

Draft allocation instruments for the allocation of spectrum in the 700 MHz and 2.5 GHz bands (the digital dividend auction) Information paper

APRIL 2012

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Published by the Australian Communications and Media Authority

Contents

Introduction	1
Background	3
The digital dividend auction	3
Effect of the reallocation declarations	4
Release of the draft allocation instruments and technical instruments	4
Legislative framework	6
Marketing plan	6
Allocation determination	7
Draft marketing plans	8
Lot configuration	8
Lot categorisation	11
Licence commencement and duration	11
Licence conditions	12
Draft allocation determination	14
Competition limits	14
Lot ratings and reserve prices	15
Affiliated applicants	15
Invitation to comment	17
List of attachments	18

Introduction

The Australian Communications and Media Authority (the ACMA) is preparing to allocate spectrum in the 700 MHz (703–748 and 758–803 MHz) and 2.5 GHz (2500–2570 and 2620–2690 MHz) bands as spectrum licences through a single auction.

While the auction will be used to allocate spectrum in both the 700 MHz (digital dividend) and 2.5 GHz bands, it is referred to simply as ‘the digital dividend auction’.

The ACMA has prepared draft legislative instruments, referred to as ‘the allocation instruments’, which describe the products being offered in the auction and set the rules and procedures that will govern the auction process for the allocation of spectrum. The ACMA has also prepared ‘the technical instruments’, which provide the technical rules for the operation of radiocommunications devices in the spectrum licensed band.

The allocation instruments are:

- > two marketing plans (one for the 700 MHz band and one for the 2.5 GHz band), to be made under section 39A of the *Radiocommunications Act 1992* (the Act)¹
- > an allocation determination, to be made under section 60 of the Act.

The technical instruments include:

- > an unacceptable interference determination (made under section 145 of the Act) for each band
- > radiocommunications advisory guidelines (made under section 262 of the Act) for each band.

The draft versions of the allocation instruments are at **attachments A, C and E**. The draft versions of the technical instruments are at **attachments G, H, I, J, K and L**.

The ACMA invites interested parties to comment on any aspect of the draft instruments, including matters that have been the subject of previous consultation. The ACMA has also provided explanatory notes to each of the draft allocation instruments at **attachments B, D and F** to help people who may wish to make submissions.

In addition to seeking general feedback on the instruments, the ACMA is particularly interested in receiving views or comments on:

- > specific matters or questions that are highlighted throughout this paper
- > issues highlighted for comment in the allocation instruments.

The ACMA is committed to making sure that the auction arrangements are developed with appropriate regard given to stakeholder views. Consultation on these instruments forms an important part of the ACMA’s ongoing digital dividend stakeholder [engagement strategy](#).

This consultation process focuses on the mechanics of the auction—that is, what will be offered, how the auction will be run and how people can participate.

Separate to this process, the ACMA will also consult on a set of issues that will be relevant to product certainty for the auction, including when spectrum in the 700 MHz band will be available for use by new licensees and auction timing. The ACMA expects

¹ Each marketing plan also includes a sample licence as a schedule.

to release a further consultation paper focusing on these issues in the second quarter of 2012.²

ACMA review of spectrum licensing framework

The ACMA has been reviewing the spectrum licensing regulatory and technical frameworks since 2008, and considering how the existing arrangements can be enhanced. The ACMA recently released a consultation paper, *Proposed updates to the spectrum licence framework*, that proposes a set of changes intended to ‘future-proof’ the 15-year spectrum licences that will be issued in the coming months and years, including licences that will be issued as a result of the digital dividend auction.

The changes suggested will ensure that the new licences are underpinned by a contemporary understanding of technological developments and market conditions, and that the ACMA’s spectrum licensing frameworks continue to be recognised as world’s best practice in spectrum management. *Proposed updates to the spectrum licence framework* is available on the [ACMA website](#) and comments are welcome until **Tuesday 15 May 2012**.

² Further information about the release of the consultation paper will be made available through the spectrum auction [e-bulletin](#).

Background

The regulatory and technical framework underpinning spectrum licences is designed to maximise the ability of the user or market to determine what the highest value use of the frequency band may be. Spectrum licences provide the licensee with flexibility to use a parcel of spectrum space that incorporates a specific frequency band within a particular geographic area for a period of up to 15 years. Spectrum licences give licensees significant freedom to choose the nature of devices deployed under the licences and to trade the licence in whole, or in part.

