

EXPLANATORY STATEMENT

Approved by the Australian Communications and Media Authority

Radiocommunications Act 1992

Radiocommunications Spectrum Marketing Plan (850/900 MHz Band) 2021

Authority

The Australian Communications and Media Authority (**the ACMA**) has made the *Radiocommunications Spectrum Marketing Plan (850/900 MHz Band) 2021* (**Marketing Plan**) under section 39A of the *Radiocommunications Act 1992* (**the Act**).

Subsection 39A(2) of the Act provides that the ACMA must, by legislative instrument, prepare a marketing plan for issuing spectrum licences that authorise the operation of radiocommunications devices at frequencies within a part or parts of spectrum specified in a re-allocation declaration made under section 153B of the Act, and within the area or areas specified in that declaration with respect to that part or those parts. Subsection 39A(5) provides that a marketing plan may indicate:

- (a) the procedures to be followed for issuing spectrum licences in accordance with the plan;
- (b) the timetable for issuing spectrum licences in accordance with the plan;
- (c) how the spectrum dealt with under the plan is to be apportioned among the spectrum licences to be issued;
- (d) how much of the spectrum dealt with under the plan is to be reserved for public or community services;
- (e) the conditions, or types of conditions, that may be included in spectrum licences to be issued.

Purpose and operation of the instrument

The Marketing Plan is for the issuing of spectrum licences that authorise the operation of radiocommunications devices in a part of the frequency known as the 850/900 MHz band, within the area specified in the *Radiocommunications (Spectrum Re-allocation – 850/900 MHz Band) Declaration 2020*. (**Re- allocation Declaration**). The 850/900 MHz band consists of the following frequency ranges:

- 814 MHz to 825 MHz;
- 859 MHz to 870 MHz;
- 890 MHz to 915 MHz;
- 935 MHz to 960 MHz.

Background

On 27 October 2020, the then Minister for Communications, Cyber Safety and the Arts made the Re-allocation Declaration. The Re-allocation Declaration provides that the 850/900 MHz band across the majority of Australia, with the exception of the area known as the Mid-West Radio Quiet Zone, is subject to re- allocation by issuing spectrum licences.

The ACMA intends to allocate spectrum licences for the 850/900 MHz band in late 2021 (**850/900 MHz band spectrum auction**) by a combination of:

- auction;
- allocation for a pre-determined price; and
- direct allocation.

Operation of the Marketing Plan

The ACMA has made the Marketing Plan in relation to the 850/900 MHz band spectrum auction.

The Marketing Plan is one of a set of legislative instruments required for the allocation of spectrum licences in the 850/900 MHz band, including:

- the *Radiocommunications (Spectrum Licence Allocation – 850/900 MHz Band) Determination 2021 (Allocation Determination)*;
- the *Radiocommunications (Unacceptable Levels of Interference – 850/900 MHz Band) Determination 2021 (Unacceptable Interference Determination)*;
- the *Radiocommunications Advisory Guidelines (Managing Interference from Spectrum Licensed Transmitters – 850/900 MHz Band) 2021 (RAG Tx)*;
- the *Radiocommunications Advisory Guidelines (Managing Interference to Spectrum Licensed Receivers – 850/900 MHz Band) 2021 (RAG Rx)* ;
- the *Radiocommunications (Trading Rules for Spectrum Licences) Amendment Determination 2021 (No. 1)*.

The Marketing Plan divides the 850/900 MHz band into 6 products, with each product defined by a frequency range and geographic region, set out in Schedule 1 to the Marketing Plan.

Four geographic regions have been defined in Schedule 2 to the Marketing Plan. Two of the geographic regions – the major population area and the regional area - apply to the 6 products available at auction. Two of the geographic regions – downshift metropolitan area and downshift regional area – apply to the ‘downshift spectrum’ (see below).

The 6 products are:

Name	Part of the spectrum	Region
850 major population product	814-824 MHz and 859-869 MHz	Major population area
850 regional product	814-824 MHz and 859-869 MHz	Regional area
900 lower major population product	890-895 MHz and 935-940 MHz	Major population area
900 lower regional product	890-895 MHz and 935-940 MHz	Regional area
900 upper major population product	895-915 MHz and 940-960 MHz	Major population area
900 upper regional product	895-915 MHz and 940-960 MHz	Regional area

Each product is divided up into 2 x 5 MHz lots, with 5 MHz in each part of the spectrum identified for the product.

The Allocation Determination sets out procedures for an auction using the ‘Enhanced Simultaneous Multi-Round Ascending’ (**ESMRA**) auction format. This format involves a primary stage, for the allocation of generic lots of each product, a secondary stage for any product that has one generic lot remaining after the primary stage, and an assignment stage for assigning frequencies to the generic lots allocated in the primary and secondary stages. The ACMA has used this format in the past, including recently in the 26 GHz band auction. However, two important differences are set out below.

Allocation of set-aside lots

The Minister for Communications, Urban Infrastructure, Cities and the Arts (**the Minister**) has given the ACMA the *Radiocommunications (Spectrum Licence Limits – 850/900 MHz Band) Direction*

Explanatory Statement to the Radiocommunications Spectrum Marketing Plan (850/900 MHz Band) 2021

2021 (**Spectrum Licence Limits Direction**) under subsection 60(10) of the Act. Among other things, the Spectrum Licence Limits Direction reserves, or ‘sets aside’, 1 lot of each of the 900 upper major population product and 900 upper regional product for each of Optus Mobile Pty Limited (**Optus**) and TPG Telecom Limited (**TPG**), if they elect to take it up.

The Direction does this by specifying that, in the event Optus and/or TPG elect to take up their set aside lot, limits will be applied on the amount of spectrum any person, other than Optus and TPG, can be allocated in the following parts of the spectrum (**900 MHz upper band**):

- 895 MHz to 915 MHz;
- 940 MHz to 960 MHz.

