



Submission in response to
ACMA Consultation Paper

**Automatic sunseting of
legislative instruments**

**Proposal to remake
instruments for the 700
MHz, 1800 MHz, 2.5 GHz
and 2.5 GHz mid-band gap
spectrum-licensed bands**

Public Version

December 2022

EXECUTIVE SUMMARY

1. Optus welcomes the opportunity to provide feedback on the Australian Communications and Media Authority's (ACMA) consultation paper on the *"Automatic sunset of legislative instruments – Proposal to remake instruments for the 700 MHz, 1800 MHz, 2.5 GHz and 2.5 GHz mid-band gap spectrum-licensed bands"* (the Consultation paper).
2. Optus understands that the ACMA is seeking feedback on its proposal to remake the legislative instruments with certain amendments in order to finalise revised instruments before they sunset on 1 April 2023. The legislative instruments associated with the technical frameworks for the 700 MHz, 1800 MHz, 2.5 GHz and 2.5 GHz mid-band gap are the subject of the Consultation Paper.
3. Specifically, the ACMA seeks feedback on the "section 145 Determination", which sets out the circumstances in which devices are taken to cause unacceptable levels of interference ("ULol"), and the Radiocommunications Advisory Guidelines (RAGs) used for managing interference relating to spectrum licensed transmitters (RAG Tx) and receivers (RAG Rx) for each of these bands. These instruments, along with the spectrum licence, constitute the technical framework for the spectrum licensed band.
4. Optus agrees with the ACMA that these instruments are generally operating effectively and supports the ACMA's proposal to remake the legislative instruments without significant alteration to the substantive content. As advised by the ACMA, many of the non-band specific changes appear to either to be not substantive in nature or needed to promote consistency with technical frameworks in other bands. As such, Optus supports the non-band specific amendments and makes no further comment. That said, Optus notes that no marked-up version of the draft instruments was made available as part of the consultation and therefore its support is largely based on the understanding that the changes to the instruments were comprehensively described in the Consultation Paper.
5. Optus also generally supports the band specific changes proposed by the ACMA and notes that these are largely uncontroversial. However, Optus reiterates its concern about the proposed changes to the 700 MHz spectrum licence technical framework and in particular, the Tx RAG. The proposed new arrangements for managing interference with apparatus licensed services in the 804-809 MHz band reflect what Optus consider to be an unacceptable incursion on spectrum licence rights.
6. The Australia wide spectrum licences in the 700 MHz band were acquired at auction in 2013 on the basis that the band was unencumbered other than arrangements made for legacy digital terrestrial television broadcasting (DTTB) services. The relative exclusivity that this afforded spectrum licensees was key to ensuring that the 700 MHz band was then heavily utilised by mobile carriers to deploy national 4G mobile networks, which have and will continue to deliver significant public benefits to Australia.
7. The proposed introduction of new protection requirements for 800 MHz apparatus-licensed receivers in the Tx RAG has the potential to severely restrict registration of 700 MHz base station transmitters around 800 MHz receivers, which in turn can undermine carriers' incentives to deploy 700 MHz mobile broadband (MBB) networks. As such, Optus considers that the proposed protection requirements set a concerning precedent, diluting the rights afforded to spectrum licensed services as primary services in the band and ultimately undermining the value of the 700 MHz spectrum band.
8. Optus refers the ACMA to our recent submissions on the 700 MHz band SLTF as well as the Australian Mobile Telecommunication Associations (AMTA) submission in response to the Consultation Paper. Optus supports the positions set out in the AMTA submission, other than to the extent that they differ to our specific comments set out below.

COMMENT ON BAND SPECIFIC CHANGES

9. The ACMA is seeking comment on band specific changes to the relevant legislative instruments. Optus's response focuses on the 700 MHz RAG Tx. Where Optus does not provide a response to a question, Optus supports the ACMA's proposal. Optus notes that its views are based on the general description of the proposed changes provided in the Consultation Paper and the versions of the draft instruments available on the ACMA consultation page, which did not include mark-up of the drafting changes. Optus requests that for future consultations, the ACMA provide marked up version of instruments where possible as this will assist stakeholders to provide feedback.

700 MHz band

10. The ACMA is proposing to remake the legislative instruments relevant to the 700 MHz technical framework with changes to the 700 MHz RAG Tx and the RAG Rx only. The ACMA does not consider any changes are required for the section 145 Determination.

