**Response to the implementation of the Spectrum Pricing Review (part 2)**

Consultation on the second tranche of reform proposals

October 2021

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Executive summary

## Tranche two reform proposals

The ACMA is proposing a second tranche of tax reforms to address remaining [*Spectrum Pricing review* (SPR)](https://www.infrastructure.gov.au/media-centre/publications/spectrum-pricing-review) report recommendations, and feedback from stakeholders provided during earlier consultations.

In the [*Response to implementation of the Spectrum Pricing Review*](https://www.acma.gov.au/consultations/2020-12/response-implementation-spectrum-pricing-review-consultation-392020) consultation paper, we:

responded to industry submissions on the 6 focus areas for review of prices

published spectrum pricing guidelines that guide the ACMA’s pricing decisions

proposed a [first tranche of reforms](https://www.acma.gov.au/consultations/2020-12/response-implementation-spectrum-pricing-review-consultation-392020#outcome-part-2-and-next-steps) that came into effect on 12 July 2021.

This second tranche of reform proposals focuses on updating the assigned apparatus licence tax formula to address SPR recommendation 7.[[1]](#footnote-2) The ACMA proposes to amend the Radiocommunications (Receiver Licence Tax) Determination 2015and the Radiocommunications (Transmitter Licence Tax) Determination 2015 to:

* Simplify the location weightings tables by consolidating the >30–403 MHz frequency range into a single band.
* Increase weightings for the 2,690 to 5,000 MHz spectrum location band for high and medium-density geographic areas to reflect the relatively large increase in demand for this spectrum in these areas and the general increase in prices for similar spectrum.
* Add a new spectrum location band >100 GHz where licences will generally incur the minimum tax (currently $41.37), reflecting the lower potential for interference at these higher frequencies, and facilitating the use of services expected to require very large bandwidths.
* Cease annual consumer price index (CPI) updates to taxes, and instead regularly update taxes based on population growth specific to density areas.

Update density area definitions for Perth and Adelaide.

The ACMA also proposes to reduce tax rates for transmitter licences used to provide high-power open narrowcasting (HPON) services, to bring them closer in line with commercial broadcasting taxes and charge different tax rates for television, FM and AM HPON licences. This will help reflect the difference in bandwidth used by each.

We consider the second tranche of pricing reforms to be the final tranche of our changes to taxation arrangements relating to the Spectrum Pricing Review report. However, we will continue to update spectrum taxes as necessary to keep pace with the rapidly changing communications and media technologies and their uses.

## Proposal to adjust tranche one reforms

Since implementing the first tranche of reforms, the ACMA also received useful additional feedback on them. Consequently, we are proposing some changes to the definition of low-power and micro-power spectrum accesses, and to the earth station system arrangements. This will allow for more flexibility with earth station system configurations eligible for the ‘system price’.

## Draft tax determinations

The proposals discussed in the paper are set out in the accompanying draft tax determinations:

Attachment A: Draft Radiocommunications (Transmitter Licence Tax) Amendment Determination 2021 (No. 3).

Attachment B: Draft Radiocommunications (Receiver Licence Tax) Amendment Determination 2021 (No. 3).

Please read this consultation paper in conjunction with these attachments.

# Issues for comment

The ACMA invites comments on the issues set out in this paper.

### Question 1

Do you have any comments on the proposal to amalgamate the >30 to 403 MHz range for the tax formula?

### Question 2

Do you have any comments on the proposal to increase location weightings for the high and medium-density areas in the >2,690 to 5,000 MHz range?

### Question 3

Do you have any comments on the appropriateness of the proposed spectrum location weighting for frequencies above 100 GHz?

### Question 4

The minimum tax in the proposed band above 100 GHz is intended for services exhibiting limited interference potential to other services. Should the ACMA restrict the minimum tax above 100 GHz to services, such as optical communications, with known limited spectrum denial?

### Question 5

Do you have any comments on the proposed method to update taxes by reference to population change, rather than annual adjustments based on the consumer price index?

### Question 6

Do you have any comments on the density area framework, proposed density area definitions, or proposed changes to the Perth and Adelaide medium-density areas?

### Question 7

Do you have any comments on the tax reform proposals for HPON licences?

### Question 8

Do you have any comments on the proposed adjustments to the tranche one reforms?

### Question 9

Do you have suggestions for any additional pricing measures the ACMA could consider to encourage spectrally efficient technology deployments?

### Question 10

Are there any other comments that you would like to give relating to the proposals in this paper or other aspects of the apparatus licence tax regime?

# 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, Microsoft Word or Rich Text Format are preferred.

Submissions by post can be sent to:

The Manager

Economics Advisory

Australian Communications and Media Authority

PO Box 13112 Law Courts

Melbourne Victoria 8010

The closing date for submissions is **COB, Friday** **10 December 2021**.

