



COMMUNITY
BROADCASTING
ASSOCIATION OF
AUSTRALIA

Media Reform Green Paper

Modernising television regulation in Australia

Response and comments

MAY 2021

Media Reform Green Paper

Modernising television regulation in Australia

CBAA comments on the Media Reform Green Paper circulated by the Department of Infrastructure, Transport, Regional Development and Communications.

Contents

- 1 Introduction
- 2 Background – CBAA and community broadcasting services
- 3 Public policy and cultural objectives
- 4 Re-purpose spectrum used by television
- 5 Indicative timelines
- 6 Consultation and optimising the new framework
- 7 Transition to next generation digital television
- 8 Capacity sharing – carriage
- 9 Capacity sharing – entitlements
- 10 Licensing framework
- 11 Funding – transition and content
- 12 Satellite and free-to-air broadcast
- 13 Online and free-to-air broadcast

Attachments

- 1 Television – Adelaide Metropolitan channel allocations
- 2 Television – Melbourne Metropolitan channel allocations

1. Introduction

- 1.1 The Community Broadcasting Association of Australia (CBAA) welcomes the opportunity to respond and provide comments on the proposed reform agenda for Australia's media industry as set out in the Media Reform Green Paper — Modernising television regulation in Australia, circulated by the Department of Infrastructure, Transport, Regional Development and Communications in November 2020.
- 1.2 In a number of important ways, the Media Reform Green Paper is a significant document.
- 1.3 Firstly, the Green Paper explicitly sets out that Government public policy and cultural objectives rely heavily on free-to-air broadcasting — television, and also radio.
- 1.4 Secondly, the Green Paper explicitly sets out an objective and indicative timeline to clear and re-purpose use of the 600 MHz radiofrequency band, UHF Television channels 40-51.
- 1.5 The CBAA comments in this response and submission are set out in high level summary, and anticipate further discussion. Some headline points are highlighted below.
- 1.6 The CBAA endorses the intention of the Green Paper to support a long-term sustainable future for free-to-air (television) broadcasting.
- 1.7 The CBAA supports an open and careful assessment of the current demand for spectrum being used by free-to-air television services; and potential timelines for change in that demand to evolve in regard to next generation television and/or potential legislative, licensing or regulatory changes.
- 1.8 The CBAA considers the community broadcasting sector is a key stakeholder in that assessment, and ought to be involved at all stages, with a view to a positive outcome for the community and public policy objectives, and for the sustainability of services.
- 1.9 This assessment of spectrum and service requirements is highly relevant to the specific situation and outcomes related to current community television services, and also as the assessment relates to community broadcasting services more broadly.
- 1.10 Reinforcing the proposition that Government public policy and cultural objectives rely on free-to-air broadcasting, the Broadcasting Services Act 1992 (BSA) includes a quite specific remit:
- to ensure the maintenance and, where possible, the development of diversity, including public, community and indigenous broadcasting, in the Australian broadcasting system in the transition to digital broadcasting.¹
- 1.11 In alignment with that Object:
- There are long-term free-to-air digital community radio services on-air in all capital cities, with implementation of services in regional areas now underway.
 - There are free-to-air digital community television services on-air in Adelaide and Melbourne. These services have been on-air since 1994, resilient in the face of uncertainty and repeated short-term (annual) extensions.
- 1.12 The Green Paper makes explicit that spectrum currently used for community television in Adelaide and Melbourne is not required for any alternative purpose in the immediate term: certainly not before a television industry transition and/or spectrum restack commences, which it indicates to be mid-2024, at the earliest.
- 1.13 Therefore, as an urgent and immediate concern, the CBAA seeks confirmation from Government of continuation for Adelaide and Melbourne community digital television services under current RF channel arrangements, at least until a restack commences.²
- 1.14 To address public policy principles and the Object of the BSA in the longer-term, the CBAA seeks capacity to be reserved within (shared) digital television multiplex transmitter capacity for digital community broadcasting services — television and radio — and across all licence areas/markets.
- 1.15 This will provide certainty for Adelaide and Melbourne community television services, and also support improved free-to-air access to community radio services.

¹ Broadcasting Services Act 1992, Object, Section 3 (1)(n)

² Community Television spectrum access in Adelaide and Melbourne is currently due to expire on 30 June 2021. Spectrum access has been extended on a short-term (annual) basis for years, creating uncertainty. The CBAA seeks BSA content licenses to be the usual five-year terms, and Radiocommunications Act 1992 (RA) licences extended to match, and/or at least until a television RF channel re-stack and transition commences.

2. Background - CBAA and community broadcasting services

- 2.1 The Community Broadcasting Association of Australia is the peak body for community broadcasting licensees in Australia.
- 2.2 At the time of writing, nationally, 354 long-term (and a further 94 temporary) not-for-profit community radio licensees provide services with significant public benefit, including a diverse mix of social and cultural interests, specialist talks and music, news and information, and high levels of local content and presentation.
- 2.3 Community interests addressed include Indigenous services, radio reading services for the print disability community, youth, seniors, LGBTQIA+, religious and faith-based services, ethnic language and multicultural radio, specialist music, educational and general geographic services.
- 2.4 In metropolitan areas there are a greater number of specific community interest services. In regional and rural communities, community radio stations more frequently provide diverse programming covering broad community interests under a general geographic licence, with a high number of Indigenous services in remote locations.
- 2.5 Community analogue radio stations operate overwhelmingly in the VHF band and in the majority of towns and cities across Australia, with approximately 75% located in regional and remote areas, and 25% across metropolitan locations.
- 2.6 Community digital radio services operate using capacity within shared digital radio multiplex transmitters that operate within the VHF (television) band in Sydney, Melbourne, Brisbane, Adelaide, Perth, with services now also operating in Canberra, Hobart and Darwin. A total of 50 licensees are currently providing over 55 free-to-air community digital radio services to listeners.
- 2.7 Community digital radio services for the Gold Coast area are under implementation, with further regional areas and development now a priority, and being addressed.
- 2.8 Community television services operate in Melbourne and Adelaide, using capacity within digital television multiplex transmitters that operate within the UHF (television) band in each location.
- 2.9 While community television services have operated since 1994³, their access to broadcast band spectrum for delivery of free-to-air community digital television services has been subject to renewal under repeated consecutive short-term arrangements.
- 2.10 Guiding principles underpin community broadcasting Codes of Practice and the contribution of community services to media diversity and social inclusion.
- 2.11 Community broadcasting licences are issued pursuant to and in promotion of the objects of the Broadcasting Services Act 1992 (BSA).
- 2.12 Highly relevant is the Object:
- to ensure the maintenance and, where possible, the development of diversity, including public, community and indigenous broadcasting, in the Australian broadcasting system in the transition to digital broadcasting.⁴
- 2.13 The CBAA considers the Broadcasting Services Act leaves no doubt that there is an express Government imperative to ensure there is structural opportunity to make possible continuation and, where possible, development of free-to-air community digital broadcasting services, both radio and also television.
- 2.14 This paper both reiterates and flags a vigorous commitment to the proposition that — alongside national and commercial broadcasting — community broadcasting provides a structural response to address specific public policy and cultural objectives of, or as recognised by, Government.

³ Community Television in Melbourne has operated on a continuous basis since 1994, 27 years. Community Television in Adelaide has operated from 1994 through to 2002, 8 years. Then continuously from 2004, over 16 years.

