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VIA ELECTRONIC FILING AT [Online submissions](#)

The Manager
Spectrum Licensing Policy Section
Australian Communications and Media Authority
PO Box 13112 Law Courts
Melbourne VIC 8010

Re: **FIVE YEAR SPECTRUM OUTLOOK 2025-30 AND 2025-26 WORK PROGRAM— DRAFT FOR CONSULTATION**

Dear Colleagues,

Wi-Fi Alliance is a global industry association representing over 900 leading technology companies across the wireless connectivity ecosystem. We enthusiastically support the Australian Communications and Media Authority's (ACMA) efforts to engage industry stakeholders in discussions on market trends, technology advancements, and spectrum usage. Wi-Fi Alliance appreciates the opportunity to contribute to this important consultation on the proposed Five Year Spectrum Outlook for 2025-2030 and 2025-26 Work Program ("*Spectrum Outlook*")^{1/} and is pleased to provide the following comments and recommendations.

^{1/} *Five Year Spectrum Outlook 2025-30 and 2025-26 Work Program, Draft for Consultation*, March 2025 ("*Spectrum Outlook*") available at <https://www.acma.gov.au/sites/default/files/2025-03/Draft%20FYSO%202025-30.pdf>

Part 1
Wi-Fi Alliance Comments on the Five-Year Spectrum Outlook 2025-30

I. Regional Connectivity

Wi-Fi Alliance appreciates ACMA's commitment to improving digital connectivity in regional and remote Australia, as highlighted in the draft Five-Year Spectrum Outlook 2025–30. Reliable and affordable digital communications are essential for overcoming the 'tyranny of distance' and ensuring that regional Australians can fully participate in the digital economy.

Wi-Fi Alliance respectfully asks the ACMA to consider that Wi-Fi plays a fundamental role in complementing mobile and fixed broadband networks, particularly in regional areas where infrastructure challenges can limit connectivity. The expansion of advanced Wi-Fi technologies (e.g., Wi-Fi 7), enabled by access to sufficient spectrum resource, such as 5.925-7.125 GHz, will significantly enhance broadband performance in homes, businesses, and public spaces.

We commend ACMA's efforts to facilitate spectrum access for innovative services in regional Australia. However, we encourage the ACMA to consider the following policy recommendations:

1. Ensure that spectrum policy supports Wi-Fi access to the full 6 GHz band – expanding Wi-Fi access in this band will improve broadband affordability and performance in regional communities, particularly by enabling high-capacity connectivity in homes, healthcare facilities, educational institutions, and agricultural operations.
2. Leverage Wi-Fi for cost-effective connectivity solutions – Wi-Fi networks can help bridge regional connectivity gaps by extending the reach of mobile and broadband services, reducing the strain on expensive infrastructure investments, and supporting applications such as smart farming and remote healthcare.
3. Promote technology-neutral approaches to regional connectivity – while mobile networks and Low Earth Orbit satellites have a role to play, connectivity solutions like Wi-Fi provide cost-effective, immediate, and scalable benefits, particularly in community centers, libraries, and rural business hubs.
4. Encourage the integration of Wi-Fi in regional funding programs – government initiatives, including the Better Connectivity Plan and the On Farm Connectivity Program, should incorporate Wi-Fi-based solutions to enhance broadband coverage and capacity, ensuring that regional users can benefit from reliable, high-speed connectivity. Importantly, Wi-Fi will play a key role in supporting the Australian Government's expansion of the universal services framework to include a Universal Outdoor Mobile Obligation.² While the new obligation will require mobile operators to ensure equitable access to baseline outdoor mobile coverage across Australia, Wi-Fi will remain essential for delivering connectivity in areas where mobile

² See [Universal Outdoor Mobile Obligation to improve outdoor mobile coverage across Australia](#), Feb. 26, 2025

networks face limitations, complementing mobile services and enhancing overall coverage and capacity.

