**Attachment A:**

**Draft applicant information pack**

Allocation of apparatus licences in the   
26 GHz and 28 GHz bands

August 2020

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# Introduction

The Australian Communications and Media Authority (ACMA) is offering apparatus licences in the 26 GHz (24.7–27.5 GHz) and 28 GHz (27.5–29.5) millimetre wave (mmWave) bands (the bands) through two allocation rounds.

**Round 1**:

24.7–25.1 GHz and the 27.5–29.5 GHz ranges Australia-wide

apparatus licences via administrative allocation, before the auction of spectrum licences in specified areas in the range 25.1–27.5 GHz

we are expecting to open the round in late October 2020, with licences issued from December 2020.

**Round 2**:

25.1–27.5 GHz in all areas other than those specified for spectrum licensing

apparatus licences via administrative allocation after the spectrum licence auction

we are expecting to open the round in May 2021, and complete licence issue by end of June 2021.

The ACMA will announce the opening and closing dates for rounds 1 and 2 of this process on its website.

After these two initial rounds of apparatus licence allocations are completed, apparatus licensing will continue to be available in the above segments of the bands on a first-in-time basis, consistent with our general practice for apparatus licensing.

This applicant information pack (the pack) contains important information about allocating and issuing apparatus licences in the bands in two rounds, as well as how to make an application.

The pack contains:

key information about the features of area-wide apparatus licences (AWLs)

an overview of the allocation process for AWLs and a guide to what’s on offer in each of the bands

details of the charges and taxation that apply to the allocation of a licence

an overview of the technical framework, and links to more detailed information.

The allocation of apparatus licences is one of several ways the ACMA is making 26 GHz and 28 GHz mmWave spectrum available. This includes:

the allocation of 25.1–27.5 GHz spectrum licences in specified areas (metropolitan and regional centres) via auction (late March 2021). In this allocation, 2400 MHz of spectrum is available in 29 geographic areas. In July 2020, the ACMA published a [consultation paper](https://www.acma.gov.au/consultations/2020-07/26-ghz-band-spectrum-licence-draft-legislative-instruments-consultation-192020) on the 26 GHz band spectrum licence auction draft legislative instruments. The ACMA is preparing for the 26 GHz band spectrum auction.

class licences for low power use in the 24.25–25.1 GHz segment of the 26 GHz band (fully available from late 2020).

## Context for this allocation

The mmWave frequency bands, which are in the ‘high-band’ spectrum above 6 GHz, have for some time been considered the next frontier in the provision of fifth generation (5G) wireless broadband (WBB) services. These higher frequencies provide far higher bandwidths and enable faster WBB communications and offer lower latencies and potentially a much greater number of connected devices per square kilometre than lower frequencies.

Adopting a mix of licence types is intended to support a diverse range of 5G services and use cases, and provide a means for the continued allocation and use of mmWave spectrum to address emerging 5G uses. The use of area-wide apparatus licences (AWLs) in the bands forms part of a scalable approach to facilitating access to mmWave wireless broadband spectrum for a variety of users and use-cases.

A range of other non-WBB technologies also rely on the 26 GHz band. Most notably, these include satellite or other space services, including those that represent significant public interest to Australia, such as gateway uplinks for NBN’s Skymuster network and space research service links into deep space communications facilities.

There are also a significant number of current and emerging commercial satellite interests; particularly in the 28 GHz band, where small, medium and large earth stations transmit either service or gateway links from many locations around Australia. This type of use is expected to increase significantly in the coming months and years, and it is proposed that such use be authorised under AWLs.

Non-Australian satellites also operate in orbits above Australia and, as a signatory to the ITU-R Radio Regulations, Australia’s obligations include considering those satellite systems when planning spectrum domestically.

Finally, body scanners operate across these frequency bands in accordance with the [body scanners class licence](https://www.acma.gov.au/body-scanners-class-licence) for aviation security. All of the above services are important to Australia’s interests and coexistence with them has been considered in putting together the arrangements proposed in this pack.

In this licence allocation, the ACMA is guided principally by the objects of the *Radiocommunications Act 1992* (the Act). This includes providing for management of the radiofrequency spectrum in order to maximise, by ensuring the efficient allocation and use of the spectrum, the overall public benefit derived from using the radiofrequency spectrum, and to promote the communications policy objectives of the Commonwealth.

The minister has asked the ACMA to have regard to the government’s [Communications Policy Objectives for the Allocation of the 26 GHz band](https://www.communications.gov.au/documents/communications-policy-objectives-allocation-26-ghz-band), which he considers also relevant to the 28 GHz band, particularly the objective of supporting technological innovation and a range of wireless broadband use cases:

The allocation of licences in the 26 GHz band will see the introduction of a mix of licence types across the band – class, apparatus and spectrum licences. Providing for these different licence types means that the spectrum is available for a range of wireless broadband use cases, supporting emerging technologies and innovative uses of the band.

The planning, allocation and licensing arrangements are intended to enhance competition between different spectrum uses and provide an opportunity for new entrants in the band.