⁴ Broadcasting Services Act 1992, Object, Section 3 (1)(n)

3. Public policy and cultural objectives

- 3.1 The Green Paper explicitly sets out that Government public policy and cultural objectives rely heavily on free-to-air broadcasting — television, and also radio.
- 3.2 The CBAA agrees that access to diverse sources and a diversity of voices is critical to the health and functioning of Australia’s democratic systems, essential to a fully functional democracy, and for an engaged and informed community.^{5,6}
- 3.3 The Green Paper points to the importance of Australian stories, voices and perspectives: that they help reflect Australia, both to itself and to the rest of the world; and support cultural identity, social cohesion, and connection between Australian citizens.
- 3.4 The CBAA agrees that free-to-air broadcasting provides a voice for diverse communities and community interests, and notes the specific mention in the Green Paper of services that have grown from or are currently central to the community broadcasting sector, including ethnic, Indigenous and radio reading services.⁷
- 3.5 The CBAA agrees that, alongside free-to-air television and radio, newspapers and the broader arts sector play a role in articulating Australian values and stories, which help shape the cultural fabric of Australian society.
- 3.6 There is a long-established pattern of engagement by community television and radio producers across broader media, arts and cultural industries that supports the production and distribution of Australian content.
- 3.7 The Green Paper discusses media in regard to digital disruption, and that, in and of itself, digital disruption does not justify Government intervention but, in fact, may create a competitive tension to foster innovation, creative content and approaches.
- 3.8 However, the Green Paper recognises there is a challenge to the sustainability of media content services over time, pointing to patterns of decline in free-to-air commercial television broadcasting, in regard to both audience and revenue, and primarily related to the competing availability of online and on-demand content services.
- 3.9 While providing added utility and service outcomes for viewers (and listeners), online and on-demand content services are typically user-pays; present extra ongoing costs to broadcasters; and have facility to mine personal user-data, threatening privacy.
- 3.10 The Green Paper notes there is intense competition from large, usually overseas-based internet services⁸ that are global entities: not being local, regional, metropolitan or Australian in content, service orientation, ownership or control.
- 3.11 The Green Paper recognises two intertwined challenges that confront industry and Government:
- Indications are that, without adjustment, over the longer term, the Australian (commercial) media industry is on an unsustainable financial footing; and that
 - The regulatory (and legislative) levers currently used to achieve social, cultural and economic policy outcomes — diversity of voices, provision of local content — are all targeted at existing media services that are most challenged.
- 3.12 The Green Paper proposes a structural adjustment to the free-to-air broadcasting framework:
- partly in response to address the economic patterns and policy and cultural objectives outlined above; and
 - partly to release a significant quantum of radiofrequency spectrum, currently used by free-to-air television, to be repurposed, with that released spectrum likely be auctioned and taken up for mobile broadband purposes.

⁵ Media Reform Green Paper, DIRTC, November 2020, PP 10-11

⁶ Making the additional points that these benefits accrue at an individual, local regional and national level; and that a strong independent media sector is an important countermeasure to the increasing proliferation of disinformation.

⁷ Media Reform Green Paper, DIRTC, November 2020, P 11.

Radio Reading services are provided by digital radio services in Sydney, Canberra, Hobart and Darwin, as well as Melbourne, Adelaide, Perth and Brisbane. The policy imperative being that such community services be available to all Australians on a free-to-air basis, and especially as a result of the transition to digital broadcasting.

⁸ Media Reform Green Paper, DIRTC, November 2020, P 4. These include social media platforms like FaceBook and YouTube and well as Subscription Video-on-Demand services like Netflix, Amazon Prime and Disney+.

4. Re-purpose spectrum used by television

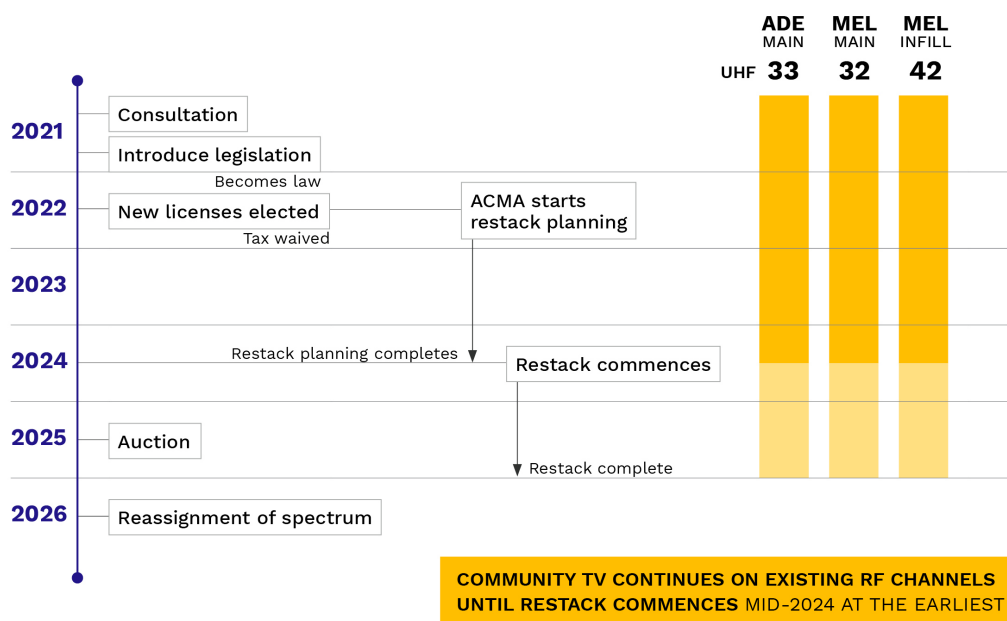
- 4.1 The Green Paper sets out an explicit objective and an indicative timeline to clear and re-purpose use of the 600 MHz band — specifically, those parts currently used for UHF Television channels 41-50.
- 4.2 To achieve this release of spectrum, the Green Paper suggests that free-to-air television licensees shift from using five (5) down to three (3) of the six (6) radiofrequency (RF) channels currently allocated for television use in Australia.⁹
- 4.3 To achieve this overall reduction, the Green Paper suggests existing television licensees shift from having the full data rate capacity of one (1) entire digital television multiplex allocated to each licensee to, instead, having licensees (required to) share multiplex capacity. This may require new technology, and impact upon service outcomes.¹⁰
- 4.4 To achieve a shared multiplex arrangement, the Green Paper suggests a revised type of license be devised.
- 4.5 It is already the case that there is a distinction between a television content licence under the Broadcasting Services Act (BSA) and entitlement to access capacity made possible by allocation of radiofrequency spectrum by a transmitter licence under the Radiocommunications Act (RA).
- 4.6 A key difference with the proposed new license is that there would no longer be a one-to-one relationship between the content licence and the RF channel transmitter licence. The capacity afforded by that RF channel would be shared.
- 4.7 At this juncture it is worth noting that the digitisation of radio broadcasting in Australia has already traversed this shift. Digital radio has a legislative framework in place that navigates many of the issues that arise in the shift to shared capacity on a multiplex. At the very least, this legislative model is a start point to reference regarding arrangements for sharing the capacity of a digital television multiplex.
- 4.8 The Green Paper proposes to give commercial television broadcasters a choice:
- Continue to operate under their existing licence arrangements, and remain subject to existing regulations; or
 - Make a one-time irrevocable decision to take up a ‘new licence’, and thereby commit to use of less spectrum at a future point, with some regulatory obligations removed:
 - no commercial broadcasting tax would be charged (in effect, providing the RF spectrum to commercial television broadcasters free of any ongoing charge or tax); and
 - no obligation to meet an Australian content requirement on multi-channels.
- 4.9 At least two commercial broadcasters would have to elect to transition to a new licence in each commercial television licence area, the Government would then mandate that the ABC and SBS also move to a shared multiplex arrangement.
- 4.10 The CBAA partly agrees with the assessment made in the Green Paper that for changes to spectrum allocation to be achievable, it would be necessary for at least two commercial broadcasters to elect to transition in all the metropolitan markets, and likely that at least two regional broadcasters do likewise in each aggregated regional market.
- 4.11 The CBAA suggests there are issues that need thorough exploration, and that these may lead to slightly altered approaches to a transition and restack, and that may well yield a similar quantum spectrum release.
- 4.12 This response sets out initial views in an abbreviated manner, and the CBAA seeks opportunity to expand and discuss these thoroughly with the Department.