More information about the Spectrum Licence Limits Direction is included in its explanatory statement, available on the Federal Register of Legislation (www.legislation.gov.au).

In accordance with the Spectrum Licence Limits Direction and the Allocation Determination, the Marketing Plan sets out that a set-aside applicant (i.e., Optus and TPG, or a relevant associate of each) may elect to take up the set-aside spectrum. The eligible set-aside applicant may elect to take up a set-aside lot of each of the 900 upper major population product and the 900 upper regional product, and become a ‘set-aside participant’. If that occurs, the lots will be allocated to the set-aside participant. As a result, up to 2 lots in each of these products may not be available for bidding by any bidder in the primary stage of the auction.

Any such ‘set-aside lots’ will be allocated to the set-aside participants at a pre-determined price, the ‘set-aside price’ for the lot, which is set by the ACMA under the Allocation Determination. However, the frequencies assigned to the set-aside lots will be determined by the assignment stage, and the set-aside participants may choose to bid on particular frequency range options in that stage, in accordance with the Allocation Determination.

Allocation of downshift lots

The Marketing Plan provides that the downshift spectrum (824 MHz to 825 MHz, and 869 MHz to 870 MHz) will cover the downshift metropolitan area and the downshift regional area. This spectrum will be directly allocated to the winners of the sole lot of the 900 lower major population product and the sole lot of the 900 lower regional product (if any), respectively.

The downshift spectrum is designed to allow the ‘downshift’ of existing spectrum licences in the part of the spectrum known as the ‘850 MHz original band’ (frequency ranges 825-845 MHz and 870-890 MHz). Once spectrum licences are issued for the downshift spectrum, they may be traded or otherwise dealt with to allow existing spectrum licences to shift frequencies down by 1 MHz. This in turn will vacate spectrum between those existing spectrum licences and the spectrum licences to be allocated for the 900 lower major population product and the 900 lower regional product. For this reason, the licensees of those spectrum licences will have an incentive to facilitate the ‘downshift’ of the existing spectrum licences. Accordingly, spectrum licences for the downshift spectrum will be directly allocated to those licensees, for no additional charge.

Spectrum licences to be allocated

The technical conditions to be included in the spectrum licences allocated in accordance with the Marketing Plan and Allocation Determination are set out in the Marketing Plan, including the sample spectrum licence at Schedule 5. The broader technical framework is set out in the following legislative instruments:

- Unacceptable Interference Determination;
- RAG Tx;
- RAG Rx.

The technical framework places constraints on, and regulates the use of, spectrum licences to allow licensees to operate services without causing undue interference to other services operating in other (or the same) parts of the radiofrequency spectrum. Core conditions (in accordance with section 66 of the Act) will be included in spectrum licences to:

- define their geographic boundaries;
- define their range of frequencies;
- set out-of-area radio emission limits;
- set out-of-band (unwanted) radio emission limits.

The Marketing Plan, including the sample spectrum licence at Schedule 5, sets out other licence conditions proposed to be included in spectrum licences issued in the 850/900 MHz band. The sample spectrum licence set out in Schedule 5 to the Marketing Plan contains information relating to core and other licence conditions that may apply to the operation of radiocommunications devices under a spectrum licence other than a spectrum licence for the downshift lot. However, the spectrum licences issued as a result of the auction may contain additional or different conditions.

The Marketing Plan includes provisions regarding licence issue, commencement and duration. The Marketing Plan also sets out what statements relating to renewal will be included in spectrum licences issued in the 850/900 MHz band.

Spectrum licences issued in accordance with the Marketing Plan will commence on 1 July 2024. Spectrum licences issued for the downshift spectrum will expire on 17 June 2028. All other spectrum licences issued will expire on 30 June 2044.

A provision-by-provision description of the Marketing Plan is set out in the notes at **Attachment A**.

The Marketing Plan is a disallowable legislative instrument for the purposes of the *Legislation Act 2003 (the LA)*.

The Marketing Plan is also subject to the sunset provisions of the LA.

Documents incorporated by reference

Subsection 314A(2) of the Act provides that an instrument under the Act may make provision in relation to a matter by applying, adopting or incorporating (with or without modifications) matters contained in any other instrument or writing as in force or existing at a particular time or from time to time. The Marketing Plan incorporates the following by reference, as existing from time to time, or otherwise refers to them:

- the Australian Spectrum Map Grid 2012, published by the ACMA, and available free of charge from the ACMA's website at www.acma.gov.au;

- the Radiocommunications Assignment and Licensing Instruction MS 32 (RALI MS 32), published by the ACMA, and available free of charge from the ACMA’s website at www.acma.gov.au;
- the Radio Regulations, published by the International Telecommunication Union (ITU). The Radio Regulations contain Articles, Appendixes, Resolutions and Recommendations of the ITU relating to international radiocommunications coordination. The Radio Regulations are available, free of charge, from the ITU’s website: www.itu.int.

The Marketing Plan also incorporates the following Acts and legislative instruments (including by the adoption of definitions), or otherwise refers to them, as in force from time to time:

- the Act;
- the *Acts Interpretation Act 1901*;
- the *Administrative Appeals Tribunal Act 1975*;
- the Allocation Determination
- the *Australian Communications and Media Authority Act 2005*;
- the *Australian Radiofrequency Spectrum Plan 2021*;
- the *Income Tax Assessment Act 1997*;
- the *International Tax Agreements Act 1953*;
- the LA;
- the *Radiocommunications Licence Conditions (Apparatus Licence) Determination 2015*, or any instrument replacing that determination;
- the *Radiocommunications (Mid-West Radio Quiet Zone) Frequency Band Plan 2011*, or any instrument replacing that plan;
- the *Radiocommunications (Register of Radiocommunications Licences) Determination 2017*;
- the *Radiocommunications (Trading Rules for Spectrum Licences) Determination 2012 (Trading Rules Determination)*;
- the RAG Rx;
- the RAG Tx;
- the Re-allocation Declaration;
- the Spectrum Licence Limits Direction;
- the Unacceptable Interference Determination.

