# Proposed principles for planning AM to FM conversions in regional licence areas

## CBAA Submission

March 2022

Community Broadcasting Association of Australia | ABN 00 003 108 030
PO Box 564 Alexandria NSW 1435
T 02 9310 2999 | E office@cbaa.org.au

# 1. Introduction

The Community Broadcasting Association of Australia (CBAA) welcomes the opportunity to comment on the Australian Communications and Media Authority (ACMA) consultation paper regarding proposed principles for planning AM to FM conversions in regional radio licence areas.

The CBAA is the peak body for 450+ community radio broadcasters – delivering 500+ services on AM, FM and DAB+ – across Australia.

Complementing commercial and the National broadcasters, community radio broadcasters play a vital role in connecting and informing communities – including First Nations Australians, culturally and linguistically diverse communities, communities in regional and remote Australia, faith-based communities, youth and seniors' communities, the LGBTIQA+ community, and people with a disability.

In doing so, community radio broadcasters promote the objects of the *Broadcasting Services Act (BSA).*

# 2. Key comments

## Premature to adopt AM to FM conversion principles

At this stage, the CBAA considers it premature for the ACMA to adopt or extend principles for planning AM to FM conversions in further regional radio licence areas.

The proposed principles do not yet adequately address radio planning issues beyond commercial licensee business and competition factors. While those matters are important for a viable commercial radio industry, there are also broader public interest and radio planning considerations consistent with the objects of the BSA, including spectrum availability, service diversity and service outcomes for listeners, that are relevant to National and community services. The consultation paper notes that the requirements for the National and community services across the target regional licence areas have not been considered.[1]

## Alignment with broader radio planning and digitisation

Further consideration of principles for planning AM to FM conversions[2] should be preceded by and developed on the basis of broader planning imperatives for free-to-air broadcast radio services, and digitisation of transmission and delivery of free-to-air broadcast radio.

The single issue of AM to FM conversions for regional commercial radio sits alongside a number of other issues relevant to broadcast radio transmission and delivery.

The three pillars of free-to-air radio broadcasting in Australia – the commercial, community and National broadcasters - each have a legislated role and purpose, and, within that broader framework, specific objectives relevant to each local area and/or particular licensees or services.

Accordingly, there is a need to balance a broader set of public policy issues and service outcomes for further consideration of planning principles, rather than a more limited priority on AM to FM conversion based primarily on commercial or business viability considerations.

---

1 The ACMA Consultation Paper, Appendix C, includes preliminary assessments and tabulations. "…, For the purposes of this table, we have only considered competing demand for spectrum from AM conversion in same or adjacent licence areas, and have not considered possible demand for other purposes, such as demand for conversion of national and community services. Page 22.

2 It is noted and acknowledged that the ACMA already has in place a priority to replan broadcast radio services to facilitate conversion to FM for AM commercial radio services operating in regional radio licence areas where is a single commercial radio licensee, and that not all of these radio licence areas have yet been considered or resolved.

## Existing framework for industry alignment and radio service development

The ACMA has an existing framework for industry consultation and alignment relevant to broader radio planning and service development.

The Digital Radio Planning Committee for Regional Australia (DRPC) is a joint government-industry committee chaired by the ACMA, and has a constituency including the ACMA, the Department of Infrastructure, Transport, Regional Development and Communications, the Australian Competition and Consumer Commission, as well as the commercial, National and community radio broadcasters.

The DRPC has necessarily addressed radio service and transmission planning in the broad as well as on an area-by-area basis, and has been a constructive mechanism, with good engagement from industry. However, the DRPC has not met or developed its work or planning discussions further as a group since the onset of COVID.

Given the range and intersections of current radio planning issues, the CBAA considers it timely that the DRPC be re-convened.

The DRPC forum provides an opportunity to ventilate and assess broader radio planning and service development issues in a transparent manner, and to update on the technology options and service outcomes, and potentially balance public policy interests relevant to all broadcast sectors and to free-to-air broadcast radio service delivery for listeners.

