Draft allocation instruments

for the 26 GHz (25.1–27.5 GHz) metropolitan and regional lots auction

Consultation paper

JuLY 2020

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Executive summary

On 18 October 2019, the Minister for Communications, Cyber Safety and the Arts made the [Radiocommunications (Spectrum Re-allocation — 26 GHz Band) Declaration 2019](https://www.legislation.gov.au/Details/F2019L01374) (the re-allocation declaration), declaring that spectrum in the frequency range 25.1–27.5 GHz in metropolitan and certain regional areas (the 26 GHz band) is to be reallocated by issuing spectrum licences. Accordingly, the Australian Communications and Media Authority (ACMA) is preparing to allocate the spectrum by auction.

The auction is expected to commence in late March 2021.

In preparation for the auction, we have prepared draft legislative instruments (the allocation instruments) which describe the products we are offering in the auction, as well as setting out the rules and procedures that we propose will govern the auction process for the allocation of these products.

This paper briefly summarises the matters included in the allocation instruments, and invites comments from interested parties on those instruments and any other issues relevant to the allocation of spectrum licences in the 26 GHz band.

The allocation instruments are:

a spectrum marketing plan, to be made under section 39A of the *Radiocommunications Act 1992* (the Act) describing the 26 GHz band products on offer

an allocation determination, to be made under sections 60 and 294 of the Act, covering the auction rules for the 26 GHz band.

Draft versions of the marketing plan and the allocation determination for the 26 GHz band are published alongside this paper on the ACMA website.

We have also prepared draft technical instruments that provide the technical and interference management rules for the operation of spectrum licensed radiocommunications devices in the 26 GHz band.

Draft technical instruments are described in the *26 GHz (25.1–27.5 GHz) band spectrum licence technical framework* consultation paper, published alongside this paper on the ACMA website. These have been developed in tandem with the technical arrangements for the area-wide apparatus licences (AWL) in the non-spectrum licensed areas of the 26 GHz band and the adjacent 28 GHz band.

As well as seeking comment on the draft allocation instruments, this paper also directs readers to information about processes that are being undertaken in parallel to this allocation process. These matters will be relevant to the use of 26 GHz spectrum in the future:

changes to licensing arrangements in relation to the wider 26 GHz band (24.25−27.5MHz) and 28 GHz band (27.5−29.5 GHz), including the implementation of both apparatus and class licensing arrangements

the ongoing [reform](https://www.communications.gov.au/what-we-do/spectrum/spectrum-reform) of the Act being undertaken by the Department of Infrastructure, Transport, Regional Development and Communications (the Department).

# Introduction

The Minister for Communications, Cyber Safety and the Arts made the [re-allocation declaration](https://www.legislation.gov.au/Details/F2019L01374) for metropolitan and certain regional areas on 18 October 2019. The re-allocation declaration provides that the 26 GHz band is to be allocated by issuing spectrum licences. We are preparing to allocate this spectrum by auction. The terms of the re-allocation declaration are summarised in Table 1.

1. Summary of 26 GHz band re-allocation declaration

| **Elements of re-allocation declaration** | **Description** |
| --- | --- |
| **Licence type** | Spectrum licences |
| **Parts of the spectrum** | 25.1–27.5 GHz in metropolitan and regional areas of Australia |
| **Re-allocation period** | Three years commencing 15 November 2019 |
| **Re-allocation deadline** | 14 November 2021 |

Spectrum licences issued under section 62 of the *Radiocommunications Act 1992* (the Act) authorise successful bidders to use the spectrum won at auction, subject to payment of spectrum access charges. Spectrum licences authorise the licensee to operate radiocommunications devices for a fixed period, within a particular frequency range and geographic area. Spectrum licensing offers a technology-flexible approach to managing the radiofrequency spectrum. Spectrum licensees must comply with a set of licence conditions, including requirements to comply with a technical framework.

## Legislative context and policy environment

We are guided in our spectrum management functions by [the object of the Act](https://www.acma.gov.au/object-and-scope-radiocommunications-act-1992), set out in section 3 of the Act. A balanced application of regulatory and market mechanisms is necessary to achieve key elements of the object of the Act—in particular, maximising the overall public benefit from the efficient allocation and use of the radiofrequency spectrum and meeting the government’s policy objectives. The draft allocation instruments are informed by, and consistent with, the object of the Act.

### Object of the Act

Under the Act, management of the radiofrequency spectrum seeks to :

* Maximise, by ensuring the efficient allocation and use of the spectrum, the overall public benefit derived from using the radiofrequency spectrum.
* Provide a responsive and flexible approach to meeting the needs of users of the spectrum.
* Provide an efficient, equitable and transparent system of charging for use of the spectrum, taking account of the value of both commercial and non-commercial use of spectrum.

Support the communications policy objectives of the Commonwealth Government.

### Communications policy objectives for the allocation of the 26 GHz band

As noted, the object of the Act includes supporting the communications policy objectives of the Australian Government:

* supporting the deployment of fifth generation (5G) technologies
* promoting competitive market outcomes for the long-term benefit of consumers
* promoting the efficient allocation and use of spectrum
* promoting co-existence with existing services
* supporting technological innovation and a range of wireless broadband use cases

encouraging investment in infrastructure, including in regional Australia.

Further detail for these objectives are available on the Department’s [website](https://www.communications.gov.au/documents/communications-policy-objectives-allocation-26-ghz-band).

The ACMA seeks to further these objectives in the development of the allocation instruments, particularly ensuring efficient allocation and use of spectrum.

### Spectrum reform

The Department is consulting on a [staged approach to reforms](https://www.communications.gov.au/have-your-say/exposure-draft-radiocommunications-legislation-amendment-reform-and-modernisation-bill) to the Act. An exposure draft amendment bill proposes to provide spectrum users with greater protection against interference while also improving investment certainty. The amendments propose to remove unnecessary constraints in spectrum allocation and re-allocation processes.

The duration of a spectrum licence is proposed to be extended from a maximum of 15 years to 20 years, with clearer licence renewal processes. The arrangements for apparatus licences are also proposed to be aligned with spectrum licences to the extent possible. Proposed transition arrangements provide that spectrum re-allocation declarations and any marketing plans in force before commencement of the amendment Bill will continue to apply.

The three-year re-allocation period set in the 26 GHz band re-allocation declaration means that arrangements applying to incumbent apparatus licensees in the 26 GHz band will not be affected by legislative change. We may continue to authorise incumbent licensees to operate until the end of the re-allocation period, should they choose to do so.

Given the timing of consideration of possible changes to the Act, we intend that the 26 GHz band allocation, having commenced under the terms of the current Act, will use those terms throughout the allocation and issue of licences. This maximises regulatory certainty for participants. The 26 GHz band allocation will be conducted under the current Act and spectrum licences will be issued for a maximum term of 15 years.

Further information on spectrum reform is available by emailing [spectrumreform@communications.gov.au](mailto:spectrumreform@communications.gov.au).

## Background

Work towards the standardisation and harmonisation of mmWave (millimetre wave[[1]](#footnote-2)) bands for 5G is well advanced, with a strong focus internationally on the use of mmWave bands to provide for short-range, high capacity services. The radiocommunications sector of the International Telecommunication Union examined bands above 24.25 GHz for wireless broadband 5G services at the 2019 World Radiocommunication Conference (WRC-19).

Amongst other mmWave bands, the frequency range 24.25–27.5 GHz (the wider 26 GHz band) was identified globally for international mobile telecommunications at the WRC-19. Separately, a number of countries considered allocation of mmWave bands before the WRC-19; the USA, South Korea, Italy, Hong Kong and Singapore have already completed allocation processes. Similarly, we first foreshadowed potential allocations of the wider 26 GHz band in our [Five-year spectrum outlook (FYSO) 2016–20](https://www.acma.gov.au/publications/2019-07/publication/five-year-spectrum-outlook-2016-2020).