The Acts and legislative instruments listed above may be obtained from the Federal Register of Legislation (www.legislation.gov.au).

Consultation

Before the Marketing Plan was made, the ACMA was satisfied that consultation was undertaken to the extent appropriate and reasonably practicable, in accordance with section 17 of the LA.

In December 2020, the ACMA set up a short-term industry technical liaison group (TLG) to support the development of a technical framework to assist with the introduction of 5th generation (5G) wireless broadband services in the 850/900 MHz band.

The TLG was asked to consider and provide advice to the ACMA on technical aspects required for the development of the spectrum licence technical framework in the 850/900 MHz band. These included:

- identifying relevant reference technologies;

- the development of the core conditions of the spectrum licensed band in accordance with section 66 of the Act;
- the development of a determination under subsection 145(4) of the Act;
- the development of any associated advisory guidelines to be made under section 262 of the Act; and
- the development of a minimum contiguous bandwidth for spectrum licences in the 850/900 MHz band.

The ACMA developed papers which outlined its proposed approach to the spectrum licensing framework for the 850/900 MHz band. These papers were made available by the ACMA to the TLG members for comment. These papers can be found on the ACMA's website. The ACMA had regard to the views expressed by the TLG members when preparing the Marketing Plan and other instruments for the 850/900 MHz band spectrum auction.

A draft version of the Marketing Plan was released for public consultation on 27 April 2021, together with the consultation paper *Draft instruments for the 850/900 MHz band auction (draft allocation instruments consultation)*. Consultation closed on 24 May 2021.

The ACMA received 11 written submissions in response to this consultation paper. The ACMA had regard to the views of stakeholders during the finalisation of the Marketing Plan.

On the issue of licence commencement and licence term, all submissions on licence commencement supported the ACMA's proposal that spectrum licences commence on 1 July 2024. The majority of submissions on licence term supported the ACMA's proposal for spectrum licences, except those issued for the downshift spectrum, to be issued with a 20-year licence term (the maximum permitted under the Act). All submissions on licence term for the downshift spectrum supported the ACMA's proposal that downshift spectrum licences are issued with a licence expiry of 17 June 2028.

Having considered the submissions, the ACMA decided that:

- all spectrum licences will commence on 1 July 2024;
- the spectrum licences issued for the downshift spectrum will expire on 17 June 2028;
- all other spectrum licences will be issued for a 20-year period, expiring on 30 June 2044.

On the issue of frequency lot configuration, all submissions supported the ACMA's proposal to allocate all spectrum in 2 x 5 MHz lots (10 MHz lot bandwidths), except the downshift spectrum, which would be allocated as 2 x 1 MHz band lots (2 MHz lot bandwidths).

On the issue of geographic lot configuration, the ACMA proposed to offer the parts of the spectrum from 890 MHz to 915 MHz and 935 MHz to 960 MHz (**900 MHz band**) and the downshift spectrum in a single national area. The ACMA further proposed to allocate the parts of the spectrum from 814 MHz to 824 MHz and 859 MHz to 869 MHz in a two areas: one covering metropolitan locations, and one covering regional locations.

Stakeholders expressed a diverse range of views about the most appropriate geographic configuration of spectrum for the 850/900 MHz band spectrum auction ranging from a national geographic lot configuration to alternative geographic boundaries featuring metropolitan and regional areas.

Having considered these submissions, the ACMA held a product design industry meeting (**tune-up**) on 11 June 2021, with those who made submissions to the draft allocation instruments consultation invited to attend. The issues raised at the tune-up relevant to the Marketing Plan were geographic lot configuration, a separate product(s) for the lower 900 MHz band spectrum (890 MHz to 895 MHz and

935 MHz to 940 MHz), the allocation of the downshift spectrum with the lower 900 MHz band spectrum, and the technical framework. The ACMA received 8 submissions in response to the issues raised at the tune-up.

At the tune-up, the ACMA proposed 4 alternative geographic lot configuration options reflecting the proposals made in submissions:

1. Single Australia-wide area.
2. Two-way geographic split based on existing 850 MHz original band spectrum licence boundaries.
3. Three-way split (metro/regional/high country) based on agricultural areas.
4. Two-way split (metro/regional) based on agricultural areas.

All options excluded the Mid-West Radio Quiet Zone. Submissions to the geographic lot configuration options presented at the tune-up varied. While some stakeholders continued to support a single Australia-wide area, other stakeholders supported a modified version of a metropolitan/regional geographic split similar to options 3 and 4 above.

Having considered submissions to the tune-up, and modifications to the geographic areas proposed by stakeholders, the ACMA decided to divide the 850/900 MHz band in the manner explained in Attachment A, in order to allow bidders to express their demand for spectrum in major population areas separately from their demand for spectrum in regional areas. The ACMA considers disaggregating the downshift spectrum into a metropolitan/regional split based on existing 850 MHz original band spectrum licence boundaries will best facilitate a future downshift of spectrum licences.

On the issue of whether the 900 MHz lower band should be a separate category, all submissions in response to the draft allocation instruments consultation proposed a separate product or category for the 900 MHz lower band. This issue was raised again at the tune-up. All submitters supported a separate product or products for the 900 MHz lower band. Noting the geographic lot configuration reflects separate products for major population areas and regional areas, the ACMA has decided that the 900 MHz lower band be offered as separate products – the 900 lower major population product and 900 lower regional product.

In the draft allocation instrument consultation, the ACMA proposed to allocate the downshift spectrum to the winner of the lowest lot of the 900 MHz band. Two of the 3 submissions in response to the consultation paper supported the ACMA's proposal. The stakeholder that did not agree with the ACMA proposed the downshift spectrum be allocated administratively prior to the auction. Submissions in response to the tune-up on this issue remained split. Having considered these submissions, the ACMA remained of the view that the incentive for undertaking the downshift will be strongest for whoever acquires the 900 lower major population product and 900 lower regional product. Therefore, the downshift metropolitan lot and the downshift regional lot will be automatically allocated to the winners of the sole lot of the 900 lower major population product and the sole lot of the 900 lower regional product, respectively. However, to facilitate the downshift, the geographic areas for the downshift metropolitan lot and the downshift regional lot are the same as for the existing spectrum licences in the 850 MHz original band, and not the remainder of the 850/900 MHz band.