## Radio LAP variation for AM to FM conversion to prompt DRCP publication

The ACMA is already working through a program for conversion to VHF-FM for MF-AM radio services operating in regional radio licence areas where there is a single commercial radio licensee. The Consultation Paper notes that not all of these radio licence areas have yet been considered or resolved.

The CBAA has previously sought and continues to propose that:

- In every case where the ACMA proceeds to develop and consult on a Radio LAP variation, and, in particular, where that is to effect AM to FM conversion, that the ACMA also consult and publish the relevant Digital Radio Channel Plan (DRCP) and declare a Foundation Licence.

In addition, the CBAA proposes that:

- Where the ACMA has already facilitated AM to FM conversion to date, that the ACMA take prompt steps to consult and publish the relevant Digital Radio Channel Plan (DRCP) and declare a Foundation licence.

Typically, to date, the ACMA would only proceed to develop and consult on an AM to FM conversion in regional areas based on the relevant commercial radio AM licensees expressing interest based on its own strategic business decisions and available implementation options.

In agreeing to a request from a broadcaster for AM to FM conversion, it is suggested the ACMA at the same time provide the opportunity for incumbent broadcasters to consider take-up of their legislated entitlement to initiate implementation of DAB+ digital radio in its area.

In that way spectrum efficiency is greatly enhanced as currently reserved VHF-DAB+ spectrum is released for use to provide improved service outcomes for listeners.

Commercial or community broadcasters may not be interested to implement DAB+ digital radio in a specific area, and prefer to remain and consolidate as analogue only broadcasters.

After DRCP publication and declaration of a Foundation licence, that position will be transparent, and the opportunity will then be open for others to take up the opportunity to implement the Foundation DAB+ digital radio multiplex transmission facility in that area.

This provides a pathway to enhanced free-to-air broadcast radio service diversity and listener outcomes.

# 3. Radio transmission and delivery planning

The consideration of AM to FM conversions for regional commercial radio sits alongside a number of other issues relevant to broadcast radio transmission and delivery.

## VHF-DAB+

The existing penetration and near-term development of VHF-DAB+ is of key relevance.

The ACMA should ensure there are no blocks to the timely development of this free-to-air platform in next stage regional areas, as well as re-assessing structural options for an extra (layer of) VHF-DAB+ services (where there is demand) in metropolitan areas.

The CBAA has flagged a number of pressure points and proposals, and looks forward to the ACMA facilitating these in a positive manner: including, as necessary, with licensing of trials, and expedited publication of digital radio channel plans.

Given the existing development stage of VHF-DAB+ and the large body of work already undertaken by both industry and the ACMA in developing a national channel allocation plan, the CBAA strongly advocates that the ACMA always publish a Digital Radio Channel Plan in any licence area that is considered for AM to FM conversion, including solus commercial radio markets.

This would ensure that AM broadcasters, in being given the opportunity to take up FM conversion, are not at the same time excluding the option of VHF-DAB+ for broadcasters in the area. This may be of particular relevance to community broadcasters in some areas, but also competitive commercial FM broadcasters already on FM, and the National broadcasters.

## MF-DRM and VHF-DRM

The options of Digital Radio Mondiale (DRM) using the MF and/or VHF bands are also of key relevance.

The outcome of current trials of MF-DRM and VHF-FM transmission in regional Australia may point to options other than, or sit alongside, conversion of regional MF-AM services to VHF-FM and/or implementation of VHF-DAB+.

Existing MF-AM broadcasters with large region-wide coverage footprints, such as are operated by the National broadcasters, may have an additional free-to-air transmission option with MF-DRM.

If the trials show that MF-DRM is problematic – or, perhaps more likely, if MF-DRM proves to be a proposition that has an unviable time-line due to (lack of) wide-spread receiver availability, particularly in cars - then the existing AM broadcasters, particularly those with large region-wide coverage footprints would then seem likely to require the use of VHF-FM channels, and/or commit to providing extensive SFN coverage in-fill using VHF-DAB+ transmission.