The wider 26 GHz band is considered to be a pioneer mmWave band for 5G services internationally. This is a shorter-range, higher capacity band, which can complement the lower coverage bands (like the 3.6 GHz band) currently being used for 5G services in Australia and internationally.

### Wider 26 GHz band consultation

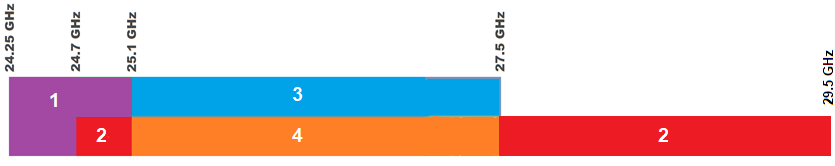
In September 2018, we released an [options paper](https://www.acma.gov.au/consultations/2019-08/options-wireless-broadband-26-ghz-band-consultation-322018) for consultation on the wider 26 GHz band. This was followed by the release of our April 2019 [planning decisions and preliminary views paper](https://www.acma.gov.au/consultations/2019-08/options-wireless-broadband-26-ghz-band-consultation-322018) (26 GHz band decisions paper) on the future use of the band. The 26 GHz band decisions paper identified a suite of possible class, apparatus and spectrum licensing measures to facilitate a broad range of wireless broadband use cases, underpinning the government’s policy objective to support technological innovation.

### 28 GHz band consultation

In parallel with the release of the 26 GHz band decisions paper we also consulted on options for replanning the adjacent [28 GHz band](https://www.acma.gov.au/consultations/2019-08/planning-options-28-ghz-band-consultation-092019) (27.5–29.5 GHz) including the potential introduction of mmWave 5G wireless broadband services. Subsequently, in September 2019 we released the [28 GHz band planning decisions and preliminary views](https://www.acma.gov.au/consultations/2019-08/planning-options-28-ghz-band-consultation-092019) paper (28 GHz decisions paper). The 28 GHz band decisions paper indicated we would develop and consult on apparatus licence arrangements to support fixed wireless access (FWA) use in the 28 GHz band as well as expanded arrangements for fixed-satellite earth stations. This included investigating the use of the proposed new [area-wide apparatus licence](https://www.acma.gov.au/acma-creates-new-licence-type) (AWL) concept for authorising access.

Figure 1 summarises the planned licensing arrangements across the wider 26 GHz band and the 28 GHz band.

Licensing arrangements to be implemented in 26−28 GHz band



Key:  
1 – Class licensed Australia-wide  
2 – Area wide apparatus licences (AWL) Australia-wide (available no earlier than Q4 2020)  
3 – Spectrum licensed in major population centres (auction Q1 2021)  
4 – AWL outside major population centres (available shortly after spectrum licence auction)

### Class licensing

The [26 GHz band decisions paper](https://www.acma.gov.au/consultations/2019-08/options-wireless-broadband-26-ghz-band-consultation-322018) included the planning decision to consult on adding the frequency range 24.25–25.1 GHz to the [Radiocommunications (Low Interference Potential Devices) Class Licence 2015](https://www.legislation.gov.au/Details/F2019C00681) (LIPD class licence) to enable uncoordinated time-division duplex (TDD) wireless broadband deployments. A number of conditions were outlined in the paper, including limiting operation in the range 24.25–24.7 GHz to indoor use only while allowing operation both indoors and outdoors in 24.7–25.1 GHz. A draft variation to the LIPD class licence is expected to be released for consultation later in 2020.

### Apparatus licensing

Following our July 2019 [consultation on the proposed AWL](https://www.acma.gov.au/consultations/2019-08/proposed-area-wide-apparatus-licence-consultation-192019?utm_medium=email&utm_campaign=ACMA%20releases%20response%20to%20submissions%20and%20approach%20to%20introducing%20area-wide%20licence%20types&utm_content=ACMA%20releases%20response%20to%20submissions%20and%20approach%20to%20introducing%20area-wide%20licence%20types+CID_d1a0469099c729162681a7e17b8942ca&utm_source=SendEmailCampaigns&utm_term=summary%20of%20submissions) we are preparing draft technical instruments and policy documents to provide the technical and interference framework for the operation of AWLs in both the wider 26 GHz band and the adjacent 28 GHz band.

AWLs share some of the features of spectrum licences, including being geographically limited and providing for flexible and scalable deployments. However AWLs do not have the same rights (such as certainty of tenure and relative exclusivity) that spectrum licences are afforded.

Table 2 is provided for purposes of comparison between the two licence types in the 26 GHz band, noting that there will be a separate future consultation on the allocation instruments and technical frameworks for AWLs in Q3 2020.

Table 2: Key differences between AWLs and spectrum licences in the 26 GHz band

|  |  |  |
| --- | --- | --- |
| **Licence feature** | **AWL in the 26/28 GHz bands** | **Spectrum licensing in the 26 GHz band** |
| What is authorised | 4800 MHz available as 96 x 50 MHz channels across the frequency range 24.7–29.5 GHz | 2400 MHz available as 12 x 200 MHz channels in frequency range 25.1–27.5 GHz |
| Where is use authorised | Any unembargoed areas except for the frequency range 25.1–27.5 GHz where spectrum is only available outside the spectrum licence defined geographic areas.  Smallest geographic area approx. 500m x 500m. Aggregable to larger areas, but large contiguous areas are not guaranteed.  AWLs authorising operation in the 24.7–29.5 GHz band will only be issued in geographic areas that are located outside the embargo areas defined in *RALI MS03: Spectrum Embargos* for the 24.7–29.5 GHz bands. | 29 defined large geographic areas in metropolitan and regional centres. |
| How long does authorisation last | 1 – 5 years | 15 years |
| Allocation mechanism | Administrative allocation (section 100) e.g. First in time and/or merit selection; or  Price-based allocation (section 106) | Price-based allocation (section 60) |
| Conditions of use— technical | Set out in administrative radiocommunications allocation and licensing instructions and specified in Licence Condition Determinations, which may be periodically reviewed, with additional flexibility afforded by discretionary conditions (as is the case with all apparatus licensing). | Core conditions locked in for duration of licence under legislation unless licensees agree to amendment. Non-core conditions can be amended if necessary, however this is not usual practice. Conditions that mandate parametric settings that are incorporated by reference to administrative instructions (e.g. specific parameters for TDD fallback synchronisation[[2]](#footnote-3)) may be reviewed periodically. |
| Conditions of use— exclusivity | Apparatus licences do not come with legal exclusivity; other apparatus licences can be issued over the top and class licences can be authorised to co-exist.  For services allocated on a primary basis, by default the coordination requirements for AWLs 26 and 28 GHz are based on exclusive use by a single AWL holder within the areas defined by the licence. Devices that must be recorded in the RRL must be coordinated against receivers operated under adjacent apparatus licences and spectrum licences. However, under some circumstances where compatibility allows, or where incumbent licensees are secondary, the ACMA may consider overlapping AWL licences held by other primary service operators.  Licensees may authorise third parties to operate devices under the licence. | Largely exclusive use within the declared area. Class licences can be authorised to co-exist and apparatus licences can be issued in the spectrum authorised by the spectrum licence but only under certain legislative provisions  Licensees may authorise third parties to operate devices under the licence. |

### Spectrum licensing

The [26 GHz decisions paper](https://www.acma.gov.au/consultations/2019-08/options-wireless-broadband-26-ghz-band-consultation-322018) formed the basis for a [draft spectrum re-allocation recommendation](https://www.acma.gov.au/consultations/2019-08/draft-spectrum-reallocation-recommendation-26-ghz-band-consultation-142019) we proposed to make to the Minister about reallocating spectrum in the band. Following consideration of stakeholder submissions, we made such a recommendation to the Minister under section 153F of the Act.