II. Resilient communications

In the *Spectrum Outlook*, the ACMA astutely recognized that Wi-Fi is an integral to Australia's connectivity landscape.^{3/} Wi-Fi is a proven and cost-effective technology that complements existing telecommunications networks and enhances resilience during emergencies. We respectfully ask the ACMA to recognize Wi-Fi's contribution to reinforcing Australia's telecommunications infrastructure in the following ways:

1. Wi-Fi as an Emergency Communication Layer

- Wi-Fi networks, including community connectivity hubs, can provide emergency connectivity when mobile networks are overloaded or disrupted.
- By leveraging LIPD class licence access to spectrum, Wi-Fi can be rapidly deployed in emergency shelters, evacuation centers, and disaster-affected areas to restore local communications without protracted coordination processes.
- Expanding access to the 6 GHz band for Wi-Fi would further improve network capacity, ensuring uninterrupted service in crisis situations.

Policy Recommendation: Integrate Wi-Fi into national and regional disaster response plans, including funding for resilient public Wi-Fi networks in community hubs and emergency shelters.

2. Power Backup for Wi-Fi Networks

- The mandate for minimum backup power duration should extend beyond mobile and broadcasting infrastructure to include public Wi-Fi networks in key locations such as community centers, hospitals, and emergency shelters.
- Ensuring that Wi-Fi infrastructure is integrated into resilience planning can help maintain connectivity for first responders and affected communities.

Policy Recommendation: Integrate Wi-Fi into national and regional disaster response plans, including funding for resilient public Wi-Fi networks in community hubs and emergency shelters.

3. Wi-Fi in Emergency Preparedness and Recovery Efforts

- Wi-Fi mesh networks can be deployed quickly in disaster zones to restore local connectivity.
- Satellite backhaul for Wi-Fi networks can provide an alternative means of communication when terrestrial infrastructure is down.
- Government-funded programs should consider Wi-Fi-based solutions as part of their investments in disaster-resilient telecommunications.

^{3/} *Spectrum Outlook* at 26

Policy Recommendation: Extend resilience funding to Wi-Fi networks in critical infrastructure (e.g., hospitals, emergency shelters, government offices), ensuring backup power availability and network robustness.

III. Closing the Gap

Wi-Fi has become a crucial tool in “Closing the Gap”, especially in underserved and rural communities where deploying fiber or cellular infrastructure can be cost-prohibitive.^{4/} Wi-Fi Alliance supports the Australian Government’s commitment to Closing the Gap by ensuring that First Nations communities have equitable access to digital infrastructure, affordable internet services, and digital skills development. We recognize that access to reliable, high-speed connectivity is essential for business opportunities, education, healthcare, and community participation. Wi-Fi technology plays a vital role in bridging the digital divide by enabling cost-effective, high-speed, and community-based connectivity solutions. We commend the First Nations Community Wi-Fi Program and emphasize the need for further expansion to ensure that all Aboriginal and Torres Strait Islander communities have access to secure, high-quality, and resilient broadband services. With these considerations, Wi-Fi Alliance recommends the following policy adjustments for enhancing Wi-Fi connectivity in First Nations Communities:

(1) Expand LIPD class licence Spectrum Access for Wi-Fi in First Nations Communities

- Allocating unlicensed spectrum, particularly in the 6 GHz band, will allow community Wi-Fi networks to operate with greater capacity and efficiency.
- Expanding meshed Wi-Fi networks in First Nations communities can provide affordable and scalable connectivity solutions that are easier to deploy and maintain than traditional fixed or mobile networks.

(2) Ensure Wi-Fi is Integrated into Digital Inclusion Initiatives

- Government funding programs, including the First Nations Digital Inclusion Roadmap, should explicitly incorporate Wi-Fi-based solutions to enable community hubs, remote healthcare services, and digital education programs.
- Support for community-driven Wi-Fi networks will empower local leaders and organizations to tailor connectivity solutions to meet the unique needs of their communities.