⁹ Television RF channel planning in Australia is based on the allocation of blocks in each area: each block made up of 6 RF channels, each having 7MHz bandwidth. This means that in almost every area of Australia there is a vacant 7MHz RF channel, colloquially referred to as the sixth channel. There is one block using VHF spectrum, and 5 blocks using UHF spectrum. In metropolitan areas, such as Adelaide and Melbourne, the main site channels operate on VHF, and UHF is used for infill. The VHF channel (channel 10) remains vacant in metropolitan areas. Community television operates in Adelaide and Melbourne from the main transmitter site using a UHF channel not in the metropolitan block, but from a block allocated to adjacent regional areas.

¹⁰ To achieve this reduction under the existing transmission technology (DVB-T), television would need to shift to increased use of new(er) service encoding technology (from MPEG 2 to MPEG 4), and likely reduce the quality or number of services provided. Alternatively, a transition to new transmission technology (DVB-T2), and with new encoding technology (HEVC) would ensure no reduction in service outcomes, and provide for UHD/4K.

5. Indicative timelines

- 5.1 The Green Paper sets out steps and indicative timelines for developing new RF channel arrangements and planning for a television spectrum restack.¹¹
- 5.2 Setting aside any potential delay points, the Green Paper has consultation complete in May 2021, with drafting of the amending legislation to then commence, and introduced to Parliament in the second half of 2021.
- 5.3 Assuming the amending legislation is enacted and passes into law, the Green Paper suggests that in mid-2022 a sufficient number of commercial television broadcasters would then elect to take up the offer of a new licence.
- 5.4 That would trigger the ACMA to work with industry and stakeholders in planning for the new channels and the restack process to occur between mid-2022 and mid-2024.
- 5.5 The Green Paper puts the commencement of the restack as from mid-2024, to be completed in December 2025.
- 5.6 The timing for an auction of released television spectrum¹² is suggested as 2025, anticipating the completion of the restack, with the spectrum reassigned as from 2026.
- 5.7 At this juncture, it is relevant to reiterate that the Green Paper confirms:
- The use of television broadcast band spectrum is not identified for any alternate purpose other than television in the immediate term.
 - Existing on-air television services — including community television — should not, and need not, be disrupted until commencement of the restack.
- 5.8 To be clear, the use of the RF channels currently providing community digital television services on-air in Adelaide and Melbourne is able to continue until the commencement of the television spectrum restack.
- 5.9 Noting again that these timelines make no allowance for potential delay points, the commencement of the restack is placed as from mid-2024 — at the earliest.
- 5.10 The restack will be staggered in time across different areas. Based on the Green Paper timelines, the restack would be complete by the end of 2025 across all areas.
- 5.11 The commencement of the restack in mid-2024 may well be delayed as a result of further consultations, and revision to the framework or arrangements for transition.
- 5.12 The diagram below sets out steps based on the Green Paper indicative timelines, and assumes no delay points.



¹¹ Media Reform Green Paper, DIRTC, November 2020, P 25 and Page 42, Table 2.

¹² Relevant spectrum band (re)use considerations may require coordination related to ITU WRC-23.

6. Consultation and optimising the new framework

- 6.1 The steps and timelines described in the Green Paper may extend as a result of consultation outcomes, stakeholder concerns, as well as legislative and planning considerations:
- The first stage consultation has extended by several months and is likely to enter a next phase, recognising the complexity of issues to be considered by Government and all stakeholders.
 - The passage of the legislation may be affected by other factors or priorities of the Parliament, particularly if legislation were to be introduced in the next few months.
 - Both the decision and the timing of any decision by broadcasters to take up a new licence are currently uncertain.
- 6.2 Aside from those matters, the final details of the revised framework may take a different shape, informed by the current and subsequent consultations with stakeholders
- 6.3 To assist in exploring possibilities and the best way forward, the Green Paper invites broadcasters and stakeholders to put forward proposals.
- 6.4 The CBAA has distilled a set of issues, and ways forward, set out here in brief overview, and would be pleased enter further discussion with the Government.