On 18 October 2019, following consideration of our recommendation, the Minister made the re-allocation declaration.

A spectrum re-allocation declaration has the effect of cancelling apparatus licences in the spectrum to be re-allocated, at the end of the re-allocation period. As shown in Table 1 above, the re-allocation declaration provides for a re-allocation period of three years commencing on 15 November 2019. Any apparatus licences remaining in the band on the end date of 14 November 2022 are automatically cancelled.

## The auction

We are preparing to allocate the 26 GHz band by auction in late March 2021.

The 26 GHz band auction will be conducted online using an enhanced simultaneous multi-round ascending (ESMRA) auction format. This is a two-stage auction methodology, comprising:

1. a **primary** stage, which offers simultaneously frequency-generic lots for each area
2. an **assignment** stage, for assignment of lots to the specific frequencies within the band.

Further discussion about the auction format is provided in the [*Draft allocation determination*](#_Auction_format) section of this paper.

Following consideration of submissions to this paper, we will make the final allocation instruments and invite interested parties to register as bidders in the 26 GHz band auction. Registered bidders will be provided with an opportunity before the auction to trial the online auction system.

### Indicative timeline

We have prepared an indicative timeline, shown in Table 3, to help potential bidders understand the process leading up to the auction. We emphasise that the dates in this timeline are estimates only and may change as the allocation process progresses, including as a result of considering information provided by industry stakeholders during consultation. The final allocation process will be formulated taking into account submissions.

We propose to commence the application process in mid-December 2020. We will provide updated timelines on our website as and when further information becomes available.

Table 3: Indicative timeline for the 26 GHz band auction

|  | Event | Date |
| --- | --- | --- |
| 1. 1. | Release of this consultation paper inviting comments on the draft allocation instruments. | 9 July 2020[[3]](#footnote-4) |
| 2. | The ACMA makes allocation instruments and registers them on the Federal Register of Legislation. | Late November 2020 |
| 3. | The ACMA advertises the auction, publishes the *Applicant Information Pack* (AIP) and applications open. | Mid-December 2020 |
| 4. | Application deadline. By this date, applicants are required to:   * submit a completed application form * submit a completed deed of acknowledgement form * submit a completed deed of confidentiality form * pay the application fee. | Late January 2021 |
| 5. | If the Minister issues an allocation limits direction, the ACMA gives each applicant details about the identity of all other applicants and their associates and asks each applicant to make a statutory declaration by the declaration deadline about whether they are affiliated with another applicant. | After application deadline |
| 6. | Eligibility deadline. By this date applicants are required to:   * submit a completed eligibility nomination form * pay the required eligibility payment or provide a deed of financial security, or a combination of both. | Early March 2021 |
| 7 | The ACMA tells registered bidders that they have been registered and may participate in the auction and gives them information to enable their participation (for example, information about how to access and use the online auction system). | After the eligibilty deadline |
| 8. | Mock auction held, to familiarise registered bidders with the auction system. | Early-Mid March 2021 |
| 9. | The ACMA notifies registered bidders about the start date and time of the first and second clock rounds of the primary stage of the auction. | Mid-March 2021 |
| 10. | Estimated auction commencement. | Late March 2021 |

*Note: The above timetable is indicative and for guidance purposes only. It is subject to change and should not be relied upon.*

## Draft allocation instruments

We are required to make a marketing plan and an allocation determination to allocate spectrum in the 26 GHz band.[[4]](#footnote-5)

### Marketing plan

Section 39A of the Act requires the ACMA to prepare (by way of legislative instrument) a marketing plan for issuing spectrum licences within a particular part of the spectrum where a re-allocation declaration has been made.

The marketing plan sets out the product offering and may specify matters including, but not limited to:

* the procedures to be followed for issuing spectrum licences
* how the spectrum is to be apportioned among the spectrum licences to be issued

the conditions, or types of conditions, that may be included in spectrum licences to be issued.[[5]](#footnote-6)

The draft marketing plan (published alongside this paper on the ACMA website) specifies the spectrum product that will be available, a summary of the procedures for the allocation of spectrum licences, and the conditions that will apply to the spectrum licences issued. Key aspects of the draft marketing plan are described in the [*Draft marketing plan*](#_Draft_marketing_plan) section of this paper.

### Allocation determination

The allocation determination is made under sections 60 and 294 of the Act. Section 60 of the Act requires the ACMA to determine written procedures to apply to the allocation of spectrum licences by auction. Section 294 of the Act enables the ACMA to make determinations fixing spectrum access charges payable by licensees for issuing spectrum licences, and specifying the times when spectrum access charges are payable.

An allocation determination made under section 60 sets out the auction rules and procedures, and may specify matters including, but not limited to:

* the type of auction
* the auction methodology
* how the auction will be advertised

pricing (starting prices, deposits) and methods of payment for licences.[[6]](#footnote-7)

An allocation determination may also impose limits on the aggregate amount of spectrum that can be allocated to a bidder.[[7]](#footnote-8) Any such allocation limits can only be imposed if the Minister directs us to do so.[[8]](#footnote-9) The Minister requested the ACCC to provide advice on competition limits and the ACCC has undertaken [public consultation](https://www.accc.gov.au/media-release/competition-issues-in-upcoming-5g-spectrum-allocation) on allocation limits as part of its deliberations. We will include any ministerial direction on allocation limits in the final versions of the allocation instruments.

The draft allocation determination (published alongside this paper on the ACMA website) sets out the procedures we propose to apply to govern the auction. This includes draft ESMRA procedures and rules on administrative matters, such as the bidder registration process, fees and other amounts to be paid, and confidentiality arrangements to prevent bidder collusion. Key aspects and further information on the draft allocation determination are discussed in the [*Draft allocation determination*](#_Draft_allocation_determination) section of this paper.

### Final allocation instruments

After considering submissions to this consultation, we will make the final allocation instruments. When made, these allocation instruments will be registered on the [Federal Register of Legislation](https://www.legislation.gov.au/).

### Technical instruments

We have prepared draft technical instruments to provide the technical and interference management rules for the operation of radiocommunications devices in the 26 GHz band. Draft technical instruments are described in the *26 GHz (25.1–27.5 GHz) band spectrum licence technical framework* consultation paper, published alongside this paper on the ACMA website.

### Spectrum licence tax

Each year on 11 October, a spectrum licence tax is payable in accordance with the [Radiocommunications (Spectrum Licence Tax) Determination 2014](https://www.legislation.gov.au/Series/F2014L00957) (SLT determination).[[9]](#footnote-10) This tax recovers from spectrum licensees the indirect costs of spectrum management activities such as international coordination, domestic planning, interference investigation and policy development.

In addition, the Minister recently [directed](https://www.legislation.gov.au/Details/F2020L00590) the ACMA about changes to spectrum licence taxes. These changes relate to the collection of costs associated with new funding arrangements concerning electromagnetic emissions (EME) research. With the declaration of the 26 GHz band for spectrum licensing, we propose to incorporate this band into the SLT Determination. We expect to consult separately about these new spectrum licence tax arrangements and encourage interested parties to consider those consultation processes.

### Next steps

We will release the Applicant Information Pack (AIP) once the final allocation and technical instruments for the 26 GHz band are made. The AIP will give potential bidders information relevant to the decision on whether to participate and, if they choose to participate, how to do so.

The AIP will comprise a series of documents, including the auction guide, application forms and the final allocation instruments. Starting prices and lot ratings are expected to be published at the same time.