# What spectrum is available for licensing?

## Overview of the bands

### What spectrum is available?

A total of 4800 MHz of spectrum is being made available for apparatus licensing as 96 x 50 MHz channels (which can be aggregated) across the frequency range 24.7–29.5 GHz in aggregable geographic cells down to approximately 500 x 500 metres in size, for the purpose of apparatus licensing.[[1]](#footnote-2)

This consists of:

In the 26 GHz band:

400 MHz in the segment 24.7–25.1 MHz (C1 in Figure 1)

2400 MHz in the segment 25.1–27.5 MHz (A2 and A3 in Figure 1), outside the 29 specified areas that have been designated for spectrum licensing [[2]](#footnote-3)

2000 MHz in the 28 GHz band (A4, A5 and A6 in Figure1).

This amount of spectrum is intended to support a range of spectrum uses, noting that segments of the bands have been optimised for particular use-cases including:

public mobile wireless broadband services

public fixed wireless access (FWA)

private networks operating over limited areas, such as rail corridors, a hospital, an education precinct, mine or an industrial facility, either as an ‘industry vertical’ or as a service by an enterprise provider

dedicated (for example, government only) wireless broadband networks

fixed satellite services (FSS)

Internet of Things (IoT)

machine-to-machine (M2M) communications.

This spectrum and associated use cases are likely to be of interest to the following types of spectrum users:

wide area network operators such as mobile network operators (MNOs) and telecommunications carriers

private operators using mobile or fixed wireless broadband (industry verticals)

wireless internet service providers (WISPs)

enterprise providers

satellite operators.

## Band planning arrangements and technical restrictions

Technical planning conditions will apply to different segments of the bands to support a wide variety of 5G uses. Figure 1 summarises the planning arrangements in the bands.

Class licences are intended for indoor use only in the 24.25–24.7 GHz frequency range, and for both indoor and outdoor use in the 24.7–25.1 GHz frequency range.

Technical restrictions for device registration will apply in the 24.7–25.1 GHz frequency range. These restrictions will, in effect, limit the number of base stations in a given area. For this reason, the frequency range will not be suitable for deployment of a dense 5G network.

The segment 25.1–27.5 GHz in the 29 specified areas identified for spectrum licensing has been optimised for wide-area wireless broadband deployments. These areas are expected to be the subject of high demand. Outside of these areas, the segment is optimised for local-area wireless broadband.

Mobile wireless broadband is not permitted in the 28 GHz band. This band is able to be used by fixed satellite services (FSS) for apparatus-licensed, coordinated gateway earth stations. Fixed wireless broadband services are licensed on a co-primary basis with gateway earth stations in densely populated areas, but on a secondary basis to all FSS outside those areas.

The 28.1–29.5 GHz frequency range is also able to be used by FSS for apparatus-licensed, coordinated gateway earth stations, ubiquitous FSS (currently limited to frequencies above 28.3 GHz) and legacy point-to-point links. Fixed wireless broadband services can be operated on a secondary basis to FSS Australia-wide in this frequency range to support opportunistic use of the band by different industries.

The licensing and technical framework for AWLs includes licence conditions, which allow coexistence between fixed wireless broadband and FSS uplinks in the bands. The new arrangements also allow applicants to apply for AWLs to authorise earth stations. This is intended to support new and existing uses of the spectrum under flexible access arrangements, deliver flow-on benefits to consumers in terms of quality and range of services, and is expected to have little or no detriment to existing users of the spectrum.

1. Overview of planning arrangements in the 26/28 GHz bands

Diagram shows C1 in 24.25-24.7 Ghz, C2 and A1 in 24.7-25.1 GHz, S1 and A2 in 25.1-27.0 GHz, S2 and A3 in 27.0- 27.5 GHz, A4 and A5 in 27.5-28.1 GHz and A6 in 28.1-29.5 Ghz.

**C1/C2**: Class licensing arrangements for wireless broadband services (subject of a separate consultation process in September 2020).

**S1/S2**: Spectrum licensing (subject of a separate allocation process).

**A1**: Apparatus licensing (Australia-wide) restrictions on the number of base stations to manage interference by preventing wide and dense deployments.

**A2**: Apparatus licensing (outside specified areas).[[3]](#footnote-4) Includes additional conditions to protect space research service earth receive stations.

**A3**: Apparatus licensing (outside specified areas). Additional conditions to protect domestic FSS uplinks.

**A4** **(inside specified areas):** Restricted to FWA/FSS on a primary access basis and ubiquitous FSS on a secondary access basis.[[4]](#footnote-5) Additional conditions to protect domestic FSS uplinks.

**A5** **(outside specified areas):** Restricted to fixed wireless on a secondary basis with regards to primary fixed satellite users (fixed gateway and ubiquitous earth stations). Additional conditions to protect domestic FSS uplinks.

**A6** **(Australia-wide):** Restricted to fixed wireless on a secondary basis with regards to primary FSS users (fixed gateway and ubiquitous earth stations). Additional conditions to protect domestic FSS uplinks.

# How will the spectrum be licensed?

The spectrum on offer (see *What spectrum is available?*) will be licensed through the administrative allocation of apparatus licences. The ACMA will be issuing a new type of apparatus licence—the area-wide licence (AWL).

## What is an area-wide licence?

The AWL type is the foundation for the area-wide transmitter licence type that will be adaptable to licensee needs. This framework is intended to provide licensees with ‘building blocks’—aggregate frequency and area blocks in a single licence, which can meet a range of network sizes or topographies and can be service or technology neutral, as long as the standard licence conditions for the relevant band are met.

