

23/07/2026



██████████
Department of Infrastructure, Transport, Regional Development, Communications, Sports and the Arts
(Department)
GPO Box 594 Canberra ACT 2601

Dear ██████████

Re: Vocus Response Consultation on Draft Grant Opportunity for the National Regional Roads Australia Mobile Program (RRAMP) Guidelines

Vocus welcomes the opportunity to provide feedback on the draft National RRAMP Guidelines. We support the development of the Guidelines and recognise the importance of targeted investment to expand multi-carrier mobile coverage across regional and remote Australia.

As a Mobile Network Infrastructure Provider (MNIP), Vocus plays a critical role in enabling mobile connectivity through the provision of fibre networks, backhaul capacity and associated telecommunications infrastructure. In response to the Australian Government's Universal Outdoor Mobile Obligation (UOMO) initiative, Vocus is further developing its role as a provider of shared, neutral infrastructure, including the terrestrial fibre networks and backhaul connectivity required to connect mobile ground stations to mobile networks.

To support the efficient delivery of UOMO and minimise duplication of infrastructure investment, Vocus is exploring models for a common, neutral infrastructure layer that can be accessed by multiple Mobile Network Operators (MNOs) in regional and remote Australia. This approach has the potential to accelerate deployment, reduce costs and support the delivery of sustainable multi-carrier mobile coverage outcomes.

For further information on Vocus' proposed approach, we have attached previous submissions, including:

- **Appendix A:** Vocus submission on the Department's consultation regarding the draft UOMO legislation.
- **Appendix B:** Vocus submission to the Senate Standing Committees on Environment and Communications inquiry into UOMO.

We would welcome the opportunity to engage further with the Department on how the RRAMP can support the deployment of shared, neutral infrastructure that complements the Government's UOMO objectives and accelerates the delivery of improved multi-carrier mobile coverage across regional and remote Australia.