# Draft marketing plan

This section sets out key matters dealt with in the draft marketing plan.

The draft marketing plan includes:

procedures for allocating and issuing spectrum licences

licence commencement and duration

spectrum that will be allocated and how we propose to divide it into lots for bidders to acquire in the auction process

the types of licence conditions we propose to apply to the spectrum licences.

## Spectrum licences

### Sample spectrum licence and core licence conditions

The draft marketing plan includes a sample spectrum licence. The sample licence includes proposed conditions intended to enable all licence-holders to operate services without causing unacceptable interference to other services including those operating in other parts of the radiofrequency spectrum. Core conditions, in accordance with section 66 of the Act, 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.

In addition, the marketing plan describes other licence conditions and rules about spectrum licences, including those relating to spectrum trading rules, use by third parties[[10]](#footnote-11) and registration of transmitters with the ACMA.[[11]](#footnote-12)

Some of the licence conditions are also discussed in the *26 GHz (25.1–27.5 GHz) band spectrum licence technical framework* consultation paper, published alongside this paper on the ACMA website.

### Licence commencement and duration

In the [draft spectrum re-allocation declaration recommendation](https://www.acma.gov.au/consultations/2019-08/draft-spectrum-reallocation-recommendation-26-ghz-band-consultation-142019) (draft re-allocation recommendation) consultation, we expressed our preliminary view that any spectrum licences issued in the 26 GHz band should commence as soon as possible after allocation, and have a 15 year term. This would remove the need for early access arrangements for the 26 GHz band. The majority of submissions to that consultation supported this view.

In previous spectrum licence auctions, we have adopted either of the following approaches to licence start dates:

1. We set common licence start dates (either soon after the auction, or at the end of the re-allocation period) and a common licence term. All licences therefore commenced and ended at the same time. In these circumstances, access for winning bidders before the spectrum licence commences is usually managed via ‘early access’ apparatus licences provided that deployments do not cause unacceptable interference to incumbent apparatus licensees. The 1800 MHz regional auction is an example of this approach.[[12]](#footnote-13)
2. We set common licence durations specifying that the licence would come into force on or after the day of issue. The licences were issued as soon as practicable after we received the payment. As the date of payment could have differed across winning bidders and all licences had the same duration, the licences could have commenced and expired at slightly different times. To avoid different expiry dates, all licences were issued on the same day after **all** payments were received, therefore commencing on the same date. This approach was used for the auctions held before 2002 such as the 2 GHz process.

In the case of the 26 GHz band, we consider that spectrum licences should commence as soon as possible after the auction, to further the government’s communications policy objective enabling use of the band at the earliest opportunity. There are almost no incumbent apparatus licensees in the band so there would be minimal restrictions on the ability of spectrum licensees to deploy services.[[13]](#footnote-14) In addition, we think it is desirable that licences should have the maximum 15‑year licence term.[[14]](#footnote-15) This is similar to the second approach set out above.

**We therefore propose that the start date of a spectrum licence be tied to receipt of payment for that licence.[[15]](#footnote-16)**

In developing this approach, we have prioritised a 15-year licence term and rapid licence commencement over common licence commencement and expiry dates. We consider that some winning bidders may wish to commence services under their spectrum licences more quickly than others. We therefore do not consider it is appropriate to tie licence commencement of all licences to receipt of the latest winning bidder payment. Due to the payment process outlined in the draft allocation determination, we anticipate that this difference would not be more than a month or two at most, and would more usually be in the order of weeks. We do not consider potentially staggered expiry dates will significantly limit the potential for replanning and further allocations at licence expiry.

If the delayed payment option discussed in the [*Payment terms*](#_Payment_terms) section of this paper is implemented, then we propose licence issue and commencement would be tied to receipt of the first instalment payment.

**Licence commencement**

We seek stakeholder views on whether the commencement date for each 26 GHz band spectrum licence should be tied to receipt of payment for that licence.

## Lot configuration

Spectrum needs to be divided into lots before it can be offered to the market. There are two dimensions to lot configuration—frequency and geography. In deciding lot configuration for any allocation, we consider a range of factors, including the source of demand and the technical characteristics of the spectrum. We also have regard to the government’s policy objectives for the band and its potential for competition in downstream markets.

We expect the 26 GHz band to be used for the deployment of 5G networks and that the spectrum will be optimised for wide-area wireless broadband deployments (mobile and fixed) over the entire 2400 MHz of frequency being offered.

**Lot configuration - frequency**

Previous consultation with industry on the 26 GHz band has reflected the view that the band should be configured to support time division duplex (TDD) operation. Therefore, the spectrum will be offered in unpaired lots.

In the consultation on the [draft re-allocation recommendation](https://www.acma.gov.au/consultations/2019-08/draft-spectrum-reallocation-recommendation-26-ghz-band-consultation-142019), we proposed the spectrum be offered in lots of 100 MHz bandwidth to enable bidders to express demand more gradually for larger quantities of spectrum.

We considered 100 MHz lots would also enable easier implementation of additional technical conditions proposed to safeguard NBN Co’s Fixed Satellite Service (FSS) satellite gateways in southern Western Australia and Tasmania in the 27.0–27.5 GHz frequency range. A 100 MHz lot size would align with the frequency boundary for these conditions, which apply to the Perth, Bunbury, Margaret River and Hobart areas.[[16]](#footnote-17)

However, in submissions to the consultation, stakeholders expressed a preference for a lot size of 200 MHz to mitigate frequency exposure risk, with little concern about the additional technical conditions proposed for the upper frequency range.

**In response to these views, we propose to offer generic lots of 200 MHz across the 2400 MHz of spectrum for each area, as set out in Table 4**.

**Table 4: Proposed frequency lot configuration**

| **Channel** | **Frequency range** | **Bandwidth** |
| --- | --- | --- |
| 1 | 25.1–25.3 GHz | 200 MHz |
| 2 | 25.3–25.5 GHz | 200 MHz |
| 3 | 25.5–25.7 GHz | 200 MHz |
| 4 | 25.7–25.9 GHz | 200 MHz |
| 5 | 25.9–26.1 GHz | 200 MHz |
| 6 | 26.1–26.3 GHz | 200 MHz |
| 7 | 26.3–26.5 GHz | 200 MHz |
| 8 | 26.5–26.7 GHz | 200 MHz |
| 9 | 26.7–26.9 GHz | 200 MHz |
| 10 | 26.9–27.1 GHz | 200 MHz |
| 11 | 27.1–27.3 GHz | 200 MHz |
| 12 | 27.3–27.5 GHz | 200 MHz |
| **12 channels** | **25.1–27.5 GHz** | **2400 MHz** |

**Lot configuration—frequency**

We seek stakeholder views on whether the lot size for each geographic area in the 26 GHz band auction should be 200 MHz resulting in 12x200 MHz lots for each product.

### Lot configuration - geography

In the [draft re-allocation recommendation](https://www.acma.gov.au/consultations/2019-08/draft-spectrum-reallocation-recommendation-26-ghz-band-consultation-142019) consultation, we proposed a geographic configuration based on separate lots for each of the capital cities and regional centres. Submissions either supported this proposal; proposed aggregating regional areas into state-based lots to reduce the number of lots and auction complexity; or noted that this matter can be further considered in the consultation on the draft instruments.

Aggregating areas would reduce the number of lots at auction and therefore reduce auction complexity. However, we consider that the proposal to increase lot size from 100 to 200 MHz, thus reducing the number of lots by half, has already reduced auction complexity.

Aggregating certain regional centres into a single product of 12x200 MHz lots would ensure a prospective licensee could acquire all the regional centres included in that aggregated product without the risk of being outbid in a particular regional centre. Therefore, it would suit prospective licensees seeking to deploy services throughout all those regional centres that have been aggregated into the single product.