The AWL transmitter licence type can authorise the operation of one or more radiocommunications devices within a defined geographic area at a frequency or frequencies specified on the licence, subject to the conditions included in the licence.

The key attributes of the AWL type include:

**Area-based**: A licence authorises radiocommunications devices within a specified area, rather than at specific location(s). Interference with other services is primarily managed through the use of technical conditions that apply to the geographic and frequency boundary of the licence, rather than by detailed technical specifications for radiocommunications devices authorised under the licence.

**Space communications**: AWLs will authorise earth stations to communicate with space receive stations on space objects.

**Broad application**: The licences may be used for a wide range of purposes, uses, services, applications and technologies, subject to the technical framework for the relevant band set out in Radiocommunications Assignment and Licensing instructions (RALIs) and licence conditions.

**Scalable**: The licences are capable of being adapted to a variety of technologies and/or uses, with different sized areas and frequency bandwidths.

**Aggregable**: A number of AWLs, adjacent in geography, frequency or both, can be consolidated into a single transmitter licence, with boundary conditions applying to the boundary of the aggregated licence.

This licensing approach reflects developments internationally, where a number of other jurisdictions have developed a licensing option for small-area, multi-device deployments, including for proposed 5G applications. These overseas arrangements, while not exclusively restricted to industrial or commercial applications of spectrum, have often been utilised by a variety of ‘industry verticals’—industries outside of the MNOs. For example, industries such as mining and infrastructure that use spectrum to facilitate their operations.

## When and how can I apply for a licence?

In the apparatus-licensed segments of the bands, a significant amount of new spectrum is being made available, which is optimised through technical planning arrangements for a range of different services and deployment scenarios.

While demand is unlikely to exceed supply across all apparatus-licensed bands, there is the potential for excess demand in certain band segments, including competition between different kinds of operators/service providers.

To assist the ACMA in managing the demand for AWLs in the bands, we propose to use a two-staged administrative allocation for assessing licence applications to:

establish the initial level of demand

manage any excess demand in specific geographical locations and frequency segments.

Figure 2 shows a diagram of the allocation stages.

1. Stages for issuing AWLs

A screen shot of a computer

Description automatically generated

Initially, the ACMA is proposing two AWL allocation rounds:

**Round 1**: October–December 2020—apparatus licences (via administrative allocation) in 24.7–25.1 GHz and the 27.5-29.5 GHz ranges, Australia-wide.

**Round 2**: May–June 2021 (post-spectrum licence auction)—apparatus licences in 25.1–27.5 GHz in all areas other than those designated for spectrum licensing.

In each round, we will have an application window, followed by an assessment of whether there are any applications competing for an overlapping area in the same frequency range. Competing licences will move to the second stage in which the competing spectral demand will be resolved.

We will publish the application window dates for each round on our website.

**Application window**: Timing of application receipt within the window will not be relevant for the consideration of applications.

**Stage 1: Initial assessment**. This will identify the number of applicants for spectrum in the same band. If there are no competing applicants for spectrum in a particular band, the ACMA will issue the licences according to theRadiocommunications Assignment and Licensing Instruction (RALI) Licensing and coordination procedures for area-wide apparatus licensed services in the 26/28 GHz bands (referred to as RALI [new] in this pack) and any other applicable RALIs

**Stage 2: Resolving any competing spectral demand**. Additional information on this process is outlined further below in [*How will the ACMA resolve competing spectral demands?*](#_What_criteria_will)*.*

Once these initial rounds are completed, the issue of apparatus licences will revert to our usual first-in-time basis for administrative apparatus licence allocations.

### Application form

An application form will be made available specifically for AWLs. This form will capture the information necessary for the ACMA to consider applications, including resolving any competing spectral demand for applications that progress to stage 2 assessment. Collecting this information at the application stage will allow licences to be issued expeditiously.

The kind of information we will seek on the application form (in addition to the basic information about spectrum and area) could include a description of the proposed use-case, the nature of the service provision (for example, industry vertical, enterprise, MNO, satellite gateway), and the proposed timeframe for deployment. All information collected on the application form, except that required to be recorded on the Register of Radiocommunication Licences (RRL), will be treated as commercial-in-confidence.

## What is the minimum and maximum amount of spectrum and geographic area that I can apply for?

In the administrative allocation of apparatus licences, there is a total of 4800 MHz available as 96 x 50 MHz channels across the frequency range 24.7–29.5 GHz, in aggregable geographic cells down to approximately 500 x 500 metres in size.[[5]](#footnote-6)

To implement area-wide licensing into the 26 GHz and 28 GHz bands, the ACMA is using the Hierarchical Cell Identification Scheme (HCIS).The HCIS is the system used by the ACMA to define geographic areas for radiocommunications licensing and is based on the [Australian Spectrum Map Grid (ASMG)](https://www.acma.gov.au/australian-spectrum-map-grid). HCIS is a naming convention developed by the ACMA that applies unique ‘names’ to each of the cells that make up the ASMG—more information is on the ACMA website.

