ASTRA Subscription Television Australia

Submission to the Australian Communications and Media Authority discussion paper: *Beyond Switchover – the future technical evolution of digital terrestrial television in Australia*

30 March 2012

www.astra.org.au
ABN 18 851 051 863

Introduction

The Australian Subscription Television and Radio Association (ASTRA) welcomes the opportunity to comment on the Australian Communications and Media Authority (ACMA) discussion paper "Beyond switchover – the future technical evolution of digital terrestrial television in Australia". ASTRA agrees with the ACMA that an early examination of approaches to managing new digital terrestrial transmission technologies is appropriate.

About ASTRA

ASTRA is the peak industry body for subscription TV (STV) in Australia. The STV industry is the undisputed leader of digital broadcasting with 200 channels (including HD and Plus2) broadcast on the FOXTEL and AUSTAR platforms, and channel packages offered through Telstra T-Box and Xbox360. STV platforms and channels directly employ over 7,400 people and in 2010 invested $578.4 million into Australian content. The direct economic contribution of STV to the Australian economy is estimated to be over $5 billion since its inception. Received by 34% of Australians through their homes and over a million more through hotels, clubs and other entertainment and business venues, STV provides 24 hour news, sport and entertainment.

General comments

ASTRA has some general comments in relation to the discussion paper which are set out below.

1. Overall Support for New Transmission Technologies

New transmission technologies and standards (such as MPEG-4 and DVB-T2) have the potential to enable significantly more efficient use of existing spectrum allocated for television broadcasting, including increasing capacity for additional terrestrial broadcast services from either existing broadcasters or new entrants in the broadcasting environment. Greater efficiencies should also enable the allocation of further broadcast spectrum beyond the digital dividend for broadband wireless and other non-broadcast services.

2. Scope of Discussion Paper

While ASTRA acknowledges that a discussion on technical standards is necessary, we are disappointed that the scope of the discussion paper is limited to future technical standards for existing terrestrial broadcasting services. Consideration of digital television technical standards should be informed by broader considerations of future broadcast spectrum use. ASTRA notes that:

- the Convergence Review Committee made a number of recommendations in its Interim Report regarding future allocation and management of broadcast spectrum and is due to report to the Government by the end of March 2012; and
- before 1 January 2013, the Government will review the future use of television broadcast spectrum, including use of the 'sixth' channel.

ASTRA believes that the ACMA should maintain a flexible approach to terrestrial digital television standards given both of these reviews and the likely impact of the National Broadband Network on long term options for the delivery of television and television-like content to Australian households.

ASTRA also believes that greater consideration should be given to international developments in terrestrial digital television technology and standards. ASTRA notes the Joint Declaration of the Future of Broadcast Television Summit (11 November 2011) which stated the need to explore unified terrestrial broadcast standards by promoting "cooperation among broadcasters,

communications companies and manufacturers of broadcast equipment…to maximize proper and efficient use of spectrum resources", including through "…full exploration of the benefits of common tool sets and interface points in the development of new digital systems and standards that can be globally supported and eventually deployed".[1] Similarly, the European Broadcasting Union Spectrum Programme on Terrestrial Broadcasting project group is assessing the future role of terrestrial broadcasting, noting industry expectations for "hybrid solutions consisting of broadband technologies, complemented by broadband (fixed/mobile) services" in order to adapt to changing consumer demands and habits.[2]

We acknowledge the need for the ACMA to consider the more immediate issue of the new DTTB standards however we consider that there is scope for the ACMA to consider the longer term implications of IPTV and LTE for broadcast delivery of television.

3. Market Pricing of Spectrum

Market-based pricing of spectrum as opposed to regulatory intervention is more likely to encourage the most efficient use of spectrum to provide the services that consumers of media and communications services want. Spectrum allocated to commercial free-to-air (FTA) broadcasters is not subject to a competitive process, but rather is provided to broadcasters as part of a broader arrangement that is tied to regulatory obligations and (indirectly) to licence fees for broadcasting licences. ASTRA submits that competition for spectrum and the charging of appropriate market rates will encourage incumbent FTA broadcasters to actively seek more efficient approaches to spectrum use through adoption of new transmission standards.