The digital dividend auction

The ACMA is preparing to hold the digital dividend auction, to reallocate parts of the 700 MHz and 2.5 GHz bands by issuing spectrum licences. These bands, which are currently occupied, are being replanned to enable the spectrum to move to its highest value use.³

The digital dividend auction will be run online using a combinatorial clock auction (CCA) format. The CCA is a price clock-based auction method used to sell multiple items in a single process.⁴

The ACMA has decided to allocate the two bands in a single auction because they will become available at around the same time, are complementary for some potential users and may be regarded as substitutes by others. While both frequency bands are suitable for wireless broadband services, their different propagation characteristics allow them to be used in complementary ways. Spectrum in the 700 MHz band is suited to providing coverage over a wide area and with high building penetration, while 2.5 GHz spectrum, with its abundant bandwidth but poorer in-building and distance propagation, is suited to providing high data capacity in more densely populated, high-demand areas. These differing properties make the bands potentially complementary, but they might also be regarded as substitutes by some users who are interested in acquiring spectrum in one of the two bands, and whose choice of band may depend on the relative price of each.

A single CCA process will allow bidders to bid on packages of spectrum in the two bands, offering them the opportunity to acquire the specific combinations of spectrum that will best meet their business needs.

On 1 November 2011, the Minister for Broadband, Communications and the Digital Economy, Senator Stephen Conroy, having considered recommendations made by the ACMA, made two spectrum reallocation declarations:⁵

- > The Radiocommunications (Spectrum Re-allocation) Declaration No.1 of 2011, which relates to the digital dividend band.⁶
- > The Radiocommunications (Spectrum Re-allocation) Declaration No. 2 of 2011, which relates to the 2.5 GHz band.⁷

³ Please refer to the ACMA's website for more information about the reallocation of the [700 MHz](#) and [2.5 GHz](#) bands.

⁴ For more information about the CCA see the ACMA's [engage website](#).

⁵ Further information about this consultation process, including the ACMA's May 2011 information paper *Draft spectrum reallocation recommendations for the 700 MHz digital dividend and 2.5 GHz bands*, is on the ACMA [website](#).

⁶ See declaration and explanatory statement at www.comlaw.gov.au/Details/F2011L02180/Download.

⁷ See declaration and explanatory statement at www.comlaw.gov.au/Details/F2011L02181/Download.

Together, the two declarations provide that the frequency bands 703–748 and 758–803 MHz in the digital dividend band, and 2500–2570 and 2620–2690 MHz in the 2.5 GHz band are to be reallocated as spectrum licences. The ACMA's recommendations to the minister followed two earlier consultation processes undertaken during 2010.⁸

Effect of the reallocation declarations

Ordinarily, a spectrum reallocation declaration has the effect of cancelling apparatus licences in the spectrum to be reallocated, at the end of the reallocation period. This is the case in the 2.5 GHz band, meaning that any apparatus licences remaining in this band at the end of the reallocation period (that is, 30 September 2014, or 31 January 2016 for the Perth area) are automatically cancelled.⁹

However, in the 700 MHz band, the declared spectrum lies in the broadcasting services bands (BSB). Apparatus licences held by commercial broadcasting licensees and national broadcasters operating in this spectrum are not cancelled as a result of the Ministerial spectrum reallocation declaration. Instead, these licences will be cleared from the band through television licence area plans (TLAPs) prepared by the ACMA. TLAPs allow the ACMA to set a date, or range of dates, within which broadcasting services must vacate the reallocated spectrum and move to other frequencies. This process of moving broadcasting services to other frequencies is referred to as 'restack'. Apparatus licences issued to other parties, such as self-help providers retransmitting television broadcasting services in the 700 MHz band, will be cancelled by the reallocation declaration when the reallocation period ends on 31 December 2014.

Release of the draft allocation instruments and technical instruments

To help it prepare draft versions of the allocation instruments, the ACMA conducted several rounds of preliminary consultation on key elements of the instruments between November 2011 and February 2012. The consultation occurred online through the release of a series of topic-based notices on the ACMA's [engage website](#), and sought information and views from stakeholders (particularly prospective auction participants) on a variety of topics.

The ACMA has consulted separately on the content of the technical instruments through the Technical Liaison Groups (TLGs) convened for each of the bands. TLGs are temporary advisory bodies convened by the ACMA as the forum for consultation between the ACMA, industry and other stakeholders on the development of technical rules regarding the operation of radiocommunications devices and services under the spectrum licence. The outcomes of the TLG process are reflected in the technical instruments subsequently developed by the ACMA.

The ACMA welcomes comments on this document and the draft instruments until **Wednesday 9 May 2012**. At the end of the consultation period, the ACMA will consider all comments in preparing the final instruments. The ACMA expects to make final versions of the instruments in the third quarter of 2012.