(3) Support Affordable and Sustainable Wi-Fi Deployment

- Backhaul connectivity via satellite and fixed wireless solutions should be leveraged to support Wi-Fi access points in community spaces.
- Subsidies or funding models for Wi-Fi-enabled devices and low-cost public Wi-Fi networks can help ensure First Nations people can afford and access reliable broadband.

IV. Net Zero Emissions

^{4/} See for example, [*First Nations Community Wi-Fi Program*](#)

Wi-Fi Alliance supports the Australian Government's commitment to achieving net zero emissions by 2050 and recognizes that efficient spectrum management plays a critical role in reducing energy consumption and carbon emissions. Wi-Fi Alliance respectfully asks the ACMA to recognize that, as a key enabler of digital connectivity, Wi-Fi delivers energy-efficient broadband access while reducing the need for extensive infrastructure builds, contributing to sustainability and environmental goals. Moreover, Wi-Fi is inherently energy-efficient and contributes to reduction CO₂ emissions through:

- Offloading mobile traffic, Wi-Fi reduces the power consumption and environmental impact of traditional cellular infrastructure.
- By supporting fiber-to-the-home (FTTH) deployments, Wi-Fi eliminates the need for energy-intensive cellular towers in residential and enterprise environments.
- Wi-Fi 6 and Wi-Fi 7 technologies incorporate energy-saving features such as Target Wake Time (TWT), which significantly reduces power consumption for connected devices.
- Enabling smart building automation, optimizing energy usage in homes, offices, and industrial environments through IoT-based energy management systems.
- Facilitating remote work, telehealth, and digital learning, reducing transportation-related emissions.
- Smart agriculture and precision farming, powered by Wi-Fi connectivity, minimize resource waste, reducing the carbon footprint of the agricultural sector.

Wi-Fi Alliance respectfully recommends the following adjustments to the Five-Year Spectrum Outlook 2025-30:

- acknowledge that Wi-Fi is a key enabler of net zero emissions through its ability to offload mobile traffic, reduce infrastructure needs, and support smart energy solutions, and
- prioritize spectrum policies that enable energy-efficient connectivity, including unlicensed access to the full 6 GHz band for Wi-Fi to optimize network efficiency.

V. International influences

Wi-Fi Alliance recognizes the importance of international spectrum harmonization, equipment standardization, and regulatory alignment in shaping Australia's spectrum policy. As a worldwide network of companies dedicated to advancement and interoperability of Wi-Fi technology, we are committed to the role of Wi-Fi in fostering connectivity, economic growth, and innovation while ensuring that Australian consumers and businesses benefit from global technology developments. In this regard, Wi-Fi Alliance calls on the ACMA to consider that LIPD class licence access to the 6 GHz band (5.925–7.125 GHz) for Wi-Fi is already widely adopted in major economies, including the U.S., Canada, South Korea, and others. Australia risks falling behind if it does not align with these international trends. Reserving portions of this valuable spectrum resource for unproven technologies that may or may not be commercially deployed in Australia creates spectrum inefficiencies, delays innovation, and prevents real-world Wi-Fi use cases from delivering

socioeconomic benefits today. Importantly, countries that have opened the 6 GHz band for Wi-Fi have demonstrated successful coexistence with incumbent services. Aligning with international ^{WiFi} spectrum policies will ensure that Australian consumers, enterprises, and public institutions can access next-generation connectivity, including Wi-Fi 7, without unnecessary delays or regulatory barriers.