Geographic areas must consist of whole HCIS cells. The smallest geographic area authorised by an AWL is a single HCIS level 00 cell comprising an area of 20 x 15 seconds (equating to approximately 500 x 500 metres). The ASMG is being updated to include additional HCIS levels—level 0 cells comprising an area of 1 x 1 minutes and level 00 cells comprising an area of 20 x 15 seconds.

The minimum amount of spectrum applicants can apply for is one 50 MHz channel. The minimum geographic area available is one HCIS 00 cell, which is about 500 x 500 metres. Therefore, the minimum cell/channel combination is a 50 MHz channel with a 500 x 500 metre cell.

Interested users may obtain an AWL for a single cell of 500 square metres or combine any number of cells to form a larger geographic area, but large contiguous areas may not be guaranteed. Cells will be smaller subsets of HCIS cells, using the following model:

one AWL cell is equivalent to one ‘HCIS 00’ level cell.

there are 12 HCIS 00 cells in one ‘HCIS 0’ level cell.

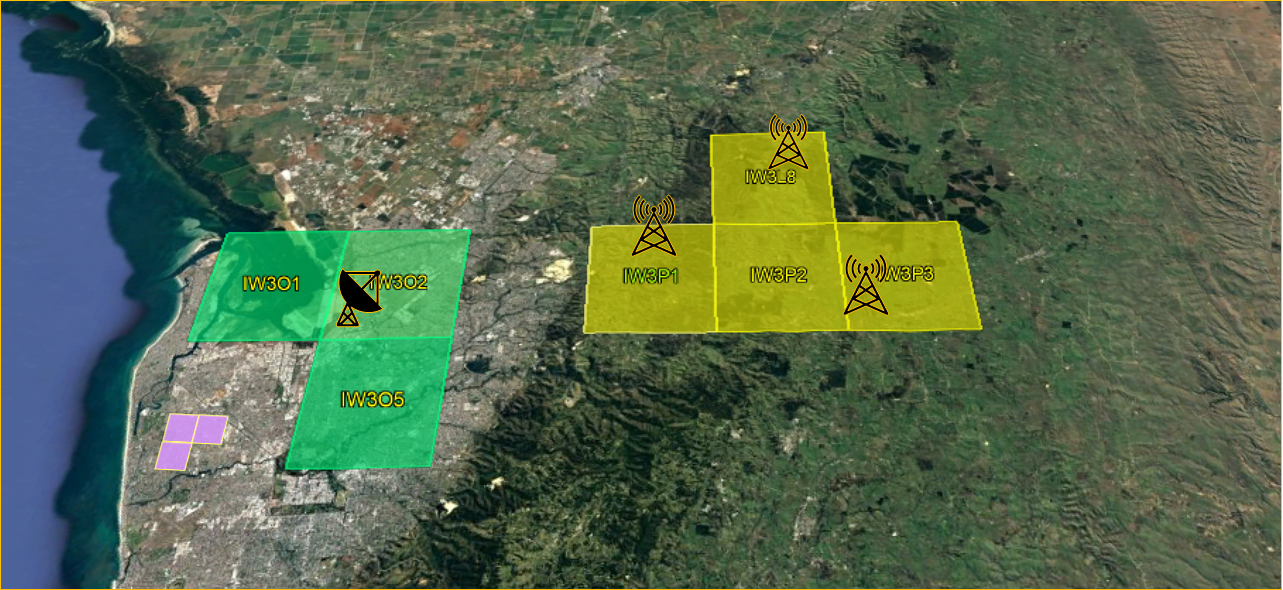
there are 25 HCIS 0 level cells in one HCIS 1 level cell.

The maximum amount of spectrum that an applicant may apply for is constrained by the amount of spectrum available in the band, however, as noted in the process described below, the ACMA may adjust the amount of spectrum offered, or offer no spectrum to one or more applicants where there is competing demand.

The diagram below is for illustrative purposes only. Using HCIS cells, it shows a hypothetical example of three different applicants applying for licences in different areas to provide particular services. The area in green represents a satellite operator, who has one earth station; the area in yellow represents a terrestrial operator, such as a WISP or FWA, with multiple base stations; and the area in pink represents a private operator or enterprise provider operating over a limited area, such as a hospital or education precinct.

Prospective licensees can apply for whatever number of available cells they want, and they can deploy as many devices (for example, stations) as they like in those cells, as long as the licence conditions are met, including boundary conditions.

1. Example of cell combinations



### Administrative spectrum limits

The Minister for Communications, Cyber Safety and the Arts has [directed](https://www.legislation.gov.au/Details/F2020L01016) the ACMA to impose allocation limits on spectrum acquired at the 26 GHz spectrum auction. The minister’s decision was informed by [advice](https://www.accc.gov.au/regulated-infrastructure/communications/mobile-services/spectrum-competition-limits/request-for-advice-26-ghz-spectrum.) from the Australian Competition and Consumer Commission (ACCC).

The ACCC advice notes that while there is a potential for monopolisation the apparatus licences, the demand is uncertain, and that despite the fact both spectrum and apparatus licences can be used to supply fixed broadband services, the risk of monopolisation is low. Accordingly, the minister has not directed the ACMA to impose allocation limits on the allocation of apparatus licences in the 26 and 28 GHz bands.