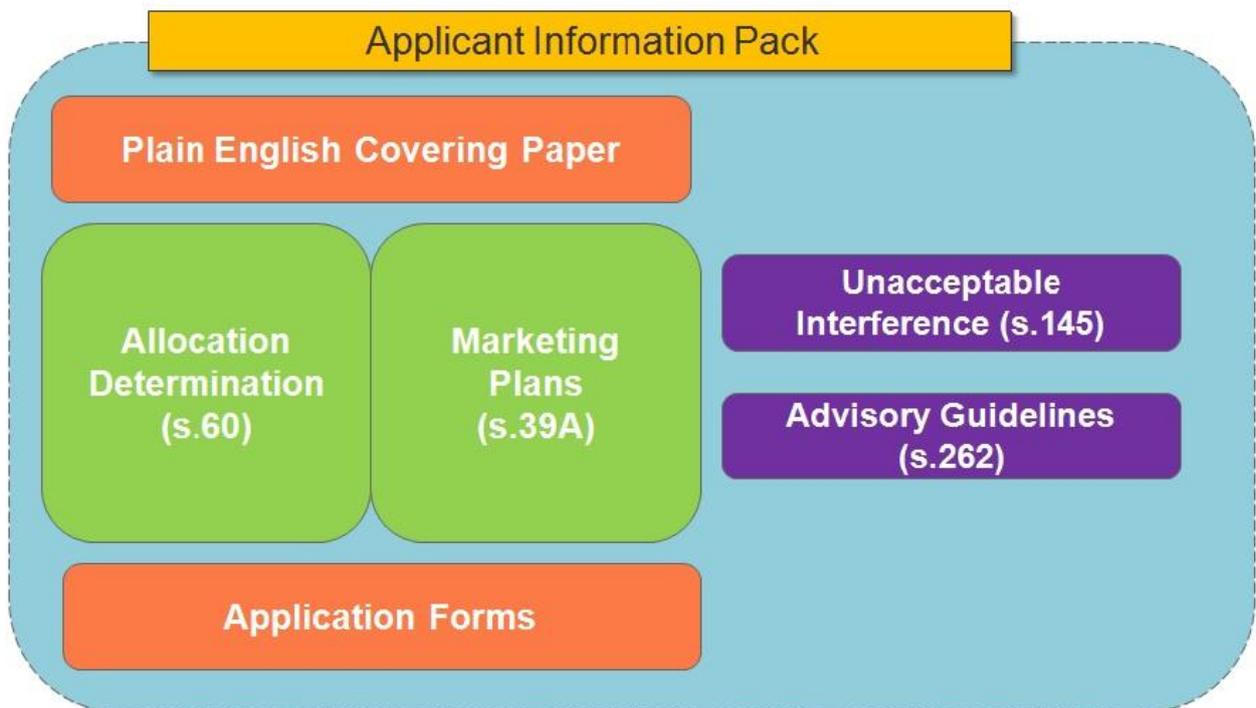
⁸ Information about the first consultation process (the reallocation of the 2.5 GHz band), including the January 2010 discussion paper *Review of the 2.5 GHz band and long-term arrangements for ENG*, is [here](#). Information about the second consultation process (the reallocation of the digital dividend), including the October 2010 discussion paper *Spectrum reallocation in the 700 MHz digital dividend band*, is [here](#).

⁹ The ACMA is making alternative bands available to current licensees to relocate to. Further information about this process can be found [here](#).

Once the final instruments are made, the ACMA will prepare the applicant information pack (AIP), which will provide comprehensive information about the auction process and the spectrum products on offer. The AIP will give those people interested in participating in the auction the information they need to decide whether to participate—and, if they choose to participate, how to do so.

The AIP will comprise a series of documents including a plain-English covering paper, application forms, the allocation instruments and the technical instruments (as depicted in Figure 1 below).

Figure 1 Applicant information pack



■ Allocation instruments that are currently being released in draft form.

■ Technical instruments that are currently being released in draft form.

■ Material that is not currently being released for consultation, but will form part of the AIP released prior to the auction.

Legislative framework

Marketing plan

Section 39A of the Act requires the ACMA to prepare a marketing plan for issuing spectrum licences within a particular part of the spectrum, where a relevant spectrum reallocation declaration has been made. A marketing plan made under section 39A essentially sets out the product offering, and may specify matters including:

- > the procedures to be followed for issuing spectrum licences
- > the timetable for issuing spectrum licences
- > how the spectrum is to be apportioned among the spectrum licences to be issued
- > how much of the spectrum is to be reserved for public or community services
- > the conditions, or types of conditions, that may be included in spectrum licences to be issued.¹⁰

A marketing plan can also specify other matters.

For the digital dividend auction, the ACMA intends to make two marketing plans—one for each band—as there are two separate products being offered for sale.

The draft marketing plans the ACMA has prepared (at **attachments C and E**) specify the spectrum products that will be available in each band, the method by which they will be allocated and the conditions that will apply to the spectrum licences issued.

Key aspects of the draft marketing plans are discussed in further detail on page 8 of this paper.

