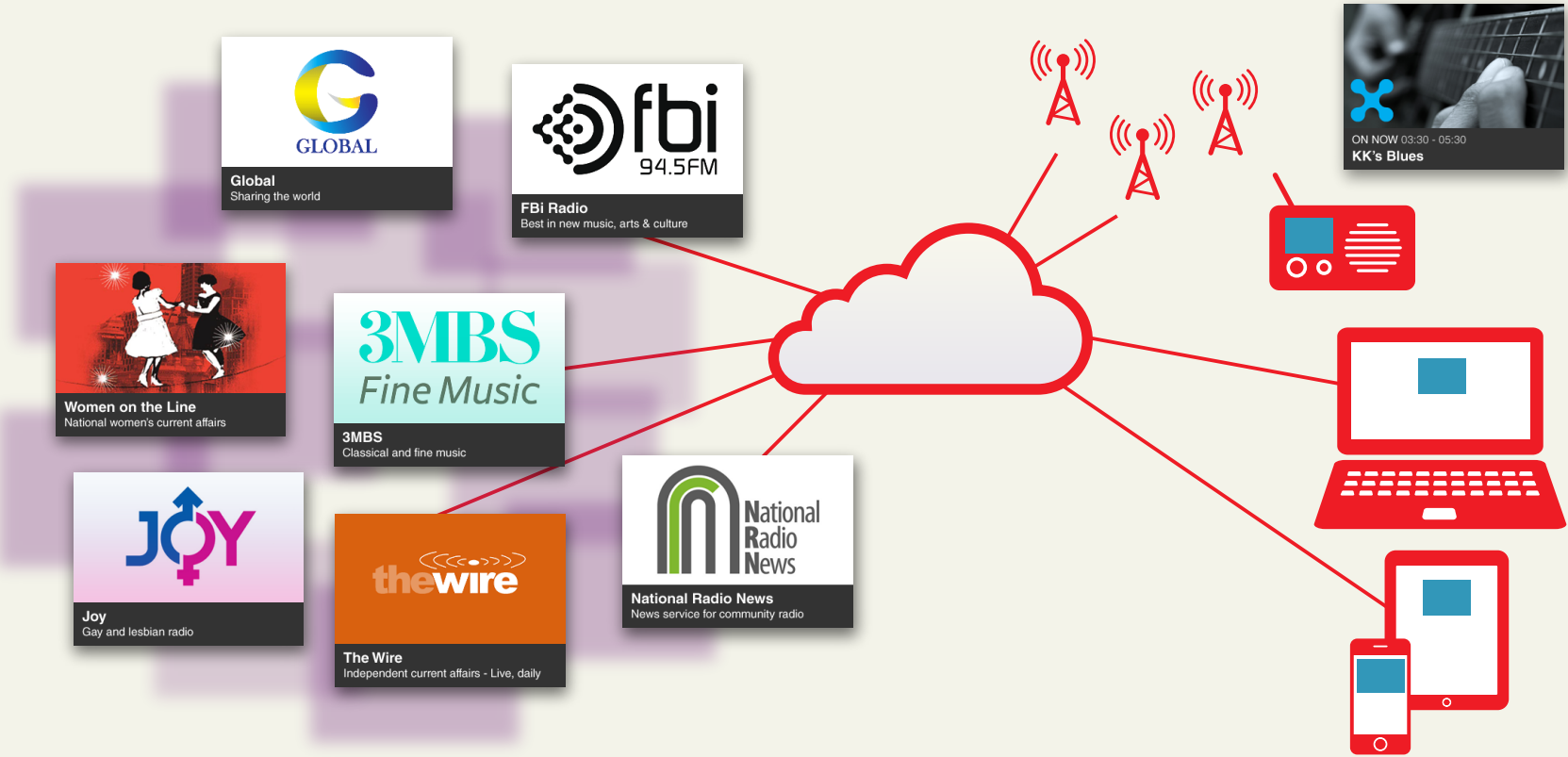
FREE-TO-AIR

- Free-to-air digital broadcast platform
- Some services are a simulcast, completely new, or a hybrid
- Pop-up services and special events
- Adding depth and diversity



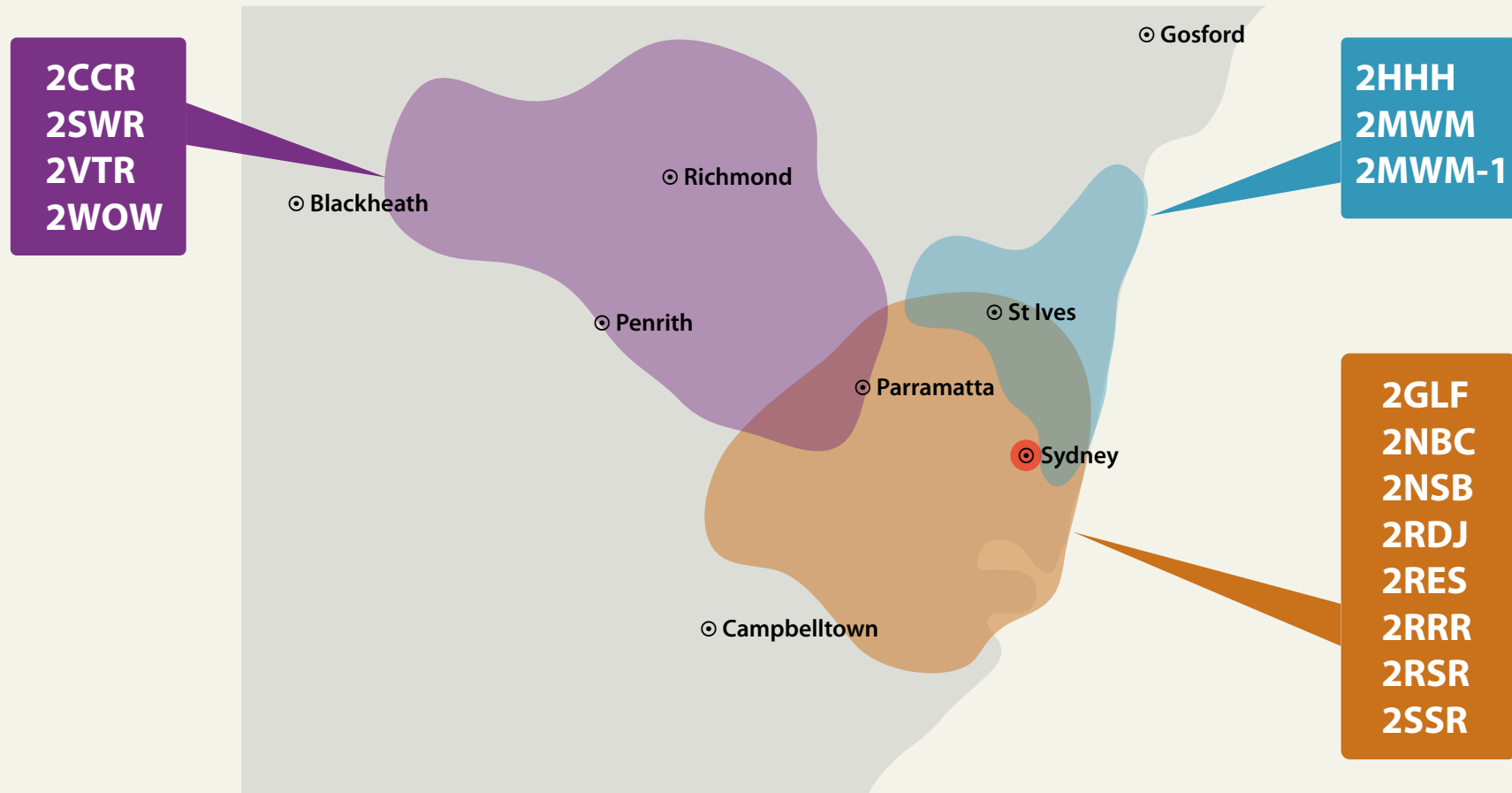
CONNECTED IDEAS

- Digital radio is a shared infrastructure, shared capacity
- Multi-platform & interwoven
- Key opportunity for collaboration to foster content development



SYDNEY

Sub-metropolitan, showing example aggregation



SYDNEY

Sub-metro population counts

Sub Metro Group Ensemble A

Grade of Service	Population Served	% within LAP	
		Population Served	LAP
Urban plus 20 dB	59,600	12.5%	
Urban	264,700	55.5%	
Suburban	85,100	17.8%	
Vehicle	37,400	7.8%	
TOTAL	446,800	93.6%	
Population	477,200		

Sub Metro Group Ensemble B

Grade of Service	Population Served	% within LAP	
		Population Served	LAP
Urban plus 20 dB	29,400	2.7%	
Urban	789,900	71.2%	
Suburban	257,000	23.2%	
Vehicle	26,300	2.4%	
TOTAL	1,102,600	99.4%	
Population	1,109,300		

Sub Metro Group Ensemble C

Grade of Service	Population Served	% within LAP	
		Population Served	LAP
Urban plus 20 dB	520,600	26.1%	
Urban	1,422,700	71.2%	
Suburban	35,300	1.8%	
Vehicle	11,600	0.6%	
TOTAL	1,990,200	99.6%	
Population	1,997,800		