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

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# Proposals for updating the tax formula

Under the Radiocommunications (Receiver Licence Tax) Determination 2015and the Radiocommunications (Transmitter Licence Tax) Determination2015, most amounts of apparatus licence tax are calculated using the ‘assigned licence tax formula’ (also known as the administrative pricing formula). The amount of tax payable is calculated by multiplying the factors of bandwidth, power, location weighting, an adjustment factor, and a normalisation factor.[[2]](#footnote-3) The formula is used to encourage efficient use of spectrum by setting relatively higher taxes where there is higher demand and higher potential for congestion and interference, and vice versa.

The SPR report recommended that the ACMA review the assigned licence tax formula’s parameters, including density areas, the number of pricing bands, and the number of power categories, to reflect changes in density, demography and demand (Recommendation 7).

The formula and the underlying location weightings were designed to reflect the relative density of services and demand for spectrum at different frequencies and different geographic areas. The current set of location weightings has not been updated since 2004.

The ACMA has reviewed the formula and proposes the following set of changes to location weightings:

* Amalgamation of the three spectrum location bands between >30 to 403 MHz to form a single band.
* Increasing weightings for the 2,690 to 5,000 MHz spectrum location band for high and medium density geographic areas to reflect the relatively large increase in demand in this spectrum and higher prices for spectrum in these areas.
* Introducing a new spectrum location band for services above 100 GHz, for which the amount of tax will be the minimum tax payable for any licence (currently, $41.37).
* Ceasing annual consumer price index (CPI) updates to taxes, and instead update taxes based on population growth specific to density areas.

Updating the density area definitions for Perth and Adelaide.

These proposed changes are summarised in the proposed location weightings in Table 1 below. Grey highlighted cells denote changes already made in the first tranche of proposals, orange cells highlight likely tax increases, and green cells highlight likely tax decreases. This can be compared with the current location weightings in Table 2.

Proposed location weightings

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Geographic location** | | | | |
| **Spectrum location** | **Aus-wide** | **High** | **Medium** | **Low** | **Remote** |
| 30 MHz and below | 4.315 | 4.315 | 4.315 | 4.315 | 4.315 |
| >30 to 403 MHz | 9.747 | 3.807 | 1.878 | 0.421 | 0.21 |
| >403 to 520 MHz | 10 | 7.4114 | 2.562 | 0.437 | 0 |
| >520 to 960 MHz | 10 | 5.6 | 2.562 | 0.437 | 0.218 |
| >960 to 2,690 MHz | 9.985 | 2.241 | 1.036 | 0.521 | 0.26 |
| >2,690 to 5,000 MHz | 9.974 | 2.689 | 1.243 | 0.622 | 0.311 |
| >5.0 to 8.5 GHz | 4.2105 | 0.7785 | 0.3625 | 0.1650 | 0.0800 |
| >8.5 to 14.5 GHz | 0.3711 | 0.1336 | 0.0316 | 0.0023 | 0.0011 |
| >14.5 to 31.3 GHz | 0.3711 | 0.0988 | 0.0217 | 0.0023 | 0.0011 |
| >31.3 to 51.4 GHz | 0.1012 | 0.0539 | 0.0117 | 0.0004 | 0.0002 |
| 51.4 GHz to 100 GHz | 0.01 | 0.001 | 0.001 | 0.0001 | 0.0001 |
| Above 100 GHz | 0 | 0 | 0 | 0 | 0 |

Current location weightings

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Geographic location** | | | | |
| **Spectrum location** | **Aus-wide** | **High** | **Medium** | **Low** | **Remote** |
| 30 MHz and below | 4.315 | 4.315 | 4.315 | 4.315 | 4.315 |
| >30 to 70 MHz | 9.747 | 3.807 | 2.025 | 0.437 | 0.218 |
| >70 to 399.9 MHz | 10 | 4.104 | 1.878 | 0.421 | 0.21 |
| >399.9 to 403 MHz | 10 | 5.6 | 2.562 | 0.437 | 0.218 |
| >403 to 520 MHz | 10 | 7.4114 | 2.562 | 0.437 | 0 |
| >520 to 960 MHz | 10 | 5.6 | 2.562 | 0.437 | 0.218 |
| >960 to 2,690 MHz | 9.985 | 2.241 | 1.036 | 0.521 | 0.26 |
| >2,690 to 5,000 MHz | 9.974 | 1.853 | 0.751 | 0.622 | 0.311 |
| >5.0 to 8.5 GHz | 8.421 | 1.557 | 0.725 | 0.33 | 0.16 |
| >8.5 to 14.5 GHz | 3.711 | 1.336 | 0.316 | 0.023 | 0.011 |
| >14.5 to 31.3 GHz | 3.711 | 0.988 | 0.217 | 0.023 | 0.011 |
| >31.3 to 51.4 GHz | 1.012 | 0.539 | 0.117 | 0.004 | 0.002 |
| Above 51.4 GHz | 0.1 | 0.01 | 0.01 | 0.001 | 0.001 |

The following sections provide more detail about these proposals.