Technical instruments

Under section 145 of the Act, the ACMA may determine what are unacceptable levels of interference for the purposes of registration. A section 145 determination sets out the circumstances in which the ACMA may refuse to register a device under the spectrum licence. Generally, these circumstances include:

- > if any part of the device boundary falls outside the geographic area of the spectrum licence
- > if the operation of the transmitter will breach a core condition of the spectrum licence
- > if the deployment of the transmitters breaches the deployment constraints of the section 145 determination.

Under section 262 of the Act, the ACMA may make advisory guidelines about any aspect of radiocommunications. Generally, the Radiocommunications Advisory Guidelines include provisions to help manage interference between spectrum-licensed devices and other services.

In June 2011, the ACMA established a TLG process for both the 700 MHz and 2.5 GHz bands. The TLG process for the 2.5 GHz band is complete, and the TLG for the 700 MHz band is in its final stages. The task of a TLG is to consider and advise the ACMA on technical aspects of the development of the spectrum licence technical framework for a relevant frequency band. The ACMA uses the outcomes of the TLG process to develop the technical instruments underpinning the spectrum licence arrangements.

¹⁰ Subsection 39A(5).

The draft technical instruments prepared by the ACMA are at **attachments G, H, I, J, K and L**. Further information on spectrum licence technical frameworks and the outcomes of the TLG process for the 700 MHz and 2.5 GHz bands will be made available on the ACMA's website.¹¹

Allocation determination

Section 60 of the Act requires the ACMA to determine written procedures to apply to the allocation of spectrum licences by auction. An allocation determination made under section 60 essentially sets out the 'auction rules' and may deal with matters including:

- > the type of auction
- > how the auction will be advertised
- > entry fees for prospective bidders
- > reserve prices (if any)
- > deposits (if any) payable by successful bidders
- > methods of payments for licences.¹²

An allocation determination may also impose competition limits, to limit the aggregate amount of spectrum that can be allocated to a bidder.¹³ However, such competition limits can only be imposed if the minister directs the ACMA to do so.¹⁴

An allocation determination can also specify other matters.

For the digital dividend auction, the ACMA intends to make one allocation determination, as the two bands are being allocated in a single process.

The draft allocation determination that the ACMA has prepared (at **Attachment A**) sets out the rules it intends to apply in the auction. This includes draft CCA procedures, and rules on administrative matters such as the bidder registration process, fees and other amounts to be paid, and 'prohibited communication' arrangements to prevent bidder collusion. Key aspects of the draft allocation determination are discussed in detail on page 14 of this paper.

The draft allocation instruments have been prepared with regard to the ACMA's *Principles for spectrum management*.¹⁵ The key theme of the principles is that maximising the overall public benefit from use of the radiofrequency spectrum requires balanced application of both regulatory and market mechanisms.

¹¹ *Spectrum Licensing Technical Frameworks* is available [here](#). Information on the outcomes of the TLG process for the 700 MHz and 2.5 GHz bands is available [here](#).

¹² Subsection 60(2).

¹³ Subsection 60(5).

¹⁴ Subsection 60(9).

¹⁵ More information about the ACMA's *Principles for spectrum management* is on the [website](#).

Draft marketing plans

The marketing plans describe the spectrum ‘products’ that will be offered at auction. The ACMA has prepared a separate draft marketing plan for each of the two bands.

Each draft plan identifies the spectrum that will be allocated and sets out how the ACMA proposes to divide it into products for applicants (bidders) to acquire in the auction process. Each plan also sets out the types of conditions that the ACMA proposes to apply to the spectrum licences.

The draft marketing plans also cross-reference the detailed auction procedures set out in the allocation determination.

An explanation of the purpose and intended operation of each section of each draft marketing plan is provided at **attachments D and F**. A number of key issues dealt with in the marketing plans are discussed further below.

Lot configuration

Within each band, spectrum will be divided into auction ‘lots’ defined by their geographic area and bandwidth.¹⁶ Under the CCA format, the lots of spectrum to be sold are divided into a number of categories of generic items. Lots are placed in the same category if they are considered to be good substitutes for one another in the frequency domain.

Each bidder is allowed to bid for packages of lots across multiple categories. In the draft marketing plans, there are two categories of lots—one for generic lots in the 2.5 GHz band and one for generic lots in the 700 MHz band.¹⁷

The ACMA is proposing a lot configuration with different geographic market areas for the 2.5 GHz and 700 MHz spectrum. This approach was informed by stakeholder responses to [preliminary consultation](#).

The ACMA is proposing to auction the 700 MHz spectrum in national lots, following stakeholder assertions that this spectrum would be best used as the foundation of a national mobile network.

However, in the 2.5 GHz band, the ACMA considers that a disaggregated lot structure would be preferable, to accommodate differing lot preferences expressed by stakeholders. A disaggregated structure would not prevent bidders from packaging together metropolitan, regional and remote lots to acquire a ‘national lot’ in the 2.5 GHz band. However, it would give other bidders the flexibility to acquire lots in smaller market areas if that best suits their business model.