If the trials show that VHF-DRM as well or instead of MF-DRM is a viable option, then VHF channel allocations in the current analogue FM band will be required.

In any of these scenarios, allocation of VHF-FM channels for the purpose of MF-AM conversion may gazump options for wider broadcast radio planning requirements, and so, at this stage, is premature.

## Other

The role of online/mobile delivery of radio services is also a radio planning consideration.

However, there are currently no mechanisms in place for regulation, licensing or delivery of mainstay live radio services at scale and on free-to-air basis using online/mobile technologies.

These mechanisms would require both technology and legislative change.

## Setup and operational costs

The ACMA Consultation Paper suggests VHF-FM transmission costs as being less than MF-AM transmission costs. Perhaps, yet it is also the case that VHF-DAB+ transmission costs are less again.

While specific factors relevant to some transmission sites may vary, the costs for setup and operation of VHF-DAB+ transmission at a transmission site are typically on par with those same costs for setup and operation of VHF-FM transmission at a transmission site.[3]

As well as making general assessments, if necessary, the CBAA can provide the ACMA with specific evidence to support this observation on a commercial-in-confidence basis.

## Coverage, reception and spectrum efficiency

In considering conversion from MF-AM to VHF-FM, the ACMA Consultation Paper makes a number of comparison points about coverage footprint and reception performance.

In addition, it is worth noting that the coverage footprint of a VHF-FM transmission facility is broadly similar to that of a VHF-DAB+ transmission facility.

Both operate within the VHF television bands and have a line-of-sight reception characteristic. Both will usually be planned for operation at the same main site in an area, typically co-located or near to the main television transmission site. As a result: the primary coverage will be comparable; and, any coverage deficient areas will also be similar.

DAB+ has higher resilience to signal reflections than FM, resulting in its ability to deliver audio content with clarity in many situations where FM multipath causes impairment.

Coverage deficient areas will require in-fill for both FM and DAB+. While DAB+ in-fill is designed for operation on the same channel as the main site, FM requires a new RF channel. In this way, DAB+ is far more spectrum efficient than FM across a wide-area.

Finally, while a FM transmission channel provides one service outcome for listeners, DAB+ provides many, typically 18. Sometimes more.[4]

Therefore, while the cost of setup and operation of VHF-FM and VHF-DAB+ transmission may be similar, the cost per service for transmission is radically lower. The costs for content generation and individual service linking to transmitter sites would be much the same.

## Service outcomes

The opportunity for service outcomes for listeners is also radically improved with DAB+ transmission: one content service via FM compared to, say, 18 services via digital radio.

The assessments from a cost, service outcome and spectrum efficiency perspective are clear, and overwhelmingly in favour of VHF-DAB+.

---

[3] The cost of access to a transmission site is driven by the market factors and also, in part, by the revenue potential of the tower aperture, transmit site floor space, and electricity operational costs. In these aspects the costs associated with single VHF-FM transmitter and a single VHF-DAB+ transmitter may be comparable. Transmission equipment costs and amortisation timelines are also comparable.

[4] In many metropolitan locations already on-air, the number of radio services on-air per DAB+ multiplex transmitter is typically around 30 services.

## Legacy analogue and digitisation of free-to-air broadcast radio

The ACMA Consultation Paper set out reasons for MF-AM being in decline, despite its advantage where there is a very large region-wide coverage requirement.

Conversion to VHF-FM may well serve as short-term a stop-gap measure. However, analogue transmission and delivery is not the future of radio.

Listeners increasingly expect interference free audio, a better user experience, and more service diversity and flexibility.

If consolidating an existing and limited number of existing MF-AM services on analogue VHF-FM is the only technology strategy and delivery option, then listener access to free-to-air radio is destined to be less available, less ubiquitous and less prominent.