## Amalgamate the >30 to 403 MHz range into a single band

An assessment of current total assignments within each location classification (see blue shaded cells in Table 3 below) shows that the total number of assignments in the >30 to 70 MHz range (predominantly land mobile licences) and the >399.9 to 403 MHz range (mostly radiodetermination and fixed services) are much lower than neighbouring bands, and may not justify separate spectrum location weightings. This view is further supported by the fact that the weightings for these bands differ only marginally with the location weightings for the >70 to 399.9 MHz range (see Table 2).

Consequently, the ACMA proposes to simplify the table by combining the >30 to 403 MHz range (marked in blue below) into one spectrum location, and use the lowest common location weighting for each geographic location (see Table 1).

Current total assignments (2020)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Geographic location** | | | | |  |
| **Spectrum location** | **Aus-wide** | **High** | **Medium** | **Low** | **Remote** |  |
| 30 MHz and below | 1,259 | 2,039 | 815 | 10,412 | 10,934 | **25,459** |
| >30 to 70 MHz | 602 | 147 | 28 | 429 | 60 | **1,266** |
| >70 to 399.9 MHz | 560 | 9,836 | 2,337 | 35,307 | 16,392 | **64,432** |
| >399.9 to 403 MHz | 62 | 9 | 8 | 33 | 72 | **184** |
| >403 to 520 MHz | 3,339 | 40,959 | 12,368 | 64,107 | 29,197 | **149,970** |
| >520 to 960 MHz | 10 | 1,738 | 569 | 6,749 | 1,933 | **10,999** |
| >960 to 2,690 MHz | 137 | 572 | 230 | 13,012 | 11,643 | **25,594** |
| >2,690 to 5,000 MHz | 14 | 4,494 | 1,487 | 15,680 | 2,386 | **24,061** |
| >5.0 to 8.5 GHz | 33 | 2,771 | 898 | 26,571 | 7,216 | **37,489** |
| >8.5 to 14.5 GHz | 50 | 3,714 | 1,973 | 28,978 | 4,400 | **39,115** |
| >14.5 to 31.3 GHz | 22 | 6,617 | 2,425 | 15,268 | 3,831 | **28,163** |
| >31.3 to 51.4 GHz | 8 | 4,238 | 81 | 370 | 130 | **4,827** |
| Above 51.4 GHz | 2 | 1,704 | 232 | 784 | 80 | **2,802** |
|  | **6,098** | **78,838** | **23,451** | **217,700** | **88,274** | **414,361** |

### Question 1

Do you have any comments on the proposal to amalgamate the >30 to 403 MHz range for the tax formula?

## Increase weightings for the >2,690 to 5,000 MHz spectrum location

In addition to examining current assignments, the ACMA looked at assignment trends over time. In the period from 2005–20 the ACMA found an acceleration of new assignments in the >2,690 to 5,000 MHz spectrum location for high and medium-density geographic areas, which is significantly higher than in other spectrum locations (see Table 4 below).[[3]](#footnote-4) The location weightings in the tax formula are intended to provide relative price signals to balance and manage demand before congestion issues become acute, so we are considering increasing these location weightings. We intend for the higher prices in these spectrum locations to make it more attractive for licensees to obtain substitute spectrum, where possible, in either lower-density areas or in neighbouring spectrum bands.

In addition to these assignment trends and relativities, there are several factors that the ACMA could take into account in determining an appropriate location weight. We note that recent high-value auctions in the band for services such as mobile broadband, might suggest a higher opportunity cost. For example, the 3.6 GHz band auction saw starting prices in metro areas set at $0.08/MHz/Pop and average prices in the auction of $0.29/MHz/pop. These are relative price increases when compared to the $0.03/MHz/pop set by the Minister for Communications, Information Technology and the Arts for the reissue of spectrum licences in the 3.4 GHz band.

Consequently, given the information to date about assignments and demand for spectrum in the >2,690 to 5,000 MHz band, the ACMA is considering raising the weightings for high and medium-density areas relative to other bands to reflect contemporary spectrum uses and values. The ACMA proposes to increase the medium-density area location weighting from 0.751 to 1.243 (65.5% increase) and the high-density area location weight from 1.853 to 2.689 (45.1% increase). As a result of this proposal, the ACMA expects that around 26 apparatus licensees in these band locations will face tax increases of $1,541 on average, affecting mostly earth receive services.