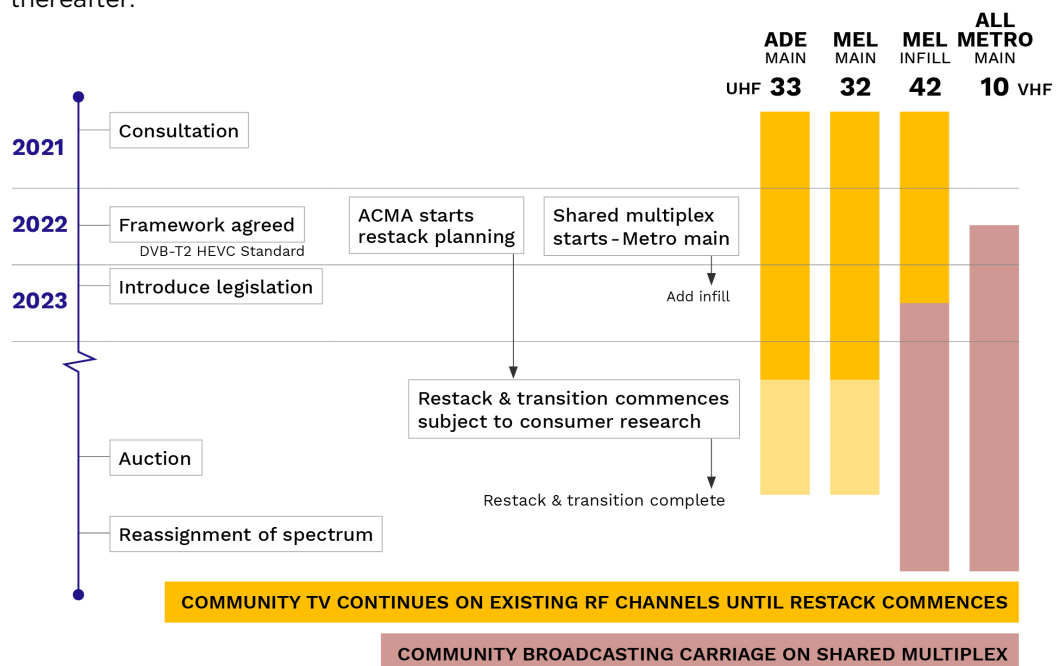
Transmission and compression standards

- 6.5 The objective to reduce overall spectrum usage is heavily contingent upon the choice of television transmission standard and compression technique.
- 6.6 The Green Paper suggests that the relative costs and impacts of moving to new arrangements would be minimised if broadcasters used existing DVB-T transmission, coupled with MPEG-4 compression.
- 6.7 The maximum practical capacity of a single Australian 7MHz RF channel using DVB-T transmission is around 23 Mbps: a fixed quantity, irrespective of whether the capacity is dedicated or shared between broadcasters.
- 6.8 MPEG-4 compression is already being used over DVB-T transmission by broadcasters in Australia. It provides for delivery of High Definition (HD) television services, with the balance of multi-channel services still using MPEG-2 and in Standard Definition (SD).
- 6.9 The comparative efficiency of MPEG-4 over MPEG-2 is typically around 30% on SD content, perhaps increasing to 50% for HD content.
- 6.10 The mathematics of this resolve to mean that a multiplex transmitter operating using DVB-T MPEG-4 and shared between two broadcasters would struggle to replicate the content provided by the current dedicated multiplex arrangements.
- 6.11 Adopting such an approach would lock Australian free-to-air terrestrial television into a long-term competitive disadvantage compared to online and satellite delivery, unable to ever deliver UHD/4K content.
- 6.12 The next generation of compression technology, HEVC, offers further efficiency, perhaps up to 50%. As well, the next generation of transmission technology, DVB-T2, can provide around 32 Mbps capacity – a 40% increase compared to DVB-T.
- 6.13 In addition, DVB-T2 also provides for a longer guard interval than DVB-T, enabling wider spacing between transmitter sites, and the ability to operate larger size Single Frequency Networks (SFN). In turn, this would enable a reduction in overall spectrum use by television – a key objective of Government from a new framework.
- 6.14 Taking these points together, the CBAA is of the view that a framework that requires spectrum reduction and multiplex sharing based on DVB-T MPEG-4 is not optimal. It is likely to embed structural and competitive disadvantage; will not contribute to the objective of a sustainable Australian free-to-air broadcast television sector; and will not provide the public with adequate or appropriate free-to-air service outcomes.
- 6.15 On the other hand, the CBAA supports further exploration to optimise the new television licence framework by using DVB-T2 and HEVC.

7. Transition to next generation digital television

- 7.1 While the increased use of MPEG-4 compression under existing DVB-T transmission technology has utility, it seems unlikely to enable the quantum of spectrum release targeted by Government without constraints or reduction of current service outcomes.
- 7.2 The CBAA suggests the objectives of a new television licence framework would be best served by transition to use of next generation digital television – DVB-T2 transmission with HEVC compression – for terrestrial delivery; and with continued or increased support from DTH satellite delivery, to ensure all Australians can access free-to-air digital television and radio services.
- 7.3 The CBAA is keen to engage in further discussions with Government to explore the appropriate next steps and timelines for that transition. In particular, in the immediate term, as to how that may impact existing community television services, and to ensure the ongoing sustainability and development of community broadcasting.
- 7.4 To initiate and explore the terrestrial transmission and transition aspect, the CBAA suggests the implementation of initial DVB-T2 shared multiplex transmission services in all metropolitan television licence areas.
- 7.5 The CBAA notes that, subject to industry transition funding, an initial DVB-T2 shared transmission multiplex could be implemented, making use of VHF Channel 10.
- 7.6 VHF channel 10 is already planned and allocated for sixth channel television purposes in metropolitan areas, but currently vacant. No restack is required for its immediate use.
- 7.7 VHF channel 10 would remain available even after a television channel restack, as the focus of the restack is to clear and release UHF spectrum, channels 40-51, not VHF.
- 7.8 As a point of clarification, the existing community television services, in Adelaide and Melbourne, are often discussed as using the ‘sixth channel’. Whereas, in fact, they make use of the sixth channel allocation from a neighbouring regional area for their main site transmission: specifically, UHF channel 33 in Adelaide, and UHF channel 32 in Melbourne. This is illustrated in Attachments 1 and 2.
- 7.9 Therefore, the metropolitan main site sixth channel, VHF 10, is immediately available, including in Adelaide and Melbourne, to be used as an initial next generation television shared multiplex transmission facility: potentially the first step toward a broader transition.
- 7.10 This first step would set a broader agenda, and so would best be preceded by a high-level assessment of channel planning and service outcomes, leading to industry agreement on the broad principles of a revised licensing and regulatory framework.
- 7.11 This would include and require broadcasters and consumer electronics industry agreement and adoption of DVB-T2 HEVC as a standard for use in Australia.
- 7.12 The implementation of an initial DVB-T2 HEVC shared multiplex transmission in the metropolitan licence areas will enable assessment and research on compatible television set ownership by the public. It will also encourage uptake of compatible sets, especially if the services and content available are complementary or extra to existing arrangements.
- 7.13 After the broad framework principles are agreed, the establishment and operation of a shared multiplex transmission in the metropolitan licence areas could be expedited and facilitated by use of a scientific licence.
- 7.14 Operation on-air will provide a further information base upon which to devise the detail of a revised licensing and regulatory framework, and develop a full transition strategy.
- 7.15 Once broad framework principles are agreed, the CBAA suggests that the ACMA could commence the detailed planning studies and industry consultation needed to determine the details of a restack to operate television services within reduced overall spectrum and with minimal (negative) impact to the public.
- 7.16 The Green Paper had put this task as following the passage of legislation, and election by broadcasters of a new licence, starting in mid-2022 through to mid-2024: two years.
- 7.17 The CBAA suggests – subject to agreement on the broad principles and use of DVB-T2 shared multiplex transmission as being key to the objective of spectrum release – that the ACMA and industry could keep to starting detailed planning work in mid-2022.

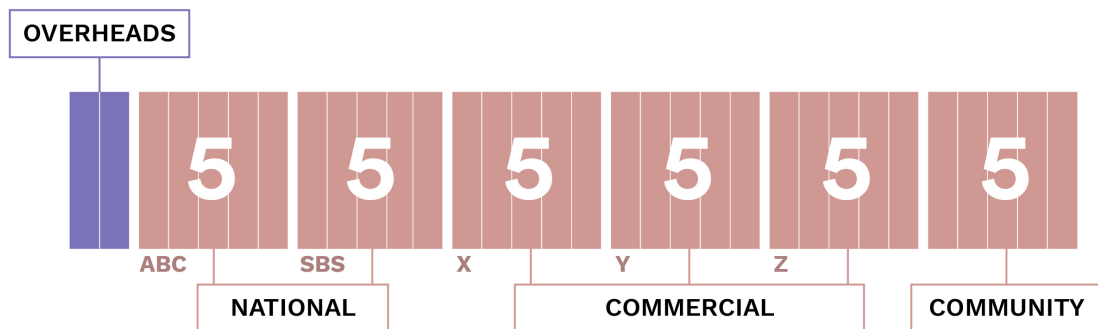
- 7.18 The timeline of two years for completion of the planning may reduce or increase, depending upon the agreed level of spectrum reduction to be sought.
- 7.19 After planning is complete, the timing to commence transition and restack would have an interdependency on consumer research and take-up of compatible television sets.
- 7.20 The consumer electronics industry would be best to comment, but indications are that the majority of receivers currently being sold in Australia may be compatible with what would be the finalised DVB-T2 HEVC standard for Australia.
- 7.21 Existing older and non-compatible receivers would (need to) be replaced under a typical sales time-cycle, perhaps 3 to 5 years. Research and consumer electronics industry perspectives would assist in that estimation also.
- 7.22 There may be issues to resolve that relate to the management of service information by broadcasters and receivers. The ontology of that may be awkward to shift from the current arrangements to suit a shared multiplex arrangement.
- 7.23 The extent of the challenge in terms of channel planning, and then the commencement and execution of the channel restack, is dependent upon factors to be negotiated between Government and industry.
- 7.24 The Green Paper posits 3 RF channels in both metropolitan and regional licence areas. Using DVB-T2 HEVC it seems possible that the same quantum of spectrum might be released while allowing for 4 channels: perhaps 5 in some areas. There is also the question of how and where to best make use of existing planned VHF channels, as these are not in prospect for spectrum re-purposing.
- 7.25 For this set of reasons, at this point there is some uncertainty as to the timing of restack commencement and completion. Some regional commercial industry perspectives extend completion out to 2030. The Green Paper puts it at mid-2025 at the earliest.
- 7.26 A decision to commence with a DVB-T2 HEVC shared multiplex would apply some certainty to the start of the process of transition, with the completion date subject to much the same timelines as would be a transition using only DVB-T MPEG-4.
- 7.27 The diagram below shows the impact of establishing a shared multiplex transmission on the main site at VHF Channel 10 in both Adelaide and Melbourne, and applies that against a timeline.
- 7.28 It confirms community TV services can continue from the main site alongside and until restack commences, with carriage of community broadcasting on a shared multiplex thereafter.¹³



¹³ If, prior to a full television restack, UHF channel 42 was used as infill to support a next generation television (shared) multiplex, Melbourne Community TV can then use part of shared capacity on that multiplex.

