



Submitted electronically

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Australian Communications and Media Authority
Level 32 Melbourne Central Tower
360 Elizabeth Street
Melbourne Victoria 3000

Re: Comments on Draft Five-Year Spectrum Outlook 2025–30 and 2025–26 Work Program

Amazon Kuiper Australia Pty Ltd (“Kuiper Australia”), an affiliate of Kuiper Systems LLC (collectively, “Amazon”), extends its gratitude to the Australian Communications and Media Authority (“ACMA”) for the opportunity to provide comments in response to the Draft Five-Year Spectrum Outlook 2025–30 and 2025–26 Work Program (“Draft Plan”). Amazon commends the ACMA for its dedication to closing connectivity gaps throughout Australia and its efforts to align frequency allocations and regulatory best practices with international standards.

I. Background

Amazon’s Project Kuiper will bring high-speed, low latency broadband to unserved and underserved communities globally, including in Australia. In July 2020, the U.S. Federal Communications Commission (“FCC”) authorized Kuiper Systems LLC to deploy a constellation of non-geostationary satellite orbit (“NGSO”) fixed-satellite service (“FSS”) satellites in low Earth orbit (“LEO”) using Ka-band frequencies (“Kuiper System”). Since committing to invest over 10 billion U.S. dollars in the Kuiper System, Amazon has made significant strides toward deployment, including the successful launch and operation of test satellites validating its system design, the continued expansion of its terrestrial infrastructure, and the unveiling of innovative customer terminals (“CTs”) that will offer high performance in small form factors at affordable price points. This year, Amazon will begin launching its satellite constellation and commence offering commercial service in certain areas of the world. Thereafter, Amazon plans to expand coverage as it continues to deploy the Kuiper System and move toward its goal of providing affordable, accessible, and high-quality broadband services to residential, governmental, and enterprise customers in Australia and abroad.

II. Comments on Part 1 of the Draft Plan: Five-Year Spectrum Outlook 2025-30

Amazon applauds the ACMA for its continued efforts towards bolstering the resiliency of the Australian communications sector and increasing connectivity for historically unserved and underserved populations. The guiding principles set forth in the Five-Year Spectrum Outlook will not only further support these efforts, but also promote the expeditious and efficient implementation of new technology for Australian consumers.

A. Amazon Supports the ACMA's Efforts to Connect Regional Communities

Amazon supports the ACMA's commitment to bridging the digital divide and ensuring that regional communities have access to reliable and affordable telecommunications services. In particular, improving access to broadband services will provide immediate and long-term benefits for these communities. Due to the ubiquitous nature of satellite coverage, LEO Satellite (LEOSat) networks are capable of delivering fast, affordable broadband to customers in remote, rural, and unserved regions beyond the reach of traditional fibre or wireless networks. Further, LEOSat systems, like Project Kuiper, can collaborate with terrestrial networks to extend national LTE and 4G coverage and facilitate 5G deployment in regional communities. The presence of satellite operators also increases competition, thereby lowering costs and providing customers with more choices for broadband services with speed and latency comparable to traditional networks. Overall, Amazon urges the ACMA to recognize the important and complementary role LEOSats can play in accelerating accessibility for both regional communities and economic growth initiatives such as education, remote healthcare, e-commerce, and emergency services.

B. Amazon Supports the ACMA's Goal of Creating a Resilient Communications Sector

Amazon supports the ACMA's focus on developing a resilient communications sector over the next five years in order to foster continuity of the network in the wake of natural disasters and emergencies, where LEOSat operations, like Project Kuiper, can be crucial for ensuring that lines of communication remain open. For example, through the Kuiper System, first responders will quickly be able to access low-latency broadband connectivity in an emergency, supporting mission-critical communications. Further, NGSO FSS satellite systems, such as the Kuiper System, can facilitate business continuity plans for public services and enterprises and provide "stop-gap" coverage for communities without access to terrestrial fibre connectivity. Because these systems can also provide flexible and secure broadband to connect remote assets to the cloud, public services and enterprises across multiple sectors in Australia—from agriculture and mining to finance and tourism—can access primary and redundant connectivity for remote sites, securely connect to cloud-based applications, and access online data storage, processing, and analytics. Amazon looks forward to working with the ACMA to further strengthen Australians' abilities to communicate during emergencies and disasters.

C. Amazon Applauds the ACMA's Support for the Satellite Industry in Australia

Amazon further supports the ACMA's inclusion of satellite development within its Five-Year Spectrum Outlook. Increased spectrum access and streamlined licensing frameworks for LEOSats are a meaningful step towards achieving ACMA's connectivity goals, as NGSO systems will play an important role in ensuring that Australians across the country have access to broadband. As described in further detail in Section III of this response, Amazon specifically urges the ACMA to consider the benefits that increased Ka-band and E-band access and continued Q/V-band access for FSS operations will have for consumers through opportunities for future capacity expansion by satellite operators in Australia.