Part 2

Wi-Fi Alliance Comments on the 2025–26 Annual Work Program

Wi-Fi Alliance appreciates the opportunity to comment on ACMA's planning decisions and the next steps for the upper 6 GHz (6425–7125 MHz) band. Given the increasing global momentum for Wi-Fi in this spectrum and the critical role of Wi-Fi connectivity in Australia's digital economy, we respectfully ask the ACMA to consider the following key points:

I. Alignment with International Standards and Markets

In December 2024 [Outcomes paper: Future use of the upper 6 GHz band](#), the ACMA astutely observed that international standards and markets are important factors that impact Australia's unique arrangements and markets.⁵ And, decisions by the US, Canada, South Korea, and other leading economies to make the full 6.425–7.125 GHz band available for Wi-Fi use has catalyzed a robust international equipment ecosystem. Australia stands to benefit from aligning with this trend, ensuring access to a global market of interoperable, cost-effective Wi-Fi 6E and Wi-Fi 7 devices. Introducing full-band RLAN use, rather than segmenting the band, would maximize economic and consumer benefits. Conversely, without regulatory harmonization, Australia risks becoming a "secondary market" where cutting-edge Wi-Fi devices and applications arrive late, are prohibitively expensive, or are entirely unavailable. Notably, the recent ACMA decision to allow Wi-Fi access to 6.425–6.585 GHz, enabling one additional 160/320 MHz wide channel, does not address spectrum requirements in enterprise, urban, and public Wi-Fi deployments where spectrum reuse is essential to manage interference and maintain high performance. In this regard, Wi-Fi Alliance seeks to highlight to the ACMA's attention a [recent proposal by the UK's Ofcom](#) that maximizes spectrum efficiency while maintaining long-term regulatory flexibility. In this proposal, Ofcom outlined a two phased approach:

- In Phase 1, Ofcom proposes immediate Wi-Fi access to the 6.425–7.125 GHz. This action will allow UK consumers, businesses, and industries to immediately benefit from cutting-edge Wi-Fi 7 technologies, improving broadband capacity, reducing congestion, and enabling advanced applications such as AR/VR, cloud computing, and smart infrastructure.

⁵ Future use of the upper 6 GHz band Outcomes paper (December 2024) at 9

- In Phase 2, Ofcom intends to introduce a structured coexistence model between Wi-Fi and mobile, potentially prioritizing between 160 MHz and 400 MHz for Wi-Fi, while also allowing high-power mobile deployments in high-demand areas. This ensures that mobile networks can evolve without unnecessarily delaying or restricting Wi-Fi access.

By allowing advanced Wi-Fi to deliver immediate benefits while maintaining flexibility for future mobile use, Ofcom ensures that spectrum is never underutilized, and that both technologies can thrive without unnecessary delays. Ofcom’s phased approach offers a best-in-class regulatory model for the upper 6 GHz that the ACMA should seriously consider.

Recommendation for action in 2025-26: Wi-Fi Alliance respectfully asks the ACMA to consider a balanced and forward-looking approach—one that enables near-term Wi-Fi access in the 6.425–7.125 GHz band while preserving flexibility for future regulatory action. This will position Australia at the forefront of global connectivity, ensuring that both Wi-Fi and mobile technologies can drive long-term digital success.

II. Limitations of WA WBB and IMT in 6 GHz

While WRC-23 identified portions of the band for IMT in some countries, the availability of commercial 6 GHz IMT equipment remains highly uncertain. Europe is still in the early stages of defining IMT regulations, and key markets such as the US are prioritizing Wi-Fi instead. A fragmented approach risks delaying Australia’s access to a well-established Wi-Fi ecosystem in favor of an unproven IMT case.

Importantly, multiple studies conducted in preparation for WRC-23 and other forums have clearly demonstrated that commercially viable full-power IMT deployments in the upper 6 GHz band pose unacceptable interference risks to incumbent services. As ACMA is aware, WRC-23 adopted a stringent set of limits on IMT power levels to protect satellite uplinks. These restrictions (i.e., international treaty obligations) are incompatible with commercial 5G deployments in the 6 GHz band, further underscoring the uncertainty surrounding their feasibility.