The current spectrum framework for the broadcasting services bands (as part of a wider commercial broadcasting licensing regime) does not facilitate efficient spectrum use. More spectrum than necessary has been allocated to deliver particular services, and there has been little scope for reallocating spectrum from less to more valuable uses. Market-based pricing of broadcast spectrum would also encourage incumbent broadcasters to be more proactive in working with equipment manufacturers and suppliers to ensure a swift uptake of terrestrial digital television receivers that are compatible with more efficient technical transmission standards. ASTRA notes and agrees with the Convergence Review Committee's recommendation in its Interim Report for a market-based approach to broadcast spectrum pricing.

We note that the legislative amendment may be needed to implement a spectrum framework that would enable FTA broadcasters to utilise spectrum more efficiently. In its submission to the Convergence Review, ASTRA argued that consideration should be given to the separation of carriage and content rights for commercial television broadcasting licences. Separation of content and carriage licences could bring increased competition and more efficient use of broadcast spectrum, with the potential for the emergence of new services or the reallocation of spectrum for higher value uses. The Convergence Review Interim Report made recommendations along similar lines.

ASTRA submits that until a decision is made on the implementation or otherwise of such reforms to the allocation and management of broadcast spectrum, the ACMA should take into account the potential for such reforms when considering options for future technological migration of terrestrial digital television services. The Federal Communications Commission in the United States, for example, has proposed a number of innovative new licensing mechanisms and spectrum pricing incentives for the reallocation or repurposing of spectrum currently assigned for broadcasting.[3] While we acknowledge that changes to the legislative framework for spectrum allocation are ultimately decisions for government and Parliament, we submit that the ACMA should not, at this

[1] *Future of Broadcast Television Summit – Joint Declaration*, 11 November 2011, FOBTV 2011, Shanghai,
[2] See Beurler, R., "Strategic considerations on the future of terrestrial broadcasting", *EBU Technical Review*, 2011, Q2.
[3] See Chapter Five, "Spectrum" of the FCC's *National Broadband Plan* (www.broadband.gov)

stage, close its thinking to the potential that it may have more novel spectrum management tools at its disposal in the future.

4. Technological Migration Options

ASTRA believes that the reconfiguration of existing spectrum allocations and the use of a statistical multiplexing model to free up sufficient spectrum to support migration to new technologies is feasible, as previously argued in our submission to the *Digital Dividend Green Paper*.[4]

The ACMA paper canvasses the use of additional spectrum to facilitate migration. We do not believe this is an appropriate use of the spectrum given that:

(a) the FTAs have sufficient capacity to enable migration within their existing allocations, subject to the adjustments noted by the ACMA in its paper; and

(b) there are higher value uses to which any alternative spectrum could be put.

However, if the Government does intend to allocate additional spectrum to the FTA broadcasters, strict conditions relating to its use must be imposed. Conditions relating to the duration of the licence, and its return; the use to which the spectrum can be put; migration timeframes; and market rate pricing must all be included.

5. Standards

ASTRA believes that a self-regulatory approach to standards settting should continue to be pursued in the broadcasting sector. ASTRA acknowledges that the appropriate vehicles to advance the technical parameters for DVB-T2 are the relevant transmission and receiver standards which could be updated through the Standards Australia process with support from the ACMA. We do not see that there is any compelling reason to mandate DVB-T2 or MPEG4 via a co-regulatory or direct regulatory model.

Comments on the specific questions raised in the discussion paper

We have commented on the questions raised by ACMA where relevant.

Chapter 1: Introductory question

The ACMA seeks submissions on:

1. Should the ACMA do anything to meet the challenge of ever-improving technical standards?

ASTRA would agree with the ACMA's assessment that "the benefits of permitting technology evolution include the capacity to provide more and/or enhanced television services in an environment where spectrum is a finite and very valuable resource."[5] ASTRA would also agree with the ACMA that it: "has a key role on managing Australia's radiofrequency spectrum" and that in this role it must "endeavour to maximise the efficient allocation and use of spectrum to realise the greatest public benefit while maximising opportunities for Australian industry".[6]

ASTRA notes, however, that the discussion paper focuses primarily on potential benefits for existing broadcasters (additional SD or HD services, 3D or accessibility services) and not the potential for the introduction of new broadcasting or non-broadcasting services by new players through greater spectrum availability.