This is contrary to the public interest, the objectives of the BSA, as well as being an overall negative for radio broadcasting licensees in the medium to longer term.

## Listening, by technology

Key listening statistics show that live broadcast radio remains the majority of listening to any form of audio. Figures are in rough alignment around the world, and Australia is typical, at over 60%.

Within that, in Australia, where it is available, around 30% of live free-to-air broadcast radio listening is via VHF-DAB+. That is a significant number. Some of that can be attributed to the improved listener experience of VHF-DAB+ compared to AM in the metropolitan areas.

In other parts of the world, VHF-DAB+ listening has achieved mainstay status. The UK, for example, digital listening is now 66%, with VHF-DAB+ being 65% of all digital listening, the rest being radio via free-to-air digital television, and/or online/mobile. In Norway, where there is no AM or FM, digital listening is 100%.

Although not a free-to-air solution, in Australia, listening to radio via online/mobile is publicly reported as being around 13%.

The balance of listening remains analogue, via MF-AM or VHF-FM. So, at 57%, still vitally important, but not an emerging or future-facing technology strategy for free-to-air delivery of live radio, if relevant trends and patterns are considered.

## Listening, by location - cars, timelines

The car remains critical for free-to-air radio delivery, at 31% of all radio listening. Fixed location listening (at home or work) is around 67%. Listening elsewhere is around 2%.

Fixed location listening delivery options include free-to-air broadcast radio receivers: these remain readily available at low cost and, at this stage, entry-level radio receivers generally include VHF-FM and VHF-DAB+ capability.

The availability and prominence of radio in cars is a critical issue. Most recent data indicates that 82% of new vehicles sold in Australia have VHF-DAB+ radio receivers factory fitted.

While impressive, this is still short of 100%, and suggests a transition from analogue MF-AM and/or VHF-FM transmission to digital radio will span a further period of, say, ten years.

The European Parliament has mandated that free-to-air digital broadcast radio be in all radio receivers and new cars sold in Europe. This requirement has been adopted across European sovereign legislatures. In effect, this has mandated inclusion of DAB+ digital radio in radio receivers and vehicles sold in Europe.

Legislation that mirrors this approach in Australia would be in the consumer interest, and align with the broader public interest.

It would support the ongoing prominence of free-to-air live radio, recognising the vital public policy role of commercial and community radio licensees, and the National broadcasters.

# 4. Further comments

There are a number of community radio services operating using MF-AM frequencies in regional Australia, who may wish to consider the merits of alternative broadcast technology options in the coming years.

The CBAA notes that alternative technology options for community radio services will continue to be considered on a case-by-case basis, in line with the ACMA approach to broadcast spectrum planning and varying licence area plans.

The CBAA also notes that the proposed AM to FM conversion principles will be used should there be requests to convert community services.

The proposed principles are based on an inappropriately narrow premise: to facilitate conversion of commercial radio broadcasters. Conversion of commercial broadcasters cannot be considered without also considering the mix of services available to listeners and whether that meets public interest or benefit criteria. The basis of radio planning should consider broad interests and service outcomes as fully as possible.

By taking this narrow focus, this also seems to presume that commercial radio licence areas are the base geographic metric for radio planning. In fact, both community radio licence areas and National broadcaster coverage footprints are often quite different to commercial radio licence areas.

As a business construct, commercial radio licence areas have evolved from a variety of historic boundaries drawn to fit coverage of services installed long ago, many of which, when tested against current demography, may not now be the best fit.

There is often geographic misalignment of commercial licence areas with many community and national broadcasters, which, in itself, can be sub-optimal for listeners.

There are locations where some level of redraw or mild aggregation of licence areas would serve the public interest. The difficulties of making such changes in terms of business impacts to commercial broadcasters is acknowledged, although that is no reason for radio planning to consolidate past patterns into the future, where the past is no longer the best fit.