The majority of submitters expressed general support for the proposed technical conditions, although a range of amendments were proposed, mostly to provide additional protection to incumbent services or to increase deployment flexibility for new wireless broadband services. The ACMA considered this

feedback and made a number of changes to the emission limit conditions, and other proposed licence conditions, in the Marketing Plan in response.

Regulatory impact assessment

A preliminary assessment of the proposal to make the allocation instruments was conducted by the Office of Best Practice Regulation (**OBPR**), based on information provided by the ACMA, for the purposes of determining whether a Regulation Impact Statement (**RIS**) would be required. OBPR advised that a RIS would not be required because the proposed regulatory change is minor or machinery in nature – OBPR reference number 43548.

Statement of compatibility with human rights

Subsection 9(1) of the *Human Rights (Parliamentary Scrutiny) Act 2011* requires the rule-maker in relation to a legislative instrument to which section 42 (disallowance) of the LA applies to cause a statement of compatibility with human rights to be prepared in respect of that legislative instrument.

The statement of compatibility set out below has been prepared to meet that requirement.

Overview of the instrument

On 27 October 2020, the then Minister made the *Radiocommunications (Spectrum Re-allocation—850/900 MHz Band) Declaration 2020 (Re-allocation Declaration)* under the *Radiocommunications Act 1992 (Act)*. The Re-allocation Declaration provides that the 850/900 MHz band across the majority of Australia, with the exception of the area known as the Mid-West Radio Quiet Zone, is subject to re- allocation by issuing spectrum licences.

Subsection 39A(2) of the Act provides that the ACMA must, by legislative instrument, prepare a marketing plan for issuing spectrum licences that authorise the operation of radiocommunications devices at frequencies within a part or parts of spectrum specified in a re-allocation declaration made under section 153B of the Act, and within the area or areas specified in that declaration with respect to that part or those parts. Subsection 39A(5) provides that a marketing plan may indicate:

- (a) the procedures to be followed for issuing spectrum licences in accordance with the plan;
- (b) the timetable for issuing spectrum licences in accordance with the plan;
- (c) how the spectrum dealt with under the plan is to be apportioned among the spectrum licences to be issued;
- (d) how much of the spectrum dealt with under the plan is to be reserved for public or community services;
- (e) the conditions, or types of conditions, that may be included in spectrum licences to be issued.

The ACMA has made the *Radiocommunications Spectrum Marketing Plan (850/900 MHz Band) 2021 (Marketing Plan)* under section 39A. Subject to the operation of the allocation limits set out in the *Radiocommunications (Spectrum Licence Limits – 850/900 MHz Band) Direction 2021*, any person may apply to be allocated a spectrum licence in accordance with the Marketing Plan.

Human rights implications

The ACMA has assessed whether the instrument is compatible with human rights, being the rights and freedoms recognised or declared by the international instruments listed in subsection 3(1) of the *Human Rights (Parliamentary Scrutiny) Act 2011* as they apply to Australia.

Having considered the likely impact of the instrument and the nature of the applicable rights and freedoms, the ACMA has formed the view that the instrument does not engage any of those rights or freedoms.

Conclusion

The instrument is compatible with human rights as it does not raise any human rights issues.

Notes to the *Radiocommunications Spectrum Marketing Plan (850/900 MHz Band) 2021*

Part 1–Preliminary

Section 1 Name

This section provides for the Marketing Plan to be cited as the *Radiocommunications Spectrum Marketing Plan (850/900 MHz Band) 2021*.

Section 2 Commencement

This section provides for the Marketing Plan to commence on the day after the day it is registered on the Federal Register of Legislation.

The Federal Register of Legislation may be accessed free of charge at www.legislation.gov.au.

Section 3 Authority

This section identifies the provision of the Act that authorises the making of the Marketing Plan, namely section 39A of the Act.

Section 4 Purpose of the instrument

This section lists the main matters described by the Marketing Plan. For a more complete understanding of allocation procedures, the Marketing Plan should be read in conjunction with the Allocation Determination.

Section 5 Interpretation

This section defines a number of key terms used throughout the Marketing Plan. A number of other expressions used in the Marketing Plan are defined in the Act.

This section also provides that, in the Marketing Plan, a reference to a part of the spectrum, a frequency band or a frequency range includes all frequencies that are greater than but not including the lower frequency, up to and including the higher frequency.

Section 6 References to other instruments

This section provides that in the Marketing Plan, unless the contrary intention appears:

- a reference to another legislative instrument is a reference to that other legislative instrument as in force from time to time; and
- a reference to any other kind of instrument or writing is a reference to that other instrument or writing as in force or existing from time to time.

Part 2–Allocation of spectrum licences

Section 7 Simplified outline of this Part

This section sets out a simplified outline of Part 2.

Section 8 Parts of the spectrum

This section provides that spectrum licences in the 850/900 MHz band will be allocated and issued in the manner described in the Marketing Plan and the Allocation Determination.

Section 9 How spectrum licences will be allocated

This section provides that spectrum licences in the 850/900 MHz band will be allocated in accordance with procedures set out in the Allocation Determination, including:

- by auction of generic lots and frequency range options;
- by direct allocation of the downshift metropolitan licence and the downshift regional licence to a particular bidder in the auction; and
- by pre-determined price for the set-aside lots.

This section includes a note to the effect that neither the ACMA nor the Commonwealth accepts any liability for any loss or damage suffered by any person in the auction of spectrum licences. The note is advisory, rather than having any substantive effect, and recommends that persons intending to participate in the allocation of spectrum licences should obtain independent legal, technical and financial advice before applying to participate.