2HHH
Hornsby RA1

Population Served	% within LAP	2MWM (North and South) Manly RA1	
		Population Served	% within LAP
14,400	5.7%	45,200	20.1%
113,900	45.1%	150,800	67.1%
75,200	29.8%	9,900	4.4%
27,100	10.7%	10,300	4.6%
230,600	91.4%	216,200	96.1%
252,400		224,900	

2WOW

Penrith RA1

Population Served	% within LAP	2SWR Blacktown RA1	
		Population Served	% within LAP
7,400	3.6%	600	0.1%
151,400	73.9%	391,600	72.3%
32,100	15.7%	132,300	24.4%
8,000	3.9%	16,800	3.1%
198,900	97.1%	541,300	100.0%
204,900		541,400	

2VTR

Windsor RA1

Population Served	% within LAP	2CCR Parramatta RA1	
		Population Served	% within LAP
-	0.0%	21,300	5.4%
58,200	97.2%	266,700	67.9%
700	1.2%	102,900	26.2%
300	0.5%	2,100	0.5%
59,200	98.8%	393,000	100.0%
59,900		392,900	

2RSR

Sydney RA2

Population Served	% within LAP	2RES Waverley RA1	
		Population Served	% within LAP
169,700	54.3%	197,900	48.4%
142,800	45.7%	209,700	51.2%
-	0.0%	1,600	0.4%
-	0.0%	-	0.0%
312,500	100.0%	409,200	100.0%
312,500		409,200	

2RRR

Ryde RA1

Population Served	% within LAP	2NBC Narwee RA1	
		Population Served	% within LAP
25,200	23.0%	55,900	13.3%
84,300	77.0%	364,200	86.7%
-	0.0%	-	0.0%
-	0.0%	-	0.0%
109,500	100.0%	420,100	100.0%
109,500		420,100	

2NSB
Chatswood RA1

Population Served	% within LAP	2RDJ Burwood RA1	
		Population Served	% within LAP
99,800	35.7%	46,700	27.9%
168,500	60.3%	120,600	72.0%
5,600	2.0%	-	0.0%
3,200	1.1%	-	0.0%
277,100	99.2%	167,300	99.9%
279,400		167,400	

2GLF
Liverpool RA1

Population Served	% within LAP	2SSR Sutherland RA1	
		Population Served	% within LAP
32,500	9.4%	23,300	11.3%
286,600	83.2%	165,700	80.7%
16,200	4.7%	11,800	5.7%
4,700	1.4%	3,700	1.8%
340,000	98.7%	204,500	99.6%
344,500		205,400	

SYDNEY

Sub-metro population counts

Sub Metro Group Ensemble A

Grade of Service	Population served	% within LAP
Urban plus 20 dB	59,600	12.5%
Urban	264,700	55.5%
Suburban	85,100	17.8%
Vehicle	37,400	7.8%
TOTAL	446,800	93.6%
Population	477,200	

Sub Metro Group Ensemble B

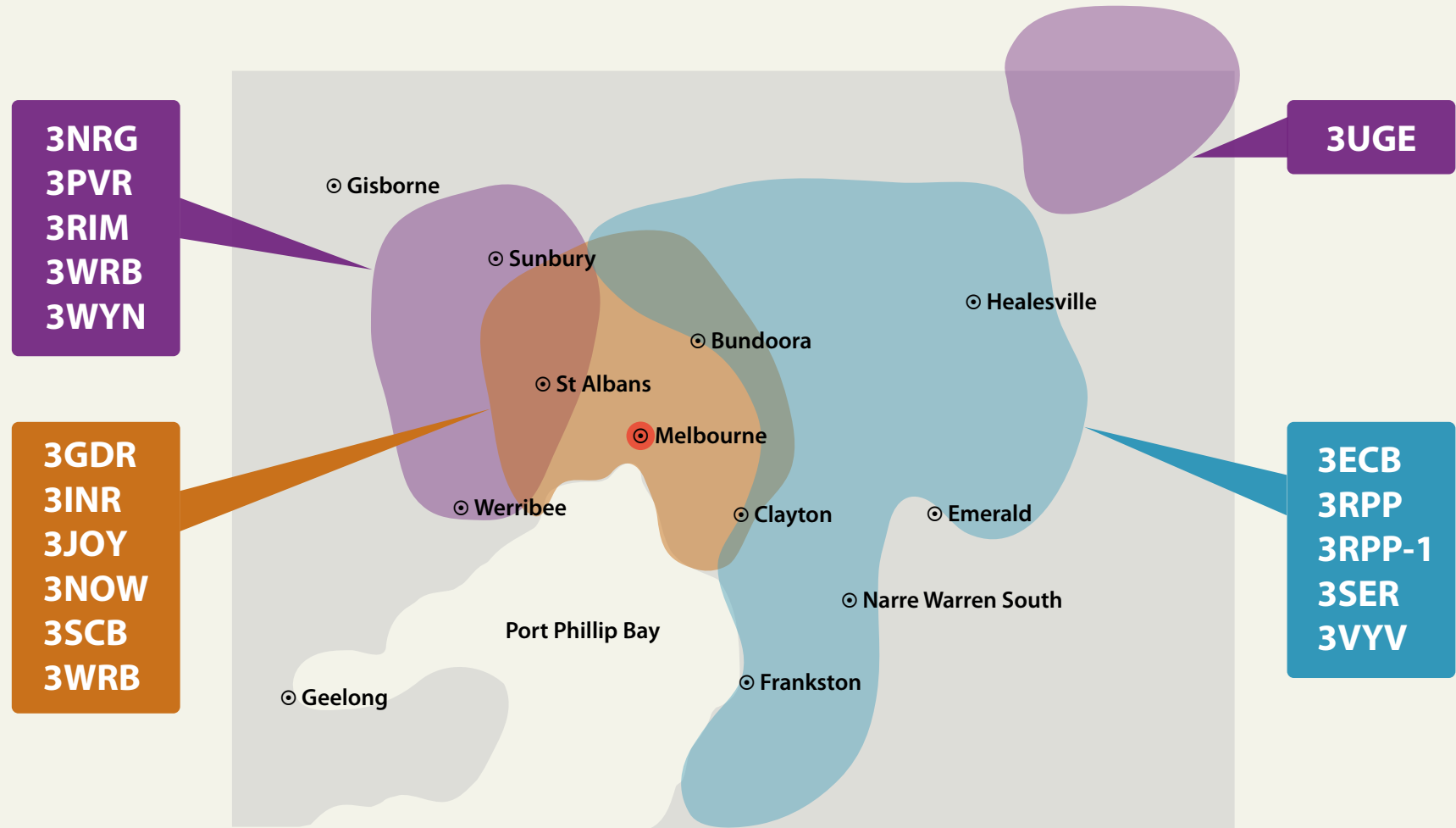
Grade of Service	Population served	% within LAP
Urban plus 20 dB	29,400	2.7%
Urban	789,900	71.2%
Suburban	257,000	23.2%
Vehicle	26,300	2.4%
TOTAL	1,102,600	99.4%
Population	1,109,300	

Sub Metro Group Ensemble C

Grade of Service	Population served	% within LAP
Urban plus 20 dB	520,600	26.1%
Urban	1,422,700	71.2%
Suburban	35,300	1.8%
Vehicle	11,600	0.6%
TOTAL	1,990,200	99.6%
Population	1,997,800	

MELBOURNE

Sub-metropolitan, showing example aggregation



MELBOURNE

Sub-metro population counts

MELBOURNE POPULATION SERVED

Sub Metro Group Ensemble A

Grade of Service	% within	
	Population Served	LAP
Urban plus 20 dB	58,700	5.3%
Urban	710,100	63.9%
Suburban	293,800	26.4%
Vehicle	46,900	4.2%
TOTAL	1,109,500	99.8%
Population	1,111,500	

Sub Metro Group Ensemble B

Grade of Service	% within	
	Population Served	LAP
Urban plus 20 dB	61,500	7.0%
Urban	605,700	68.9%
Suburban	202,600	23.0%
Vehicle	3,100	0.4%
TOTAL	872,900	99.3%
Population	879,400	

Sub Metro Group Ensemble C

Grade of Service	% within	
	Population Served	LAP
Urban plus 20 dB	316,900	19.2%
Urban	1,263,600	76.7%
Suburban	54,500	3.3%
Vehicle	9,900	0.6%
TOTAL	1,644,900	99.9%
Population	1,646,500	

3VYV Yarra Valley RA1		3RPP Mornington RA1		3SER Melbourne South East RA1		3ECB Melbourne East RA1	
Population Served	% within LAP	Population Served	% within LAP	Population Served	% within LAP	Population Served	% within LAP
700	0.9%	10,300	4.3%	23,900	5.8%	23,900	5.9%
67,800	91.6%	177,800	74.7%	265,500	64.7%	265,500	65.1%
3,900	5.3%	37,500	15.8%	108,900	26.5%	108,900	26.7%
1,400	1.9%	10,700	4.5%	9,600	2.3%	9,600	2.4%
73,800	99.7%	236,300	99.3%	407,900	99.4%	407,900	100.0%
74,000		238,000		410,500		407,800	

