

ARA Submission

Five-year spectrum outlook 2024–29 and 2024–25 work program

Consultation Paper

6 May 2024

The ARA

The Australasian Railway Association (ARA) is the peak body for the rail sector in Australia and New Zealand, and advocates for more than 220 member organisations across the industry.

Our membership covers every aspect of the rail industry, including the:

- passenger and freight operators that keep essential rail services moving;
- track owners, managers, and contractors that deliver a safe and efficient rail infrastructure network; and
- suppliers, manufacturers, and consultants that drive innovation, productivity, and efficiency in the rail industry.

Our members are driven to support vibrant, sustainable and connected communities through greater use of rail across Australia and New Zealand. We bring together industry and government to help achieve this ambition.

Our advocacy is informed by an extensive research program to ensure we offer solutions that are grounded in evidence and focused on delivering tangible value in our daily lives.

The rail industry has a crucial role to play in the region's sustainable development and growth, and offers meaningful and rewarding careers for tens of thousands of people in the regions.

Our significant program of work is focused on supporting a strong advocacy agenda, and creating opportunities for the rail industry to network, collaborate and share information, and maximise the benefits we have to offer the wider community.

The ARA thanks the Australian Communications and Media Authority for the opportunity to make this submission, which has been developed in consultation with ARA member organisations.

Any questions regarding this submission should be directed to Jesse Baker, General Manager Passenger Rail and Safety via jbaker@ara.net.au

Australia's Rail Industry

Rail is a significant industry in Australia, creating economic activity through its operations and capital investments. It is an industry with activities across every major metropolitan and regional area and is supported by the full spectrum of skills in the Australian workforce.

In 2019, the rail industry contributed around \$30 billion to the Australian economy and employed more than 165,000 workers (directly and indirectly in full-time equivalent terms, FTE). The industry is made up of around 900 businesses that are located in approximately 20 major hubs.

Issues For Comment

The following information is provided by the ARA to respond to the matters for feedback presented in the ACMA document “Five-year spectrum outlook 2024–29 and 2024–25 work program, Draft for consultation”.

1. General

ARA supports, and is pleased to contribute to the periodic review of spectrum allocations through which we (and other) non-commercial public services gain access, underpinning our vital rail safety and control communications.

2. Expiring spectrum licences

ARA welcomes ACMA’s ongoing consultation on Expiring Spectrum Licences (ESLs), specifically 1800 MHz licenses currently used for vital rail safety and control communications. The re-issue of affordable 1800 MHz spectrum licences with long-term tenure is critical for continued safe and efficient operation of rail services in Australia as well as achieving national interoperability, productivity, and decarbonisation objectives (as is Government’s commitment¹).

3. 1800 MHz (1710–1785 MHz and 1805–1880 MHz)

ARA wishes to highlight that 1800 MHz spectrum is also used by rail operators for rail safety and control communications, migration to future replacement systems, and guard bands for interference protection.

ARA and its members welcome the work on expiring spectrum licences, flagging that these licences are critical not only to current, but also future passenger and freight railway operations.

4. 1.9 GHz (1880–1920 MHz)

Harmonising with international allocations is strongly supported by ARA; this spectrum will be important for accessing standard equipment and, for the first time, Australian rail operators will have access to same spectrum as EU/UK and other countries (where a lot of our equipment is procured from).

ARA and its members acknowledge the ACMA’s efforts in establishing this harmonised band for rail and will support the ACMA in its efforts to create a framework to support rail services in 1900-1910 MHz. This will assist rail operators in deploying the next generation of train communication and control systems in addition to the continued use of the 1800 MHz allocations.

Regarding the next steps proposed for the 1900 Mhz band, ARA looks forward to contributing to help create a technical framework that supports rail services (Implementation Stage of 1900 MHz spectrum).

5. Low interference potential devices (LIPD)

Rail operators rely on class licenced spectrum for a range of administrative and operational purposes to support monitoring of railway infrastructure where intermittent interference can either be managed or is not a concern. We welcome additional frequency bands for RLAN use in LIPD.

¹ [AFR Infrastructure Summit 2022 | Ministers for the Department of Infrastructure](#)

6. Intelligent transport systems

ARA notes the ongoing monitoring of the class licensed band for Intelligent Transport Systems, and we are especially interested within context of further national policy development in relation to Cooperative Intelligent Transport Systems (C-ITS).

ARA notes that ITS class licenced spectrum is adjacent to newly added 5925–6425 MHz band for RLAN access.

In general ARA supports aligning spectrum with international norms to take advantage of (and open up markets in) equipment and standards supporting these bands.

We are obviously aware that it is difficult to control for interference to ITS devices using class-licenced bands, and would therefore suggest that the ACMA reinforces difficulties in interference protection as part of ITS class licence and cautions against its use for systems with a safety function that has no backup communications.

7. Review of spectrum licence technical frameworks

ARA expresses its gratitude to the ACMA for reviewing 1800 MHz technical frameworks and for ensuring rail current and future needs were accommodated while enabling mobile network operators to re-use 1800 MHz spectrum for 5G and future technologies.

8. RNSS retransmission technologies

ARA supports the continued development of suitable licences and standards for Radio Navigation-Satellite Services (RNSS) retransmission technologies. RNSS is expected to be increasingly used in rail control communications.

ARA looks forward to participating in these discussions to consider RNSS retransmission for rail tunnels and underground stations as well as for road tunnels.