Section 10 The allocation process

This section describes how the 850/900 MHz band has been divided by the ACMA into products, as described in Schedule 1 to the Marketing Plan. There are 6 products in total. Each product is described by its region and frequency ranges.

Each of the products is, in turn, divided into lots. Each lot is defined by two frequency ranges (**bandwidth**) and a specific geographic area (**region**). The number of lots of each product that are available at auction is set out in column 6 of Table 1 in Schedule 1 to the Marketing Plan. Not all products have the same number of lots available. In total, there are 14 lots on offer in the 850/900 MHz band spectrum auction, each representing 2 x 5 MHz paired bandwidth in a particular region.

The 6 products are:

Name	Part of the spectrum	Region	Number of lots
850 major population product	814-824 MHz and 859-869 MHz	Major population area	2
850 regional product	814-824 MHz and 859-869 MHz	Regional area	2
900 lower major population product	890-895 MHz and 935-940 MHz	Major population area	1
900 lower regional product	890-895 MHz and 935-940 MHz	Regional area	1
900 upper major population product	895-915 MHz and 940-960 MHz	Major population area	4
900 upper regional product	895-915 MHz and 940-960 MHz	Regional area	4

There are two further lots (**downshift lots**), which are not lots of a product, for the part of the 850/900 MHz band known as the downshift spectrum (see below).

This section states that the ACMA will set a lot rating for the lots of each product in accordance with the Allocation Determination. However, there will be no lot ratings for the downshift lots.

The Allocation Determination provides for the EMSRA auction format to be used, which involves a primary stage and a secondary stage (each for bidding on the number of lots of each product a person wishes to acquire), and an assignment stage (for bidding on a frequency range to be assigned to the lots won by a person during the primary and secondary stages).

The Marketing Plan provides that there may be fewer than 4 lots available to bid on during the primary stage of the auction for each of the 900 upper major population product and the 900 upper regional product. The Spectrum Licence Limits Direction provides that each eligible set-aside applicant – Optus and TPG, or a relevant associate of each – may elect to take up a single lot (2 x 5 MHz) in the 900 upper major population product and in the 900 upper regional product. If so, the Spectrum Licence Limits Direction imposes limits on the allocation of spectrum that would prevent any other person from being allocated that lot. This has the effect of reserving, or ‘setting aside’, 1 lot of each of the 900 upper major population product and the 900 upper regional product for each of Optus and TPG, if they elect to take it up. More information about the Spectrum Licence Limits Direction is included in its explanatory statement, available on the Federal Register of Legislation.

The Allocation Determination provides that a set-aside applicant may only elect to take up set-aside lots in both, or neither, of these products. If a set-aside applicant elects to take up lots in both products, they become a ‘set-aside participant’ and the number of lots in the 900 upper major population product and the 900 upper regional product available to all bidders in the primary stage is reduced by one.

Any such ‘set-aside lots’ will be allocated to the set-aside participants at a pre-determined price, the ‘set-aside price’ for the lot, which is set by the ACMA under the Allocation Determination. However, the frequencies assigned to the set-aside lots will be determined by the assignment stage, and the set-aside participants may choose to bid on particular frequency range options in that stage, in accordance with the Allocation Determination.

The downshift spectrum in the metropolitan area is also a lot, and the downshift spectrum in the regional area is also a lot. Both of these lots are in frequency ranges 824 MHz to 825 MHz, and 869 MHz to 870 MHz. However, these lots will not be available for bidding in the 850/900 MHz band spectrum auction. This section describes that the downshift metropolitan lot will be allocated to the person who is allocated the sole lot of the 900 lower major population product, and the downshift regional lot will be allocated to the person who is allocated the sole lot of the 900 lower regional product. The metropolitan area and the regional area for the downshift spectrum are described in Schedule 2.

This section also gives a brief description of how the auction will be conducted, and provides that the auction will be held in accordance with the procedures set out in the Allocation Determination.

This section provides that the ACMA will issue a spectrum licence to each winning bidder allocated one or more lots in the auction (including set-aside lots, if any) and that have frequencies assigned to them. It provides that a separate licence will be issued for the downshift metropolitan lot, and a separate licence will be issued for the downshift regional lot. Full details of auction procedures are set out in the Allocation Determination, which is available from the Federal Register of Legislation.

Section 11 Advertising the auction

This section provides that the ACMA will advertise the details of the 850/900 MHz band spectrum auction and invite persons to take part, in accordance with the Allocation Determination. More details of how the auction will be advertised are available in Part 4 of the Allocation Determination.

Section 12 Taking part in the auction

This section provides that detailed information about the application requirements and the auction process will be made available by the ACMA in an applicant information package (AIP), to be published in accordance with the Allocation Determination. The AIP will be made available when the ACMA advertises the 850/900 MHz band spectrum auction under section 29 of the Allocation Determination. The mandatory contents of the AIP are set out in subsection 30(1) of the Allocation Determination.

The AIP will contain information about the allocation process for potential participants. It will describe how to apply to participate in the allocation process, and will include copies of all necessary documents to participate in the process.

This section also states that information about how to apply to participate in the auction is included in Part 4 of the Allocation Determination.

Part 3– Spectrum licences to be issued

Section 13 Simplified outline of this Part

This section sets out a simplified outline of Part 3.

Section 14 Issue of spectrum licences and payment of spectrum access charges

This section sets out when the ACMA will issue spectrum licences in the 850/900 MHz band. The ACMA will issue a spectrum licence to a winning bidder as soon as practicable after the winning bidder pays to the ACMA the balance of the winning price.

The Allocation Determination sets out the relevant procedures for payment of spectrum access charges in more detail. However, the ACMA expects that payment will not be required until close to the time the licences are to commence (1 July 2024).

Section 15 Commencement of spectrum licences

This section provides that a spectrum licence issued as a result of the 850/900 MHz band spectrum auction will come into force on 1 July 2024.

