

EXPLANATORY STATEMENT

Issued by the Australian Communications and Media Authority

Radiocommunications Spectrum Marketing Plan (2.3 GHz Band) 2009

Radiocommunications Act 1992

Purpose

The *Radiocommunications Spectrum Marketing Plan (2.3 GHz Band) 2009* (the Marketing Plan) specifies the spectrum lots available for allocation, the procedures by which they will be allocated and the conditions that will subsequently apply to the spectrum licences issued to successful applicants.

Legislative Provisions

Section 39 of the *Radiocommunications Act 1992* (the Act) provides that the Australian Communications and Media Authority (ACMA) must prepare a marketing plan for issuing spectrum licences in parts of the radiocommunications spectrum designated by the Minister for allocation by the issue of spectrum licences.

As the Marketing Plan is a legislative instrument for the purposes of the *Legislative Instruments Act 2003* (the LIA), section 56 (1) of the LIA ensures that the requirement in section 43 of the Act for publication of the Marketing Plan in the Commonwealth Gazette is satisfied by registration of the instrument on the Federal Register of Legislative Instruments (FRLI).

Background

It is a general requirement of the Act that the operation of radiocommunications devices within Australia be authorised by a radiocommunications licence. Spectrum licensing is one type of licence available to authorise the operation of radiocommunications devices in a specific band, or "parcel" of spectrum. Spectrum licensing offers the licensee a technology flexible, market oriented approach to the use of the parcel. The licensee has the flexibility to decide on how devices will be deployed, the nature of the service to be provided, and the technology that is to be used.

In 2000, the Minister designated the 2.3 GHz band for spectrum licensing on an Australia-wide basis. Existing Multipoint Distribution Station (MDS) apparatus licences in this band were converted to spectrum licences. Existing spectrum licences in the 2.3 GHz band are subject to the technical framework applicable to the earlier MDS licence type. As a consequence of the conversion process, the technical framework was optimized for terrestrial subscription television services rather than technology flexibility.

The 2.3 GHz band was designated for International Mobile Telecommunications (IMT) in November 2007 at the World Radiocommunications Conference (WRC-07) of the ITU. As a result, this spectrum may be used to deploy a wide range of broadband wireless access (BWA) services. Such services are advanced communication services including 3G and 4G mobile services, wireless access services (WAS), data transfer, remote control over plant and equipment, and video surveillance.

The variation to the technical framework for existing spectrum licenses in the 2.3 GHz band and allocation of the residual spectrum in the 2.3 GHz band is being undertaken in 2009 by ACMA to make the spectrum available for wireless access services (WAS).

Operation

In accordance with section 39 of the Act, the Marketing Plan includes the following items, amongst others:

- An explanation of how the spectrum is to be apportioned for sale;
- Identifies how much of the spectrum is to be reserved for public or community services; and
- The conditions that may be included in a spectrum licence.

The Marketing Plan also outlines the technical framework applicable to spectrum licences and provides an outline of the market areas available for allocation. The revised technical framework provides for a broader range of services or technologies that were not able to be considered at the time of conversion. To achieve this objective, the proposed technical framework:

- places further conditions on out-of-band emissions;
- reduces the minimum trading unit size from 7 MHz to 3.5 MHz to allow greater flexibility; and
- allows for the group registration of devices and the operation of some low power transmitters without registration under the spectrum licence.

The sample spectrum licence provided in the Schedules to the Marketing Plan also contains information relating to the core conditions and other conditions applicable to the operation of a service under the spectrum licence, and details the expiry date for the licence.

The expiry date for existing spectrum licences, and any spectrum licences issued in the 2.3 GHz band as a result of the Marketing Plan, will be 24 July 2015.

The Marketing Plan sets out 16 market areas with 49 lots that are available for allocation with bandwidths ranging from 7 MHz to 35 MHz. The smaller amounts of available bandwidth are in areas that are already partially allocated.

No spectrum is reserved for public or community services.