8. Capacity sharing - carriage

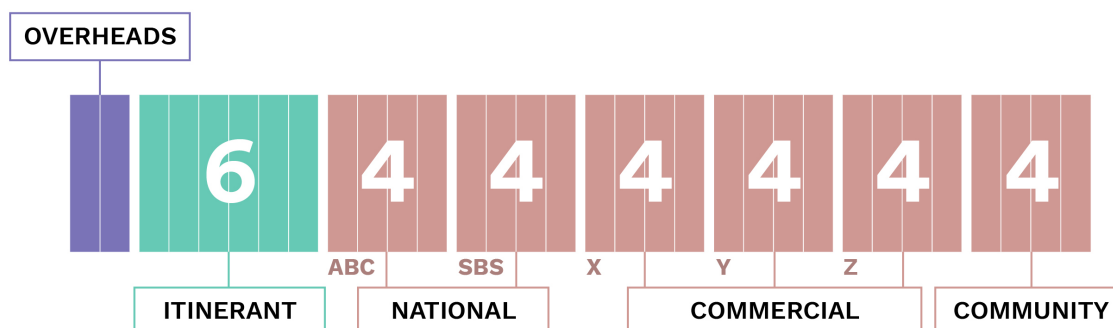
- 8.1 The CBAA has discussed that a shared digital television multiplex transmitter could be established to transition to DVB-T2 HEVC in metropolitan areas using VHF Channel 10.
- 8.2 While there is much to be determined for a long-term legislative arrangement and on capacity entitlements, a beginning point would be that each existing broadcaster is entitled to access capacity on an initial shared multiplex on an equitable basis.
- 8.3 Assuming a DVB-T2 multiplex transmission operating at around 32 Mbps nett capacity, a model for division would be to take some capacity off the top for overheads, service and common system related purposes, including service and guide related information.
- 8.4 That leaves around 5 Mbps per broadcaster if split equitably.



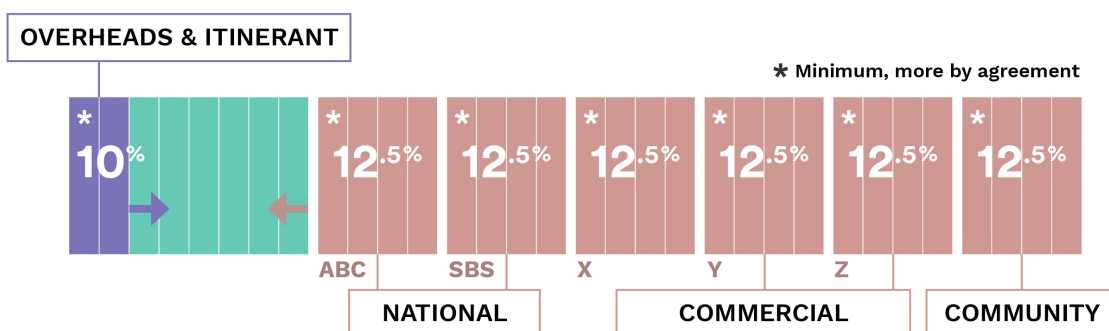
- 8.5 Using HEVC compression, around 5 Mbps is enough capacity for an improved grade of HD television service, or several multi-channels per broadcaster.
- 8.6 The capacity set aside for community broadcasting would allow for carriage of the existing free-to-air community digital television services in Adelaide and Melbourne.
- 8.7 That carriage would also provide a pathway for continuation of their current free-to-air digital broadcast status, especially critical if they were no longer able to make use of the RF channel they currently use for free-to-air digital broadcast.
- 8.8 The community digital television service would take the bulk of that capacity to operate a good quality HD television service. Over time, some level of HD quality will become the default minimum expectation from a television service.
- 8.9 Balancing the requirement for a quality of television service comparable with others, would be use of capacity for the provision of other community broadcasting services addressing public policy and cultural objectives.
- 8.10 The capacity could be shared with a number of key community radio broadcast services: Indigenous services, radio reading services for the print disability community, youth, seniors, LGBTQIA+, religious and faith-based services, ethnic language and multicultural radio, specialist music, educational and general geographic services.
- 8.11 The CBAA considers the exact complexion of content services within the multiplex capacity set aside for community broadcasting, would be made up from licensed community broadcasting services, radio and television, and be a public policy benefit.
- 8.12 As well as supporting access to services, there are specific locations where there is strong demand for spectrum or capacity for key digital free-to-air radio services that has not been yet been able to be addressed, including, for example, in Adelaide.
- 8.13 In a similar vein, radio services are currently provided by way of free-to-air digital television delivery by the National broadcasters, ABC and SBS.
- 8.14 This provides free-to-air access in digital broadcast form to key services, television and radio, and in a way that is accessible via a near-ubiquitous household appliance.

9. Capacity sharing - entitlements

- 9.1 It would add utility and flexibility to the shared multiplex if, as well as taking some capacity off the top for overheads, service and common system related purposes, that an extra amount of capacity was available for all users to make use of on an itinerant basis, or perhaps for semi-permanent use.
- 9.2 By agreement of all broadcasters/licensees, itinerant capacity would facilitate extra service quality, or extra services for a specific broadcaster, or for specific occasions.
- 9.3 Itinerant capacity would be in contrast to a standard permanent entitlement to a minimum amount of capacity provided to each broadcaster. That standard minimum entitlement being sovereign to each broadcaster or, in the case of community broadcasting, an entity representing a group of broadcasters.
- 9.4 As an example, if the overall multiplex capacity is split equitably, the standard minimum entitlement might be set to provide around 4 Mbps per broadcaster.
- 9.5 That leaves around the balance of around 6 Mbps available as itinerant capacity, with access set by a set of rules to be agreed, perhaps between the broadcasters, and/or with the multiplex transmitter licensee.



- 9.6 Rather than determine specific nett data rates legislation is likely best to articulate capacity entitlements in terms of a pro-rata of overall and gross capacity of a multiplex.¹⁴
- 9.7 On that basis the above entitlement arrangement might be described as follows:



- 9.8 In aggregate that provides: the two national broadcasters with a (minimum) standard entitlement of 25%; the three commercial broadcasters with a minimum of 37.5%; and the amount set aside for all community broadcasting as a minimum of 12.5% of total multiplex capacity. A minimum of, say, 10% would be set aside for overheads within an overall amount of 25% set aside for overheads, common and itinerant capacity.¹⁵
- 9.9 These calculations are indicative of a workable model, but are intended as a contribution to and as part of further and detailed discussion with Government and industry.