RAG Tx

Question 1 – The ACMA seeks comment on the proposed amendments in the remaking of the Radiocommunications Advisory Guidelines (Managing Interference from Transmitters – 700 MHz Band).
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11. The ACMA has proposed a number of changes to the 700 MHz Tx RAG. Optus supports the proposal to remove Part 4 relating to digital receivers operating in the band and the addition of new guidance on interference management for wireless microphones, which appears to provide greater protection to primary services in the band. However, Optus opposes the introduction of guidance on the management of interference with land mobile, point-to-point and point-to-multipoint services operating at 804 to 809 MHz.
12. The ACMA explains that the proposed arrangements reflect the implementation of the 803-960 MHz band review which resulted in affected apparatus licences being relocated to the 804-809 MHz band. The ACMA also notes that, similar to devices operating under 700 MHz spectrum licences that are not exempt from registration, devices operating under these apparatus licensed services are considered a "primary service".¹ In effect, Optus understands that the ACMA considers the apparatus and spectrum licensed services as "co-primary" services with interference management to be determined by the principle of "first-in-time" registration. This approach is reflected for trunked land-mobile receivers in the draft RAG Tx for the 700 MHz band.²
13. Optus reiterates its view that, as a point of general principle, spectrum licences should have priority over apparatus licences regardless of relative first-in-time status with respect to registration. It follows that, in this case, Optus considers that existing 700 MHz spectrum licence holders should not be required to install new equipment/filters to accommodate apparatus licenced transmitters in the 800 MHz band.
14. Currently, 700 MHz base stations can be registered without the need to conduct detailed coordination activities. Introducing new coordination/protection requirements will have resource and costs implications for existing spectrum licensees. Optus is also not aware of any reports of interference on either the 700 MHz spectrum licensed or adjacent band

¹ Consultation Paper, p.6

² See for example, Part 6 of the RAG TX where at section 15(2) it states that "The ACMA intends that an apparatus licensed radiocommunications receiver, licensed prior to the registration of a spectrum licensed radiocommunications transmitter in the Register, will receive protection in accordance with this instrument".

fixed link and land mobile apparatus licensed services. Furthermore, Optus notes that it is not aware of any request for third party access to our spectrum licensed holdings. As such, the case for new protection requirements does not appear to be made out.

15. Network operators require sufficient certainty that spectrum licensed radiocommunications services will be sufficiently protected from interference in order to commit the significant expenditure required of network deployments. Spectrum licences provide the certainty and exclusivity required for long term investment in telecommunications infrastructure and thus attract a high price. Proposing new protection requirements after allocation of spectrum introduces a degree of uncertainty into a network operators' investment and deployment planning.
16. Optus appreciates that, in specified circumstances, the ACMA may authorise class and apparatus licensed services to co-exist with spectrum licensed services. However, introducing new coordination requirements such as proposed in the 700 MHz RAG Tx should only be on an exceptional basis given the potentially negative impacts on incentives to invest in spectrum and telecommunications infrastructure. From a policy perspective, the public benefits that any such arrangements can deliver must be carefully weighed against the potentially negative impact on investment.
17. Accordingly, regardless of whether apparatus licensed services in the adjacent 804 to 809 MHz band can be treated as primary or, in effect, co-primary services with adjacent band spectrum licensed services, Optus remains of the view that spectrum licensed services should be accorded priority in the resolution of interference disputes. Affording apparatus licensees co-primary status after the issuance of the spectrum licence imposes an unreasonable restriction on the spectrum licensee's capacity to utilise the spectrum licence they have paid for. Allowing this through the interference management processes in the RAGs creates further uncertainty given that RAGs can be amended without the agreement of the spectrum licence holder.
18. However, as a compromise solution, Optus considers that a notification requirement (rather than protection and/or coordination requirements) could be included in the 700 MHz Tx RAG. Such a measure may involve an Accredited Persons (APs) notifying existing nearby apparatus-licensed receivers of the deployment of a spectrum licence transmitter so that the corresponding apparatus licensee can choose to take appropriate mitigation measures. Such an approach would allow spectrum licensees to continue to deploy within the defined area as needed, subject to notifying affected apparatus licensees. Further detail on this proposal is set out in the AMTA submission.
19. Optus notes that the ACMA has indicated that the new protection criteria contained in RALI LM8, RALI FX16 and RALI FX22 will be reviewed in 2023 with consideration of "a possible reduction in the level of protection provided to any new apparatus licences issued after a certain (to be determined) date".³ Optus welcomes this statement and encourages the ACMA to carefully consider the longer term public benefits of providing sufficient certainty for mobile network investment in its spectrum management decisions.
20. Notwithstanding this, Optus notes that should the ACMA proceed with the proposed protection arrangements, then Optus submits that it should be exempt from complying given that we operate services at the lower part of the 700 MHz band providing at least a 35 MHz guard band between our services and the relevant apparatus licensed services. The imposition of new coordination requirements on Optus is therefore disproportionate to the interference risk posed to apparatus licences from Optus transmitters.

³ Consultation Paper, p.6