In the draft marketing plans, the lots are structured as:

- > For the 700 MHz band—nine uniform frequency lots, each providing for coverage across one nationwide region covering all of Australia (see Figure 2 below).¹⁸ Each

¹⁶ The ACMA is currently consulting on proposed changes to the spectrum licence regulatory framework, including proposed updates to the Australian spectrum map grid, which would include the introduction of a hierarchical cell identification scheme (HCIS) to define geographic areas subject to spectrum licences. More information about the proposed changes can be found in the discussion paper [Proposed updates to the spectrum licence framework](#). The draft marketing plans incorporate HCIS.

¹⁷ Generic lots in this context are lots which are good substitutes for each other, which are not defined by a specific geographic or frequency location.

frequency lot consists of 10 MHz in paired configuration (2x5 MHz), with a block of 5 MHz in the upper and lower parts of the band, separated by a mid-band gap.

- > For the 2.5 GHz band—14 uniform frequency lots, each providing for coverage across 11 discrete regions within Australia (see Figure 3 below). Each frequency lot consists of 10 MHz in paired configuration (2x5 MHz), with a block of 5 MHz in the upper and lower parts of the band, separated by a mid-band gap. The 11 regions in which each frequency would be available include:
 - > eight metropolitan areas—ACT, Adelaide, Brisbane, Darwin, Hobart, Melbourne, Perth, Sydney
 - > two regional areas—regional eastern Australia, regional western Australia
 - > one remote area.¹⁹

The region boundaries are defined in Schedule 3 to each marketing plan.

¹⁸ This excludes the core of the Mid West Radio Quiet Zone (RQZ), an area in remote Western Australia, which was excluded from the minister's spectrum re-allocation declarations.

¹⁹ *ibid.*

Figure 2 Lot configuration in the 700 MHz band

National lot	A	B	C	D	E	F	G	H	I	Mid-band gap (not on offer)	A	B	C	D	E	F	G	H	I
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Figure 3 Lot configuration in the 2.5 GHz band

Metro ACT	A1	B1	C1	D1	E1	F1	G1	H1	I1	J1	K1	L1	M1	N1	Mid-band gap (not on offer)	A1	B1	C1	D1	E1	F1	G1	H1	I1	J1	K1	L1	M1	N1
Metro Adelaide	A2	B2	C2	D2	E2	F2	G2	H2	I2	J2	K2	L2	M2	N2		A2	B2	C2	D2	E2	F2	G2	H2	I2	J2	K2	L2	M2	N2
Metro Brisbane	A3	B3	C3	D3	E3	F3	G3	H3	I3	J3	K3	L3	M3	N3		A3	B3	C3	D3	E3	F3	G3	H3	I3	J3	K3	L3	M3	N3
Metro Darwin	A4	B4	C4	D4	E4	F4	G4	H4	I4	J4	K4	L4	M4	N4		A4	B4	C4	D4	E4	F4	G4	H4	I4	J4	K4	L4	M4	N4
Metro Hobart	A5	B5	C5	D5	E5	F5	G5	H5	I5	J5	K5	L5	M5	N5		A5	B5	C5	D5	E5	F5	G5	H5	I5	J5	K5	L5	M5	N5
Metro Melbourne	A6	B6	C6	D6	E6	F6	G6	H6	I6	J6	K6	L6	M6	N6		A6	B6	C6	D6	E6	F6	G6	H6	I6	J6	K6	L6	M6	N6
Metro Perth	A7	B7	C7	D7	E7	F7	G7	H7	I7	J7	K7	L7	M7	N7		A7	B7	C7	D7	E7	F7	G7	H7	I7	J7	K7	L7	M7	N7
Metro Sydney	A8	B8	C8	D8	E8	F8	G8	H8	I8	J8	K8	L8	M8	N8		A8	B8	C8	D8	E8	F8	G8	H8	I8	J8	K8	L8	M8	N8
Regional eastern Australia	A9	B9	C9	D9	E9	F9	G9	H9	I9	J9	K9	L9	M9	N9		A9	B9	C9	D9	E9	F9	G9	H9	I9	J9	K9	L9	M9	N9
Regional western Australia	A10	B10	C10	D10	E10	F10	G10	H10	I10	J10	K10	L10	M10	N10		A10	B10	C10	D10	E10	F10	G10	H10	I10	J10	K10	L10	M10	N10
Remote Australia	A11	B11	C11	D11	E11	F11	G11	H11	I11	J11	K11	L11	M11	N11		A11	B11	C11	D11	E11	F11	G11	H11	I11	J11	K11	L11	M11	N11

The ACMA welcomes views on the proposed lot structure for the 700 MHz and 2.5 GHz bands.