Section 16 Duration of spectrum licences

This section provides that the downshift metropolitan licence and the downshift regional licence will remain in force for a period starting on the day the licence comes into force and ending at the end of 17 June 2028. This is the same date that existing spectrum licences in the 850 MHz original band, which adjoin the downshift spectrum, are due to expire.

All other spectrum licences issued in the 850/900 MHz band will remain in force for a period of 20 years, starting on 1 July 2024. These licences will cease to be in force at the end of 30 June 2044.

Section 17 Statements relating to renewal

Under subsection 65A(1) of the Act, each spectrum licence must include a ‘renewal statement’, to the effect that the licence cannot be renewed, may be renewed at the ACMA’s discretion, or may be renewed at the ACMA’s discretion so long as specified circumstances exist. If the renewal statement is to the effect that the licence may be renewed:

- subsection 65A(10) requires the licence to include a ‘renewal application period statement’, to the effect that a specified period of time is the renewal application period for the licence (during which the licensee can apply for renewal);
- subsection 65A(15) permits the licence to include a ‘renewal decision-making period statement’, to the effect that a specified period of time is the renewal decision-making period for the licence (during which the ACMA can decide, on application by the licensee, whether to renew the licence);
- subsection 65A(17) permits the licence to include a ‘public interest statement’, to the effect that the ACMA will not renew the licence unless the ACMA is satisfied that it is in the public interest to do so.

Section 17 of the Marketing Plan provides that each spectrum licence issued in the 850/900 MHz band will include a renewal statement that the licence may be renewed at the discretion of the ACMA.

For each such spectrum licence, other than the downshift metropolitan licence and the downshift regional licence, section 17 provides that the licence:

- will include a renewal application period statement specifying the renewal application period to be 1 July 2039 until 31 December 2039;
- will include a renewal decision-making period statement specifying the renewal decision-making period to be 1 January 2040 until 31 December 2041;
- will not include a public interest statement.

For each of the downshift metropolitan licence and the downshift regional licence, section 17 provides that the licence:

- will include a renewal application period statement specifying the renewal application period to be 18 June 2026 until 17 September 2026;
- will include a renewal decision-making period statement specifying the renewal decision-making period to be 18 September 2026 until 17 September 2027;
- will not include a public interest statement.

Although no public interest statement will be included on spectrum licences issued as a result of the 850/900 MHz band spectrum auction, the ACMA must not renew a spectrum licence for a period of 10 years or longer unless satisfied that it is in the public interest to do so, in accordance with subsection 77C(5) of the Act.

Section 18 Core licence conditions

Under section 66 of the Act, there are a number of core conditions which a spectrum licence must include. This section sets out the types of core conditions to be included in a spectrum licence allocated in accordance with the Marketing Plan, including the geographic area and frequency bands in which a radiocommunications device can be operated under a spectrum licence, and the out-of-area and out-of-band emission levels.

Section 19 Determining core licence conditions

This section explains how the core conditions for spectrum licences issued in the 850/900 MHz band will be determined.

Each licence will specify a range of frequencies within which the licensee may operate radiocommunications devices. The range of frequencies will depend on the lots the licensee has been allocated in accordance with the Allocation Determination. If a licensee has been allocated multiple lots, the licence issued may specify the aggregate frequency range for the lots. Separate licences will be issued for each of the downshift metropolitan lot and the downshift regional lot.

Each licence will also specify the geographic area within which the licensee may operate radiocommunications devices. The geographic area will be the region, or regions, described in Schedule 2 to the Marketing Plan for the lots allocated in accordance with the Allocation Determination.

The regions are defined by an identifier scheme adopted by the ACMA in 2012, the Hierarchical Cell Identification Scheme (**the HCIS**). Under the HCIS, an area is defined by referring to a set of identifiers which collectively correspond to a single area on the Australian Spectrum Map Grid (**the ASMG**). The ASMG is described in more detail, including the use of geographic co-ordinates to define the ASMG outer boundary, in the Australian Spectrum Map Grid 2012, available from the ACMA's website at www.acma.gov.au.

The ASMG divides the Australian land mass into a grid of squares (cells). There are four levels to the HCIS that are typically used in relation to spectrum licences, with the side lengths of the largest to smallest cells being, respectively, 3 degrees, 1 degree, 15 minutes and 5 minutes of arc. The HCIS names the cells in this tiered structure, with cells of each size given a unique identifier name. Under this system, the region for a lot is comprised of a collection of unique identifiers that cover the required geographic area on the ASMG. Spatial data files available from the ACMA's website may be used to generate a map of an area defined by a set of HCIS identifiers with geographic information systems software. A HCIS area description to Placemark conversion tool has also been developed and is available online at the ACMA website at www.acma.gov.au.

Indicative maps that illustrate the areas of the regions are shown in Schedule 2 to the Marketing Plan.

Subsections 19(4) and 19(5) of the Marketing Plan provide that the emission limits, which will be licence conditions included in the spectrum licences issued in accordance with the Marketing Plan, will be calculated in accordance with Schedules 3 and 4 to the Marketing Plan. These Schedules are, respectively, used to calculate the maximum emission limits allowable outside the geographic area, and outside the frequency band, of a spectrum licence, and they form part of the core conditions of each licence.

Section 20 Other licence conditions

This section identifies other kinds of statutory licence conditions and other licence conditions that may be included in each spectrum licence issued under this allocation process, but which are not core conditions of the licence. These include the conditions in relation to payment to the ACMA of applicable charges and taxes, use by third parties, registration requirements for radiocommunications transmitters and residency requirements of the licensee. The ACMA may also include conditions about other matters, including conditions relating to interference management. Some of these conditions are included in the sample licence at Schedule 5.

Each spectrum licence will also include conditions about coordinating with the Mid-West Radio Quiet Zone.