However, prospective licensees seeking to provide services in a particular regional centre would be forced to acquire a licence that also covered unwanted centres. This may mean that those unwanted regional centres are denied services. There is also the possibility that aggregated areas may discourage some potential licensees from participating in the allocation because their commercial interest relates only to specific regional centres.

#### The Greater Perth area

We remain of the view that most of the 29 areas declared for re‑allocation should be offered as separate products. However, we propose to combine the declared areas for Perth/Bunbury, Perth, and Bunbury into a single product known as Greater Perth.

This is a consequence of increasing the proposed 100 MHz lot size to 200 MHz and the different frequency ranges applying to the Perth/Bunbury area, and the Perth and Bunbury areas in the re-allocation declaration.

There is a small area between Perth and Bunbury that is not declared for re-allocation in the 27.0–27.5 GHz frequency range. This means that the combined Greater Perth lot is not uniform across the entire range.

The 26 GHz band is expected to be used to increase network capacity in more densely populated areas, rather than provide a coverage layer. This small area represents only 0.2 percent of the combined Perth/Bunbury population. We therefore do not consider that there would be significant continuity of service issues between Perth and Bunbury in the 27–27.5 GHz range.

If an auction participant does place a premium on a spectrum licence that includes this small area, they can use the assignment stage to seek to obtain a position in the band between 25.1–27.0 GHz.

Aggregating the Perth/Bunbury, Perth, and Bunbury areas into a single product known as Greater Perth ensures all products in the auction will have the same lot size (200 MHz for each lot), reducing auction complexity.

Figures 2 and 3 provide maps of the declared Perth/Bunbury, Perth, and Bunbury areas. Figure 4 is a map of the aggregated area—Greater Perth—for allocation. The relationship of the areas with the 200 MHz lot size for Greater Perth is shown in Figure 5.

|  |  |
| --- | --- |
| Figure 2: Perth/Bunbury geographic area | Figure 3: Perth and Bunbury geographic areas |
| Figure X is a map of the declared Perth/Bunbury area *Key: Perth/Bunbury 25.1–27.0 GHz* | Figure X is a map of the declared Perth and Bunbury areas *Key: Perth 27.0–27.5 GHz Bunbury 27.0–27.5 GHz* |
| Figure 4: Greater Perth geographic area | **Figure 5: Diagram of Greater Perth in relation to frequency** |
| Figure X is a map of the Greater Perth area which combines the declared areas and respective frequency ranges: - Perth/Bunbury (Perth, Bunbury, blue infill area) 25.1-27.0 GHz - Perth 27.0-27.5 GHz - Bunbury 27.0-27.5 GHz *Key:  The Greater Perth area consists of: > Perth/Bunbury (Perth, Bunbury, blue infill area)   25.1–27.0 GHz > Perth 27.0–27.5 GHz > Bunbury 27.0–27.5 GHz* | *Figure X is a diagram showing how the 200 MHz lot size is distributed across the 26 GHz band frequency range and how this relates to the declared areas: Perth/Bunbury (25.1-27.0 GHz), Perth and Perth Bunbury (27.0-27.5 GHz).  Note: Lot 10 for Greater Perth will be assigned a frequency range in both the part of the spectrum from 25.1–27 GHz and the part of the spectrum from 27–27.5 GHz* |

The creation of a Greater Perth product would reduce the number of areas offered as separate products from 29 to 27 (see Figure 6 for an overview map and Table 5 listing the proposed lot configuration).

**Lot configuration—geography**

We seek stakeholder views on the proposed Greater Perth product configuration and offering the remaining areas as separate products.

Figure 6: Overview map of proposed geographic areas to be offered as separate products

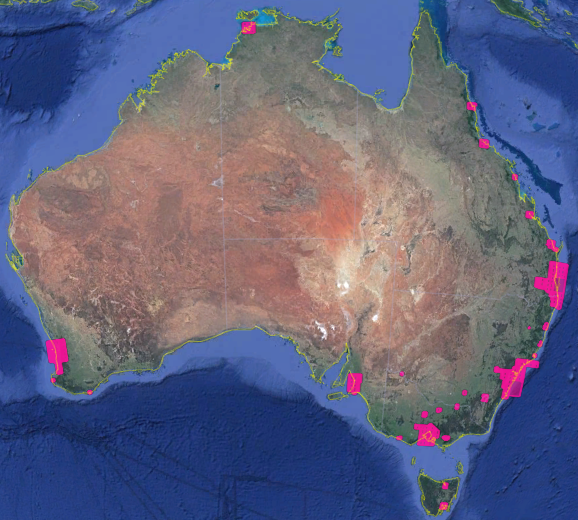


Table 5: Proposed geographic lot configuration

| Product | Lot bandwidth (MHz) | Number of lots |
| --- | --- | --- |
| Adelaide | 200 MHz | 12 |
| Canberra | 200 MHz | 12 |
| Darwin | 200 MHz | 12 |
| Greater Brisbane/Lismore | 200 MHz | 12 |
| Greater Perth | 200 MHz | 12 |
| Hobart | 200 MHz | 12 |
| Melbourne/ Ballarat | 200 MHz | 12 |
| Sydney/Bathurst | 200 MHz | 12 |
| Albany | 200 MHz | 12 |
| Albury | 200 MHz | 12 |
| Armidale | 200 MHz | 12 |
| Bendigo | 200 MHz | 12 |
| Bundaberg/Hervey Bay | 200 MHz | 12 |
| Cairns | 200 MHz | 12 |
| Coffs Harbour | 200 MHz | 12 |
| Forster/Tuncurry | 200 MHz | 12 |
| Launceston | 200 MHz | 12 |
| Mackay | 200 MHz | 12 |
| Margaret River | 200 MHz | 12 |
| Mildura | 200 MHz | 12 |
| Port Macquarie | 200 MHz | 12 |
| Rockhampton | 200 MHz | 12 |
| Shepparton/Mooroopna | 200 MHz | 12 |
| Townsville | 200 MHz | 12 |
| Traralgon/Morwell | 200 MHz | 12 |
| Wagga Wagga | 200 MHz | 12 |
| Warrnambool | 200 MHz | 12 |

*Note: Greater Perth aggregates into a single product the Perth/Bunbury, Perth and Bunbury areas declared by the Minister and defined in the* [*Radiocommunications (Spectrum Re-allocation—26 GHz Band) Declaration 2019*](https://www.legislation.gov.au/Details/F2019L01374)*.*

**Draft marketing plan**

We seek stakeholder views on the matters raised in the draft marketing plan, including:

> the 12 x 200 MHz lots for each product;

> the Greater Perth product configuration; and

> the remaining areas offered as separate products.

# Draft allocation determination

This section sets out the key matters in the draft allocation determination.

The draft allocation determination includes:

rules for how the spectrum will be allocated by auction

the auction format that will be used

procedures that will apply to the auction

responsibilities of bidders and the ACMA throughout all stages of the allocation.

## Allocation methodology

The ACMA must allocate the 26 GHz band in accordance with section 60 of the Act—that is, via auction, via tender or for a predetermined or negotiated price.

In allocating spectrum, the ACMA is guided by the object of the Act, the most relevant parts being to:

maximise, by ensuring the efficient allocation and use of the spectrum, the overall public benefit derived from using the radiofrequency spectrum

support the communications policy objectives of the Australian Government.

We consider that an auction furthers the government’s policy objectives of promoting efficient allocation and use of the spectrum. Auctions provide a transparent method of allocating spectrum where there is likely to be competing demand, either in the aggregate or for individual lots. Auctions also allow for price discovery.