Lot categorisation

The ACMA has considered whether the requirement to manage the potential for interference between spectrum licensed services at the lower 700 MHz band edge and digital terrestrial television (DTT) services in the adjacent broadcasting services bands (see below) will mean that:

- > all lots in the 700 MHz band are not necessarily generic (that is, not necessarily perfect substitutes for one another)—and therefore
- > whether it would be appropriate to divide the 700 MHz band into two separate categories.

The ACMA is consulting with industry through the 700 MHz TLG to put in place emission limits at the lower 700 MHz band edge to manage potential interference from spectrum licensed services into adjacent DTT services.²⁰

The ACMA's current assessment, as reflected in the draft 700 MHz marketing plan, is that lots in the 700 MHz band are generic, meaning that a separate category of lot is not necessary at the bottom of the 700 MHz band.

The ACMA welcomes views on:

- > whether the currently proposed emission limits at the lower 700 MHz band edge are likely to cause a lot or lots at the bottom of the 700 MHz band to no longer be readily substitutable with lots higher in the band—and therefore
- > whether it may be appropriate to separate the 700 MHz band into two categories of lots.

Licence commencement and duration

The draft marketing plans include commencement dates for the new spectrum licences.

The ACMA is proposing that spectrum licences for the 'National Area' in the 2.5 GHz band commence on 1 October 2014, which aligns with the end of the reallocation period for the National Area.²¹

Licences solely for the metropolitan Perth region and/or the regional western Australia region in the 2.5 GHz band, however, may have a later commencement date of 1 February 2016 to align with the end of the reallocation period for the Perth Area.²²

Where licences include the metropolitan Perth region or the regional western Australia region but are not solely for those areas, there may be a condition preventing operation of radiocommunication devices in the Metropolitan Perth region or the regional western Australia region until 1 February 2016.

As discussed on page 4, existing apparatus licences in the 2.5 GHz band are automatically cancelled at the end of the reallocation period, leaving the spectrum free for new licensees to use. However, this is not the case in the 700 MHz band. This is because the declared spectrum in that band is in the BSBs, and apparatus licences held by most broadcasters operating in those bands are not automatically cancelled at the end of the reallocation period. Instead, these licences will be cleared through the restack process.

²⁰ Existing members of the TLG can log onto the [sharepoint site](#) to view discussion papers, submit responses or contribute to online discussions.

²¹ *National Area* is defined in the Radiocommunications (Spectrum Re-allocation) Declaration No. 2 of 2011.

²² *Perth Area* is defined in the Radiocommunications (Spectrum Re-allocation) Declaration No. 2 of 2011.

A number of stakeholders expressed concern to the ACMA during its preliminary [consultation](#) about restack timing, spectrum availability and product certainty in the 700 MHz band. They stated that there is currently insufficient certainty for prospective bidders about the timing of restack, and therefore the timing of access to the spectrum by new licensees.

In response to these concerns, the ACMA will conduct a further, separate consultation process on the suite of issues that are relevant to the timing of access to the spectrum. The ACMA anticipates releasing this separate paper for comment in the second quarter of 2012.

In the draft marketing plans, the ACMA proposes that, with the exception of licences solely for the metropolitan Perth region and/or the regional western Australia region, which are likely to have a shorter duration, spectrum licences in both bands be issued for a 15-year period, with all licences within each band having a common expiry date.

Licence conditions

The technical conditions (as core licence conditions) contained in the schedules to the draft marketing plans (in particular schedules 4, 5 and 6) are developed in consultation with industry representatives through the TLGs.²³ The technical conditions are essential for defining a spectrum licensee's rights and obligations and, in partnership with the technical instruments, provides an interference management framework for each band.

Core conditions (in accordance with section 66 of the Act and included in the licence) will apply to spectrum licences in terms of:

- > defining their geographic boundaries
- > defining their range of frequencies
- > setting outside-the-area radio emission limits
- > setting outside-the-band radio emission limits.

The draft marketing plans contain a sample spectrum licence that is consistent with the technical frameworks that the ACMA has developed for each band.

The ACMA proposes to issue spectrum licences in the 700 MHz band subject to a condition seeking to manage interference with any remaining incumbent broadcasting services. This is intended to mitigate any potential interference to broadcasting services that remain legally operating within the spectrum.

It is proposed that this condition would only have an effect where a licensed broadcasting service remains operating in the 700 MHz band after the commencement date of the spectrum licence. This might occur where the relevant TLAP allots a channel in the 700 MHz band for a period ending after the commencement of the spectrum licence.²⁴

The condition would only have effect until the date nominated in the TLAP for vacating the spectrum, or the expiry date of the special circumstance licence, by which time broadcaster operation in the band would cease.

²³ More information about the development of these instruments and the TLGs is [here](#).