¹⁴ Any legislation that sets out access entitlements on a shared multiplex will necessarily be cognisant of the overall multiplex capacity available, which implies the adoption of a transmission and compression standard, even if not explicitly stated. For example, Australian legislation related to Digital Radio divides overall multiplex capacity into one-ninth entitlements, which, without specifying DAB-T and HE-AAC, would not be practical under any other standard.

¹⁵ The Digital Radio legislation would have been improved by the legislated inclusion of capacity specifically set aside for overheads and common purposes. Without that, capacity for service enhancements that would be in interest of all broadcasters, and the public, must be taken, by agreement, from each broadcaster's standard entitlement. This has not occurred.

10. Licensing framework

- 10.1 The Green Paper proposes a new licensing framework for free-to-air broadcast television. The new licensing framework envisages sharing of multiplex capacity by commercial broadcasters, and may mandate sharing by the national broadcasters.
- 10.2 Currently there is a one-to-one relationship between a television content service licence awarded under the Broadcast Services Act and a transmitter licence allocated under the Radiocommunications Act, which entitles use of a full 7MHz RF channel within Broadcast Service Band spectrum per broadcaster.
- 10.3 Sharing of multiplex capacity breaks the one-to-one relationship between the content service licence and the multiplex transmitter licence.
- 10.4 Existing legislation provides a shared multiplex framework for the purposes of digital radio, and the model is a useful start point. It addresses many of the issues of a shared multiplex framework necessary for television.
- 10.5 Applying that model to television, the holder of existing BSA television service licence would have rights to access a standard amount of capacity on a shared television multiplex: a standard access entitlement.
- 10.6 The new type of shared digital television multiplex transmitter (TVMT) licence would not be awarded to the holder a BSA television service licence, but to a separate entity.
- 10.7 Should a TVMT licence be made available in an area, then, within a specified period of time it would be open to the holders of a BSA television service licence in that area to establish a separate entity, a TV Joint Venture Company, and for that TV JVC to apply to the ACMA to be awarded the TVMT licence, and at no cost.
- 10.8 Should no eligible TV JVC apply, then, within a specified period of time it would be open to the ACMA to make the TVMT licence available to third party entities via an auction.
- 10.9 Importantly, even if the TVMT licence were held by a third party¹⁶ non-broadcaster entity, it would still only be open to holders of BSA television service licences to access the capacity of that digital television multiplex transmitter.
- 10.10 In effect, holders of BSA television service licences would have first right of refusal to be, on a joint venture basis, the holder of the TVMT licence.
- 10.11 Operation and pricing of multiplex transmitter capacity access would be regulated via a non-discriminatory access regime and pricing principles, registered with the ACCC.
- 10.12 Arrangements requiring the setup of a JVC would apply to the national broadcasters.
- 10.13 Community broadcasters would be required to establish an entity, in effect another JVC, to represent community broadcasting licensees on a collective basis to manage allocation within capacity set aside for community broadcasting purposes.
- 10.14 The holder of a BSA community broadcasting service licence, television or radio, would have a standard access entitlement.
- 10.15 All of the above would apply to foundation TVMT licenses, which would be awarded only until all standard access entitlements had been fulfilled, after which any further TVMT licences in an area would be non-foundation licences.
- 10.16 Non-foundation TVMT licences would seem unlikely, noting that the Green Paper commits to awarding no additional commercial BSA television service licences.
- 10.17 The Green Paper commits to close consultation with industry on the development of the final configuration for sharing digital television multiplexes, and the CBAA looks forward to active involvement and further discussion in that process.¹⁷

¹⁶ Typically, any third party would be a transmission facility infrastructure provider.

¹⁷ If an initial (shared) television multiplex transmitter were to be established in metropolitan areas, as outlined in Section 7, it might precede finalised legislation. In that case, it could be established using a scientific licence.

11. Funding - transition and content

- 11.1 Where television broadcasters move to shared spectrum arrangements, and in sufficient locations, the Green Paper envisages the potential repurposing of up to 84MHz of released broadcast spectrum to alternate purposes, most likely to be mobile broadband.
- 11.2 The Green Paper suggests that an auction of the released spectrum may realise a second Digital Dividend, and, based on previous auction results, generate significant once-off proceeds to Government revenue.
- 11.3 The Green Paper recognises the current set of challenges facing Australian media, and that it is appropriate for Government to support a broad range of public policy and cultural objectives through funding.
- 11.4 The Green Paper identifies specific funding support mechanisms for the Australian screen production sector, news journalism, as well as funding for technology transition.
- 11.5 Irrespective of a Digital Dividend, auction or auction proceeds, the CBAA agrees that funding towards sustainable media content outcomes: addresses public policy and cultural objectives; stands on its own merit as worthy of Government support; and that Government commitment to such funding support should be ongoing.
- 11.6 The Government currently provides important ongoing funding to support media outcomes, including to the national and community broadcast sectors. This funding supports sector specific content and transmission costs. It is critical this funding support remains ongoing, and separate to other once-off content support initiatives.
- 11.7 As well as funding costs of the national broadcasters, which would include costs for free-to-air terrestrial and satellite broadcast delivery, the Government also provides funding so that regional commercial television broadcast services are available to all Australians on a free-to-air basis via Direct-to-Home Satellite. It is important these funding lines remain ongoing.
- 11.8 The Green Paper suggests a set of incentives to commercial television broadcasters that elect to share terrestrial multiplex transmission capacity under a proposed new licence, including a waiver of ongoing spectrum licence fees. There would then be no Government charge levied for ongoing commercial broadcaster use of broadcast band spectrum.
- 11.9 The Green Paper anticipates the waiver would apply immediately upon a decision by a commercial television broadcaster to take up a new licence, with that decision being irrevocable. The waiver would apply ahead of any spectrum restack and before any auction of released spectrum, with the commercial television broadcaster then being obliged to participate in that restack and transition.
- 11.10 The Green Paper notes that the process of consolidating existing television services onto a lesser number of RF channels would have an impact on both the general public and television broadcasters. A key objective would be to minimise impact and disruption, which adds weight to developing a strategy involving transitional shared multiplex arrangements using next generation technology.
- 11.11 A key point is that the transition costs and impacts affecting both the general public and broadcasters will necessarily occur – and be incurred – ahead of the ability to close-down existing RF channels, restack, and release spectrum for an auction.
- 11.12 Therefore, investment is required ahead of any auction proceeds or Digital Dividend.
- 11.13 In turn, this suggests a commitment would be required from Government towards funding support in respect of costs as part of an investment to facilitate and support technology and other costs associated with transition.
- 11.14 The scale of these costs would need to be dimensioned by Government and industry as part of considering next steps and agreement to a framework to move forward.
- 11.15 The CBAA is pleased that the Green Paper commits to extensive consultation, including with consumer and industry groups, prior to and as part of any decisions being made in regard to transition, and the impact of technology and channel changes.