The auction mechanism is intended to allocate the available spectrum to the bidder or bidders who value it the most, and provides for an outcome that maximises the public benefit from the allocation and use of the spectrum.[[17]](#footnote-18)

## Auction format

We have been considering which auction format will provide the most effective and efficient allocation. Auction formats under consideration, and their suitability for this auction, are summarised in Table 6.

Table 6: Potential auction formats and suitability for 26 GHz band auction

| **Auction format** | **Main features** | **Suitability for 26 GHz band auction** |
| --- | --- | --- |
| Simple Clock Auction (SCA) | Automated version of English Open Outcry format, with a clock function managing bid increments.  Bids on individual lots.  Winner of a lot is the last remaining bidder as bids increase. | More suited to a small number of lots and/or independently valued lots. |
| Combinatorial Clock Auction (CCA) | Enables bidders to bid on packages of lots.  Two stages:   1. Clock stage—bidders indicate number of lots desired in each category at current price. Bidding continues until no excess demand in each category. 2. Assignment stage—lots assigned to successful bidders using algorithm. | Pricing is complex and non-transparent to bidders.  Bidding process and strategies are complex to develop. |
| Simultaneous Multi-Round Ascending (SMRA) | Auction of multiple individual lots conducted simultaneously.  Highest bid on each lot published at end of each round.  Bidding continues until no further bids on any lot. Winners pay their highest bid.  Able to switch demand between different bandwidths and/or geographic regions. | Suitable for large number of lots with interdependent values.  Risk of uneconomic amounts and/or non-contiguous spectrum. |
| Enhanced SMRA (ESMRA) | This is a two-stage auction.  Allows simultaneous bidding on generic lots in the primary stage.  Provides an assignment stage to allocate contiguous spectrum.  Reduces auction length by incrementing prices while demand exceeds supply.  Reduces susceptibility to gaming. | Simplifies bidding by using generic, substitutable lots in the primary stage.  Enables bidders with preferences for particular lots to bid for them in the assignment stage rather than switching between lots. |

In our May 2019 [draft re-allocation recommendation](https://www.acma.gov.au/consultations/2019-08/draft-spectrum-reallocation-recommendation-26-ghz-band-consultation-142019) consultation, we cited these auction formats that could be used to allocate the 26 GHz band and invited industry submissions on the most suitable format.

In response to the draft re-allocation recommendation consultation, some industry stakeholders were in favour of the proposed ESMRA format, while others preferred the standard SMRA format.

Stakeholders who opposed the ESMRA format were concerned about the inability to withdraw bids. One stakeholder expressed a preference for the standard SMRA format to be used for the 26 GHz band auction or, if the ESMRA is to be used, to allow nomination of demand closer to the start of the auction instead of allowing withdrawal of bids in the first round. We acknowledge that some submitters preferred the SMRA format. However, we remain concerned that the SMRA auction methodology increases exposure and fragmentation risks.

Given that the ESMRA format mitigates exposure and fragmentation risks, we consider that it is the more appropriate format for the 26 GHz band auction because it allows bids on generic lots within each region and provides an assignment stage to allocate the spectrum won in a contiguous block of that bandwidth. It reduces the fragmentation risk associated with the SMRA format, where each lot is bid on separately and contiguity within a region is not guaranteed.

Bid withdrawals are not compatible with the ESMRA format because they would introduce a significant gaming risk. Bidders could submit bids only to drive the price high, then withdraw all their bids, leaving their competitors to pay the high prices. Rather than allowing bids to be withdrawn, we propose to have a period of approximately three weeks between demand nomination and the auction start—less than half the period for the 3.6 GHz auction.

On balance, we remain of the view that the ESMRA format would be the most efficient and effective auction type.

**The draft allocation determination specifies that the 26 GHz band auction will use the ESMRA auction methodology, implemented on a secure online system.**

**26 GHz band allocation format**

We seek views on the 26 GHz band allocation being conducted using the ESMRA auction format with the nomination of demand to be provided approximately three weeks before the auction start.

## Auction stages

We propose the ESMRA auction for the 26 GHz band be conducted in two stages:

1. **Primary stage**—a series of rounds that progress according to a clock function. In each round, bidders indicate two details for each product simultaneously:
   1. Changed level of demand for lots
   2. Price point at which they wish to change demand.

For example, the bidder chooses to increase/decrease their bid by two lots at the price point of $114.

Before the auction starts, the auction manager enters the demand for each lot that a bidder specified in their eligibility nomination form.

**The nominated demand is binding and cannot be withdrawn where demand for lots in a region is less than or equal to supply.**

Therefore, in the first round, bidders indicate whether they wish to change their demand from the level in their eligibility nomination form. Bids may be changed at any time until the end time of the round.

This stage ends when there is no excess demand for any product.

1. **Assignment stage**—a successful bidder for spectrum lots in the primary stage may submit bids for their preferred frequency range. For example, in the case of three successful bidders with no unallocated spectrum, each may bid on whether their spectrum holding is assigned to the lower, middle or higher frequency range within the 26 GHz band. Products with identical outcomes from the primary stage may be combined into a single assignment round. We plan to consult on our principles for any combinations with registered bidders before the auction.

## Auction rules

### Information policy

In an ascending auction format such as ESMRA, the auction manager typically provides bidders with information about aggregate demand throughout the auction. This demand information facilitates price and allocation discovery, which is a key reason why auctions are structured in an open, transparent fashion.

In contrast to standard SMRA auctions, ESMRA auctions have a higher risk of strategic demand reduction. Strategic demand reduction is a bidding strategy that involves sacrificing some of the spectrum that you might like to have acquired in the auction in return for ending the auction earlier, and at a lower price for the spectrum that you do win.

Although providing detail about the level of excess demand can create incentives for bidders to close out the auction early, this is offset by the requirements for price discovery and transparency. In the 3.6 GHz auction conducted in 2018, information for exact excess demand was provided where it was greater than supply by more than four lots (20 MHz). However, we believe the risk of strategic demand reduction with lot sizes of 200 MHz is low**.**

**We therefore propose to provide exact excess demand information, including when aggregate demand is equal to or less than supply.**

**26 GHz band auction—information policy**

We seek views on providing excess demand information in all circumstances during the primary stage of the auction.

### Activity rule

In the 3.6 GHz auction, we implemented a global (aggregate) activity rule, which calculates the maximum bidding activity allowed in the next round based on the bidding activity in the current round. This activity rule is used to improve price discovery and maintain auction progress.

**We propose to use a similar global activity rule for the 26 GHz band auction.**

**26 GHz band auction—activity rule**

We seek views on using a global activity rule for this auction.

A bidder’s initial eligibility is based on the total eligibility for its nominated lots provided by the eligibility deadline. In each round of the auction, the bidder must be active on a specified percentage (for example, 95 per cent) of its eligibility, or the bidder’s eligibility is reduced. The specified percentage is set by the auction manager, and is called the ‘eligibility requirement’. Eligibility is measured in eligibility points. End-of-round activity is calculated as the greater of the total eligibility points of all lots:

the bidder placed bids for in the round; or

in the bidder’s posted demand.

If the eligibility requirement is not met, the bidder’s eligibility in the next round is reduced to (end-of-round activity) divided by (eligibility requirement), rounded up to the nearest integer. Eligibility is calculated at the end of the round, based on end-of-round activity. However, the bid processing algorithm prevents any bid from being applied that would cause the bidder to exceed its eligibility at any point during bid processing.

**We will consult on the activity rule level with registered bidders after the close of applications, together with the other auction parameters.**

### Assignment stage pricing rule

In the assignment stage, bidders submit confidential, one-shot bids for the set of feasible frequency range options available after the primary stage. From analysis of previous experience with our digital dividend and 3.6 GHz spectrum auctions, we believe that the nearest Vickrey core pricing algorithm encourages value-based bidding and deters undesirable outcomes resulting from strategic bidding.[[18]](#footnote-19)

**We therefore propose to use the nearest Vickrey core pricing algorithm for the assignment stage of the 26 GHz band auction**.