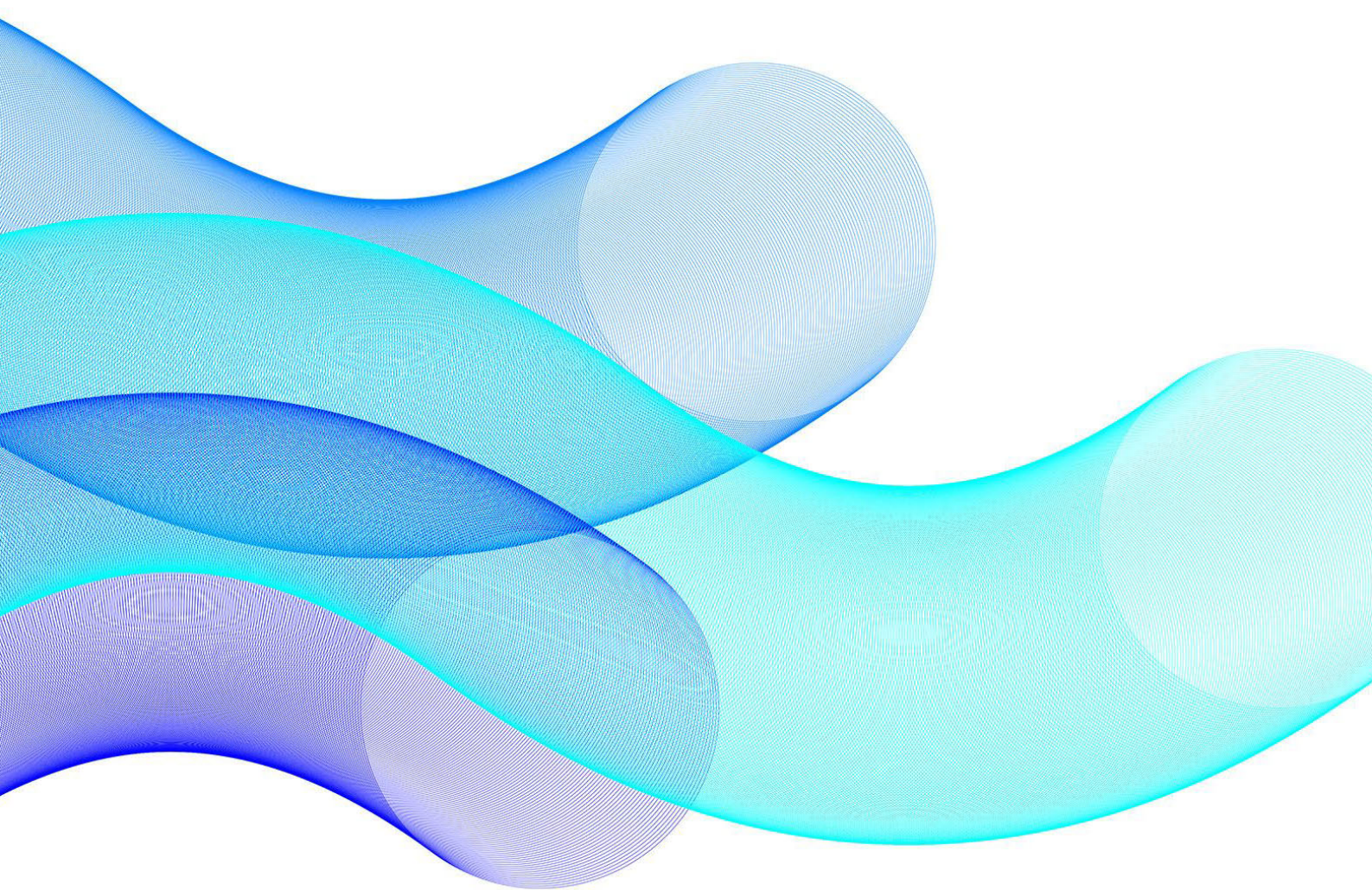
Yours sincerely

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General Manager of Government and Regulatory Affairs

Vocus Response

Consultation on the Universal Outdoor Mobile Obligation (UOMO) draft legislation

17 October 2025



About Vocus

Vocus, Australia's specialist fibre and network solutions provider, owns and operates 50,000km of secure, high-capacity fibre connecting all Australian mainland capitals with New Zealand, Asia, and the USA. Beyond the fibre network, Vocus operates a growing network of submarine cables spanning nearly 15,000kms that includes the Australia Singapore Cable, North-West Cable system, the Darwin-Jakarta-Singapore system, and the PPC-1 cable from Sydney to Guam.

Vocus' national fibre backbone also provides the foundational infrastructure for Starlink's Low Earth Orbit (LEO) satellite service – enabling revolutionary high-speed connectivity to 100% of Australia's landmass, no matter how remote. Vocus also operates 25+ private 4G/5G mobile networks across the country.

Vocus owns a portfolio of well recognised brands catering to enterprise, government, wholesale, small business and residential customers across Australia. For more information, visit vocus.com.au.

Executive Summary

Vocus welcomes the opportunity to respond to the Department of Infrastructure, Transport, Regional Development, Communications, Sports and the Arts' (DITRDCA) consultation on the *Universal Outdoor Mobile Obligation (UOMO) draft legislation*. Vocus is committed to advancing the Government's vision to use transformative technology to make Australia the most connected continent by 2030.

We broadly endorse the objectives of the *Telecommunications Legislation Amendment (Universal Outdoor Mobile Obligation) Bill 2025* (Bill) to ensure that Mobile Network Operators (MNO) deliver baseline outdoor mobile coverage to all Australians on an equitable basis. This is a critical first step in modernising Australia's universal service framework.

However, as acknowledged in the Government's response to the 2024 Regional Telecommunications Independent Review Committee Report (RTIRC), the UOMO 'is not a 'silver bullet solution' for regional connectivity. The MacTiernan Review recognises the importance of broader universal service reform, and the Government has consulted on and is carefully considering potential approaches to improve delivery and funding of baseline fixed services provided to homes and businesses."