The ACMA is considering what steps it could take to mitigate the residual risk of monopolisation in the bands. In developing such steps and in allocating the apparatus licenses, the [minister has asked us](https://communications.govcms.gov.au/sites/default/files/allocation-limits-direction-for-26-ghz-auction-signed-letter-to-acma-chair-ecl.pdf) to consider the government’s Communications Policy Objectives for the Allocation of the 26 GHz band, as relevant to the 28 GHz band, particularly, the objective of supporting technological innovation and a range of wireless broadband use cases (see [*Context for this allocation*](#_Context_for_this)for further discussion).

We have decided not to impose limits on the amount of available spectrum that can be applied for, whether in the first two rounds or subsequent rounds when AWLs are made available on a first-in-time basis. We recognise that different amounts of spectrum are needed for different technology deployments and we want to retain opportunities for interested parties to apply for spectrum at later times to enable network enhancements.

Where there is competing demand, we will address that tension by:

using a set of decision-making principles, which promote the policy objectives, to undertake an assessment for any contending applications where there is insufficient spectrum. In this circumstance, the ACMA may offer the applicant a licence that authorises less spectrum or geographic area than applied for, or in an alternative frequency range within the apparatus-licensed segments of the bands (see [*How will the ACMA resolve competing spectral demands?*](#_How_will_the))

issuing AWLs for no longer than five years (see [*Duration*](#_Duration))

adding an advisory note to each AWL that the ACMA will consider the extent of use of the licence at renewal if there is evidence of alternative demand at that time (see *Renewal*).

## How will the ACMA resolve competing spectral demands?

The ACMA will take into account a range of matters in considering the issue of an AWL in a particular band. These factors will include the licensing arrangements (if any) that exist in the relevant band, the likely technologies and deployment scenarios that will be employed in the band, and the necessary conditions for co-existence of services.

If the initial assessment stage (stage 1) identifies that there are competing applicants for the same spectrum, these applications will move to the second stage of the decision-making process-resolving competing spectral demand.

The ACMA will move to stage 2(a) shown in Figure 2 (referred to as the negotiation phase), when two or more applicants have applied for spectrum in the same HCIS cell and frequency band, but there is sufficient spectrum across the bands to meet all demand. In these circumstances, we will assist the applicants to negotiate an outcome, where one or more of the competing applicants may be offered other spectrum in the same segment or in another segment of the bands.

The ACMA will move to stage 2(b) if there is insufficient spectrum for all applicants in the bands and the geographic location. Under this stage, we will consider applications in accordance with the following principles:

the allocation (both in quantum of spectrum and in geography) will be consistent with the proposed use cases of the applications received

the allocation will promote the efficient use of spectrum in a manner consistent with the technical arrangements supporting planned uses

the allocation outcome will facilitate a diversity of licensees offering a variety of innovative technology use cases

the allocation will consider, for each applicant, the extent to which a denial of the spectrum in question would affect the ability of the applicant to deploy service.

In deciding these principles, the ACMA has been guided by the objects of the Act. This includes managing the radiofrequency spectrum in order to maximise, by ensuring the efficient allocation and use of the spectrum, the overall public benefit derived from using the radiofrequency spectrum, and to promote the communications policy objectives of the Commonwealth. Relevant to the current allocation, this includes the communications policy objectives for the allocation of the 26 GHz band by an auction of spectrum licences. As noted above, the minister has asked us to consider these objectives for the allocation of apparatus licences in both the 26 GHz and 28 GHz bands.

These principles are intended to allow planning decisions for both bands to support a wide range of spectrum interests under multiple licensing arrangements and provide an opportunity for a variety of technology use cases. The [*Future use of 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 noted that the intention behind having apparatus-licensed arrangements in the 28 GHz band for localised FWA services (in addition to FSS) is to provide additional spectrum options for WISPs, local councils, mining companies and other industry verticals.

# What is the duration of a licence and can I renew it?

## Duration

The ACMA may issue apparatus licences for up to five years. The expiry date will be specified on the licence. Applicants may specify a preferred shorter licence period in the application form.

The Department of Infrastructure, Transport, Regional Development and Communications (the Department) has recently consulted on [an exposure draft](https://www.communications.gov.au/have-your-say/exposure-draft-radiocommunications-legislation-amendment-reform-and-modernisation-bill) of a Bill to amend the Act*.* As part of those reforms, the Department is reviewing the duration of apparatus licences and considering extending the duration up to 20 years.

While all licence applications are considered on their merits, we consider that AWLs for the bands should be issued for no more than five years, even if a longer duration becomes available. A five-year licence duration before renewal consideration will provide a suitable time for the technology to be deployed and ensures that unused spectrum can be potentially returned to the market instead of being locked away for a lengthy period (see below).

## Renewal

As noted earlier, the extent of demand for AWLs in the band remains uncertain at this time, reflecting the early development of business cases for service deployment. To address the risk that initial licence allocations may not ultimately be used as planned, and the potential that licence holders may not have adequate incentive to return unused licences or unused portions of licences to the market, we intend to place an advisory note on each AWL. This will outline that the ACMA, when deciding whether to renew a licence, will have particular regard to whether the spectrum has been used and if there is unmet demand in the 26 GHz or 28 GHz bands.