Pursuant to section 71 of the Act, the ACMA may include conditions about such other matters as it thinks fit. The ACMA may also include conditions in a spectrum licence that are not included in the sample spectrum licence.

Section 21 Registration of radiocommunications transmitters

Under Part 3.5 of the Act, the ACMA is required to register all spectrum licences, and certain details of radiocommunications devices (except in particular cases) that are operated under each spectrum licence. This section states that all spectrum licences issued pursuant to the Marketing Plan will include a condition that prevents the operation of a radiocommunications transmitter unless all requirements for registering the transmitter under Part 3.5 have been met. This is a mandatory licence condition for inclusion in all spectrum licences, under subsection 69(1) of the Act.

The ACMA has the discretion to refuse to register a radiocommunications transmitter under subsection 145(1) of the Act if it forms the view that operating the transmitter in question will cause unacceptable levels of interference to the operation of other radiocommunications devices, either under the same licence or another licence. For the 850/900 MHz band, unacceptable levels of interference are defined in the Unacceptable Interference Determination made under subsection 145(4) of the Act.

Under subsection 69(2) of the Act, the ACMA may include a condition which exempts particular kinds of radiocommunications transmitters from registration requirements detailed in the mandatory spectrum licence condition as required by subsection 69(1) of the Act. Each spectrum licence in the 850/900 MHz band will include a condition that the following radiocommunications transmitters are exempt from registration:

- a radiocommunications transmitter that operates with a radiated maximum true mean power that is less than or equal to 25 dBm EIRP per occupied bandwidth in:
 - (i) the frequency range 814 MHz to 825 MHz; or
 - (ii) the frequency range 890 MHz to 915 MHz;
- a radiocommunications transmitter that operates with a radiated maximum true mean power that is less than or equal to 30 dBm EIRP per occupied bandwidth in:
 - (i) the frequency range 859 MHz to 870 MHz; or
 - (ii) the frequency range 935 MHz to 960 MHz.

This exemption is included in Licence Schedule 3 of the sample spectrum licence at Schedule 5 to the Marketing Plan.

These radiocommunications transmitters are still required to meet all core and other conditions of the licence, including relevant emission limit requirements.

Section 22 Sample spectrum licence

This section provides that a sample spectrum licence is included at Schedule 5 to the Marketing Plan. The sample spectrum licence sets out the technical and other conditions that may apply to spectrum licences issued as a result of the 850/900 MHz band spectrum auction. However, the conditions in the sample spectrum licence may not reflect the actual conditions included in a spectrum licence issued in the 850/900 MHz band. No sample of the downshift metropolitan licence or the downshift regional licence is included in the Marketing Plan.

Section 23 Advisory guidelines

This section provides that the purpose of the RAG Tx and RAG Rx is to provide a means of coordinating services operating under spectrum licences in the 850/900 MHz band.

Part 4—After allocation

Section 24 Simplified outline of this Part

This section sets out a simplified outline of Part 4.

Section 25 Registration of spectrum licences

This section provides that, in accordance with Part 3.5 of the Act and the *Radiocommunications (Register of Radiocommunications Licences) Determination 2017 (the Register Determination)*, the ACMA must register the details of spectrum licences in the Register of Radiocommunications Licences (**the Register**). The Register is a publicly available database on the ACMA’s website.

Part 3.5 of the Act and the Register Determination set out the information that the Register is required to contain, including the name and postal address of the licensee, the licence date of issue and expiry date. The Register may also include details of radiocommunications devices operated under a spectrum licence.

Section 26 Third party use

This section provides that a licensee may permit third parties to operate radiocommunications devices under any spectrum licences it holds. Any such arrangements must comply with Division 1 of Part 3.2 of the Act, which includes provisions governing third party use.

Section 27 Trading in spectrum licences

This section provides that a licensee may assign, or otherwise deal with, the whole or any part of a spectrum licence in accordance with Division 5 of Part 3.2 of the Act. The Trading Rules Determination made under section 88 of the Act provides further details about rules for trading in spectrum licences. In part, these rules define the minimum block of spectrum and geographic area that may be traded to a third party and must be retained by the licensee.

Section 28 Agreements about emission limits

This section provides that a licensee in the 850/900 MHz band may enter into an agreement about emission limits. Licensees of licences that are adjacent to one another may wish to enter into agreements that allow a licensee to exceed their emission limits specified in the core licence conditions. The word ‘adjacent’ can refer to spectrum licences that share a geographic boundary, a frequency boundary, or both. This section notes the provisions of Schedules 3 and 4 to the Marketing Plan, which underpin such agreements.

When such an agreement is in place, that agreement effectively sets the emission limits that apply to that licence in the core conditions included in accordance with section 18 of the Marketing Plan, and with Schedules 3 and 4 to the Marketing Plan. Schedules 3 and 4 require that such an agreement must be in writing.

Section 29 Spectrum licences that are about to expire

This section sets out the actions that the ACMA takes under the Act when spectrum licences are about to expire. In accordance with section 78 of the Act, the ACMA will publish a notice from time to time

about spectrum licences that are due to expire within the period specified in the notice. The notice will invite expressions of interest from persons wishing to obtain spectrum licences relating to the relevant parts of the spectrum. The notice will be published on the ACMA's website.

Section 30 Renewal of spectrum licences

This section sets out that the ACMA may renew spectrum licences in accordance with Division 3A of Part 3.2 of the Act. The ACMA may request further information in connection with an application for renewal, in accordance with section 77B of the Act.

The ACMA must not renew a spectrum licence for a period of 10 years or longer unless satisfied that it is in the public interest to do so, in accordance with subsection 77C(5) of the Act. If the ACMA renews a spectrum licence, the conditions of the new spectrum licence need not be the same as those of the licence it replaces.

Section 31 Re-allocation of spectrum licences

This section sets out that, if a spectrum licence is not renewed, the ACMA may re-allocate the spectrum licence in accordance with section 80 of the Act, and issue it to the person to whom it is re-allocated.