To support the Government's ongoing consultation on broader reforms aligned with the objectives of UOMO, Vocus recommends the following:

1. **Urgently Modernise Funding Arrangements:** Urgent funding reform is needed to align investment with Australia's future connectivity needs. Vocus supports the Government's view that emerging technology, including Direct to Device (D2D) and LEO Satellites (LEOSats) will be critical to delivering the UOMO.² However, the current public funding model continues to subsidise legacy technologies while requiring consumers to pay for unsubsidised, super alternatives such as LEOSats.
2. **Universal Common Offering Layer:** Unlocking more advanced space-based communications infrastructure will be critical to expanding coverage in line with the UOMO. As outlined in previous submissions, Vocus encourages the Government to consider allocating spectrum directly to satellite operators to accelerate the delivery of the UOMO objectives. This approach would enable the establishment of shared, neutral infrastructure for ground stations.³ Broadening market participation in satellite services could expand the pool of Primary Universal Outdoor Mobile Providers (PUOMPs) capable of delivering the UOMO.

Together, these recommendations aim to strengthen the UOMO framework to ensure all Australians can access reliable, future-ready connectivity.

¹ Australian Government, 'Australian Government response to 2024 Regional Telecommunications Independent Review Committee report' (September 2025) p4.

² The Hon Anika Wells MP, Albanese Government takes next steps on regional telecommunications reform' (18 September 2025) <[Albanese Government takes next steps on regional telecommunications reform | Ministers for the Department of Infrastructure](#)>.

³ Vocus, 'Vocus submission – Allocation design for the technical matters for the 2 GHz MSS band consultation' (20 August 2025).

Urgently Modernise Funding Arrangements

To deliver the UOMO using emerging technologies, the Government must urgently reform outdated public funding arrangements that continue to subsidise legacy technologies. As a leader in LEOsats, Vocus recognises that these technological advancements are rewriting the connectivity rulebook for regional communities and industries.⁴ Therefore, we urge the Government to urgently modernise public funding arrangements to enable targeted, technologically neutral investments aligned to the UOMO objectives.

The Government's response to RTIRC acknowledged that *'Looking forward, the Government will continue to ensure reform, program modernisation and investment in regional connectivity is directed to areas of greatest need and impact, informed by the findings and recommendations of the MacTiernan Review.'*⁵ Vocus supports this development and has expressed longstanding concerns, as outlined in other submissions, that funding arrangements are failing regional, remote and rural Australians.⁶ Our core proposition is simple: public funds should deliver public services. Where public funds are available, they should be allocated through competitive processes that maximise service outcomes for Australian consumers.

Under the current arrangements, consumers ultimately bear the cost of industry levies including the Regional Broadband Scheme (RBS) and Telecommunications Industry Levy (TIL). These schemes are increasingly misaligned with the needs of modern consumers and require urgent reform to effectively address regional, remote and rural connectivity challenges.

The policy foundation for the RBS – that NBN Co's regional networks are loss-making and require cross-subsidies until 2040 – is no longer valid. Since the NBN was declared built and fully operational in 2020, NBN Co has received more than \$820 million in Federal and State Government grant funding. The financial basis used to calculate the RBS has been superseded by ongoing Government capital contributions to NBN Co's networks – via direct equity injections or through government grants programs – and to the degree to which they are loss-making is unknowable and unaccounted for.

It is critical to recognise that levies like the RBS are not absorbed by industry – they are passed directly onto consumers. To fully understand the cost burden on consumers, the RBS cannot be assessed in isolation, but in consideration with the TIL as both levies are ultimately in place to fund non-commercial services. In practice, both funds go towards legacy technologies despite the availability of superior, unsubsidised commercial alternatives such as LEOsats.

The TIL is an industry wide levy imposed on eligible telecommunications carriers to help fund the Universal Service Obligation (USO). Telstra is the designated USO provider, and the TIL sees Telstra paid \$270 million annually to deliver the Standard Telephone Service. Telstra itself contributes around half of the total TIL. However, Telstra's share is declining – from \$157 million in 2019, to \$103 million in 2023. Meanwhile, NBN Co's contribution to the TIL has increased from just \$11 million in 2019 to almost \$35 million last year. Over the past five years Telstra's share of the TIL has decreased by more than a third, while NBN's has more than tripled.⁷

⁴ Vocus, 'From niche to mainstream: How LEO Satellite is transforming remote Australia today' (28 April 2025) <<https://www.vocus.com.au/vocus-blog/from-niche-to-mainstream-how-leo-satellite-is-transforming-remote-australia-today>>; Vocus, 'Vocus fast tracks LEO satellite service deployment' (14 July 2024) <<https://www.vocus.com.au/vocus-news/vocus-fast-tracks-leo-satellite-service-deployment>>.