By addressing unmet demand, this supports the policy objective of supporting technological innovation and a range of wireless broadband use cases.

The ACMA may decide not to renew a licence, or to renew the licence with different conditions. In circumstances where the licensed spectrum has not been used and there is unmet demand, the ACMA may decide not to renewal the licence, or alternatively may renewal the licence with new or varied conditions attached to the licence—for example, if the spectrum was used in some areas authorised by the licence and not others, the ACMA may renew the licence excluding those geographic areas for which use has not been demonstrated. Similarly, if only some of the spectrum authorised by the licence has been used, the ACMA may decide to renew the licence for only the spectrum that has been used.

We are aware that new technologies can emerge very quickly, and the external operating environment can change rapidly, so it is desirable to allow flexibility for licensees to respond to these changes.

If the ACMA considers that unmet demand in the bands will require a consideration of spectrum use at renewal, the ACMA will communicate this to licensees no less than three months before the expiry date of the licence.

The ACMA may also offer to renew the licence under different conditions, including because of re-planning decisions or for other reasons. More information about [apparatus licence renewal](https://www.acma.gov.au/policy-apparatus-licence-renewals) is available on the ACMA’s website.

# What other conditions and policies will apply to the licence?

The conditions of use of AWLs are set out in:

the Act

the Radiocommunications Licence Conditions (Area-Wide Licence) Determination 2020(AWL LCD)

conditions included in the licence, including special conditions that can afford additional flexibility (as with all apparatus licensing).

## AWL LCD

The AWL LCD contains a condition common to all area-wide transmitter licences. With some exceptions, this condition requires licensees to provide information about the location of their area-wide stations and their maximum total radiated power to the ACMA or others who make a written request for such information.

The AWL LCD will impose conditions that apply only to devices operating in the bands. These conditions include:

maximum permitted total radiated power limits

limits on unwanted emissions outside the frequency range authorised by the licence

radiocommunications transmitters that must be included in the Register of Radiocommunications Licences (RRL) before they are operated (unless specifically exempt)

deployment restrictions to manage coexistence with other services.

Apparatus licences do not come with legal exclusivity; in general, other apparatus licences can be issued for coextensive frequencies ranges and geographic areas. The RALI [new] explains our licensing and assignment policy for the bands.

Apparatus licences can co-exist with class licences.

Licensees may authorise third parties to operate radiocommunications devices under the licence.

## Radiocommunications Licensing and Assignment Instructions (RALIs)

The ACMA has prepared the RALI [new], which details the ACMA’s policy on administratively issuing new AWLs and the coordination of devices operating under an AWL with other services (where necessary).

While all applications are considered on their merits, the ACMA will only issue a new AWL in the bands if the licence aligns with the assignment rules in RALI [new]. These rules include the requirement to adhere to the specified channel raster and loading (where applicable), and limitations on assignments in certain areas.

In general, an AWL will not be issued if it would overlap with an existing AWL in both frequency and area. The exception is when either[[6]](#footnote-7):

the AWL authorises only the operation of FSS earth stations (an ‘FSS-only AWL’) and requires the licensee to provide protection to existing and future receivers operating in frequency and area being overlapped; or

the AWL overlaps one or more FSS-only AWLs and accepts any interference received from transmitters operating under the overlapped licences.

RALI [new] also outlines the coordination requirements that must be met before a transmitter can be included in the RRL. This includes coordination arrangements between area-wide stations operated under other AWLs, and between area-wide stations authorised under an AWL and other radiocommunications devices or services in and adjacent to the bands. Requirements detailed in other applicable RALIs and [business operating procedures](https://www.acma.gov.au/business-operating-procedures-spectrum), which need to be met before a transmitter can be registered on the RRL, are also set out in RALI [new].

# What taxes and charges will apply?

## Taxes and charges

There are two types of fees applicable to apparatus licences:

administrative charges to recover the direct costs of spectrum management

annual apparatus licence taxes to recover the indirect costs of spectrum management and provide incentives for efficient spectrum use. Indirect costs are those that cannot be directly attributed to individual licensees.

## Annual apparatus licence tax

The ACMA is proposing an apparatus licence tax of $/MHz/pop in segments of the 26 GHz band (the 24.7–25.1 range and in areas other than those designated for spectrum licensing in the 25.1–27.5 range), and in the 27.5–29.5 frequency range of the 28 GHz band.

Total annual licence tax is calculated as follows:

AWL tax = $/MHz/pop price x bandwidth (MHz) x population of geographic area

where:

‘$/MHz/pop’ price is the tax rate for one MHz of spectrum per head of population.

‘bandwidth’ is the total amount of spectrum in MHz authorised by the licence.

‘population’ (based on the 2016 Census) is the population of the geographic area authorised by the licence. The area will be defined in terms of the HCIS system. The population is based on the aggregate population of all the geographic cells to be authorised by the licence. The effective population of a single HCIS 00 cell (the minimum cell size, which will be referred to as a single ‘AWL cell’) for the purposes of tax calculations will be determined by taking the average population of all AWL cells within a broader HCIS 1 cell.

The ACMA is proposing an apparatus licence tax of $0.0003/MHz/pop in the bands.