SCHEDULE 1 Products

This Schedule defines the 850/900 MHz band products that will be offered during the auction. A product for the purpose of the Marketing Plan is the set of spectrum lots that have the same frequency range and region. For each product, this Schedule lists the product name, lower frequency range, upper frequency range, region, and number of lots available. Column 1, Product, has been included to reflect the name of the product as it will appear in the auction system, and is for information only.

SCHEDULE 2 Regions

This Schedule defines the geographic regions of the lots on offer under the Marketing Plan. It provides the names for the regions, and precise geographic definitions. To define a geographic region, this Schedule lists a set of HCIS identifiers that correspond to the region on the ASMG.

The major population area and regional area regions together, and the downshift metropolitan area and the downshift regional area together, each align with the areas declared for re-allocation by the Minister in the Re-allocation Declaration.

A map of each region is also provided, for illustrative purposes only.

SCHEDULE 3 Emission limits outside the area

This Schedule sets the limits that will be placed on radio emissions outside a spectrum licence's geographic area, that are produced by radiocommunications transmitters operating under the spectrum licence (**the out-of-area core licence condition**). Under clause 2 of Schedule 3, where radiocommunications transmitters have a particular antenna system (**AAS**), the limit is expressed as a total radiated power limit. Where radiocommunications transmitters do not have AAS, the limit is expressed as a total conducted power limit.

Clause 1 of Schedule 3 provides for written agreements between the licensee and all affected licensees that specify the maximum permitted level of radio emissions. These agreements may take precedence over the limits in clause 2.

SCHEDULE 4 Emission limits outside the band

This Schedule sets the method for determining the limits that will be placed on radio emissions outside the licence's authorised frequency band that are produced by radiocommunications devices operated under a spectrum licence (**the out-of-band core licence condition**).

Schedule 4 provides for base emission limits for spurious and non-spurious emissions by radiocommunications devices operating in relevant parts of the 850/900 MHz band under a spectrum licence, which are not covered by an agreement made between adjacent licensees. A written agreement between a licensee and all affected licensees of frequency-adjacent and area-adjacent spectrum licences can allow the first licensee to exceed the limits in the out-of-band core licence condition up to the maximum level of radio emissions specified in the agreement.

Spurious emissions are radio emissions that are outside the licence's frequency band that are not deliberately generated or transmitted. These emissions include parasitic emissions, intermodulation products, harmonic emissions and frequency conversion products not associated with the transmission of information by a radiocommunications transmitter or receiver.

Non-spurious emissions are radio emissions that are outside the licence's frequency band that are generated in the process of generating the emission within the licence's frequency band. They include modulation products, wideband noise and switching transients produced when a radiocommunications device is turned on and off.

Different emission limits are set, depending on a number of factors, including the kind of radiocommunications device operated, the date on which the device is registered to operate, the frequency band in which the device operates, and the frequency band in which the out-of-band emission occurs.

SCHEDULE 5 Sample spectrum licence

This Schedule sets out a sample spectrum licence for most of the licences that will be allocated in the 850/900 MHz band. No sample spectrum licences for the downshift licences are included in this Marketing Plan. It is an example, constructed for the purposes of illustration only, and is not an actual licence. It includes five licence schedules, which are explained below.

Licence Schedule 1 Licence Details, Bands and Areas

This licence schedule sets out the fields for the licensee, the licence issue, expiry and effect dates, and other details of the licence, including the frequency bands of the licence and the geographic area for the licence. It also includes the statements that relate to renewal.

Licence Schedule 2 Core Conditions

This licence schedule includes the core conditions of the licence. Licence Schedule 2 also authorises the operation of radiocommunications devices in accordance with these core conditions.

The core conditions are the conditions in relation to the geographic area and frequency ranges within which radiocommunications devices may be used, the out-of-area core licence condition and the out-of-band core licence condition.

This licence schedule also makes provision for the licensee to exceed the out-of-area and the out-of-band core licence conditions in circumstances where there is a written agreement between the licensee and all affected licensees of frequency-adjacent and area-adjacent spectrum licences. Where such a

written agreement exists, the licensee must comply with the maximum permitted level of radio emission specified in the agreement.

Licence Schedule 3 Statutory Conditions

This licence schedule contains other statutory conditions that apply to the licence relating to liability for taxes and charges, third party operation of radiocommunications transmitters and transmitter registration requirements. It also includes conditions regarding when a radiocommunications transmitter will be exempt from the requirement to be registered, and residency requirements for licensees.

Licence Schedule 4 Other Conditions

This licence schedule contains other licence conditions that may be included by the ACMA in accordance with section 71 of the Act. One such condition imposes on the licensee the responsibility to manage interference between radiocommunications devices operated under the licence, and between radiocommunications devices operated under the licence and under any other spectrum licence held by the licensee (sample conditions 2(a) and (b) in Licence Schedule 4). **Managing interference** is defined as including the investigation of the possible causes of interference and taking steps reasonably likely to reduce the interference to acceptable levels.

Other conditions included in the sample licence under this licence schedule are:

- a condition in relation to interference management for radiocommunications devices that are co-sited (located within 200 metres of each other as measured between the phase centre of the antenna used with each device) (sample condition 3);
- a requirement to provide the ACMA with information to be included in the Register (sample condition 4);
- a requirement to prevent harmful interference to a radiocommunications receiver operating in another country and in accordance with the ITU Radio Regulations (sample condition 5);
- a requirement to comply with specified electromagnetic energy requirements (sample condition 6);
- a requirement to follow the procedures set out in RALI MS 32 in relation to the operation of radiocommunications transmitters in or around the Mid-West Radio Quiet Zone (sample conditions 7 and 8);
- a requirement to ensure that operation of a radiocommunications transmitter that is exempt from registration does not cause harmful interference to other radiocommunications devices (sample condition 9).

Licence Schedule 5 Licence Notes

Example licence notes are included in the sample licence for the purposes of clarification and guidance on the use of the spectrum licence.