Changes in assignments by location weighting over time (2005–20)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Geographic location** | | | | |  |
| **Spectrum location** | **Aus-wide** | **High** | **Medium** | **Low** | **Remote** |  |
| 30 MHz and below | 98% | 108% | 19% | 93% | 102% | 94% |
| >30 to 70 MHz | 98% | -60% | -64% | -27% | 36% | -8% |
| >70 to 399.9 MHz | 42% | 32% | 16% | 28% | 5% | 21% |
| >399.9 to 403 MHz | 1450% | 50% | 0% | 18% | -28% | 26% |
| >403 to 520 MHz | 101% | 42% | 33% | 24% | 30% | 32% |
| >520 to 960 MHz | 43% | -90% | -85% | -72% | -74% | -80% |
| >960 to 2,690 MHz | 76% | 10% | -4% | 209% | 42% | 93% |
| >2,690 to 5,000 MHz | 133% | 1287% | 1806% | 704% | 540% | 781% |
| >5.0 to 8.5 GHz | 3% | -21% | -5% | 63% | 113% | 55% |
| >8.5 to 14.5 GHz | -38% | 35% | 100% | 496% | 522% | 317% |
| >14.5 to 31.3 GHz | 267% | -64% | -57% | 78% | 184% | -17% |
| >31.3 to 51.4 GHz | 60% | -9% | -91% | -32% | 150% | -22% |
| Above 51.4 GHz | - | 879% | - | 4256% | - | 1359% |
|  | 90% | -8% | -5% | 49% | 35% | **42%** |

Note: The dark red in the Table 4 colour scheme denotes the highest increases; the darkest green denotes the largest reductions; the yellow denotes the midpoint, and shades between these colours denote grades between these points.

### Question 2

Do you have any comments on the proposal to increase location weightings for the high and medium-density areas in the >2,690 to 5,000 MHz range?

## Introduce new spectrum location band for services above 100 GHz

The ACMA is proposing to create a new band above 100 GHz and set tax rates for these services at the minimum tax (currently $41.37). Submissions demonstrate that there are innovative services emerging in these high frequencies (such as optical communications for satellite services) that operate with very large bandwidths, although with a limited spectrum denial footprint. Even with the tax reductions of 90% implemented above 8.5 GHz as part of the first tranche of tax reforms, services with bandwidths in the tens or hundreds of GHz have the potential for licence taxes to be prohibitive and stifle innovation.

A breakpoint at 100 GHz is identified as a relevant consideration, noting recent activity in other jurisdictions including the United Kingdom and United States to facilitate greater access to frequencies above this range. Charging the minimum tax in this band also acknowledges lower potential for interference in this range.

### Question 3

Do you have any comments on the appropriateness of the proposed spectrum location weighting for frequencies above 100 GHz?

### Question 4

The minimum tax in this band is intended for services exhibiting limited interference potential to other services. Should the ACMA restrict the minimum tax above 100 GHz to services, such as optical communications, with known limited interference potential?

## Cease annual CPI updates to taxes, and instead regularly update taxes based on annual population data updates

In the assigned licence tax formula, the normalisation factor is a constant that converts the relative spectrum values provided by the rest of the formula to a dollar figure. The ACMA has updated it in line with adjustments to the consumer price index (CPI) each year, with the aim of keeping licence taxes constant in real terms.

One of the issues with this approach to updating taxes is that it treats all licences equally regardless of the different demand for spectrum in different areas. This was highlighted by stakeholders in lower-density areas continuing to face increases on their licence taxes despite spectrum availability remaining high and limited or no change to the spectrum denial characteristics of their spectrum use.

Based on this feedback, the ACMA considers that a better approach to regularly updating taxes includes the following:

Removing the link between the normalisation factor and adjustments to CPI.

Introducing unique normalisation factors for high, medium, low and remote-density areas and Australia-wide linked to adjustments in population.

Adjusting each normalisation factor annually on a more granular level by changes in area-specific population for each density classification.

Using Australian Bureau of Statistics (ABS) dataset ‘Population estimates by significant urban areas’ to track annual changes in area-specific population.

These proposals will smooth annual changes to taxes, since annual changes in population are more stable than CPI. Linking tax changes to underlying changes in population of density areas will also better reflect changes in demand for spectrum. Table 5 below shows the change in tax between the years 2010 and 2020 implied for each density area classification if annual updates had been based on population changes. This is compared to the uniform change across all density areas of 19.35% over the same period using CPI. Assuming that these population changes move along a similar trajectory in future, adjusting prices based on population changes will mean that tax increases will be applied where there is higher likelihood of underlying demand for spectrum.