⁵ Australian Government (n 1) p8. The 2024 RTIRC Report recommended *'rigorous evaluations of the current telecommunications investment programs to ensure public investment is well targeted and efficiently delivered.'*¹⁵ In response, the Government has acknowledged that *'The MacTiernan Review recognises the importance of broader universal service reform, and the Government has consulted on and is carefully considering potential approaches to improve delivery and funding of baseline fixed services provided to homes and businesses.'*

⁶ See previous submissions, including Vocus, 'Sunsetting of the Telecommunications (Participating Persons) Determination (2025); Vocus, 'Funding of universal telecommunications services discussion paper' (2024) <<https://www.infrastructure.gov.au/sites/default/files/documents/futs2024-vocus.pdf>>; Vocus, 'Vocus Response to 2024 Regional Telecommunications Review' (2024) <<https://www.infrastructure.gov.au/sites/default/files/documents/rtirc-2024-240731-vocus-response-rtirc.pdf>>.

⁷ ACMA, 'Telecommunications industry levy (TIL) overview' <<https://www.acma.gov.au/telecommunications-industry-levy-til-overview>>; ACMA, 'Regional Broadband Scheme charge assessments' <<https://www.acma.gov.au/regional-broadband-scheme-charge-assessments#latest-reporting-period-1-july-2022-to-30-june-2023>>.

This leads to a circular funding arrangement: NBN Co pays Telstra tens of millions of dollars annually through the TIL to operate its copper network, while Telstra pays NBN Co tens of millions of dollars annually through the RBS to operate its fixed wireless and satellite networks. Combined, the TIL and RBS levies result in more than \$1 billion of cross-subsidies annually for duplicative networks serving the same users. Ultimately, consumers are the ones who pay the tax and are at a disadvantage through potentially higher charges on their services; a statement also made by the ACCC.⁸

We strongly urge the Government to reform public funding arrangements and adopt a competitive, technology-neutral approach that directs investment towards solutions which can meet the connectivity needs of all Australians and fully realise the potential of UOMO.

Universal Common Offering Layer

To accelerate the objectives of the UOMO, Vocus recommends the Government considers allocating dedicated spectrum to satellite operators to establish a universal common offering layer. This approach is being considered in many other countries such as the US, Canada, Brazil, Japan and the UK in order to advance D2D services. Historically, spectrum – such as the 2GHz Mobile Satellite Services (MSS) band – has been allocated to MNOs. Satellite providers have relied on the spectrum of MNOs to provide services, including D2D services.

Establishing a universal common offering layer would involve providing dedicated spectrum to satellite operators to deliver neutral ground infrastructure which multiple providers could use. This would potentially unlock spectrum-as-a-service models and broaden market participation in satellite services. It would also potentially expand the range of PUOMPs to deliver to the UOMO. Shared, neutral infrastructure model for ground stations would lay the foundation for more resilient, inclusive, and future-ready satellite services. The potential benefits include:

- (a) **Enhanced Public Safety:** Enabling a shared, industry-wide D2D model will allow the expansion of Triple Zero access and strengthen emergency service capabilities nationwide.
- (b) **Infrastructure Resilience:** The shared ground segment improves overall network resilience and spectrum efficiency, making it a technically robust solution.
- (c) **Service Diversification:** This model would facilitate broader industry participation in satellite service delivery via neutral infrastructure. The diversification of providers reduces dependence on a single provider, which promotes stronger competition and consumer outcomes, as well as service resilience.
- (d) **Economic Growth:** Expanding satellite service availability is essential to bridging the digital divide to include remote and regional communities in the growing digital economy. It also underpins the future competitiveness of Australia's critical sectors, which will require enhanced communications services to embrace automation and deploy technologies at scale.

Building the universal common offering layer would require considered collaboration across government and industry. From an industry perspective, this type of model relies on the availability of certain technologies and coordinated participation across the supply chain. A key requirement will be the availability of ground station providers that can operate as independent national infrastructure and manage a high volume of satellite traffic. Traditional ground stations typically track one satellite at a time, creating congestion and limiting the full potential of satellite networks. Emerging technologies are now addressing this challenge, paving the way for scalable, shared infrastructure.