12. Satellite and free-to-air broadcast

- 12.1 Alongside the transition of free-to-air digital television to a new technology using terrestrial transmission, there is a continued and perhaps an increased role for Direct-to-Home (DTH) satellite delivery of free-to-air services.
- 12.2 DTH satellite delivery provides a technology solution and safety net to ensure all Australians can access free-to-air digital broadcast television and radio services.
- 12.3 The existing (Viewer Access Satellite Television) VAST service is intended to enable viewers, regardless of where they live, to be able receive a set of television services comparable to that available in a metropolitan area, and on a free-to-air basis.
- 12.4 As noted, Government funding supports the costs of VAST DTH delivery of both national and commercial free-to-air broadcast television services.¹⁸
- 12.5 A large number of broadcast radio services are also provided and carried on VAST.
- 12.6 These include some of the key community broadcast feeds, providing omnibus delivery of a diverse mix of cultural and specialist content, plus dedicated Indigenous, radio reading and other services.
- 12.7 The nature of current arrangements for satellite coverage provides for free-to-air access to television and radio services across all of Australia.
- 12.8 A conditional access system has been overlaid, and that is used by the commercial television broadcasters to restrict access only to intended users in each of their licence areas, or to other or out-of-area users that are approved by the respective commercial television broadcaster/s.
- 12.9 There may be more efficient ways to handle those aspects in the future, especially given the Government is now addressing efficiencies for terrestrial television delivery.
- 12.10 In terms of specific improvements and new technology in relation to VAST, the CBAA submitted to the most recent Government review that there are good reasons to continue use of the current orbital slot, and other changes, including introduction of HEVC or other service enhancements, can sit alongside the existing systems already in use.
- 12.11 The VAST service was introduced in 2010, replacing previous systems. It provided a safety net solution, related to and assisting the switch-off of analogue television.
- 12.12 In that scenario, VAST Direct-to-Home satellite reception provided a cost-effective alternative to the re-tooling, capital and dispersed ongoing cost and management of a large number of television broadcast re-transmission sites.
- 12.13 These re-transmission sites would otherwise have needed to shift from analogue to digital operation. As an outcome of VAST, many of these sites were then able to close.
- 12.14 There remains a significant number of both broadcaster managed and self-help local community managed re-transmission sites.
- 12.15 These remaining re-transmission sites would confront a similar set of re-tooling, capital and dispersed ongoing costs and management as a result of the terrestrial RF channel and television technology transition contemplated in the Green Paper.
- 12.16 There may be an increased role for VAST and DTH delivery that is prompted by the changes that would be otherwise required to transition these re-transmission sites.
- 12.17 Were VAST DTH satellite to take an increase role in relation to the delivery of free-to-air digital broadcast television, then adding community digital television services on the VAST platform would become a consideration.
- 12.18 Similarly, the community broadcasting sector will be seeking to extend the suite of community digital radio services available on the VAST platform, and to add further regionalised versions of key services.

¹⁸ The VAST Direct-to-Home satellite platform also has utility for internal distribution, feeding many terrestrial television and radio re-transmission sites.

13. Online and free-to-air broadcast

- 13.1 The Green Paper points to patterns of decline in free-to-air commercial television broadcasting, in regard to both audience and revenue, and primarily related to the competing availability of online and on-demand content services.
- 13.2 The Green Paper notes that television advertising revenue in the last half of 2019 as \$1.95 billion, a drop of around 6% compared to the previous period.¹⁹
- 13.3 The same research and period indicates revenue from free-to-air broadcast commercial television (metropolitan and regional) as being around 95% compared to online (BVOD) at around 5%. More recent figures being around 93% broadcast, 7% online (BVOD).²⁰
- 13.4 As the Green Paper notes, while free-to-air broadcast television revenue is dropping, and online BVOD revenue is increasing, it does not (yet) make up for losses.²¹
- 13.5 Neither does online (BVOD) seem to represent a sustainable business model in the absence of free-air-broadcast television.
- 13.6 Similar revenue patterns apply to broadcast commercial radio, where the large majority of revenue is derived from free-to-air broadcast.²²
- 13.7 While the order of magnitude is radically different, the split of revenue reported by community television is in step with these patterns, with free-to-air broadcast being the bedrock of their organisational revenue.²³
- 13.8 These points underline that, at least for the medium-term, an online only future for community television is not sustainable, and neither would it be for commercial television.
- 13.9 Aside from revenue, the CBAA reiterates that free-to-air broadcasting has core characteristics that set it apart from online or other delivery options, and/or that would require legislative and regulatory intervention for other delivery options to emulate.
- 13.10 The free-to-air broadcast model:
- does not require the user to pay - including for data;
 - is highly spectrum efficient, scales to many simultaneous users; and
 - enables the public to receive services on commonly available equipment, with no plan and no sign-in required.
- 13.11 As digitisation of media continues, these core characteristics are critical, especially where other delivery methods require one-to-one connectivity with its attendant costs, and increased risks around:
- Viewer (or listener) security and privacy;
 - provision of viewer (or listener) data for third-party or gatekeeper use; and
 - Viewer (or listener) commodification and/or targeted marketing
- 13.12 The Green Paper outlines a Government objective to repurpose part of television broadcast spectrum to alternate purposes, most likely to be mobile broadband.
- 13.13 The identified spectrum is within the 600 MHz band, and, if allocated to mobile network operators, it is easy to imagine may see use for delivery of media — video and audio.
- 13.14 The CBAA has long advocated that Government legislate that fixed and mobile and network operators be required to carry licensed broadcast content services — including community broadcasting services — on a free-to-air basis, that is, without data charge. This requirement could be an obligation put upon the spectrum prior to auction.
- 13.15 Taking all these points together, the CBAA reiterates its vigorous commitment to the proposition that — alongside national and commercial broadcasting — community broadcasting provides a structural response to address specific public policy and cultural objectives of, or as recognised by, Government.

¹⁹ ThinkTV, Total TV market records \$1.95 billion in advertising revenue for first half of FY20, 5 February 2020.

²⁰ ThinkTV, TV advertising outperforms market, recording growth in first half of FY21, 8 February 2021.

²¹ Media Reform Green Paper, DIRTC, November 2020, P 14 .

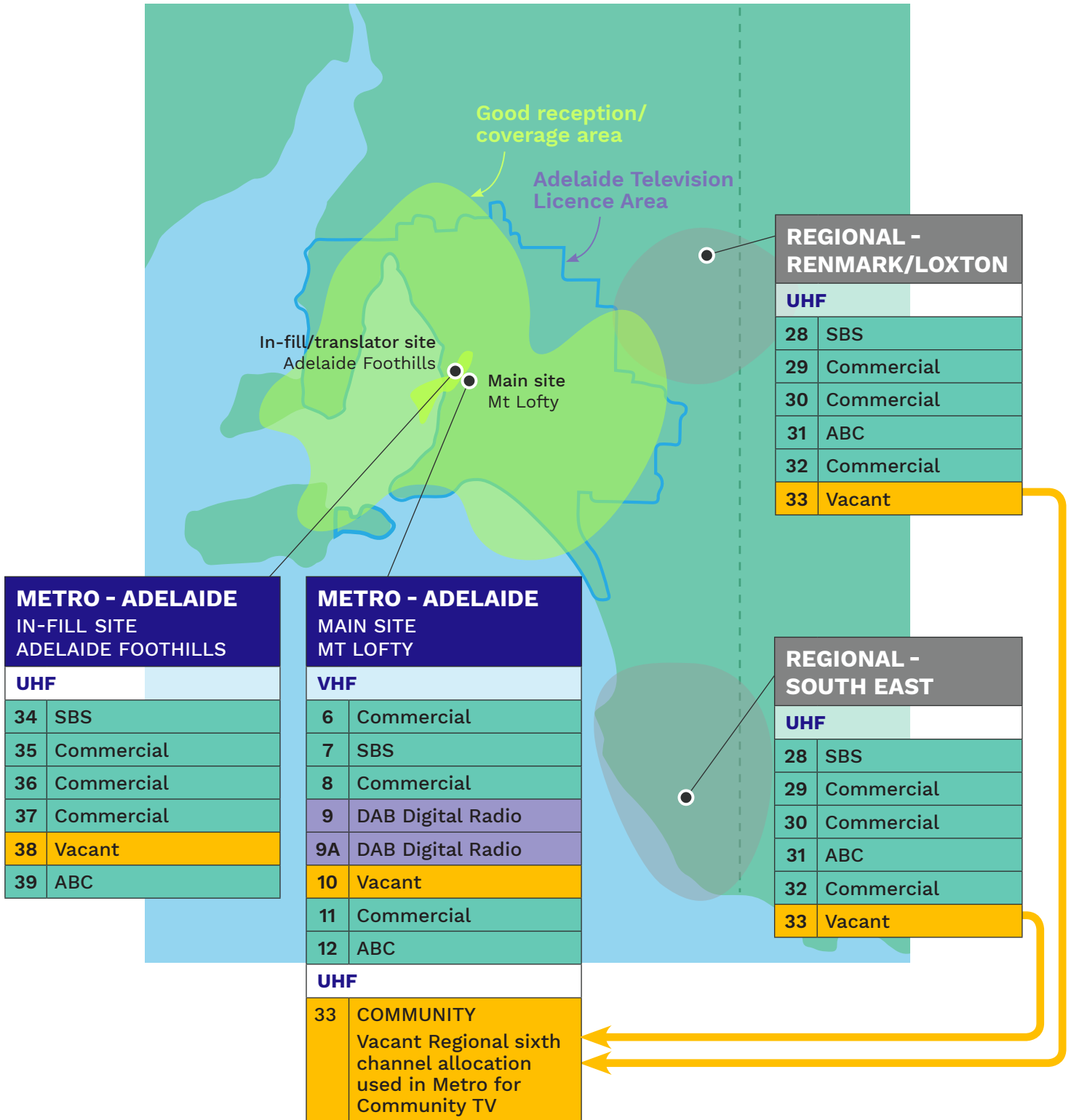
²² RadiolInfo, Revenue down but profits up for SCA in half year results, FY21, 25 February 2021. Online innovations currently provide “about 3% of revenue to SCA’s Audio division, compared with traditional radio, which generates the rest”. That being 97%. SCA expects revenue from digital content online to build over time.