The minimum tax constraint will be applied to the aggregate cost of the AWL and will be equivalent to the minimum annual tax for apparatus licences (that is, currently $41.49). Where the tax worked out using the method outlined above is less the minimum annual tax, the tax will be the minimum annual tax. Total taxes are rounded to the nearest dollar.

### Examples of taxes

To assist applicants, the following examples are provided using three simple use cases, namely using 400 MHz of bandwidth and four, 50 and 300 HCIS 00 cells in several locations. The locations chosen have relatively large populations at the HCIS 1 level to highlight how to calculate the taxes. Other locations will have lower populations and therefore taxes will be lower. Further, to simplify the example, it is assumed that the HCIS 00 cells to be authorised are all in the one HCIS 1 cell.

Analysis for the $0.0003/MHz/pop tax in several different regions:

* HCIS 1 cell NV7M6 is in inner Sydney and had a population of 370,373 on the 2016 Census date, which was the highest of all HCIS 1 cells. This means the average population of the HCIS 00 cells in this region is 1,234.58[[7]](#footnote-8) (that is, 370,373 divided by 300).
* HCIS 1 cell LQ1O9 is the most populated cell in Cairns, with a population of 44,745 (average population per HCIS 00 cell is 149.15).
* HCIS 1 cell DQ5M9 is the most populated cell in Broome, with a population of 12,268 (average population per HCIS 00 cell is 40.89).
* HCIS 1 cell IW3L4 is the most populated cell in Adelaide Hills, with a population of 7,282 (average population per HCIS 00 cell is 24.27).

Table 1 details the potential annual taxes for the different use cases in various locations, noting that the taxes are rounded to the nearest dollar and the minimum annual tax of $41.49 also applies.

$/MHz/pop annual apparatus licence taxes (using 400 MHz) in different locations

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Price  ($0.0003/400 MHz/pop)** | **HCIS 1 cell NV7M6 (inner Sydney)** | **HCIS 1 cell LQ1O9 (Cairns)** | **HCIS 1 cell DQ5M9 (Broome)** | **HCIS 1 cell IW3L4 (Adelaide Hills)** |
| 4 cells | $593 | $72 | $41\* | $41\* |
| 50 cells | $7,407 | $895 | $245 | $146 |
| 300 cells | $44,445 | $5,369 | $1,472 | $874 |

\*Tax amounts for four cells in Broome and Adelaide Hills are $19.63 and $11.65 respectively, causing the minimum tax amount of $41.49 to be applied.

Population information for the HCIS system can be found on the [ACMA’s website](https://www.acma.gov.au/convert-hcis-area-description-placemark).

We have developed a fee calculator (available alongside this pack on the ACMA website) to help applicants work out how much tax must be paid for the combination of spectrum and geographic area wanted.

### Payment of tax

Apparatus licence tax is payable before a licence is issued. If the licence duration is more than one year, the annual amount for each year can be paid upfront. Alternatively, the tax amount can be paid by annual instalments, but the instalment amounts may differ each year due to adjustments like our annual CPI increase in taxes, and any changes to taxation that may occur due to pricing reviews.

## Charges

A cost-recovery charge is payable for considering an application for the issue of an apparatus licence. This charge is payable whether or not the application results in the issue of a licence. The charge recovers the direct costs of the ACMA spectrum management activities. Different charges are applicable to different types of apparatus licence. The charges are based on the median amount of time we take to consider each type of licence and some types of licence have no fixed issue charge specified. This might be because the number of applications is low and/or the complexity of considerations is subject to wide variation. At present, there is no issue charge for the AWL licence type. Noting the variable of number of steps that may be needed in considering an application, the default general service charge will apply at the current ACMA hourly rate, which can be obtained in the ACMA’s [apparatus licence fee schedule](https://www.acma.gov.au/publications/2020-06/guide/apparatus-licence-fee-schedule).

# Can I transfer a licence to someone else?

The rules for transferring an apparatus licence are detailed in:

Section 131 of the Act

the [Limitation of Authorisation of Third Party Users and Transfer of Apparatus Licences Determination 2015](https://www.legislation.gov.au/Details/F2015L01218).

More information about transfers can be found on our [website](https://www.acma.gov.au/transfer-or-trade-your-licence).

# Licence variation, consolidation and changing an existing earth licence to an AWL

## Variation to licences to add spectrum and area

After apparatus licencing in the bands reverts to first-in-time, a licensee who has obtained an AWL in round 1 or 2 may seek to acquire further spectrum in the bands, or to authorise the existing spectrum across more geographic cells.

Instead of applying for a new AWL, a licensee may apply for a ‘variation’ of their apparatus licence to change the amount of spectrum and/or cells they have with their existing AWL licence. In deciding whether to vary the licence, the ACMA will have regard to the same matters that were initially considered in the issue of the original licence.

If a licensee is successful in their application for a variation of their licence, they will be issued a new licence document with the same licence number as the original licence, however, a new version number—the number after the /' in apparatus licence numbers on the RRL—will be provided.

A cost-recovery fee will be payable for the consideration of an application. Additional annual apparatus licence tax may be payable for the additional spectrum authorised for the remainder for the licence period.