3WRB Melbourne West RA1		3RIM Melton RA1		3WYN Werribee RA1		3NRG Sunbury RA1		3PVR Plenty Valley RA1		3JUG Alexandra/Eildon RA1	
Population Served	% within LAP	Population Served	% within LAP	Population Served	% within LAP	Population Served	% within LAP	Population Served	% within LAP	Population Served	% within LAP
8,700	2.2%	700	0.9%	34,200	26.3%	16,900	47.6%	1,200	0.5%	500	6.3%
252,900	64.1%	48,700	61.7%	94,300	72.5%	17,200	48.5%	191,000	81.1%	3,800	47.5%
133,000	33.7%	29,500	37.4%	1,200	0.9%	600	1.7%	38,400	16.3%	300	3.8%
-	0.0%	-	0.0%	400	0.3%	700	2.0%	1,900	0.8%	-	0.0%
394,600	100.0%	78,900	100.0%	130,100	100.0%	35,400	99.7%	232,500	98.7%	4,600	57.5%
394,600		78,900		130,100		35,500		235,600		8,000	

3GDR Waverley VIC RA1		3WBC Camberwell RA1		3SCB Melbourne South RA1		3NOW Melbourne North West RA1		3INR Melbourne North East RA1		3JOY Melbourne City RA1	
Population Served	% within LAP	Population Served	% within LAP	Population Served	% within LAP	Population Served	% within LAP	Population Served	% within LAP	Population Served	% within LAP
3,600	1.5%	37,600	18.3%	77,900	16.5%	29,200	11.7%	44,200	18.4%	194,900	23.2%
188,800	76.9%	167,900	81.7%	386,400	81.7%	213,800	86.0%	196,000	81.6%	646,000	76.8%
41,600	16.9%	-	0.0%	8,700	1.8%	5,700	2.3%	-	0.0%	-	0.0%
9,900	4.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%	-	0.0%
243,900	99.3%	205,500	100.0%	473,000	100.0%	248,700	100.0%	240,200	100.0%	840,900	100.0%
245,500		205,500		473,000		248,700		240,300		840,900	

MELBOURNE

Sub-metro population counts

Sub Metro Group Ensemble A

Grade of Service	Population served	% within LAP
Urban plus 20 dB	58,700	5.3%
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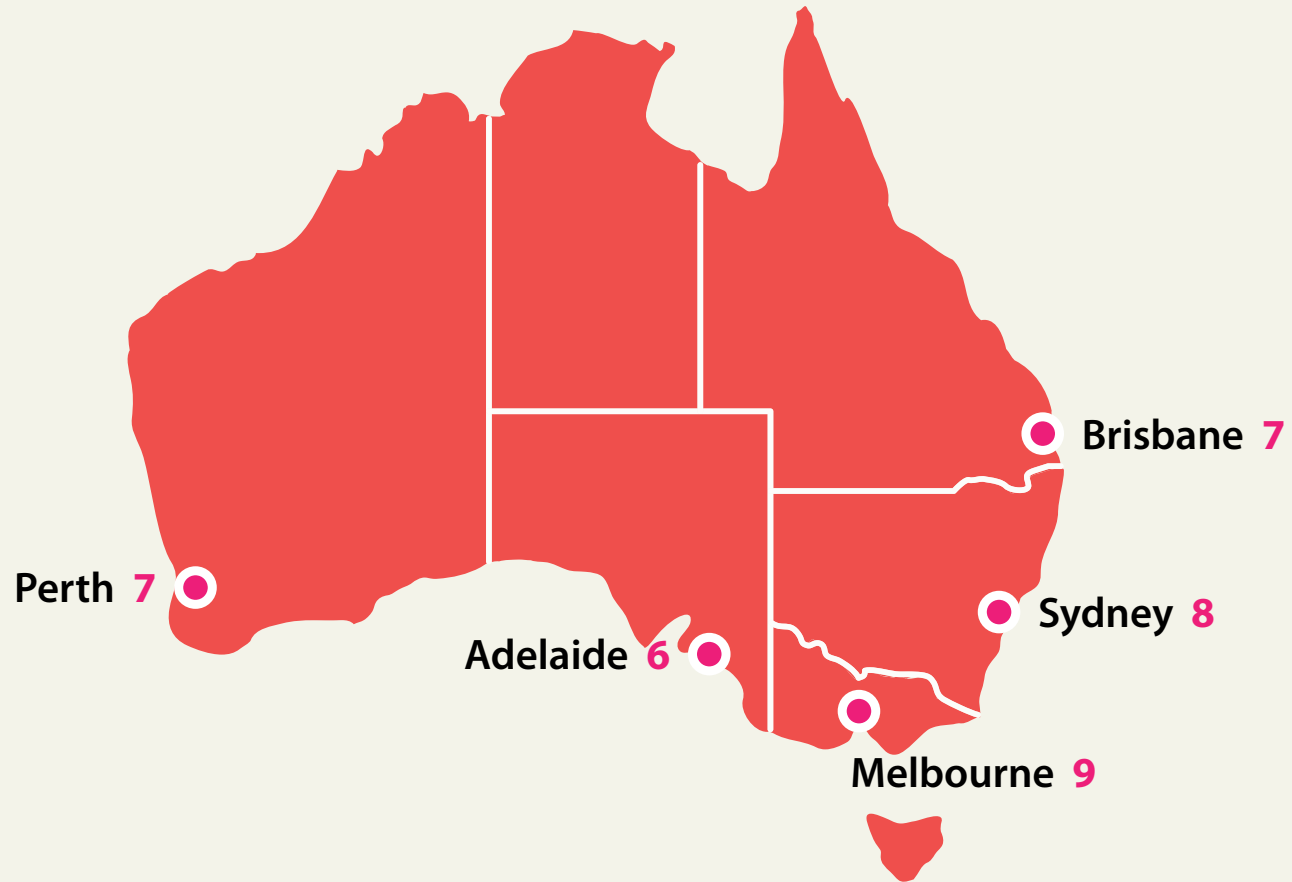
Sub Metro Group Ensemble B

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Vehicle	3,100	0.4%
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Population	879,400	

Sub Metro Group Ensemble C

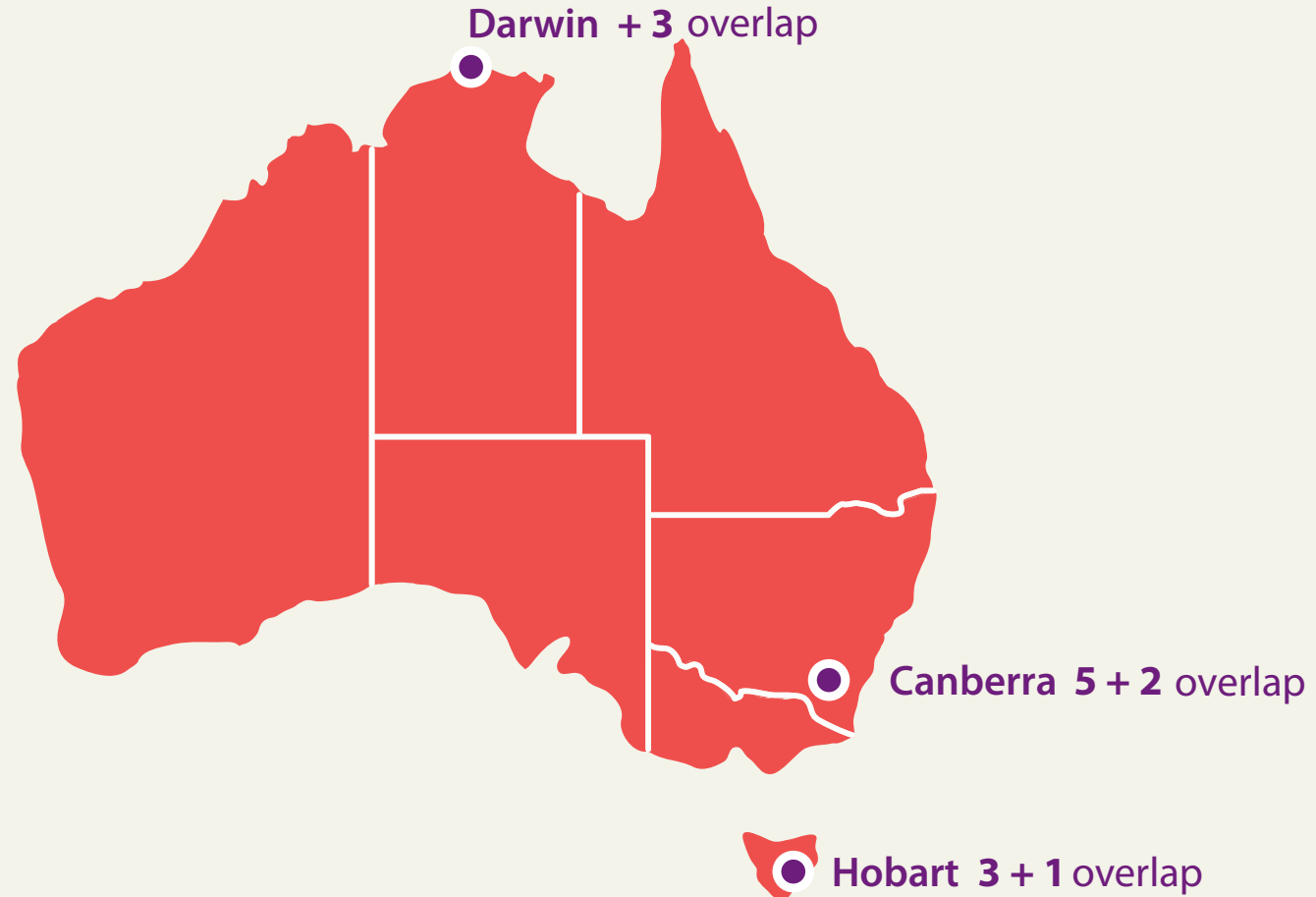
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TOTAL	1,644,900	99.9%
Population	1,646,500	