Hypothetical changes in tax rates by location weightings using population (2010–20)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Geographic location** | | | | |
| **Australia-wide** | **High** | **Medium** | **Low** | **Remote** |
| 16.64% | 21.69% | 14.68% | 12.20% | 6.58% |

### Question 5

Do you have any comments on the proposed method to update taxes by reference to population change, rather than annual adjustments based on the CPI?

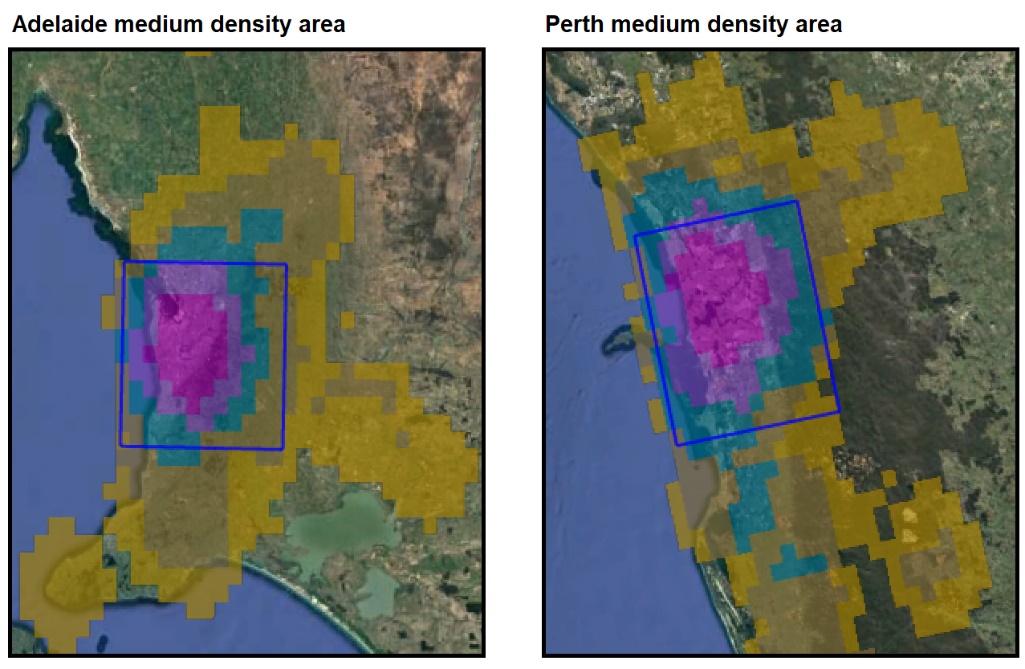
## Update area definitions for Perth and Adelaide

Geographic density area classifications are used in tandem with location weightings to determine the tax for apparatus licences. Each geographic location in Australia is assigned a density of either high, medium, low, or remote, reflecting their spectrum and population densities, which then informs which location weighting is applicable when calculating taxes due. See Appendix F of the [Apparatus licence fee schedule](https://www.acma.gov.au/publications/2020-06/guide/apparatus-licence-fee-schedule) for details.

The ACMA has reviewed the density areas and considers that they continue to be useful in providing incentives for efficient spectrum uses by setting relatively higher taxes where there is higher demand and higher potential for congestion and interference, and vice versa. However, during the review it was apparent that there are some anomalies with how the density areas are defined.

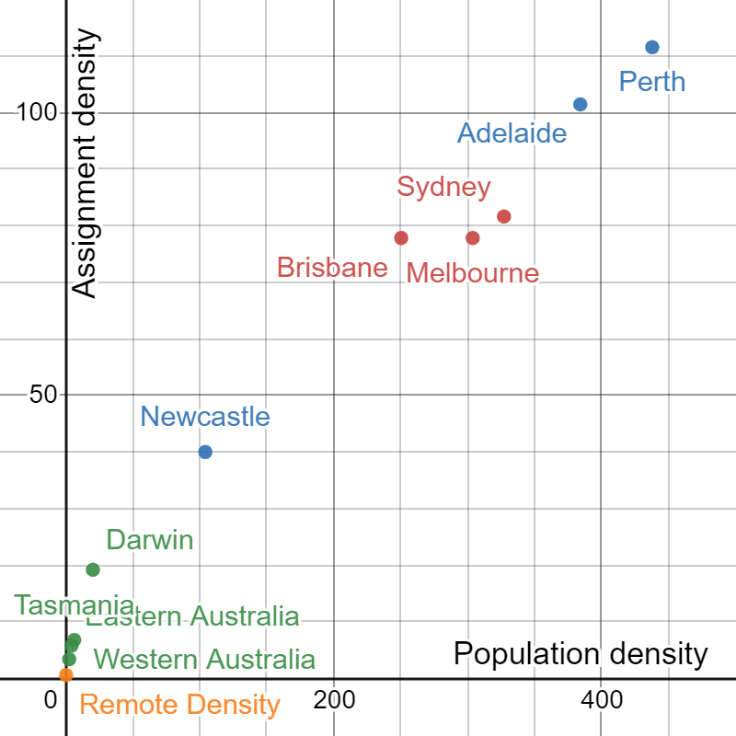
One observation is that the current Perth and Adelaide medium-density areas (see Figure 1 below) are drawn relatively close to their suburban boundaries, and do not capture the urban growth and increased density that has occurred in recent years. This is in stark contrast to the Melbourne, Sydney, and Brisbane high-density areas that are significantly larger and include the growth in these cities in the last two decades. For reference, the Adelaide area covers 3,179 sqm and the Perth area covers 3,852 sqm, while the Melbourne area covers 15,524 sqm and the Sydney area covers 15,538 sqm.