If this narrow approach to radio planning is embedded as ACMA regulatory practice, the best that can be said, as AM-FM conversions of commercial broadcasters continue to roll out to remaining licence areas, is that it will be an opportunity to address a number of planning requests from community broadcasters, including: LAP variations, power adjustments, TCBL to CBL allocations, in-fills, and requests to use planned (for community use) but unallocated spectrum.

The CBAA understands these may not be stated priorities for the ACMA's spectrum planning, but also looks forward to a number of ongoing requests being resolved in this process. The CBAA would strongly support continued consideration of planning requests from the community broadcasting sector as part of AM-FM conversions, as per proposed step 4 in the conversion process.

Some greater clarity about how other planning issues will be considered throughout this process would be welcomed. For example, how the ACMA treats CBLs in comparison to TCBLs, in comparison to spectrum planned for community use but unallocated.

## TCBLs

Currently, ACMA's resources have allowed for the planning of only a very limited number of radio licence area plans, with AM to FM conversions of commercial broadcasters the focus.

This has created a situation where there are currently 101 TCBLs.

In most cases, TCBLs have been allocated for a twelve-month licence period.

Typically, where the applicant has provided the service without genuine concern and complaint, and there is no genuine alternative use for the spectrum identified, the ACMA has re-issued a corresponding TCBL for a further twelve-month period, and on an ongoing basis.

This process of re-issue has resulted in many TCBL holders providing services on a long-term (e.g., 10-20 year) basis, and so becoming part of the cultural fabric of their respective communities, in a manner akin to that of a permanently licensed service.

In the absence of adequate resources for the ACMA to (re)assess relevant radio licence area plans in a timely manner, this situation has been an appropriate stop-gap regulatory response.

Even so, the CBAA's preference would be for TCBL holders to transition in a more reasonable timeframe to a permanent licence (where the applicant meets the merit criteria), as it provides greater service surety for listeners, as well as for the licensee and other broadcasters in the region.

The CBAA calls for a greater allocation of resources to the ACMA's planning sections in order to increase the responsiveness and service outcomes for radio licence area planning, for both analogue and digital.

## No adverse impact to community broadcasters

The planning of AM to FM conversion for commercial broadcasters may strike a situation where a community broadcasting service is making use of a VHF-FM channel allocation that may also be suitable for wide-area commercial RA1 use. In some cases that channel allocation will be in use by a permanently licensed community broadcaster, and, sometimes, a TCBL.

It is possible that to facilitate a wide-area VHF-FM channel allocation for a commercial broadcaster, a proposal is made to reallocate the community broadcaster to an alternative channel, which might not be suitable for wide-area use.

The CBAA notes that ACMA's proposed principles maintain that AM to FM conversion for a commercial broadcaster should not result in any (other) existing service being adversely impacted in terms of their use of spectrum and the technical parameters of their radio transmissions.

Given that many long-term TCBL radio licensees have TCBL status due to there being—to this point in time—no (re)assessment by the ACMA of the relevant radio LAP, the CBAA would strenuously maintain that a long-term TCBL service, as well as permanently licensed community radio broadcasting services, should be regarded as an *existing* service in this context.

There should not be a presumption that a channel used by a long-term TCBL can be set aside in favour of enabling AM to FM conversion, simply by not re-issuing the TCBL licence. While this presumption might be accepted for short-term TCBL allocations, it is not for long-term TCBL allocations.

## No replanning unless agreed between affected broadcasters

Principle 3 is imperative, and the CBAA notes the clarity in which it is written.

Community radio stations have previously entered into negotiations with commercial broadcasters transitioning from AM to FM, to either swap or move frequencies.

Should AM-FM conversions continue, it can be anticipated there will be further instances where such a negotiation may be necessary.

As recognised by ACMA, separate to any corollary limitations related to coverage or interference that may arise, there is significant cost to changing frequencies.

The CBAA notes that the ACMA must see proof that an arrangement has been brokered by the converting licensee and agreed to by the affected broadcaster.