The Marketing Plan forms part of set of legislative instruments that give effect to the variation of the technical framework applicable to the 2.3 GHz band. The complete set of instruments related to this purpose is listed below:

- *Radiocommunications (Spectrum Designation) Notice No.1 of 2000 (14/01/2000)*
- *Radiocommunications Spectrum Marketing Plan (2.3 GHz Band) 2009*
- *Radiocommunications (Unacceptable Levels of Interference – 2.3 GHz Band) Determination 2009*
- *Radiocommunications Advisory Guidelines (Registration of Devices under Spectrum Licences without an Interference Impact Certificate) 1998*
- *Radiocommunications Advisory Guidelines (Managing Interference from Transmitters – 2.3 GHz Band) 2009*
- *Radiocommunications Advisory Guidelines (Managing Interference to Receivers – 2.3 GHz Band) 2009*
- *Radiocommunications (section 145 (3) Certificates) Determination 2000*

Consultation

ACMA has consulted extensively regarding the Marketing Plan and associated legislative instruments with that consultation beginning in 2002.

Spectrum licensees approached the Australian Communications Authority (the ACA) in 2002 seeking a variation to the technical framework that applied to their licences. The ACA consulted extensively with all spectrum licensees in the 2.3 GHz band about varying the technical framework. Written agreement was received from all licensees to vary their spectrum licence conditions to align with the proposed technical framework in 2006.

Spectrum licensees and industry representatives provided input into the preparation of the technical framework that forms part of the Marketing Plan through their involvement in the Technical Liaison Group (TLG).

To ensure that ACMA met the requirements of the *Legislative Instruments Act 2003* (the LIA), ACMA also undertook consultation in the Commonwealth Gazette and on ACMA's website beginning in May 2008. The Marketing Plan was made available from these sources for public comment from 12 May – 30 June 2008.

The consultation package included drafts of the Marketing Plan and associated legislative instruments; and a discussion paper titled *Allocation of Residual Spectrum (2.3 GHz Band)* (the discussion paper). The discussion paper sought comment from interested parties in the following areas:

- The suitability of the proposed bandwidth;
- The proposed licence areas; and
- The proposed size of the licence areas.

ACMA received 7 responses from industry representatives who have also since demonstrated further interest in obtaining spectrum in the 2.3 GHz band. Essentially, most respondents indicated that a minimum bandwidth of approximately 30 MHz would ensure that a commercial service in the 2.3 GHz band is viable. However, some respondents indicated that they had operating requirements for much greater amounts of bandwidth, such as a minimum of 50 MHz to 60 MHz in particular.

The majority of residual spectrum in the nominated market areas has a maximum bandwidth of 98 MHz available. ACMA has determined that, where the total amount of bandwidth is available, that it should be separated in the following way.

Frequency Range	Bandwidth (b/w)
2302-2337 MHz	35 MHz b/w
2337-2365 MHz	28 MHz b/w
2365-2400 MHz	35 MHz b/w

The majority of respondents indicated that the rural/remote Australia market area was too large and should be aggregated into smaller licence areas.

As a result, ACMA has altered the market areas to reflect a greater number of smaller spectrum licence areas in rural/remote Australia. The smaller licence areas were intended to reflect likely demand for the licences while also attempting to maximise commercial viability.

ACMA provided regional licence area models that outlined the proposed smaller market areas to interested parties for review and comment in September 2008. Comments were received from one of the interested parties stating that the proposed market areas were not small enough, or ascribed to specific geographic areas, that would be more attractive to their specific industry. ACMA hosted an

industry workshop for parties interested in the 2.3 GHz band in November 2008 and addressed industry concerns regarding the regional licence area model.

Regulatory Impact Statement

ACMA obtained advice from its SES contact officer for the Government's regulation impact analysis arrangements that the Advisory Guideline has no or low impact. For those reasons under the self assessment regime administered by the Office of Best Practice Regulation (OBPR), ACMA has determined that there is no need to produce a Business Cost Calculator report or to prepare a Regulation Impact Statement. The ACMA RIS exemption reference number is ACMA 078.

Documents incorporated into the Marketing Plan by reference

This Marketing Plan incorporates the Radio Regulations made by International Telecommunication Union (ITU). This instrument is available for download for a fee from the ITU's internet site (www.itu.int).

Detailed Description of the Instrument

Details of the instrument are in the attachment.