[4] See ASTRA's submission to the DBCDE Digital Dividend Green Paper (2010), p.6
[5] ACMA Beyond Switchover Discussion Paper, p.5
[6] ACMA Beyond Switchover Discussion Paper, p.6.

ASTRA recognises that in performing its role, the ACMA's management of spectrum needs to balance competing public policy objectives while allowing sufficient flexibility for the market to efficiently determine allocations appropriate to the evolving needs of the communications and media environment. However, ASTRA firmly believes that, in the allocation of broadcast spectrum for commercially-driven services, market-based spectrum pricing is the most appropriate means to ensure sufficient industry incentive to ensure a smooth and speedy transition to more efficient transmission technologies.

2. The approach and scope of this discussion paper.

As discussed above, ASTRA considers the approach and scope of the discussion paper too narrowly focused on the migration of existing terrestrial television broadcasters and the potential benefits for those broadcasters from the introduction of new transmission technologies. There is comparatively little discussion on the potential for spectrum use efficiencies that could release further broadcast spectrum for either new broadcasting services or for other non-broadcast uses.

ASTRA considers that the ACMA should maintain a flexible approach that could encompass the introduction of new broadcasting services or the reallocation of existing broadcasting spectrum for non-broadcasting purposes. ASTRA notes that the Government will undertake, by 2013, a broad ranging review of the future use of broadcast spectrum, including whether broadcasting services bands spectrum that is, or may become, available for allocation should be used for services other than television broadcasting services.[7] Any consideration of new technical standards and platform migration strategies needs to take into account this broader context.

3. Are there principles that should be codified in regard to regulation of technical migration, within the framework set by the principles for good regulatory process? What factors should these principles consider?

The Discussion Paper states that "a key issue for the ACMA is whether to allow economic forces to operate while monitoring events, or to intervene in order to guide or direct the technological development of the terrestrial broadcasting network".[8] While spectrum allocation to free-to-air broadcasters is not subject to competitive market valuation, commercial FTA broadcasters will have little incentive to move to more efficient technologies, nor to develop cooperative approaches to migrate the terrestrial broadcasting network to new technologies.

While ASTRA acknowledges that commercial FTA broadcasters do not have the same control over equipment at the 'receiver end' as the STV broadcasting sector, commercial FTA broadcasters would have greater imperative to encourage the development and use of consistent and more efficient receiver standards if broadcast spectrum was subject to market-based pricing. Regulatory intervention to guide and direct technical migration of terrestrial television broadcasting need only be at a bare minimum were there to be sufficient market-based incentives for broadcasters to both make more efficient use of spectrum and to ensure their audiences are ready to make the transition to new transmission and reception standards with them.

Chapter 2: Technological innovation issues

The ACMA seeks submissions on:

4. What issues technological evolution raises and whether there is pressure for change in Australia.

[7] BSA, s 35A.

[8] ACMA Beyond Switchover Discussion Paper, p.6.

ASTRA notes and agrees with the ACMA's assessment that Australian terrestrial broadcasters enjoy greater multiplex capacity than their overseas counterparts, and that moves overseas to augment services is driven largely by capacity constraints not faced by broadcasters in Australia. This assessment suggests that spectrum allocation to terrestrial television broadcasters has been overly generous and has not encouraged incumbent broadcasters to explore more efficient spectrum use for digital transmission.

Pressure for change in Australia should come from competing demands for spectrum from broadcast and non-broadcast service providers, which would be driven by market-based approaches to valuing and allocating broadcast spectrum. Pressure on incumbent broadcasters to make better use of the spectrum currently allocated for digital television broadcasting will also drive those broadcasters to take a more active role in encouraging the development of new generation reception equipment with the capacity for receiving DVB-T2 and MPEG-4 transmissions.