METROPOLITAN SERVICES



REGIONAL SERVICES - SAMPLE

showing overlap



REGIONAL SERVICES NEAR SYDNEY

showing overlap



SQUEEZE ON SPECTRUM & CAPACITY

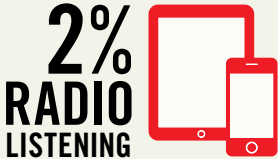
- 14 MHz of VHF reserved for digital radio, plus L band
- Metropolitan services squeezed



DIGITAL PLATFORMS

ONLINE

- **Fixed broadband** – can work for listening at home or work
63% of radio listening is at home or at work¹
Long term, fixed broadband may be a realistic option to deliver live broadcast television to the home²
However, radio also requires delivery to mobile listeners
- **Mobile broadband** – can work for mobile listening
35% of radio listening is in car, 2% other / mobile / portable¹



- Monthly user fees and data charges are economic barriers to consistent use
- Spectrum and network congestion limits number of concurrent live users
- Best suits on-demand, boutique and out-of-area listening

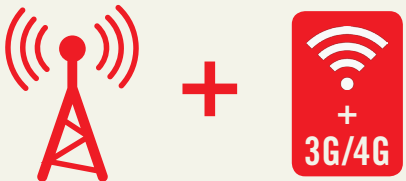
DIGITAL RADIO

- Works at home, car and mobile
- Scales to large number of concurrent live users
- No end user cost, no economic barrier to consistent use



CONVERGENCE, INTEGRATION & COMPLEMENTARITY

- Integrating digital radio and online into common device plays to strengths of both
- It is not an either/or situation; it is both: multi-platform and interwoven
- Some services can be subject to user data charges; others need to be freely available



¹ 46% at home, 17% at work. Typical figure for all radio, Nielsen CRA, 2013
² Will require edge servers. Will benefit from multicast ability on network

CASE STUDY

Mobile broadband – spectrum impact of radio delivery

- A **20 MHz** LTE channel running at full tilt might deliver a nett peak downlink data rate **> 100 Mbps**¹
- A **100 cell 20 MHz** LTE channel dedicated to radio station use might fit about **50,000** concurrent listeners² — shared by all radio stations in the licence area.

THERE ARE TYPICALLY 10–60 RADIO STATION SERVICES IN EACH LICENCE AREA

This approach is not suited to radio station audience sizes, for example:

TYPICAL SMALL TOWN STATION MIGHT HAVE 5,000+ CONCURRENT LISTENERS³

TYPICAL METROPOLITAN CITY STATION MIGHT HAVE 100,000+ CONCURRENT LISTENERS³

- Moreover, it assumes no other telco traffic. This is ignored for calculation purposes but is unrealistic in practice
- This figuring assumes 1:1 delivery of IP data as per current telco infrastructure. Apart from spectrum implications, there is a significant server load to deliver 1:1 to a large number of concurrent listeners
- A relief would be to operate LTE in multi-media broadcast multicast mode; either per cell or SFN multi-cell
- That would require setting aside data capacity otherwise used to generate transactional revenue; a new handset design; and legislation to ensure provision of radio services on the LTE platform. All of which may be challenging.

¹ LTE uses adaptive modulation and this data rate would rarely be achieved for mobile use in practice

² Assume each radio station operates at 64 kbps: 1,500 listeners per cell. Assume 33% cell re-use. Assume 100 cell sites.

³ National Listener Survey, McNair Ingenuity, December 2013

CASE STUDY

Mobile broadband - cost impact of radio delivery

ASSUMPTIONS

- use of LTE to deliver radio stations across typical city-wide licence area
- \$200k per site for pro-rata of transmission capital costs. Ignore radio encoder costs
- **100 sites** – each site incurs \$80k pa opex plus \$20k pa amortised capital. **\$100k pa** cost per site
- **50 stations** $\$100k \times 100 \text{ sites} / 50 \text{ stations}$

= \$200k pa per radio station

Ignoring spectrum licence cost and 100 x site linking cost

- This figuring also assumes 1:1 delivery of IP data – which will not meet concurrent listener requirement
- Need to use multicast. If using multicast on a telco channel significant revenue is foregone. That cannot be ignored.

- LTE platform is suited to on-demand and boutique live services
- The broadcast model is suited to live services with significant concurrent listener numbers

SOLUTION

Integrate fit-for-purpose free-to-air broadcast platform together with IP broadband platform into the one receive device

18 November 2013

Revised variation of Access Undertakings in relation to digital radio multiplex transmission services

CBAA Further Comments

- 1.1 The CBAA welcomes the opportunity to submit comments in relation to a revised proposal for formal variation of the Access Undertakings for digital radio multiplex transmission services submitted by the Foundation Category 1 Digital Radio Multiplex Transmitter Licensees in Adelaide, Brisbane, Melbourne, Sydney and Perth (**Multiplex Licensees**).
- 1.2 Notice of consultation on the revised variation was given by the ACCC on 11 November 2013, following the revised Variation Request lodged with the ACCC on 7 November 2013.
- 1.3 The previous proposed variation, lodged with the ACCC on 19 June 2013, was withdrawn on 4 November 2013.
- 1.4 The CBAA is the peak body for community broadcasting in Australia, representing over 350 licensed community broadcasters. It acts under agency arrangements as a single point of co-ordination with respect to community broadcasting licensees eligible to be digital radio Access Seekers under the Radiocommunications Act 1992 (**Radiocommunications Act**).
- 1.5 The CBAA provided a submission to the ACCC on 9 August 2013. It made some general points and focused on the substantive amendments proposed for the Access Undertaking and incorporated Access Agreement.
- 1.6 In the preparation of that submission the CBAA drew on its expertise and experience of co-ordinating and implementing digital radio services with 37 Access Seekers and on advice from Minter Ellison Lawyers.
- 1.7 Webb Henderson, acting for the Foundation Category 1 Digital Radio Multiplex Licensees in Adelaide, Brisbane, Melbourne Perth and Sydney (each a **JVC** and together the **JVCs**) provided the ACCC a response to the CBAA submission on 6 September 2013.
- 1.8 Following the JVC's response, the CBAA provided a further submission to the ACCC on 11 October 2013.
- 1.9 A revised proposal for formal variation of the Access Undertakings for digital radio multiplex transmission services was submitted by the Multiplex Licensees on 7 November 2013.
- 1.10 The CBAA notes and agrees with the ACCC observation that the Revised Variation Request lodged on 7 November 2013 is substantively similar to the Original Variation Request lodged on 19 June 2013.
- 1.11 Accordingly, the CBAA makes comments herein on the Revised Variation Request and, for completeness, has attached copies of its previous two submissions, as comments made in those submissions remain relevant and still stand.
- 1.12 The CBAA notes that the ACCC has not yet formed a view as to whether the variations proposed by the Multiplex Licensees should be accepted.

- 1.13 The ACCC has provided an expedited consultation period limited to one week, 11 - 18 November 2013, to allow for further submissions, prior to concluding its assessment of the proposed variations.
- 1.14 In limiting its comments in this submission, the CBAA nevertheless encourages the ACCC to give full consideration to the CBAA's previous comments, including in regard to processes around changes to the means by which the underlying transmission services are delivered.
- 1.15 It may be that some of the issues raised are better dealt with in a broader review context rather than as part of assessing a specific Variation Request.
- 1.16 The CBAA notes that the Revised Variation Request provides for the additional sub-clause 9.6 (d) proposed by the CBAA for the new clause 9.6.
- 1.17 The CBAA notes, and is disappointed, that the Revised Variation Request does not include an amended Clause 1.4.
- 1.18 The CBAA reiterates its proposal that the Access Agreement be amended so that if the Multiplex Licensee proposes to change the means by which they deliver the underlying transmission services, then there should be a separate consultation process. The proposed amendment is attached.
- 1.19 Reiterating its previous submissions, the CBAA supports all other proposed amendments.

Attachments

1. Proposed amendment to Attachment 1 clause 1.4 of the Access Undertaking and clause 9.7 of the Access Agreement
2. Submission by the Community Broadcasting Association of Australia, 9 August 2013
3. Submission by the Community Broadcasting Association of Australia, 11 October 2013

Attachment 1

Proposed amendment to the Access Undertaking and Access Agreement

The CBAA proposes:

- (a) Attachment A, sub-clause 1.4 be revised to read:

"The Multiplex Licensee modulates one or more transmitters using the OFDM symbols produced by the Modulation Service to form the RF Service. The Multiplex Licensee may additionally transmit the RF Service using repeater multiplex transmitters which form a Single Frequency Network (SFN). If the Multiplex Licensee wishes to establish repeater multiplex transmitters in addition to those listed below, the Multiplex Licensee must first conduct a consultation with Access Seekers in accordance with the Access Agreement. The transmitter/s characteristics conform to the radiocommunications apparatus license/s held by the Multiplex Licensee.