NOTES ON SECTIONS

Summary

This section provides a brief history of the licensing arrangements in the 2.3 GHz band and summarises the allocation process that will be undertaken by ACMA to allocate the residual spectrum in rural and remote areas of Australia.

Part 1 Preliminary

Section 1.1 – Name of Marketing Plan

This section gives the citation of the Marketing Plan.

Section 1.2 – Commencement

This section specifies that the Marketing Plan takes effect on the day after it is registered.

Section 1.3 – Purpose of the Marketing Plan

This section explains that the Marketing Plan has been made to establish procedures and timetables for the allocation of spectrum under the *Radiocommunications (Spectrum Designation) Notice No. 1 of 2000 (14/01/2000)* made by the Minister on 14 January 2000.

Section 1.4 – Interpretation

This section states the definitions for terms used in the Marketing Plan.

Part 2 Allocation of Spectrum Licences

Section 2.1 – Issue of spectrum licences

This section describes the output of the allocation process, namely, the issue of spectrum licences in the 2.3 GHz band. This section also states that no spectrum is to be reserved for public or community use.

Section 2.2 – Identification of lots

This section describes the number and size of the lots available for sale by reference to information contained in the Schedules.

Section 2.3 – Allocation of lots

This section explains the relationship between the spectrum lots on offer and the spectrum licences that will be created from them after they are allocated. This section also explains that the spectrum lots on offer may be allocated via auction or a pre-determined price in accordance with *the Radiocommunications (Allocation of Spectrum Licences by Auction or Pre-determined Price) Determination 2006* (the Allocation of Spectrum Licences Determination).

Section 2.4 – Advertising auction

This section explains how the spectrum sale will be advertised to interested parties, in part by reference to the Allocation of Spectrum Licences Determination.

Section 2.5 – Application process

This section explains how interested parties may register to take part in the allocation of spectrum licences in the 2.3 GHz band by referring to the Applicant Information Package and the Allocation of Spectrum Licences Determination respectively.

Section 2.6 – Allocation of a licence by pre-determined price

This section explains how ACMA may decide to allocate a spectrum licence at a pre-determined price where there is minimal market interest.

Section 2.7 – Entitlement to a licence

This section explains that the successful applicant for a lot is entitled to be issued with a spectrum licence as soon as practicable after the balance of the bid or pre-determined price is received by ACMA.

Section 2.8 – Aggregation of lots

This section explains how lots covering adjacent areas; contiguous bandwidths or both, may be aggregated under a single spectrum licence.

Section 2.9 – Sample Licence

This section refers to Schedule 4 of the Marketing Plan, which consists of a sample spectrum licence (including potential licence conditions that may apply).

Section 2.10 – Core licence conditions

This section explains what is meant by the core conditions of a spectrum licence. The core conditions define the precise parcel of spectrum space which is the subject of each spectrum licence and includes reference to frequency, geography and emission limits.

Section 2.11 – Other licence conditions

This section identifies other kinds of licence conditions that apply but are not included in the core conditions of a spectrum licence. It includes, amongst other things, those conditions that relate to interference management and device registration.

Section 2.12 – Determination of core licence conditions

This section refers to and applies Schedules 2 and 3 of the Marketing Plan, where the geographic area and frequency range of each of the spectrum lots on offer are specified as part of the core conditions of the licence.

Section 2.13 – Emission limits

This section refers to and applies Schedules 5 and 6 of the Marketing Plan, where the maximum emission limits allowable outside the geographic area and frequency range of the spectrum licences are specified under the core conditions of the licence.

Section 2.14 – Agreements about emission limits

This section explains arrangements that allow for adjacent spectrum licensees to establish agreements in accordance with Schedule 5 to exceed their core licence conditions in certain circumstances..

Section 2.15 – Duration of licences

This section specifies the period for which spectrum licences will be issued. Licences issued under the Marketing Plan will have an expiry date of 24 July 2015.

Section 2.16 – Registration of licences

This section specifies that ACMA is required to register the details of licences on a public register and explains the basis for the requirement for radiocommunications transmitters deployed under a spectrum licence to be included in the register before they may be operated by or on behalf of the licensee.

This section also provides an exemption for low power mobile or fixed indoor transmitters from registration of devices.