²⁴ TLAPs are made under section 26 of the *Broadcasting Services Act 1992*. They can specify dates by which a broadcaster must be operating on a particular channel/s. Section 26AA provides for compliance with TLAPs.

In addition, the marketing plans describe other licence conditions, including spectrum trading rules²⁵, use by third parties²⁶ and registration of transmitters with the ACMA.²⁷

The ACMA welcomes comments about the proposed licence conditions, including the proposal to issue licences in the 700 MHz band subject to a condition to manage interference with any remaining incumbent broadcasting services.

²⁵ The ACMA may determine spectrum trading rules under section 88 of the Act. The ACMA is currently consulting on proposed new trading rules, which would increase flexibility for the trading of spectrum licences. More information about the proposed changes, including the information paper *Proposed updates to the spectrum licence framework*, can be found [here](#).

²⁶ The ACMA may make rules about third-party use of spectrum licences under section 68 of the Act.

²⁷ Section 69 of the Act provides that a spectrum licence must include a condition that transmitters not be operated under the licence unless the requirements of Part 3.5 of the Act have been met.

Draft allocation determination

The proposed allocation determination sets rules for how the spectrum will be allocated by auction. It includes details of the procedures that will apply to the auction, including the responsibilities of both applicants and the ACMA throughout all stages of the allocation. Because the two bands are being allocated through a single process, the ACMA has prepared one draft determination for both bands.

The auction will be held via a secure online system and will implement the combinatorial clock auction (CCA) methodology.²⁸ This style of auction consists of two major stages—an allocation stage, which determines the quantity of generic spectrum lots acquired by successful bidders; and an assignment stage, which determines the location of each winning bidder's spectrum lots in each reallocated band. Further information on the CCA can be found in the [presentations](#) from workshops the ACMA held in January 2012.

The draft determination proposes the application and registration processes with which interested parties must comply to be eligible to participate and bid for spectrum at auction. This includes an explanation of all required documentation and when it must be submitted, as well as information about fees and payments.

The ACMA is proposing a two-stage registration process for people who wish to participate in the auction:

- > **Application stage**—when the auction is advertised, people will be invited to apply. At this point, they will need to submit a completed application form, accompanying information (such as confidentiality deeds) and a non-refundable application fee. Anyone wishing to apply will need to meet the application requirements by the application deadline.
- > **Registration stage**—after reserve prices and lot ratings are announced, applicants will be notified of these amounts and provided with an eligibility nomination form. If they wish to register as a bidder, they will need to submit a completed eligibility nomination form, as well as an eligibility payment or deed of financial security ('the participation amount'), by the eligibility deadline.

A timeline setting out the key steps and time frames in the proposed registration process is at **Attachment M**.

The determination also sets out the financial obligations to be met by successful bidders before the ACMA can issue spectrum licences, and the procedure for the ACMA to return eligibility payments, held during the auction, to unsuccessful bidders.

An explanation of the purpose and intended operation of each section of the draft determination is at **Attachment B**. A number of key issues dealt with in the determination are discussed further below.

Competition limits

The minister has directed the ACMA to impose limits on the amount of spectrum that may be allocated to one bidder and its associates.²⁹ Competition limits (also referred to as spectrum caps or allocation limits) have the effect of capping the total amount of spectrum that a single bidder can acquire in each band.

²⁸ For more information about the CCA, see the ACMA's [engage website](#).

²⁹ Directions and explanatory statements are available for the [700 MHz band](#) and [2.5 GHz band](#).

Bidders will be able to acquire a maximum of:

- > 20 MHz paired (40 MHz in total) in the 700 MHz band
- > 40 MHz paired (80 MHz in total) in the 2.5 GHz band.

In both cases, the paired configuration means that one lot will be in the lower and one in the upper part of the band.

Lot ratings and reserve prices

The ACMA needs to specify lot ratings and reserve prices for each spectrum lot on offer. Lot ratings determine the relative value of a spectrum lot for the purpose of the auction. Each lot is ascribed a number of lot rating points, with lots that are valued more highly given a higher number of points.

Lot ratings are used to determine the maximum quantity of lots a bidder is initially allowed to bid on, and provide the basis for the activity rules used in the allocation stage of the CCA. At the registration stage, each bidder nominates which lots they are interested in acquiring and calculates the total of the lot ratings attached to them. This determines the bidder's maximum eligibility to bid in the first round, and the initial participation amount they must pay.

Appropriate lot ratings enable bidders to bid on their most profitable packages in each round and, where necessary, to substitute different lots in response to changes in their relative price. The lot ratings may, for example, increase the ease with which bidders can switch bids between the two bands being auctioned (700 MHz and 2.5 GHz) and across regional lots in a given band.

The ACMA is undertaking a body of work to inform its assessment of the relative value of lots, both to develop lot ratings and help it set reserve prices for the digital dividend allocation.