The following schedule of transmitter sites, together with their apparatus licences, form the RF Service.

Schedule of transmit sites forming the RF Service

Main Site: <Insert main site location>

<insert main site Apparatus Licence number>

Repeater Site: <insert repeater site location>

<insert repeater site Apparatus Licence number>"

(b) The following new clause 9.7 be inserted in the Access Agreement

"9.7 Consultation for establishment of new repeater multiplex transmitter

- (a) *The Multiplex Licensee may determine that it is operationally desirable to establish a new repeater multiplex transmitter for the provision of the RF Service. In the event that the Multiplex Licensee wishes to establish a new repeater multiplex transmitter and intends that it will be necessary to review the fixed recurring charges payable by Access Seekers who acquire the Multiplex Transmission Services in order to recover the costs of the establishment and operation of those fixed recurring charges in accordance with the Pricing principles, then the Multiplex Licensee shall initiate a review for the purpose of providing the Access Seekers with technical and commercial information about the proposed new repeater multiplex transmitter and seeking their comments on the proposed new repeater multiplex transmitter and any adjustment in the fixed recurring charges proposed by the Multiplex Licensee as a result of the establishment and operation of the proposed new repeater multiplex transmitter.*
- (b) *For the purposes only of a review pursuant to clause 9.7(a), the Multiplex Licensee will provide all Access Seekers with notice of the following:*
- (i) *a detailed description of the site location and design of and technical information relating to the new repeater multiplex transmitter;*
 - (ii) *an estimate of the adjustment to the fixed recurring charges that it reasonably considers should apply following the establishment of the new repeater multiplex transmitter;*
 - (iii) *the reasons for any proposed changes in the level of the fixed recurring charges, as described in clauses 5.2(a)(i)-5.2(a)(iv) of Schedule 2, as applied to the proposed new repeater multiplex transmitter;*
 - (iii) *such data that the Multiplex Licensee, acting reasonably and in good faith, considers is reasonably necessary for Access Seekers to:*
 - (A) *assess and verify the technical and operational solution the proposed new repeater multiplex transmitter provides for the RF Service; and*
 - (B) *verify that the fixed recurring charges estimated by the Multiplex Licensee are consistent with the Pricing Principles, including but not limited to data setting out the various cost elements described in clauses 3.2 and 3.4 of Schedule 2 as they apply to the new repeater multiplex transmitter; and*
 - (iv) *any other information that the Multiplex Licensee considers appropriate.*

- (c) *Within 30 days of receipt of the information described in clause 9.7(b), each Access Seeker may (but is not obliged to) provide the Multiplex Licensee with any views or comments it may have in respect of:*
- (i) *the operational and technical aspects of the proposed new repeater multiplex transmitter; or*
 - (ii) *the fixed recurring charges applying in respect of proposed new repeater multiplex transmitter estimated by the Multiplex Licensee.*
- (d) *The Multiplex Licensee will consider any views or comments received from each Access Seeker under clause 9.7(c) in good faith. The Multiplex Licensee may:*
- (i) *abandon the proposed new repeater multiplex transmitter;*
 - (ii) *revise the site location, design or technical and operational parameters of the proposed new repeater multiplex transmitter;*
 - (iii) *revise the fixed recurring charges,*
- if, after having considered any such views or comments in good faith, it forms the opinion that it is necessary to do any of those things to provide the RF Service in a manner that is operationally efficient and consistent with the needs of Access Seekers and in doing so to ensure consistency with the Pricing Principles in respect of any adjustment to the fixed recurring charges.*
- (e) *Within 30 days of the expiry of the 30 day period described in clause 9.7(c), the Multiplex Licensee will provide all Access Seekers with written notice of its consideration and the opinion it formed under clause 9.7(d) and its determination of whether the proposed new repeater multiplex transmitter will proceed and if so, the fixed recurring charges that are to apply as a consequence of the completion of the review under this clause. Such fixed recurring charges will take effect from the billing period (Price Adjustment Date) specified in the notice. For the avoidance of doubt, a review is deemed to have been completed on the date that the Multiplex Licensee issues a notice under this clause 9.7(e).*
- (f) *If the Multiplex Licensee fails to undertake a review under this clause before establishing a new proposed new repeater multiplex transmitter, then it shall not be entitled to recover from the Access Seeker any adjustment to the fixed recurring charges resulting from the establishment and operation of such new repeater multiplex transmitter."*

9 August 2013

Proposed variation of Access Undertakings in relation to digital radio multiplex transmission services

Submission by the Community Broadcasting Association of Australia in response to the ACCC consultation

1. Introduction

- 1.1 The CBAA welcomes the opportunity to submit comments in relation to the request for formal variation of the Access Undertakings for digital radio multiplex transmission services sought by the Foundation Category 1 Digital Radio Multiplex Transmitter Licensees in Adelaide, Brisbane, Melbourne, Sydney and Perth (**Multiplex Licensees**).
- 1.2 Notice of consultation on the proposed variation was given by the ACCC on 3 July 2013, following a Variation Request lodged with the ACCC on 19 June 2013.
- 1.3 The CBAA is the peak body for community broadcasting in Australia, representing over 350 licensed community broadcasters. It acts under agency arrangements as a single point of co-ordination with respect to community broadcasting licensees eligible to be digital radio Access Seekers under the Radiocommunications Act 1992 (**Radiocommunications Act**).
- 1.4 There are currently 37 community broadcasting licensees eligible to be Access Seekers. All 37 have current status as Access Seekers with on-air digital radio services. There are currently 42 commercial Access Seekers.
- 1.5 The provision of community broadcasting services on digital radio is an important aspect of and contribution to free-to-air media diversity. The legislative framework in the Radiocommunications Act reserves two-ninths of the total capacity of each Foundation Category 1 digital radio multiplex for eligible licensed community broadcasting services.
- 1.6 The Radiocommunications Act gives each digital community radio broadcasting representative company (**DRC**) a first right of refusal to acquire a shareholding in the Joint Venture Company that holds the digital radio multiplex transmission licence (ie, each Multiplex Licensee). No digital community radio broadcasting representative companies elected to take up a shareholding.
- 1.7 Irrespective of shareholding status, the intention of the Access Undertaking and access regime administered by the ACCC is to allow eligible broadcasters to obtain access to digital radio transmission services on reasonable terms and conditions.
- 1.8 Access is not to discriminate between Access Seekers in terms of technical and operational quality of the multiplex transmission service.
- 1.9 The terms and conditions of access specified in the Access Undertaking are to include access prices or pricing methodologies which are fair and reasonable.
- 1.10 The ACCC notes that the proposed variation to the Access Undertaking and incorporated Access Agreement consists of six substantive amendments. The CBAA's comments focus on these matters and are collated under headings tabulated below.

Assessment of and comment on proposed variations**2. Term of the Access Agreement and Access Undertaking**

- 2.1 The CBAA has no objection to alignment of the term of the Access Agreement with the term of the Access Undertaking. Access Undertakings would then remain in force while the multiplex licence remains in force, with no specific date for expiry of the Access Agreement.

3. Service description - Access Undertaking

- 3.1 The CBAA has no objection to deletion of the sentence in Attachment A, sub-clause 1.2 (a) referring to PAD X information.
- 3.2 The CBAA has no objection to amending Attachment A, sub-clause 1.2 (a) and (b) to cite ETSI standard EN 300 401.
- 3.3 The CBAA has commented previously¹ on the definition of the RF Service in Attachment A, Clause 1.4. It has raised the issue of whether the RF Service ought be described more specifically.
- 3.4 The CBAA argued that, while there may be only one main transmitter site in each city initially, it would be likely that multiple transmitter sites would be established, and that there ought be a process to enable on-going re-definition of the basic RF Service, coupled with an ability for Access Seekers to opt in or opt out for additional service levels.

On-channel repeaters

- 3.5 In practice, the first step in provision of digital radio services has been to implement a high power main transmitter site in each of Adelaide, Brisbane, Melbourne, Sydney and Perth. To address signal deficiency in central Melbourne, this main site was quickly augmented by a lower power on-channel repeater.
- 3.6 The Variation Request notes that the current Access Undertaking RF Service description contemplates the use of a single transmitter site only in each city. The Multiplex Licensees flag upcoming deployment of further on-channel repeaters in each capital city to improve the quality and coverage of digital radio services.
- 3.7 The CBAA fully supports that deployment of on-channel repeaters be considered part of the basic RF Service, provided that each repeater deployment is agreed as being a necessary and efficient measure to ensure adequate quality and coverage of digital radio services.
- 3.8 The CBAA agrees that, using only the main transmit site, there are areas of signal deficiency within the total Licence Area for which the RF Service is intended to provide coverage, including:
- (a) inner city areas where high rise buildings block the propagation of the signal from the main transmit site; and / or
 - (b) areas of significant population, that do not receive a signal from the main transmit site but which still fall within the total Licence Area.