**26 GHz band auction—assignment stage pricing rule**

We seek views on using the nearest Vickery core pricing algorithm for determining the winning prices in the assignment stage of the 26 GHz band auction.

In the digital dividend auction, we undertook external verification of the results from the pricing rule algorithm. However, this involved an auction format where a pricing rule applied in the primary stage, rather than the assignment stage only. We expect that the assignment stage bids will be a small fraction of the total bids for the auction, similar to our 3.6 GHz auction.

**We therefore do not believe that external verification of the assignment stage results is justified for this auction.**

After the conclusion of the primary stage, and at least 24 hours before commencement of the assignment stage, winning bidders will be provided with their feasible frequency range options for each product in the assignment stage. Any unallocated lots will be assigned to the highest position in the band.

## Application and registration process

The draft allocation determination sets out the application process that interested parties must comply with, in order to be eligible to participate and bid for spectrum at auction. This includes specifying all required documentation and when it must be submitted.

Similar to our 3.6 GHz auction, we are proposing a two-stage application process for parties who wish to participate in the auction.

### Application stage

When we advertise the auction, parties will be invited to apply. They will need to submit a completed application form registering their intent to participate in the auction.

By the application deadline, applicants are also required to submit other documentation, such as deeds of confidentiality and a deed of acknowledgment. At the same time, applicants are required to pay a non-refundable application fee, proposed to be $10,000.

### Eligibility nomination stage

Closer to the auction registered applicants are required to nominate their start demand in the eligibility nomination form. This specifies:

* which products they intend to bid on

the maximum number of lots they intend to bid on for each product.

A bidder’s start demand is binding in the first round and is kept confidential from other bidders. It also determines the number of eligibility points for the auction and the amount of the required eligibility payment. Registered bidders are not required to bid in all products nominated, or up to the maximum number of nominated lots, but they are not permitted to exceed their total eligibility.

Registered bidders are required to nominate their demand and make an eligibility payment or give a deed of financial security (or a mixture of both) for their nominated lots by the eligibility deadline.

In the 3.6 GHz auction, eligibility points were assigned a dollar value which was multiplied by the total lot ratings for the bidder’s start demand to calculate the eligibility payment amount. This led to eligibility payments being significantly different percentages of the start demand value between different bidders. To avoid a similar effect with the 26 GHz band auction, we propose that the amount of the eligibility payment for a bidder be calculated by multiplying the total value of the nominated lots at the starting prices for those lots by 10 percent. The starting prices will be stated in the AIP.

Anyone wishing to apply will need to submit the application requirements by the application deadline—currently estimated to be **late January 2021**.

Registered applicants will need to submit their eligibility requirements by the eligibility deadline which is estimated to be **early March 2021**.

**26 GHz band application process**

We propose to set the application fee for the auction at $10,000.

We seek views on the proposed two-stage application process requiring:

> By the application deadline, applicants to submit an application form and other supporting documentation, along with the payment of the application fee.

> By the eligibility deadline, applicants to provide their nominated lots and either an eligibility payment or a deed of financial security (or a mixture of both) for those nominated lots.

## Lot ratings and starting prices

Under the terms of the draft allocation determination we must specify a lot rating and starting price for each lot of the products on offer. Lot ratings provide indications of the relative value of a spectrum lot for the purpose of the auction. Geographic regions valued more highly are given a higher lot rating. Lot ratings are used to determine the total eligibility points available to bidders at the start of the auction.

By the eligibility deadline, each bidder nominates the number of lots they are interested in acquiring in each region. To calculate the eligibility points, the applicant multiplies their nominated number of lots in each region by the specified lot rating. The total lot ratings for all the bidder’s nominated lots determines the bidder’s maximum eligibility to bid in the first round.

Appropriate lot ratings facilitate price discovery in the auction. They enable bidders to bid on their most valuable lots in each round and, where possible, to substitute different lots in response to changes in their relative price.

Starting prices are the initial prices for each lot in the first round of the auction. If demand exceeds supply for a geographic region, the price for all lots in the region increases according to the clock price for that round.

The lot ratings and starting prices for the lots of each product will be published in the AIP, in accordance with the draft allocation determination.

### Potential for change in starting prices

The draft allocation determination provides us with the flexibility to change the starting prices after applications open but before the eligibility deadline. We expect that this would only occur in unusual or necessary circumstances such as where there is a significant change in the market after prices were set. If starting prices are changed, the lot ratings may also be changed, and the application and the eligibility deadlines would be extended. This would allow applicants to retain, vary or withdraw their application without penalty and new applications to be received.[[19]](#footnote-20)

**26 GHz band auction—change in starting prices**

We seek stakeholder views on providing the ACMA with the power to change the starting prices before the auction.

## Allocation limits

Allocation limits (also referred to as spectrum licence limits, spectrum caps or competition limits) have the effect of capping the total amount of spectrum that a single bidder can acquire in an auction. If the Minister directs the ACMA to impose limits on the amount of spectrum that may be allocated to one bidder and its associates, we must ensure that the allocation determination specifies the process for ensuring that competition limits are observed.

After the Minister made the re-allocation declaration on 18 October 2019, he also requested advice from the ACCC regarding competition limits. The [ACCC consultation](https://www.accc.gov.au/regulated-infrastructure/communications/mobile-services/spectrum-competition-limits/request-for-advice-26-ghz-spectrum) on this matter is now closed, with [submissions published](https://www.accc.gov.au/regulated-infrastructure/communications/mobile-services/spectrum-competition-limits/request-for-advice-26-ghz-spectrum). The Minister may direct the ACMA to implement competition limits for the 26 GHz band auction. Due to the timing of this consultation, we are unable to include any information about competition limits in the draft allocation determination but will include any limits in the final allocation determination if directed by the Minister.

## Affiliated applicants

On an assumption that the Minister will direct the ACMA on competition limits, Part 2 of the draft allocation determination contains affiliation provisions, as discussed below.

To ensure we can conduct a competitive and fair auction and comply with any allocation limits that may be imposed by the Minister, 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 allocation determination, or if they have an associate in common (for example, a director in common).

If an affiliation is identified between applicants prior to the eligibility deadline, options are proposed in the allocation determination to remedy the affiliation and allow participation in the auction. Options for affiliated applicants identified before the eligibility deadline include:

* All but one of the affiliated applicants must withdraw their application, allowing the remaining applicant to continue participating in the auction.

All the affiliated applicants withdraw their applications and submit a new single application on behalf of all applicants.

If an affiliation forms between bidders during the auction, there are two options proposed in the draft allocation determination that would ensure the allocation limits are applied:

The affiliated bidders must jointly give the ACMA a direction on how to allocate the lots between the affiliated bidders to ensure that the limits are not exceeded.

If the ACMA does not receive such a direction, we would allocate the spectrum between the affiliated bidders at our discretion, up to the limit specified by the allocation limits direction.

Before issue of any licences, each affiliated bidder would be required to pay the balance of their full auction bid despite receiving less spectrum. Where an affiliated bidder does not pay the balance of their full auction bid they may be excluded from obtaining a spectrum licence and any eligibility payment paid may be forfeited. In addition, any amounts secured under a deed provided by the applicant would be recoverable by the ACMA on behalf of the Commonwealth.

## Payment terms

The draft allocation determination sets out the financial obligations to be met by successful bidders before the ACMA can issue spectrum licences, in particular payment of the winning high bid price. The draft allocation determination also includes the procedure for the ACMA to return eligibility payments, which are held by the ACMA during the auction, to unsuccessful bidders.