ASTRA also notes the potential for a fully rolled out National Broadband Network to deliver terrestrial television services to virtually all Australian households, which would raise the question of whether continued allocation of spectrum for television broadcast services would represent optimal use of that spectrum for media and communications services in the longer term.

5. Whether Australia should be planning to introduce upgraded platform or service standards for DTTB, and if so:

- **which standards?**
- **how quickly?**
- **why?**

ASTRA considers that platform and service standards should be upgraded to MPEG-4 and DVB-T2 as soon as possible, to maximise spectrum use efficiency and release broadcast spectrum for new broadcast and non-broadcast services.

Chapter 3: Technological migration options

The ACMA seeks submissions on:

6. What are the potential options for promoting standards migration and how might they be implemented?

As stated above, a market-based approach to spectrum allocation and more flexible spectrum licensing arrangements for commercial FTA broadcasting services would create greater incentives for incumbent broadcasters to drive the adoption of advanced standards. While ASTRA acknowledges that changes to broadcast spectrum licensing to accommodate, for example, multiplexing arrangements, would require amendment to the *Broadcasting Services Act 1992* and the *Radiocommunications Act 1992*, in the context of potential legislative changes emerging from the Convergence Review, now is the appropriate time for the ACMA and the Government to consider more innovative approaches to promoting standards migration.

7. Any strategies you believe are both feasible and desirable for introducing new technical standards, including:

- **which standards**
- **how they might be introduced, including transmission and receiver readiness issues**
- **any ACMA measures that would assist.**

ASTRA notes that commercial FTA broadcasters have consistently argued that after digital dividend spectrum is returned, the remaining spectrum will be insufficient to permit future

technology migration.[9] However ASTRA submits that there are a range of approaches that could be adopted to facilitate the introduction and platform migration to new technical standards within the remaining spectrum for television broadcasting.

The 35 MHz of spectrum allocated to incumbent FTA broadcasters in each television licence area could be used far more efficiently through multiplexing arrangements and better coordination and information sharing between incumbent broadcasters. ASTRA notes and agrees with FOXTEL's submission to this discussion paper that efficiencies could be gained on the existing FTA platform through the use of statistical multiplexing. This has been employed by some networks but is relatively inefficient when used with a mixed group of SD and HD services in a single transport stream.

A more efficient arrangement of services is the grouping of SD services together on one transport stream and HD services on another. This option would consolidate the current MPEG-2 platform on to 4 multiplexes, with two 7MHz channel multiplexes of six SD services (a total of 12 SD services), and two multiplexes with 2 HD services on each. The freed fifth multiplex could then be used for a DVB-T2/MPEG-4 HD simulcast. This option would require one of the existing HD services (for example, ABC News 24) to be transmitted in SD for the duration of the simulcast period.

Another option could be for the cessation of HD services during the period of platform migration. This would involve broadcasting all FTA services in SD, to a total of 16 SD services. These services could be carried on three 7MHz channel multiplexes, leaving two 7MHz channel multiplexes for migration to DVB-T2/MPEG-4 for a defined simulcast period (with capacity to carry the current 11 SD services and five HD services). This would allow a full simulcast of the current FTA platform while keeping the 'sixth' spectrum channel free for other services.

8. For MPEG-4, the ACMA also seeks submissions on:

- **when or in what circumstances augmentation of existing multiplexes with MPEG-4 content is desirable?**
- **whether inclusion of MPEG-4 as a requirement in the Australian receiver standard, or measures to directly mandate MPEG-4, would increase the uptake of MPEG-4-ready receivers without imposing substantial additional costs on Australian television viewers.**

ASTRA does not support the inclusion of MPEG-4 (or any other technical standard) as a ***mandatory*** requirement in the Australian receiver standard although, as stated above, we do support the inclusion of MPEG-4 and DVB-T2 as optional standards in the Australian receiver standard.

[9] See, for example, Free TV submission to Digital Dividend Green Paper (2010), p.11