¹ Submissions made by the CBAA leading to the determination by the ACCC of the ACCC-modified Access Undertakings that currently apply. 2008 - 2009

ACCESS REGIME

DIGITAL RADIO

- 3.9 If counted as part of the basic RF Service, the deployment of each on-channel repeater adds capital and operational costs, thus increasing the total cost of operating the multiplex.
- 3.10 It is noted that the current suite of on-channel repeaters being rolled out is being funded by the net proceeds of the auction of excess capacity access entitlements. It has been argued that to rectify areas of signal deficiency contributes to promoting the digital radio platform.
- 3.11 While use of the one-time auction funds minimises shareholder contributions being required for the capital cost of further infrastructure deployment, it does not reduce the on-going depreciation cost impact of that infrastructure, nor does it address on-going leasing, maintenance and electricity costs incurred by each on-channel repeater.
- 3.12 As a point of information, the operational cost impact of on-channel repeaters tabulated in the Annual Report tabled with the ACCC in August 2012² has formed part of the total operational costs for each multiplex and, accordingly, has increased Access Fees during 2012-13. These on-channel repeater sites were to be commissioned on-air during the last half of calendar year 2012. However, none actually operated during 2012-13 due to various licensing and national broadcaster related delays. The CBAA expects unspent 2012-13 funds to be carried forward by each JVC to offset some 2013-14 costs with a concomitant offset to Access Fees.
- 3.13 It is arguable whether the selected number of on-channel repeater sites, their priority in terms of timing of deployment, or their exact choice of location, is, or can always be, optimal³.
- 3.14 In some cases an otherwise optimal location may not be available or be not efficient in terms of cost. In some cases there may be alternative and equally optimal options to rectify areas of signal deficiency, including re-configuration of the main site. In some cases there may not be agreement about priority or timing of deployment. In some cases there may be demographic reasons why an Access Seeker or small subset group may prefer one location over another.
- 3.15 The build of each on-channel repeater presents, in itself, options that must balance cost, efficiency and practicalities. For example, an on-channel repeater site could be built with full internal redundancy. Given that would increase costs, is that efficient or necessary? As it happens, the proposed on-channel repeaters do not have full internal redundancy and so the answer to that question has not yet been tested. The issue is necessarily case-by-case, and the answer may change over time as coverage demands change; for example, as digital radio receivers become more prevalent in cars and/or more generally adopted.
- 3.16 The build of each on-channel repeater has been scoped to include repeating the national broadcaster Category 3 multiplex as well as the community/commercial Foundation Category 1 multiplex. This has an additional capital and operation cost impact. While this may be an efficient overall approach, it presupposes that the national broadcasters are in agreement.
- 3.17 A fair and reasonable mechanism is required by which to negotiate that agreement. Whether that mechanism is administered as part of the ACCC access regime is a point for consideration.
- 3.18 Alternatively, the ACCC access regime should at least reference a side-mechanism, most likely by requiring that ACMA consult all affected parties, including all Access Seekers.

² 2011-12 Annual Report to the ACCC pursuant to section 118PN of the Radiocommunications Act. Page 5.

³ *ibid.* Page 6.

ACCESS REGIME

DIGITAL RADIO

- 3.19 In the meantime, it is of concern that costs incurred in relation to repeating each national broadcaster multiplex have not been, and are not being, re-couped. These costs might be viewed as being outside of the efficient costs of operating each multiplex and they are costs that should not be borne by commercial and community Access Seekers. At the moment they are embedded in overall costs and so cause increased costs to all commercial and community Access Seekers. If costs are re-couped from the national broadcasters then any income should be offset against the total cost of operating each multiplex.
- 3.20 It is understood that the prevailing view from ACMA is that each multiplex re-transmitted by each on-channel repeater site requires an individual licensing process, even though operating on the same frequency and within the Licence Area of the main transmit site service. ACMA treat each multiplex as a separate entity to be licensed.
- 3.21 Conceivably, there could be a situation where an on-channel repeater is established by an entity other than the Multiplex Licensee.
- 3.22 This might be initiated by an entity concerned to improve reception in an area that has been accorded low priority by the Multiplex Licensee. Implementation of such an on-channel repeater would obviously require co-ordination with the Multiplex Licensee but would sit outside of what constitutes the set of sites that make up the basic RF Service.
- 3.23 Such an on-channel repeater, having obtained the necessary licensing approval after a consultation administered by ACMA, would incur costs that would be borne by the initiating entity. Its costs would not form part of the costs that make up the total operating cost of the Foundation Category 1 Digital Radio Multiplex as reflected in Access Seeker fees.
- 3.24 As a final point regarding on-channel repeaters: the proposed amended wording of Attachment A, sub-clause 1.4 of the Access Undertaking can be read to exclude the costs of on-channel repeater multiplex transmitters from the RF Service. In that case the unintended consequence would be to exclude their costs from the total cost of the Multiplex Transmission Service.

Augmentation of a main transmitter site with a redundant transmitter site

- 3.25 The Access Undertaking, Attachment A, sub-clause 1.4, as currently drafted, can be read to mean an Access Seeker has right of access to a RF service provided over a single multiplex transmission site only.
- 3.26 There is a high level of redundancy built into each main transmission site. However, without full main site redundancy, unavoidable outages of the RF service remain a possibility.
- 3.27 The matter of whether to augment the main site with a redundant site is unlikely to arise for several years. However, where digital radio becomes the primary radio broadcast platform the matter may arise.
- 3.28 The issue this presents for Access Seekers is one of risk versus cost. Duplication of a main multiplex transmission site would significantly increase the cost of supplying the RF Service.
- 3.29 Faced with this cost, an Access Seeker may prefer an option to bear the risk of an outage should the main multiplex transmission site fail in its entirety or require unavoidable maintenance. Removal of the option, if coupled with a hike of cost, would act to hinder access. Government funding for community broadcasting may well exclude costs for site redundancy if it were to mean a steep increase.

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- 3.30 While this issue is particularly acute for not-for-profit community broadcaster Access Seekers, commercial broadcaster Access Seekers may also operate with business models of different scales and so have varying views about whether the extra cost of main site redundancy represents an efficient cost of supplying the Service.
- 3.31 It is understood that there are complexities in providing multiplex services that have a different composition of Access Seekers, depending on whether the main transmit site is in use or whether a redundant site is in use. Even so, a more sophisticated approach to defining the RF Service is needed.
- 3.32 If the ACCC determines to leave resolution of this aspect for the future, then, at the very least, the current Access Undertaking should include process to require a Variation Request be lodged should the nature of the Service change materially in scope or expected cost.
- 3.33 The Access Agreement provides for Multiplex Licensee Initiated Reviews and Access Seeker Initiated Reviews of fixed recurring costs. Establishment of an on-channel repeater inevitably results in an increase in fixed recurring costs. Either mechanism provides an opportunity for consultation in relation to an adjustment of those costs which are reflected in Access Fees – this is too late if the new on-channel repeater has been established – it is unlikely that any such review would alter the Multiplex Licensee's desire to increase Access Fees to cover the costs. The CBAA suggests that the Access Agreement should be amended so that if the Multiplex Licensee proposes to establish an on-channel repeater, then there should be a separate consultation process, as proposed below.
- 3.34 Taking all of the above-mentioned points into account, the CBAA proposes:

- (a) Attachment A, sub-clause 1.4 be revised to read:

"The Multiplex Licensee modulates one or more transmitters using the OFDM symbols produced by the Modulation Service to form the RF Service. The Multiplex Licensee may additionally transmit the RF Service using repeater multiplex transmitters which form a Single Frequency Network (SFN). If the Multiplex Licensee wishes to establish repeater multiplex transmitters in addition to those listed below, the Multiplex Licensee must first conduct a consultation with Access Seekers in accordance with the Access Agreement. The transmitter/s characteristics conform to the radiocommunications apparatus license/s held by the Multiplex Licensee.

The following schedule of transmitter sites, together with their apparatus licences, form the RF Service.