In the past, we have used two methods for payment of winning high bids:

* upfront payment, where the entire winning bid price is required to be paid before licence issue and commencement

delayed payment, where only the first of several instalments is required to be paid before licence issue and commencement.

**For the 26 GHz band auction, we propose an upfront payment arrangement**.

This is consistent with the approach taken in the majority of auctions the ACMA has undertaken. We note that this is also consistent with the findings of the government’s [Spectrum Pricing review](https://www.communications.gov.au/documents/spectrum-pricing-review) which stated that:

“[f]or spectrum access charges determined by auction, the ACMA should generally require upfront lump-sum payments. ... In considering use of instalments, the ACMA should assess the risks to the state of default and the potential impact on competition.”

However, the Spectrum Pricing review also acknowledged that there may be circumstances where delayed – or instalment - payments are warranted shortly after the beginning of a licence term.

Given the current environment with COVID-19, we seek views on whether we should include a delayed payment option in the final allocation determination. If a delayed payment option is included, the procedures would differ from the draft allocation determination. In that case, following the close of the auction we would advise a winning bidder of the balance of the upfront winning price and the delayed winning price (that is, the winning price that would be payable if the winning bidder takes the delayed payment option). Our advice would also include the amount and payment date of each instalment of the delayed winning price plus details of the bank guarantees required as security for the outstanding payments. The winning bidder must then advise us, within a specified time of our advice, of how it elects to pay its winning price.

The delayed winning price would be greater than the upfront winning price to reflect forgone interest.

### Upfront payment

As set out in the draft allocation determination, under this payment arrangement, the balance of the winning price must be paid to the ACMA no later than 20 working days after the date of the invoice. It is expected that the licence would be issued and commence shortly after we have received the payment.

### Delayed payment

Under this payment arrangement, the ACMA would advise the winning bidder that the delayed winning price must be paid to the ACMA in a specified number of annual instalment payments and additional bank guarrantees. Should the ACMA choose to offer this payment arrangement, we would require each instalment payment of the delayed winning price to be paid by a specific date in each successive year. It is expected that the licence would be issued and commence shortly after we have received the first instalment payment.

This process could be similar to that set out in section 46 of the [Radiocommunications (Spectrum Licence Allocation – 700 MHz Band) Determination 2016](https://www.legislation.gov.au/Details/F2016L01970).

**Draft allocation determination**

We seek stakeholder views on the draft allocation determination and the auction rules for the 26 GHz band auction including the payment terms.

# Invitation to comment

## Making a submission

We invite comments on the issues set out in this consultation paper.

[Online submissions](https://www.acma.gov.au/have-your-say) can be made by uploading a document. Submissions in PDF or Microsoft Word are preferred.

Submissions by post can be sent to:

The Manager

Major Spectrum Allocations Section

Australian Communications and Media Authority

PO Box 78

Belconnen ACT 2616

**The closing date for submissions is COB, Monday 10 August 2020.**

Consultation enquiries can be emailed to [spectrumallocations@acma.gov.au](mailto:spectrumallocations@acma.gov.au).

### Publication of submissions

We publish submissions on our website, including personal information (such as names and contact details), except for information that you have claimed (and we have accepted) is confidential.

Confidential information will not be published or otherwise released unless required or authorised by law.

### Privacy

View information about our policy on the [publication of submissions](https://www.acma.gov.au/publication-submissions), including collection of personal information during consultation and how we handle that information.

Information on the *Privacy Act 1988,* how to access or correct personal information, how to make a privacy complaint and how we will deal with the complaint, is available in our [privacy policy](https://www.acma.gov.au/privacy-policy).

1. mmWaves span 30 to 300 GHz (that is a wavelength of 1 cm to 1 mm), however, in the current 5G context, the mmWave bands in consideration span from around 24 GHz up to 86 GHz. [↑](#footnote-ref-2)
2. A fallback synchronisation requirement is proposed to be included on 26 GHz band spectrum licences. This means that if interference occurs between frequency or area adjacent devices, and a negotiated solution cannot be reached, then licensees are required to synchronise the operation of their affected devices. In this context, synchronisation refers to aligning transmit and receive frames in a time-division duplex (TDD) configuration to minimise interference risk. The synchronisation configuration to be used is proposed to be included in an administrative instrument. [↑](#footnote-ref-3)
3. Consultation closes 10 August 2020 [↑](#footnote-ref-4)
4. A number of technical framework instruments are also required. The draft technical framework instruments and associated consultation paper have been published alongside this paper. [↑](#footnote-ref-5)
5. Subsection 39A(4) of the Act. [↑](#footnote-ref-6)
6. Subsection 60(2) of the Act. [↑](#footnote-ref-7)
7. Subsection 60(5) of the Act. [↑](#footnote-ref-8)
8. Subsection 60(9) of the Act. [↑](#footnote-ref-9)
9. The *Radiocommunications (Spectrum Licence Tax) Act 1997* (the SLT Act) provides for the imposition of spectrum licence tax. The SLT Act provides that the amount of tax in relation to a spectrum licence is the amount ascertained in accordance with a written determination made by the ACMA. This written determination is the SLT Determination. The ACMA has made the SLT Determination so that the tax recovers, from spectrum licensees, the indirect costs of spectrum management activities such as international coordination, domestic planning, interference investigation and policy development. The methodology for calculating each spectrum licensee’s amount of tax is contained in the SLT Determination. The annual licence tax amount for a spectrum licence is calculated on the basis of the bandwidth (in MHz) and the population covered by each licence and is imposed on 11 October of each year. [↑](#footnote-ref-10)
10. The ACMA may make rules about third-party use of spectrum licences under section 68 of the Act. [↑](#footnote-ref-11)
11. 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 (relating to registration of devices) have been met. [↑](#footnote-ref-12)
12. The commencement date was set as 30 May 2017 and the expiry date was set as 17 June 2028 providing a fixed licence term of 11 years and 19 days. [↑](#footnote-ref-13)
13. There is one incumbent apparatus licensee in the 26 GHz band. The incumbent operates in the Perth metropolitan area within the 24.125−30.0 GHz frequency range. [↑](#footnote-ref-14)
14. The draft amendment bill proposes increasing the maximum spectrum licence term to 20 years. To provide regulatory certainty the 26 GHz band allocation will be conducted under the current Act and spectrum licences will be issued with a maximum term of 15 years. [↑](#footnote-ref-15)
15. We will issue an invoice to each winning bidder. After payment is received, the spectrum licence will commence on the date of issue. [↑](#footnote-ref-16)
16. The draft marketing plan also includes a condition on the Canberra area for coexistence with the Canberra Deep Space Communication Complex, located west of the Canberra, at Tidbinbilla. Radiocommunications transmitters are limited from operating in the frequency range 25.5-27.0 GHz within the declared Canberra area in the [HCIS](https://www.acma.gov.au/sites/default/files/2019-08/australian-spectrum-map-grid-2012%20pdf.pdf) level 1 cells: MW4H3, MW4H9, MW4L3, MW5I1. [↑](#footnote-ref-17)
17. This is true where bid prices are a proxy for the value of service which the spectrum will be put to use. The assumption is that; all things being equal, those that value spectrum most would go on to create the highest social and economic value with that spectrum. [↑](#footnote-ref-18)
18. Vickrey pricing selects the highest value frequency assignment but bidders pay the next highest value bid by others for that assignment, i.e. the second price. Nearest Vickrey core pricing modifies this approach to ensure that there is not a bidder / group of bidders who bid more for the frequency assignment than the price paid by the winning bidder(s). [↑](#footnote-ref-19)
19. Section 37 in the draft allocation determination sets out the procedures for varying the starting prices. [↑](#footnote-ref-20)