Current boundaries for Adelaide and Perth   
(classified as medium-density areas)



As a result of the current application of medium density, Perth and Adelaide stand out as anomalies when mapping each density area against total assignment density and population density. Given current geographic area classifications, Perth and Adelaide both have higher population density and assignment density compared to the high-density areas of Melbourne, Sydney, and Brisbane (see Figure 2 below).

Current transmitter and population density



To better align the densities of each of the areas and provide more coherent tax relativities, the ACMA proposes the following:

Increase of the geographic area for Perth and Adelaide to better reflect the growth of these cities (primarily to the north and south of each).

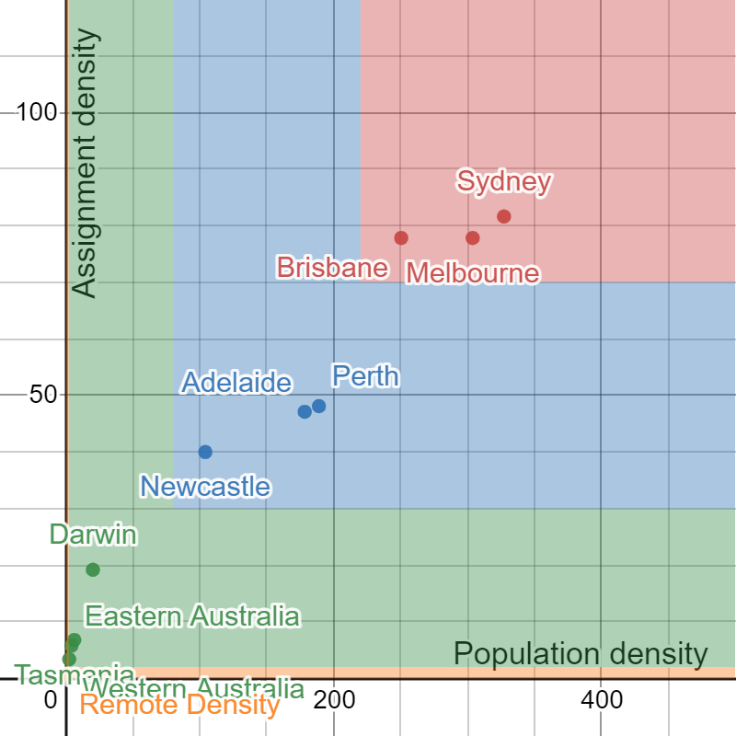
The proposed boundaries cover an area more comparable to Melbourne, Sydney and Brisbane. In redrawing these boundaries, the medium-density cities of Perth, Adelaide and Newcastle now have similar densities that cluster together below the high-density cities of Melbourne, Sydney and Brisbane (see Figure 3 below for proposed Adelaide and Perth areas, and Figure 4 for the new expected relative densities).

Publish the population density and assignment density metrics that we use to classify geographic areas. These metrics are intended to provide transparency of the density area definitions, and a basis for potential future changes.

Proposed boundaries for Adelaide and Perth   
(classified as medium-density areas)

Figure 3: Proposed boundaries for Adelaide and Perth 
(classified as medium-density areas)


Proposed transmitter and population density



The ACMA proposes to classify geographic areas using the following metrics for population density and assignment density:

High-density areas are defined as an area with a population density of greater than 220 people per square km and an assignment density of greater than 70 per square km (red quadrant in Figure 4).

Medium-density areas are defined as an area with a population density greater than 70 people per square km and an assignment density of greater than 30 per square km, that does not meet the definition of a high-density area (blue area in Figure 4).