Schedule of transmit sites forming the RF Service

Main Site: <Insert main site location>

<insert main site Apparatus Licence number>

Repeater Site: <insert repeater site location>

<insert repeater site Apparatus Licence number>"

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(b) The following new clause 9.7 be inserted in the Access Agreement

"9.7 Consultation for establishment of new repeater multiplex transmitter

- (a) *The Multiplex Licensee may determine that it is operationally desirable to establish a new repeater multiplex transmitter for the provision of the RF Service. In the event that the Multiplex Licensee wishes to establish a new repeater multiplex transmitter and intends that it will be necessary to review the fixed recurring charges payable by Access Seekers who acquire the Multiplex Transmission Services in order to recover the costs of the establishment and operation of those fixed recurring charges in accordance with the Pricing principles, then the Multiplex Licensee shall initiate a review for the purpose of providing the Access Seekers with technical and commercial information about the proposed new repeater multiplex transmitter and seeking their comments on the proposed new repeater multiplex transmitter and any adjustment in the fixed recurring charges proposed by the Multiplex Licensee as a result of the establishment and operation of the proposed new repeater multiplex transmitter.*
- (b) *For the purposes only of a review pursuant to clause 9.7(a), the Multiplex Licensee will provide all Access Seekers with notice of the following:*
- (i) *a detailed description of the site location and design of and technical information relating to the new repeater multiplex transmitter;*
 - (ii) *an estimate of the adjustment to the fixed recurring charges that it reasonably considers should apply following the establishment of the new repeater multiplex transmitter;*
 - (iii) *the reasons for any proposed changes in the level of the fixed recurring charges, as described in clauses 5.2(a)(i)-5.2(a)(iv) of Schedule 2, as applied to the proposed new repeater multiplex transmitter;*
 - (iii) *such data that the Multiplex Licensee, acting reasonably and in good faith, considers is reasonably necessary for Access Seekers to:*
 - (A) *assess and verify the technical and operational solution the proposed new repeater multiplex transmitter provides for the RF Service; and*
 - (B) *verify that the fixed recurring charges estimated by the Multiplex Licensee are consistent with the Pricing Principles, including but not limited to data setting out the various cost elements described in clauses 3.2 and 3.4 of Schedule 2 as they apply to the new repeater multiplex transmitter; and*

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- (iv) *any other information that the Multiplex Licensee considers appropriate.*
- (c) *Within 30 days of receipt of the information described in clause 9.7(b), each Access Seeker may (but is not obliged to) provide the Multiplex Licensee with any views or comments it may have in respect of:*
 - (i) *the operational and technical aspects of the proposed new repeater multiplex transmitter; or*
 - (ii) *the fixed recurring charges applying in respect of proposed new repeater multiplex transmitter estimated by the Multiplex Licensee.*
- (d) *The Multiplex Licensee will consider any views or comments received from each Access Seeker under clause 9.7(c) in good faith. The Multiplex Licensee may:*
 - (i) *abandon the proposed new repeater multiplex transmitter;*
 - (ii) *revise the site location, design or technical and operational parameters of the proposed new repeater multiplex transmitter;*
 - (iii) *revise the fixed recurring charges,*

if, after having considered any such views or comments in good faith, it forms the opinion that it is necessary to do any of those things to provide the RF Service in a manner that is operationally efficient and consistent with the needs of Access Seekers and in doing so to ensure consistency with the Pricing Principles in respect of any adjustment to the fixed recurring charges.
- (e) *Within 30 days of the expiry of the 30 day period described in clause 9.7(c), the Multiplex Licensee will provide all Access Seekers with written notice of its consideration and the opinion it formed under clause 9.7(d) and its determination of whether the proposed new repeater multiplex transmitter will proceed and if so, the fixed recurring charges that are to apply as a consequence of the completion of the review under this clause. Such fixed recurring charges will take effect from the billing period (Price Adjustment Date) specified in the notice. For the avoidance of doubt, a review is deemed to have been completed on the date that the Multiplex Licensee issues a notice under this clause 9.7(e).*
- (f) *If the Multiplex Licensee fails to undertake a review under this clause before establishing a new proposed new repeater multiplex transmitter, then it shall not be entitled to recover from the Access Seeker any adjustment to the fixed recurring charges resulting from the establishment and operation of such new repeater multiplex transmitter."*

4. Safe Operation of Multiplex Transmission Service - Access Agreement

4.1 The CBAA has no objection to the proposed amendment to the Access Agreement, sub-clause 9.4 deleting the words *“through the Representative Company”*.

4.2 The CBAA has no objection to the insertion of a new sub-clause 9.6 to the Access Agreement. The Clause seeks to ensure safe operation of systems, equipment and facilities; and that systems, equipment and facilities do not negatively impact the operation of the Multiplex Transmission Service or other systems, equipment and facilities used in connection with the Multiplex Transmission Service.

4.3 The CBAA suggests an additional sub-clause (d)

“Nothing in this Clause prevents an Access Seeker from operating its own systems, equipment or facilities in a manner of its own choosing provided such operation complies with sub-clause 9.6 (c).”

5. Suspension provisions - Access Agreement

5.1 The CBAA notes the amendments to Clause 15 to take account of on-channel repeater sites in addition to a main transmit site in each capital city, and to clarify that all or part of the Multiplex Transmission Service may be subject to suspension or powering down.

5.2 The CBAA has no objection to the proposed amendments to Clause 15 in their entirety.

6. Invoicing in advance - Access Agreement

6.1 The Variation Request notes that the existing Access Agreement contemplates invoicing will occur on a monthly basis in arrears.

6.2 The Variation Requests seeks to amend invoicing arrangements to instead be either monthly or quarterly in advance.

6.3 The CBAA acts as a single point of co-ordination for all community broadcasting Access Seekers and has an Agreement with each Multiplex Licensee to maintain payments quarterly in advance.

6.4 The CBAA has no objection to the proposed amendment to sub-clause 12.3 which reads,

“The billing period for the Standard Charges is either monthly or quarterly in advance, except where otherwise agreed with the Access Seeker.”

6.5 The amendment is, in effect, no better and no worse than the current situation in practice.

6.6 The CBAA notes that the Agreement with each Multiplex Licensee requires a financial security to the equivalent to 3 months worth of access fees based on two-ninths of multiplex capacity and grossed up for GST.

6.7 The CBAA maintains this financial security with each Multiplex Licensee on an on-going basis.

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6.8 The CBAA notes that financial security has not been required of any commercial radio broadcasters.⁴

6.9 This begs the question as to whether each Multiplex Licensee is applying the financial security provisions in an equitable or fair and reasonable manner.

7. Removal of redundant provisions and other amendments - Access Agreement

7.1 The Variation Request seeks to delete a range of provisions in the Access Agreement on the basis that the provisions no longer have effect or relate to obligations already discharged.

7.2 A number of other amendments are made, seemingly with the intention to tidy and clarify.

7.3 The CBAA has no objection to the deletion of Clause 3.

7.4 The CBAA has no objection to the proposed amendments to sub-clause 6.4.

7.5 The CBAA has no objection to the proposed amendments to Clause 7 and all sub-clauses.

7.6 The CBAA has no objection to the amendment of sub-clause 17.3.

7.7 The CBAA has no objection to the deletion of sub-clause 17.9.

7.8 The CBAA has no objection to the amendment of Effective Date in the Schedule 1 Dictionary.

7.9 The CBAA has no objection to the amendment of Schedule 2, Pricing Principles, sub-clause 5.1.

7.10 The CBAA has no objection to the addition in Attachment A of new sub-clause 1 (c).

7.11 The CBAA takes the opportunity to reiterate that Attachment A sub-clause 1 (b) (C) is in error where it suggests a Digital Representative Company may be an Access Seeker.

8. Other matters

8.1 The CBAA takes the opportunity to reiterate that, in the interests of consumers, it is desirable, should an Electronic Program Guide (EPG) be introduced for digital radio services, that it operate in a multi-lateral basis such that EPG data is displayed in a common manner for all services on all multiplexes broadcasting to each Licence Area.

8.2 The ACCC is encouraged to consider whether the current access regime ensures equal treatment such that an EPG system does not discriminate against any Access Seeker or its services, should an EPG be implemented in some manner.

⁴ 2011-12 Annual Report to the ACCC pursuant to section 118PN of the Radiocommunications Act. Page 3.

11 October 2013

Proposed variation of Access Undertakings in relation to digital radio multiplex transmission services

Further comments

1. Introduction

- 1.1 The CBAA welcomes the opportunity to submit further comments in relation to the request for formal variation of the Access Undertakings for digital radio multiplex transmission services sought by the Foundation Category 1 Digital Radio Multiplex Transmitter Licensees in Adelaide, Brisbane, Melbourne, Sydney and Perth (**Multiplex Licensees**).
- 1.2 Notice of consultation on the proposed variation was given by the ACCC on 3 July 2013, following a Variation Request lodged with the ACCC on 19 June 2013.
- 1.3 The CBAA is the peak body for community broadcasting in Australia, representing over 350 licensed community broadcasters. It acts under agency arrangements as a single point of co-ordination with respect to community broadcasting licensees eligible to be digital radio Access Seekers under the Radiocommunications Act 1992 (**Radiocommunications Act**).
- 1.4 The CBAA provided a submission on 9 August 2013. It made some general points and focused on the substantive amendments proposed for the Access Undertaking and incorporated Access Agreement.
- 1.5 In the preparation of that submission the CBAA drew on its expertise and experience of co-ordinating and implementing digital radio services with 37 Access Seekers and on advice from Minter Ellison Lawyers.
- 1.6 Webb Henderson, acting for the Foundation Category 1 Digital Radio Multiplex Licensees in Adelaide, Brisbane, Melbourne Perth and Sydney (each a **JVC** and together the **JVCs**) provided the ACCC a response to the CBAA submission on 6 September 2013.
- 1.7 This further submission from the CBAA follows the JVC's response. It should be read in conjunction with the original submission by the CBAA, and the request by the JVCs for formal variation of the Access Undertakings.
- 1.8 The JVCs note that the CBAA supports nearly all of the proposed amendments to the digital radio access undertaking and looks forward to maintaining a co-operative working relationship with the CBAA.
- 1.9 The CBAA also seeks to maintain a co-operative working relationship. It has always maintained a constructive approach and in making comments to the ACCC is doing nothing more than acting with appropriate and proportionate diligence.
- 1.10 The comments and proposals made in the CBAA's submission on 9 August 2013 stand and further comments made herein are primarily in response to points raised by the JVCs through Webb Henderson on 6 September 2013.