Recommendation for action in 2025-26: We note the ACMA plans *“to monitor international developments (particularly in Europe and India) and will commence implementation of WA WBB arrangements once the uncertainty surrounding equipment availability has been resolved.”* Instead, we recommend for the ACMA to expediently assess the commercial viability of WA WBB and IMT in 6 GHz, given the power restrictions, which are required for the protection of the 6 GHz incumbent operation in Australia. We respectfully ask the ACMA to recognize that years-long reservation of the upper 6 GHz band for WA WBB or IMT—without clear evidence of commercial viability—creates an unnecessary delay that denies Australians immediate access to proven benefits from Wi-Fi.

III. RLAN Coexistence with Television Outside Broadcast (TOB) in the 7.100-7.125 GHz Band

Wi-Fi Alliance appreciates ACMA’s careful consideration of spectrum sharing in the 7.100-7.125 GHz band. However, we urge ACMA to reconsider its decision not to allow Low Power Indoor (LPI) Wi-Fi

operations alongside TOB operations, as practical experience in leading regulatory markets demonstrates successful coexistence with broadcast operations. Both the FCC (United States) andISED (Canada) have extensively studied and authorized LPI Wi-Fi in the 6 GHz band, including in areas with extensive television broadcast operations. These regulators conducted rigorous technical analyses, including real-world interference assessments, before concluding that:

- Low Power Indoor-only (LPI) devices, employing a contention-based protocol, constrained to indoor environments with low EIRP limits, pose negligible interference risk to outdoor broadcast operations.
- The signal attenuation from building structures significantly reduces any potential emissions reaching external broadcasting receivers.
- Very Low Power (VLP) devices, employing a contention-based protocol, and transmitting at power levels below 25 mW, present an insignificant harmful interference risk to TOB-like operations.

Since the FCC authorized LPI Wi-Fi in 2020, millions of devices have been deployed across the US without any reported interference to television broadcast operations. Similarly, Canada has proceeded with allowing LPI and VLP use without adverse effects. If harmful interference were a real concern, there would be documented cases from these large-scale deployments—but none exist.

Recommendation for action in 2025-26: Given the overwhelming technical evidence and real-world deployment success, we encourage ACMA to reassess the prohibition of LPI and VLP Wi-Fi in 6 GHz. A data-driven, practical approach—leveraging insights from US and Canadian experiences—would allow Australia to benefit from this valuable spectrum resource while ensuring coexistence with existing broadcast services.

IV. Spectrum Sharing

One area that requires the ACMA’s attention is dynamic spectrum sharing, particularly Automated Frequency Coordination (AFC) for the 6 GHz band. Regulators in other countries have already authorized AFC Systems to enable standard power Wi-Fi operations in the 6 GHz band while ensuring coexistence with incumbent users. The AFC System framework allows for efficient spectrum use by dynamically frequency access, making it possible for Wi-Fi to deliver fiber-like performance over wider areas while protecting existing services.

By proactively studying and trialing AFC-enabled spectrum sharing, the ACMA can:

- Optimize spectrum efficiency by enabling licensed and unlicensed users to coexist without interference.
- Support high-performance connectivity for businesses, enterprises, and outdoor Wi-Fi deployments.
- Ensure that Australia remains competitive with global leaders who are already implementing AFC to maximize spectrum utility.

Recommendation for action in 2025-26: Wi-Fi Alliance recommends prioritizing the evaluation of the 6 GHz AFC in Australia. A more agile approach will unlock the full potential of 6 GHz Wi-Fi while maintaining regulatory flexibility for future mobile advancements. The ACMA may wish to note that Wi-Fi Alliance made publicly available [specifications, test plans and training modules](#) to enable implementation of the 6 GHz AFC system and Wi-Fi Alliance would welcome an opportunity to support the ACMA with additional details.

Conclusion

Policymakers around the world recognize that wireless connectivity is increasingly dependent on Wi-Fi. And the *Spectrum Outlook* represents an important step toward making much-needed spectrum available to address growing demand for Wi-Fi connectivity in Australia.

Respectfully submitted,

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