## Consolidating AWLs

Licensees that have acquired multiple AWLs over time—either from the ACMA or by transfer from another licensee—may combine multiple AWLs into one licence. This can be done by surrendering any existing licences and issuing the new licence that authorises the composite frequency bands and geographic areas previously authorised by the multiple AWLs. The ACMA will not consolidate licences if the conditions in the licences are inconsistent.

## Changing earth licences to AWLs

Holders of earth licences in the 28 GHz band may apply from round 1 to replace an earth licence (fixed earth licence option) with an AWL to authorise earth stations previously authorised by one or more earth licences. We can facilitate this once the earth licence is surrendered and an equivalent AWL has been applied for.

# Other important information about apparatus licences

The information contained in this pack is provided as a guide for applicants and should not be relied on as the only source of information.

## *Radiocommunications Act 1992* (Cth)

The operation of all radiocommunications equipment authorised under a licence issued by the ACMA is subject to:

conditions specified in the Act, including an obligation to comply with the Act

a condition that any radiocommunications device operated under the licence must comply with all the standards applicable to it

conditions specified in any determinations made by the ACMA under paragraph 107(1)(f) of the Act (that is, an LCD)

conditions specified in the licence

any further conditions imposed by the ACMA under section 111 of the Act.

Generally, conditions are applied to licences to enable users to communicate effectively, with an acceptable level of interference. All conditions relating to a licence must be complied with.

## Suspending and cancelling licences

Information about the circumstances where the ACMA may suspend or cancel an apparatus licence is available on the ACMA website.

## Licence surrender

If a licensee no longer needs their AWL, they can surrender it. The ACMA may refund part of the licence fee. See the [ACMA website](https://www.acma.gov.au/give-your-licence) for more information.

## Third-party use

A licensee may be able to let a third party use their AWL. Details about what is required is available on [our website](https://www.acma.gov.au/let-someone-else-use-your-licence).

## Other general guidance

The allocation of apparatus licences is provided for by the Act. Applicants for apparatus licences are encouraged to familiarise themselves with all the provisions of the Act, not just those pertaining to licensing, and should be aware that any activities associated with radiocommunications may also be regulated by the *Competition and Consumer Act 2010*, the *Broadcasting Services Act 1992* and the *Telecommunications Act 1997*. Depending on the activity undertaken under a radiocommunications licence, other Commonwealth, state and territory laws may apply.

The ACMA is a statutory authority established under the *Australian Communications and Media Authority Act 2005* to, among other things, administer the Act. In exercising its powers and functions, including those conferred on the ACMA by the Act, the ACMA may be expected to apply its policies, which may change from time to time.

Nothing in this paper should be taken to bind the ACMA to any particular course of action in relation to the allocation of licences in the spectrum under discussion. The comments made in this paper about AWLs reflect the current policies of the ACMA. Prospective applicants should be aware that the policies of the ACMA may change from time to time.

Australia is a signatory to the International Telecommunication Union Constitution and Convention and to other international treaties relating to communications. The administration of radiocommunications by the ACMA is undertaken with regard to these conventions and treaties.

Applicants are also advised to seek advice independently of the ACMA on the treatment of radiocommunications licences and other investments under Australian taxation laws, and on the operation of foreign investment laws and policy on proposed investment in communications in Australia.

1. Under some circumstances, a licence may be issued that does not align with this channel raster—see RALI [new]. [↑](#footnote-ref-2)
2. These are the 29 areas specified for spectrum licensing under the [Radiocommunications (Spectrum Re-allocation — 26GHz Band) Declaration 2019](https://www.legislation.gov.au/Details/F2019L01374)*.* These are Adelaide, Albany, Albury, Armidale, Bendigo, Brisbane/Lismore/Sunshine Coast/Toowoomba, Bundaberg/Hervey Bay, Cairns, Canberra, Coffs Harbour, Darwin, Foster/Tuncurry, Hobart, Launceston. Mackay, Margret River, Melbourne/Ballarat, Mildura, Port Macquarie, Shepparton/Mooroopna, Sydney/Bathurst, Townsville, Traralgon/Morwell, Wagga Wagga, Warrnambool, Perth/Bunbury, Bunbury, Perth. Refer to the declaration for the precise geographical description. [↑](#footnote-ref-3)
3. ‘Specified areas’ for A2, A3, A4 and A5 are large population centres as named in the [Radiocommunications (Spectrum Re-allocation – 26GHz Band) Declaration 2019 (the re-allocation declaration)](https://www.legislation.gov.au/Details/F2019L01374). [↑](#footnote-ref-4)
4. For both A4 and A5, class-licensed ubiquitous FSS earth stations are contingent upon an appropriate space receive apparatus licence being in place.Expansion of regulatory arrangements supporting ubiquitous earth stations below 28.3 GHz requires amendment to the[Radiocommunications (Communication with Space Object) Class Licence 2015](https://www.legislation.gov.au/Details/F2020C00197), which will be subject to a separate consultation process. [↑](#footnote-ref-5)
5. Under some circumstances, a licence may be issued that does not align with this channel raster—see RALI [new]. [↑](#footnote-ref-6)
6. Further details about this arrangement and the associated conditions are contained in RALI [new]. [↑](#footnote-ref-7)
7. Population figures are left unrounded for tax calculations and are displayed above in two decimal places for simplicity. [↑](#footnote-ref-8)