2. Definition of RF Service: On-Channel Repeater Services

- 2.1 The CBAA position from the outset, in 2007-2009, has been that, while there may be only one main transmitter site in each city initially, it would be likely that multiple transmitter sites would be established, and that there ought to be a process to enable on-going re-definition of the basic RF Service, coupled with an ability for Access Seekers to opt in or opt out for additional service levels.
- 2.2 The CBAA reiterates that it fully supports deployment of on-channel repeaters (OCRs) be considered part of the basic RF Service, provided each repeater deployment is agreed as being a necessary and efficient measure to ensure adequate quality and coverage of digital radio services.
- 2.3 The CBAA reiterates that it agrees that, using only the main transmit site, there are areas of signal deficiency within the total Licence Area for which the RF Service is intended to provide coverage, including:
- (a) inner city areas where high rise buildings block the propagation of the signal from the main transmit site; and / or
 - (b) areas of significant population, that do not receive a signal from the main transmit site but which still fall within the total Licence Area.

3. OCR rollout and fixed recurring charges

- 3.1 It is a matter of fact that, if counted as part of the basic RF Service, the deployment of each on-channel repeater adds to the capital base and increases operational costs, thus increasing the total cost of operating the multiplex, and hence the fixed recurring charges to Access Seekers (Access Fees).
- 3.2 As has been noted, funds received as part of the auction of excess-capacity access entitlements are to be used for specified purposes; activities to promote digital radio. To date, the JVCs have drawn on those funds to cover initial capital expenditure associated with the deployment of OCrs and so there has been no need for additional JVC shareholder contribution.
- 3.3 While a sensible and productive use of those funds, to say the initial capital costs of the OCR rollout are “essentially being subsidised by the commercial radio broadcasters that acquired excess-capacity access entitlements at auction”¹ does not seem to best characterise the situation. The funds paid those commercial broadcasters were for the extra access entitlements. To say it is a subsidy for OCR rollout costs is to infer the extra access entitlements accorded to those broadcasters have no value.
- 3.4 In any case, whether the funds for the capital costs of the OCR rollout are derived from a call on JVC shareholders or from income derived from some other source is not fully relevant. The effect of JVC expenditure on capital is that an addition to the value of the capital base has occurred. As the capital base is increased, so the return on that capital base - the weighted average cost of capital (WACC) - and the annual depreciation costs are also affected.

¹ Webb Henderson, 6 September 2013, Section 1.1, paragraph 4

- 3.5 All other things being equal, straight line depreciation of the capital base would see an annual reduction in the total operating cost. Whereas, in fact, the WACC is affected and the allowance for depreciation has been increased to allow for OCR rollout. This accounting for OCR rollout capital is not contested but does run counter to the impression created by the statement that it, “cannot be reasonably argued that the initial OCR related capital costs will be passed through to access seekers”.² This comment seems to misunderstand how the cost of capital has already been applied to determine Access Seeker fees.
- 3.6 Access Fees were adjusted as from October 2012 to take account of changes in general multiplex expenditure and also include adjustments to the capital base and depreciation, brought about by the OCR rollout. The Sydney overall costs, for example, increased by 41% as from October 2012.
- 3.7 Part of this increase was to provision for OCR electricity, maintenance, site fees and so forth. Part was to do with depreciation and adjustments to the capital base. A further revision of Access Fees to account for adjustments in OCR rollout timing was flagged for December 2012 but remains pending.
- 3.8 It is accepted that items of OCR expenditure, such as electricity, maintenance and monitoring costs would be managed in an efficient manner and not payable until an OCR is switched on. However, budgeting that underpins the fixed recurring charges that have applied since October 2012 seem to presume operation of OCR sites. Given the OCR sites have not been fully operating, the CBAA would expect carry forward savings to offset some future costs.

4. OCR rollout planning and implementation

- 4.1 It is accepted that the OCR implementation is complex and that timing and planning targets for OCR site switch-ons have been delayed compared to JVC expectations despite best efforts.
- 4.2 The JVCs state that, “the adopted method for the selection of OCR sites was subject to customer engagement through DTAC. In addition, ACMA has also had visibility of the site selection process from a licensing and technical planning and interference management perspective.”³
- 4.3 While the role of DTAC is valuable, useful and productive it is, nevertheless, a committee of the commercial broadcasting industry. Other parties are invited to participate where that seems appropriate to DTAC. It is not a committee of Access Seekers.
- 4.4 Appropriately, DTAC is sometimes used as an internal forum for commercial broadcasters to develop agreement on a range of issues. For example, latterly it has been used for development of commercial radio industry proposals for regional digital rollout. These matters have generally been considered internal commercial broadcaster business.
- 4.5 DTAC has and may operate in some matters in an open and broadly inclusive manner at times, but it has no obligation to do so consistently.

² Webb Henderson, 6 September 2013, Section 1.1, paragraph 5

³ *ibid*, paragraph 3

- 4.6 As ACMA has visibility of the site selection process perhaps it would be helpful if ACMA were to consult Access Seekers as well as Digital Radio Multiplex Transmitter licensees.
- 4.7 The JVCs “strongly disagree with the suggestion that the number and timing of OCR site deployments is sub-optimal, thereby resulting in the JVCs incurring costs inefficiently”.⁴
- 4.8 This comment slightly misses the intention of raising the matter of site planning. The CBAA stated it is arguable that the exact location of sites and priority in terms of timing of deployment is or can always be optimal.
- 4.9 The CBAA goes on to give examples such as the case where an otherwise optimal site may not be available or may be inefficient in terms of cost; that there may be delays in terms of deployment timing; and that there may be reasons why an Access Seeker or a subset of group of Access Seekers may prefer one site location be prioritised over another.
- 4.10 These examples are meant to illustrate that, in practice, the process of planning and implementing sites is likely to have to accept compromises. In fact, the delays compared to the expected timing for the current OCR site rollout is a case in point.
- 4.11 There is also a larger, long term, point to be made. The technical model to provide coverage of the Licence Area using a high power main site with supplemental low power OCR sites is not the only model. Other future models might not rely on a single main site so heavily but a number of medium power sites working together to provide coverage across a Licence Area.
- 4.12 Which model is preferred is a matter for detailed consideration, open consultation with all affected parties and forward planning. It is not a matter where “conjecture about alternative locations is always possible in hindsight”.⁵ Hindsight is not the preferred methodology.
- 4.13 While not specifically relevant to the current OCR implementation reiterating the need for consultative forward planning and canvassing of all approaches in prospect is mentioned here as it is anticipated that digital radio services will be rolled out across further Licence Areas and the precepts of this access regime will no doubt be referenced.

5. Amendment to RF Service

- 5.1 It is noted that the Access Agreement provides for Multiplex Licensee Initiated Reviews and Access Seeker Initiated Reviews of fixed recurring costs. Establishment of an on-channel repeater inevitably results in an increase in fixed recurring costs.
- 5.2 The CBAA reiterates that while either mechanism provides an opportunity for consultation in relation to an adjustment of those costs which are reflected in Access Fees – this is too late if the new on-channel repeater has been established – it is unlikely that any such review would alter the Multiplex Licensee's desire to increase Access Fees to cover the costs.
- 5.3 The CBAA reiterates its proposal that the Access Agreement be amended so that if the Multiplex Licensee proposes to establish an on-channel repeater, then there should be a separate consultation process. The proposed amendment is attached.

⁴ Webb Henderson, 6 September 2013, Section 1.1, paragraph 1

⁵ *ibid.*, paragraph 2

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6. No retrospective challenge

- 6.1 In putting forward the proposed amendment there was never a suggestion of a retrospective challenge to the OCR site deployments that have already been undertaken and scoped.
- 6.2 The intention of the proposed amendment is to accept what has been done to date and to suggest that the method for determining future changes could be improved.

7. National broadcasters

- 7.1 The CBAA notes that the JVCs confirm that OCRs have been scoped to support the supply of OCR services to commercial broadcasters, community broadcasters and the national broadcasters and that, if full power OCR services are supplied to the national broadcasters then, the national broadcasters will be required to contribute and those contributions will be offset against the costs.

8. Safe operation

- 8.1 The CBAA notes that the JVCs confirm no objection to an additional clause to the proposed new clause regarding safe operation. Accordingly, the CBAA suggest the ACCC request the JVCs submit a revised Variation Proposal or use whatever is the simplest process to effect the inclusion of this clause.

9. Electronic Program Guide

- 9.1 The CBAA is pleased to note that, “if the JVCs decide to consider introducing an EPG, this decision will be taken in consultation with all Access Seekers”.⁶
- 9.2 There are various methods for introduction of an EPG and the CBAA is also pleased to note that where an EPG is implemented as part of the Multiplex Transmission Service the JVCs consider that the “no hindrance of access” and “non-discrimination” requirements of the Access Agreement will apply to EPG services and will ensure all Access Seekers, including community broadcasters, are given the opportunity to participate in an EPG on an equal basis.
- 9.3 The CBAA is comforted also to note that the JVCs consider any exclusionary arrangements in relation to an EPG against community broadcasters would not be compliant with the requirements of the Competition and Consumer Act.

Attachments

1. Proposed amendment to Attachment 1 clause 1.4 of the Access Undertaking and clause 9.7 of the Access Agreement.