²³ Melbourne community television reports FY21 Q3 revenue as being: around 10% exclusively online; 90% free-to-air related, with 50% exclusively free-to-air derived. Adelaide community television reports 12% revenue as being exclusively online derived.

Television - Adelaide

Metropolitan channel allocations

- Showing:
- main site sixth channel (VHF 10) vacant
 - vacant regional channel (UHF 33) used for Adelaide Community TV

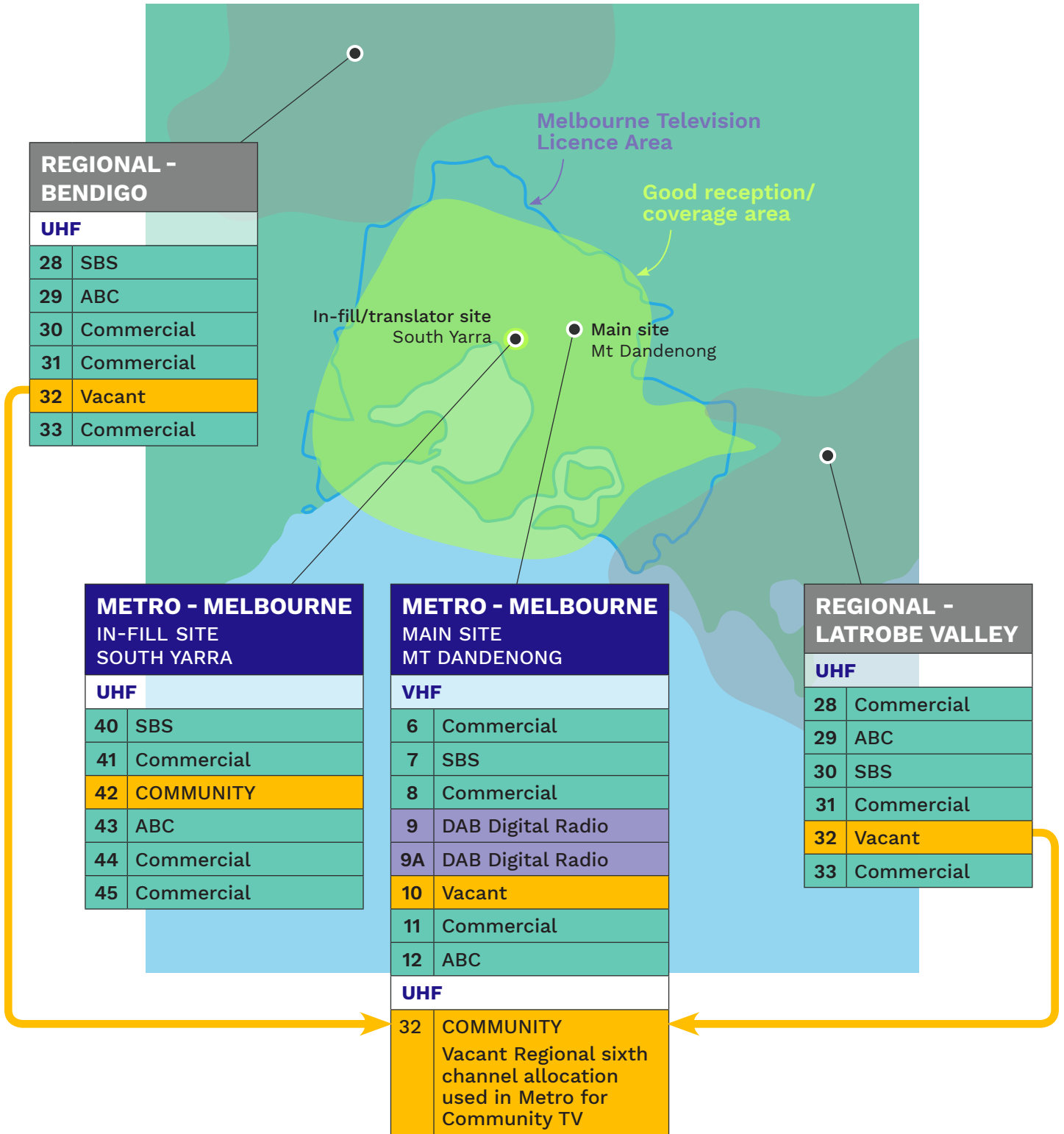


1. The main transmitter site sixth television channel in Adelaide is vacant. It is VHF Channel 10. It is available for allocation for a next generation television (shared) multiplex.
2. The Adelaide community television service operates from the main transmitter site only, Mt Lofty, using a UHF channel 33, which is allocated—but not used—as the sixth channel in the regional areas: Renmark/Loxton and South East.
3. The infill/translator sixth channel in Adelaide is vacant. It is UHF channel 38. It is available for allocation for a next generation television (shared) multiplex.

Television - Melbourne

Metropolitan channel allocations

- Showing:
- main site sixth channel (VHF 10) vacant
 - vacant regional channel (UHF 32) used for Melbourne Community TV
 - infill site sixth channel (UHF 42) used for Melbourne Community TV



1. The main transmitter site sixth television channel in Melbourne is vacant. It is VHF Channel 10. It is available for allocation for a next generation television (shared) multiplex.
2. The Melbourne community television service operates from the main transmitter site, Mt Dandenong, using a UHF channel 32, which is allocated—but not used—as the sixth channel in the regional areas: Bendigo and Latrobe Valley.
3. The infill/translator sixth channel in Melbourne is used for Melbourne Community TV. It is UHF channel 42. If, prior to a full television channel restack, UHF channel 42 was used as infill to support a next generation television (shared) multiplex, Melbourne Community TV can then use part of shared capacity on that multiplex.