Low-density areas are defined as an area with a population density greater than 2 people per square km and an assignment density of greater than 2 per square km, that does not meet the definition of either medium or high-density area (green area in Figure 4).

Remote-density areas are defined as areas that do not meet the definition of low, medium, or high-density areas (small orange area in the lower part of Figure 4).

The proposed Perth and Adelaide boundaries are expected to cover 1,729 licences owned by 160 licensees that are currently in low-density areas. As a result of the proposed boundaries, these licences are expected to face annual tax increases (due to facing medium-density area taxes) of around $459.

The ACMA believes that these proposed changes provide a logical framework for the density areas, but we acknowledge that this is complex and may not fully account for potential spectrum denial of services which can be influenced by different technologies, geography and topography. As such, it is difficult to have a completely formulaic approach to the setting of geographic areas.

### Question 6

Do you have any comments on the density area framework, proposed density area definitions, or proposed changes to the Perth and Adelaide medium-density areas?

# Proposal for reduced tax rates for HPON licences

Most HPON licences are currently subject to fixed tax rates depending on where the HPON is located. The ACMA has adjusted tax rates annually in line with the CPI and applies the same tax rate regardless of whether services are FM or AM.

Several submissions received in previous SPR consultation processes commented on the discrepancy in tax rates between HPON licence and comparable commercial broadcasting services[[4]](#footnote-5) using similar spectrum. One of the key recommendations of the SPR was that those services using similar spectrum should be charged a similar tax rate. Current HPON licence tax rates are set out in Table 6 below and are, at times, orders of magnitude higher than those charged in relation to commercial broadcasting services.

Current HPON taxes

|  |  |
| --- | --- |
| **Location** | **HPON tax** |
| Sydney | $41,134 |
| Melbourne | $41,134 |
| Brisbane | $14,930 |
| Adelaide | $14,930 |
| Perth | $14,930 |
| Perth city | $14,930 |
| Newcastle | $3,809 |
| Canberra | $3,809 |
| Wollongong | $3,809 |
| Gold Coast | $3,809 |
| Gosford | $3,809 |
| Penrith | $3,809 |
| Hobart | $1,677 |
| Geelong | $1,677 |
| Nambour | $1,677 |
| Townsville | $1,677 |
| Cairns | $1,677 |
| Elsewhere | $989 |

To address this discrepancy, we are proposing the following set of changes to the tax rates for HPON licences:

Identify the location served by a HPON licence using significant urban areas as defined by the ABS.

Update HPON licence tax rates by aligning them with the commercial broadcasting taxes (CBT). We use a $0.077/MHz/pop price (which approximates current CBT price levels) that can be easily translated to HPON licences using the formula:

Population (of the specific locations) x Bandwidth (MHz) x $0.077/MHz/pop x 0.1 Scaling factor.

The scaling factor is used to scale down the tax to individual HPON licences.

Distinguish between television (7 MHz), FM (200 kHz) and AM (18 kHz) tax rates to adjust for the different bandwidth.

Change the minimum tax to $41.37 in line with other apparatus licence taxes.

Use ABS dataset ‘Population estimates by significant urban areas’ to update the tax rates each year.

These proposals are summarised in Table 7 below.

Proposed HPON taxes

|  |  |  |  |
| --- | --- | --- | --- |
| Item | Location of open narrowcasting service (significant urban area)[[5]](#footnote-6) | FM/TV[[6]](#footnote-7) | AM |
| 1 | Melbourne | $7,653 | $689 |
| 2 | Sydney | $7,649 | $688 |
| 3 | Brisbane | $3,813 | $343 |
| 4 | Perth | $3,209 | $289 |
| 5 | Adelaide | $2,091 | $188 |
| 6 | Gold Coast – Tweed Heads | $1,093 | $98 |
| 7 | Newcastle – Maitland | $767 | $69 |
| 8 | Canberra – Queanbeyan | $716 | $64 |
| 9 | Sunshine Coast | $536 | $48 |
| 10 | Central Coast | $519 | $47 |
| 11 | Wollongong | $476 | $43 |
| 12 | Geelong | $435 | $41 |
| 13 | Hobart | $337 | $41 |
| 14 | Townsville | $282 | $41 |
| 15 | Cairns | $239 | $41 |
| 16 | A place in Australia not otherwise specified in this table | $41 | $41 |

### Question 7

Do you have any comments on these tax reform proposals for HPON licences?

# Proposal to adjust tranche one reforms

## Definitions of low-power and micro-power spectrum accesses

The ACMA introduced a tax discount for ‘micro-power spectrum access’ in the first tranche of reforms. In doing so, we updated the definition of the ‘low-power spectrum access’ for consistency of wording across the two service models. However, we have received feedback on the new definitions.