III. Comments on Part 2 of the Draft Plan: 2025-26 Annual Work Program

Amazon commends the ACMA for its efforts in amending its 2025-2026 Annual Work Plan to facilitate the operation of new technologies and the efficient use of spectrum in Australia. In particular, Amazon prospectively invites the ACMA to begin preparing for an FSS (space-to-Earth) allocation in the 17.3-17.7 GHz frequency band (the "17 GHz band") in Region 3 and encourages increased access for FSS operations in the E-band and Q/V-bands.

A. Amazon Encourages the Allocation of the 17.3-17.7 GHz Frequency Band for FSS Operations

Amazon encourages the ACMA to align its treatment of the 17 GHz band with ITU WRC-23 outcomes, and further invites the ACMA to prepare for an FSS space-to-Earth allocation in the 17.3-17.7 GHz frequency band in Region 3.¹ Contiguous, protected downlink spectrum is crucial for the provision of high-quality satellite broadband services, and consumers in Region 1 and 2 already benefit from increased spectrum access in the 17 GHz band. ITU WRC-23 Resolution 726 invites the ITU Radiocommunication Sector to study an FSS space-to-Earth allocation in the 17 GHz band in Region 3, the results of which will be considered at the ITU 2027 World Radiocommunication Conference (WRC-27). As a result, WRC-27 may therefore lead to a globally harmonized FSS space-to-Earth allocation in the 17 GHz band. Amazon respectfully requests that the ACMA support investigations, preliminary replanning, and implementation preparation for this allocation prior to or at the time of WRC-27. Preparing for a 17 GHz band FSS space-to-Earth allocation will support more rapid and diverse deployment of satellite offerings for customers in Australia.

B. Amazon Supports Access of FSS to the E-Band to Support High-Capacity Operations

Amazon supports the ACMA's initiative to study and address spectrum allocations in the E-band (81-86 GHz and 71-76 GHz). Numerous NGSO FSS operators are launching satellite constellations to deliver consumer and enterprise broadband and other data-based services. These NGSO FSS systems require access to spectrum to deploy and offer a growing range of services. Accordingly, the E-band is important FSS spectrum for satellite operators to employ for capacity expansion at gateway earth stations and potentially at high-capacity customer sites. As the ACMA considers its positioning relating to the efficient and intensive use of this spectrum range, Amazon respectfully urges the ACMA to ensure that this spectrum remains available and unrestricted for NGSO FSS use, even where fixed link operations are also permitted.

C. Amazon Supports Unrestricted NGSO FSS Access in the 40 and 47 GHz Bands

Amazon understands that the ACMA is monitoring developments within the 40 GHz and 47 GHz frequency bands (37.3-43.5 GHz, 45.5-47 GHz, and 47.2-48.2 GHz) to determine whether replanning for the purpose of permitting mmWave IMT (5G) operations is appropriate. Amazon respectfully requests that in proposing any changes to these bands, the ACMA ensure that this spectrum remains available and unrestricted for NGSO FSS use. Satellite operators already use the Q/V-bands for FSS today, and those bands will continue to be important for NGSO systems such as the Kuiper System. Amazon has sought authority from the FCC to access the Q/V-bands to expand the capacity of its network and allow it to provide faster and more reliable service to customers. Specifically, Amazon plans to use the 37.5-42.5 GHz (space-to-Earth) and the 47.2-50.2 GHz and 50.4-51.4 GHz (Earth-to-space) frequency bands. Available and unrestricted access to these bands will allow NGSO FSS systems to provide consistent and uninterrupted high-speed, low-latency broadband to customers even in instances of increased spectrum use.

D. Amazon Encourages Increasing Spectrum Access for Earth Stations in Motion

Amazon encourages the ACMA to continue efforts to promote aeronautical and maritime earth stations in motion communicating with NGSO space stations (A-ESIM and M-ESIM, respectively).² Providing satellite

¹ See ITU WRC-23 Final Acts, Res. 726 (WRC-23).

² See *Comments of Amazon on the Proposed Update to the Australian Radiofrequency Spectrum Plan*, Amazon Kuiper Australia Pty Ltd, (Dec. 16, 2024) (available at <https://www.acma.gov.au/consultations/2024-11/updating-spectrum-plan>).

operators with access to this spectrum for A-ESIM and M-ESIM service offerings will increase competition and affordability while reaching more customers in unserved and underserved regions across Australia. In particular, Amazon encourages the ACMA to harmonize its rules with ITU WRC-23 outcomes allocating the 17.7-18.6 GHz, 18.8-19.3 GHz, and 19.7-20.2 GHz (space-to-Earth) and 27.5-29.1 GHz and 29.5-30 GHz (Earth-to-space) frequency bands for NGSO A-ESIM and M-ESIM, and establishing technical and operational conditions within those bands.

IV. Conclusion

Amazon is grateful to the ACMA for the opportunity to contribute to the Draft Plan and looks forward to working with the ACMA to expand broadband access and increase customer choice for more households and businesses in Australia. We welcome the opportunity to meet with the ACMA to discuss these comments or any other issues of interest in this submission.

Respectfully submitted,



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On behalf of Amazon Kuiper Australia Pty Ltd