Section 2.17 – Trading in spectrum licences

This section explains the basis for trading of spectrum licences by licensees in the “secondary market” for licences.

Section 2.18 – Spectrum licences that are about to expire

This section explains the actions ACMA will take to ascertain market interest in spectrum licences which are about to expire.

Section 2.19 – Re-issue of spectrum licences

This section explains how ACMA will decide whether it should re-issue a spectrum licence to the existing licence holder upon its expiry. Generally, licences will only be re-issued by auction or tender processes, or for a pre-determined or negotiated price. Spectrum licences may also be re-issued with different conditions.

Part 3 Spectrum usage and compatibility

Section 3.1 – Compatibility requirements

This section explains the purpose of the *Radiocommunications Advisory Guidelines (Managing Interference from Transmitters – 2.3 GHz Band) 2009* and the *Radiocommunications Advisory Guidelines (Managing Interference to Receivers – 2.3 GHz Band) 2009* as made under section 262 of the Act and which are included in the Applicant Information Package. These advisory guidelines assist with managing and minimizing radiocommunications interference.

Schedule 1 Description of areas containing available spectrum for allocation

This Schedule names each of the geographic areas containing spectrum lots on offer, and lists the notional population of each area. The notional population figures are drawn from 2006 Census data.

Schedule 2 Maps and coordinates of geographic areas

This Schedule lists the coordinates defining each of the geographic areas, as well as providing maps representing the nominated market area.

Schedule 3 Description of available spectrum/lots

This Schedule defines each of the spectrum lots on offer, in terms of name of geographic area, frequency range and bandwidth.

Schedule 4 Sample licence

This Schedule sets out a sample spectrum licence that could be made up of a number of spectrum lots in the band designated for allocation. It is an example only, constructed for purposes of illustration and is not an actual licence. It includes 6 licence schedules which are explained below.

Licence Schedule 1 – Licence and technical details

This Schedule to the licence identifies the licensee, the licence issue and expiry dates and other technical details of the licence.

Licence Schedule 2 – Core conditions

This Schedule contains the core conditions of the licence. The core conditions define the geographic area, frequency band and maximum permitted emission limits at the geographic and spectrum boundaries of the licence.

Licence Schedule 3 – Statutory Conditions

This Schedule contains other statutory conditions that apply to the licence relating to liability for charges, third party operation of transmitters, transmitter registration requirements and residency requirements for licensees.

Licence Schedule 4 – Conditions included by ACMA

This Schedule contains other licence conditions included by ACMA relating to:

- Interference management;
- Co-sited devices;
- Information to be included on the Register of Radiocommunications Licences;
- International coordination;
- Agreements among licensees to exceed core licence conditions;
- Interference management in relation to the Mid West Radio Quiet Zone; and
- Interference management in relation to space operations and research, generally.

The inter-relationship between clause 1 and clause 8 of Licence Schedule 4 can be explained in the following way. Clause 8 affords protection to licensed earth stations in accordance with the criteria detailed in Appendix 7 of the Radio Regulations of the International Telecommunications Union (ITU). Clause 1 regarding the additional emission limits applicable to spectrum licensees is subject to the conditions specified in clause 8. Essentially, the purpose of the two clauses is as follows:

- (a) All spectrum licensees are required to comply with Appendix 7 of the ITU's Radio Regulations; and
- (b) Where there are existing licensed earth stations in or adjacent to a spectrum licence area, spectrum licensees must ensure that the unwanted emission levels are reduced and do not cause interference to licensed earth stations; and
- (c) Where there are no existing licensed earth stations in or adjacent to a spectrum licence area, spectrum licensees are able to apply the higher emission levels specified in clause 1.

Licence Schedule 5 – Form of agreement for core conditions

This Schedule reproduces the prescribed form of agreement between spectrum licensees regarding core conditions.

Licence Schedule 6 – Licence Notes

The licence notes are a postscript to the sample licence document for the purposes of clarification and guidance on use of the licence.

Schedule 5 Emission limits outside the area

This Schedule specifies the maximum permitted radiofrequency emission levels outside the licence area.

Schedule 6 Emission limits outside the band

This Schedule specifies the maximum permitted radiofrequency emission levels outside the licence band.