Our intent was and continues to be that the low-power discount (90% discount) applies to the low-power land mobile radio system (LPMRS) service model, and the ‘micro-power’ discount (95% discount) applies to the ‘Enclosed and short-range digital service model’ (see Table 9 below, and see [Radiocommunications Assignment and Licensing Instruction (RALI) LM8](https://www.acma.gov.au/publications/2019-09/publication/rali-lm8-land-mobile-service) for detail of the service models). The intent is that, for those services that use a low power and for which the licensee acknowledges that interference protection will be limited to a small radius, a discount will be applied to the tax rates.

1. Land mobile services models and price factors

|  |  |  |  |
| --- | --- | --- | --- |
| **Land mobile service model** | **Notional service area radius (km)** | **Reuse distance (km)** | **Price factor** |
| Land mobile radio systems (LMRS) | 40 | ~100 | 1 |
| Low-power land mobile radio systems (LPMRS) | 2 | 10 | 0.1 |
| ‘Micro’ model  (Enclosed and short-range digital service) | 0.2 | 0.5 | 0.05 |

The ACMA proposes some revised definitions which we believe provide more clarity around eligible spectrum accesses (see Attachment A for the proposed updated definitions).

## Adjustment to the earth station systems price

The ACMA also introduced a ‘systems' price for apparatus licences with multiple co-located co-frequency earth stations (GSO or NGSO)[[7]](#footnote-8) communicating with related International Telecommunication Union satellite filings, without incurring a higher rate of tax.

The ACMA received feedback from stakeholders asking why collocated earth stations operating within the licenced bandwidth but on different centre frequencies could not be included in the system price. We agree that these earth stations should be included, so we propose removing the clause requiring earth stations to have the same centre frequency in order to be eligible for the discount (see Attachment A for updated clauses proposed to be inserted in the determination).

We expect that the proposed change will allow for more flexibility with earth station system configurations.

### Question 8

Do you have any comments on these proposed adjustments to the tranche one reforms?

# Other pricing issues

In our first response paper, we noted some issues in the SPR work program which we now consider will be more appropriately addressed in other ACMA processes outlined in the FYSO. These include:

A review of pricing arrangements for scientific licences can be aligned with the ACMA’s consideration of scientific licensing arrangements.

Differences in pricing arrangements for mobile satellite services, television outside broadcasting services, and point-to-multipoint services in the 2 GHz band can be considered as a part of that replanning process.

## Pricing for varying levels of interference protection

As part of our general spectrum management practices, we have been thinking about ways to promote varying levels of interference protection through pricing. The assigned licence tax formula accommodates this idea to some degree. For example, the ‘low-power’ and ‘micro-power’ discounts relate to specific service models that involve specific notional service areas beyond which licensees acknowledge that the ACMA will generally not protect the service against interference. But the ACMA is interested in exploring this idea at a more granular level and for more services. We do not have any specific plans in this regard, but are interested in receiving any suggestions stakeholders may have.

### Question 9

Do you have suggestions for any additional pricing measures the ACMA could consider to encourage spectrally efficient technology deployments?

### Question 10

Are there any other comments that you would like to give relating to the proposals in this paper or other aspects of the apparatus licence tax regime?

1. The ACMA should undertake a detailed review of the administrative pricing formula’s parameters, including density areas, the number of pricing bands, and the number of power categories. The ACMA should implement regular updates to the location and band weightings to reflect changes in density, demography and demand. [↑](#footnote-ref-2)
2. See Appendix C of the [Apparatus licence fee schedule](https://www.acma.gov.au/publications/2020-06/guide/apparatus-licence-fee-schedule) for more details on the formula. [↑](#footnote-ref-3)
3. The ACMA notes that there were similarly large relative changes in assignments for >399.9 to 403 MHz in Australia-wide and in the band above 51.4 GHz. However, we consider these changes are not statistically significant given a low base number of initial assignments in 2005. [↑](#footnote-ref-4)
4. Commercial broadcasting licensees may be subject to tax imposed by the *Commercial Broadcasting (Tax) Act 2017*. [↑](#footnote-ref-5)
5. A ‘significant urban area’ is the area of that name described by the Australian Bureau of Statistics as a significant urban area in 1270.0.55.004 – Australian Statistical Geographic Standard (ASGS): Volume 4 – Significant Urban Areas, Urban Centres and Localities, Section of State, July 2016. [↑](#footnote-ref-6)
6. Note that there are only a handful of HPON licences that authorise the provision of open narrowcasting television services. Despite television using larger channels than radio, for simplicity the ACMA proposes to tax these HPON licences on an equivalent basis as HPON licences used to provide FM radio services. [↑](#footnote-ref-7)
7. Geostationary or non-geostationary. [↑](#footnote-ref-8)