The ACMA must set the lot rating and reserve price for each lot in each frequency band after the application deadline (the date by which a prospective bidder must apply to participate in the auction) but before the auction itself (see section 4.12 of the draft determination). The ACMA is proposing to release this information simultaneously, six to eight weeks before the auction. Applicants will not have to finalise their registration and pay their participation amounts until after this information is released. A timeline setting out the key steps in the registration process is at **Attachment M**.

The ACMA welcomes views on its proposal to provide reserve prices and lot ratings information six to eight weeks before the auction.

Affiliated applicants

To ensure the ACMA can conduct a competitive and fair auction, as well as to ensure compliance with the competition limits, applicants who are 'affiliated' will not be permitted to participate in the auction as separate bidding entities. Two bidders will be affiliated if one is an 'associate' of the other, within the definition set out in the draft determination, or if they have an associate in common (for example, a director in common).

If an affiliation is identified **prior to the auction**, options are proposed that would remedy the affiliation and allow participation in the auction.

However, if an affiliation is formed between applicants **during the auction**, they would be excluded from obtaining a spectrum licence and all or part of any eligibility payment paid may be forfeited. In addition, all or part of any amounts secured under a deed provided by the applicants may be recoverable by the ACMA on behalf of the Commonwealth.

If an affiliation is formed between successful applicants **after the auction**, but before spectrum licences are issued, the competition limits would cap the spectrum that would be issued to those

applicants. Regardless of whether successful applicants were consequently issued licences for less spectrum than they had successfully bid for, each applicant would still be liable to pay for all spectrum individually bid for at auction.

The ACMA welcomes comments on the proposed approach to the identification and treatment of affiliated applicants.

Invitation to comment

Written submissions on the draft allocations instruments are welcome.

Submissions must be received by the ACMA by close of business on Wednesday 9 May 2012.

Submissions should identify:

- > the name of the party making the submission
- > the organisation represented, where applicable
- > contact details, including telephone, postal address and email address.

Submissions should be directed to:

Manager, Major Spectrum Allocations

Email: majorspectrumallocations@acma.gov.au

Mail: Australian Communications and Media Authority
PO Box 13112
Law Courts
Melbourne Vic 8010

Enquiries about matters raised in this paper should be directed to Anna Cheung on +61 3 9963 6837, or by email to majorspectrumallocations@acma.gov.au.

Effective consultation

The ACMA is working to enhance the effectiveness of its stakeholder consultation processes, which are an important source of evidence for its regulatory development activities. To assist stakeholders in formulating submissions to its formal, written consultation processes, it has developed [Effective consultation: A guide to making a submission](#). This guide provides information about the ACMA's formal written public consultation processes and practical guidance on how to make a submission.

Publication of submissions

The ACMA may publish submissions it receives.

The ACMA prefers to receive submissions that are not claimed to be confidential. However, the ACMA accepts that a submitter may sometimes wish to provide information in confidence. In these circumstances, submitters are asked to identify the material over which confidentiality is claimed and provide a written explanation for the claim.

The ACMA will consider each confidentiality claim on a case-by-case basis. If the ACMA accepts a claim, it will not publish the confidential information unless authorised or required by law to do so.

Release of submissions where authorised or required by law

Any submissions provided to the ACMA may be released under the *Freedom of Information Act 1982* (unless an exemption applies) or shared with other Commonwealth Government agencies under Part 7A of the *Australian Communications and Media Authority Act 2005*. The ACMA may also be required to release submissions for other reasons including for the purpose of parliamentary processes or where otherwise required by law (for example, under a court subpoena). While the ACMA seeks to consult submitters of confidential information before that information is provided to another party, the ACMA cannot guarantee that confidential information will not be released through these or other legal means.

List of attachments

- A. Draft section 60 Allocation Determination
- B. Explanatory notes to draft section 60 Allocation Determination
- C. Draft section 39A 700 MHz Marketing Plan
- D. Explanatory notes to draft section 39A 700 MHz Marketing Plan
- E. Draft section 39A 2.5 GHz Marketing Plan
- F. Explanatory notes to draft section 39A 2.5 GHz Marketing Plan
- G. Radiocommunications Advisory Guidelines (Managing Interference to Receivers – 700 MHz Band) 2012
- H. Radiocommunications Advisory Guidelines (Managing Interference from Transmitters – 700 MHz Band) 2012
- I. Radiocommunications Advisory Guidelines (Managing Interference from Transmitters – 2.5 GHz Band) 2012
- J. Radiocommunications Advisory Guidelines (Managing Interference to Receivers – 2.5 GHz Band) 2012
- K. Radiocommunications (Unacceptable Levels of Interference – 700 MHz Band) Determination
- L. Radiocommunications (Unacceptable Levels of Interference – 2.5 GHz Band) Determination
- M. Timeline for auction application/registration process

Copies of the attachments are available [here](#).