One such example of this innovation is Vocus's investment in Quasar Satellite Technologies (Quasar). By leveraging the CSIRO's technology, Quasar enables stations to connect with hundreds of ground stations simultaneously, significantly increasing throughput and reducing congestion. Combined with Vocus's leadership in LEO ground station services and network management, this partnership exemplifies how advanced electromagnetic interference (EMI) mitigation capabilities and multi-beam phased array can enable efficient spectrum usage and co-existence with other existing users and non-terrestrial systems. This is an important example of the transformative technologies which can be used to establish national satellite infrastructure that supports high-volume, multi-provider access – laying the

⁸ ACCC, 'Regional Broadband Scheme levy – Approach to future costing' (November 2024)
<<https://www.accc.gov.au/system/files/rbs-levy-future-costing-consultation-position-paper.pdf?ref=0&download=y>>.

foundations for a 'universal common offering layer'. This type of model would accelerate the objectives of the UOMO, by potentially widening the range of providers who can use neutral ground infrastructure to deliver coverage.

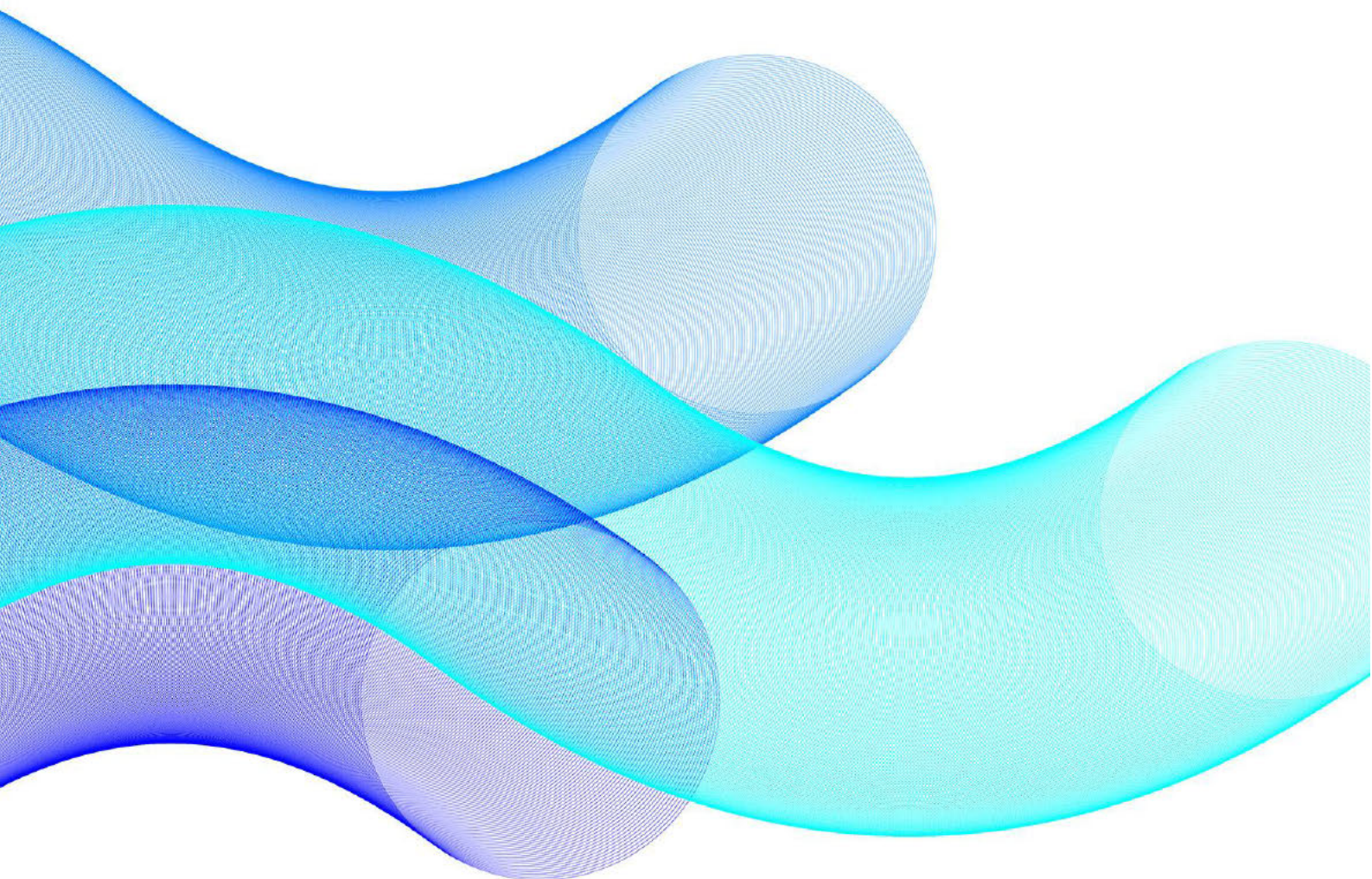
For further information, please contact:

Vocus Regulatory Affairs Manager [REDACTED]

Vocus Submission

Telecommunications Legislation Amendment (Universal Outdoor Mobile Obligation) Bill 2025

8 April 2026



About Vocus

Vocus, Australia's specialist fibre and network solutions provider, owns and operates 50,000km of secure, high-capacity fibre connecting all Australian mainland capitals with New Zealand, Asia, and the USA. Through more than two decades of sustained investment in building and expanding this secure fibre network, Vocus has become one of Australia's largest network infrastructure providers, delivering neutral, carrier-grade connectivity at national scale.

Beyond the fibre network, Vocus operates a growing network of submarine cables spanning nearly 15,000kms that includes the Australia Singapore Cable, North-West Cable system, the Darwin-Jakarta-Singapore system, and the PPC-1 cable from Sydney to Guam.

Vocus plays an integral role in the Low Earth Orbit (LEO) satellite ecosystem through its ground infrastructure capability and deep expertise in building LEO satellite gateways. This role is reinforced by Vocus' national fibre backbone, which provides foundational infrastructure to connect satellite ground stations – enabling revolutionary high-speed connectivity to 100% of Australia's landmass, no matter how remote.

Vocus owns a portfolio of well recognised brands catering to enterprise, government, wholesale, small business and residential customers across Australia. For more information, visit vocus.com.au.

Executive Summary

Vocus welcomes the opportunity to make a submission to the Senate Environment and Communications Committees' *Inquiry into the Telecommunications Legislation Amendment (Universal Outdoor Mobile Obligation) (UOMO) Bill 2025*. Vocus is committed to advancing the Government's vision to use transformative technology to make Australia the most connected continent by 2030.

We broadly endorse the objectives of the *Telecommunications Legislation Amendment (Universal Outdoor Mobile Obligation) Bill 2025* (Bill) to ensure that Mobile Network Operators (MNOs) deliver baseline outdoor mobile coverage to all Australians on an equitable basis. This is a critical step towards modernising Australia's universal service framework.

However, as acknowledged in the Government's response to the 2024 Regional Telecommunications Independent Review Committee Report (RTIRC), the Uomo *'is not a 'silver bullet solution' for regional connectivity. The MacTiernan Review recognises the importance of broader universal service reform, and the Government has consulted on and is carefully considering potential approaches to improve delivery and funding of baseline fixed services provided to homes and businesses.'*¹

Therefore, Vocus recommends the following:

- 1. Universal Common Offering Layer:** Unlocking more satellite ground stations, connected to high-capacity terrestrial fibre, will be critical to expanding coverage to deliver the Uomo. As outlined in previous submissions, Vocus recommends considering opportunities to establish shared, neutral infrastructure for ground stations, including the terrestrial fibre networks and associated backhaul infrastructure required to connect stations into mobile networks. Establishing a universal common offering layer would support the MNOs to deliver their obligations, as well as potentially expand the pool of Primary Universal Outdoor Mobile Providers (PUOMPs).²
- 2. Urgently Modernise Funding Arrangements:** Urgent funding reform is needed to align investment with Australia's future connectivity needs. Vocus supports the view that emerging technology, including Direct to Device (D2D) and LEO satellites will be critical to delivering the Uomo.³ However, the current public funding model continues to subsidise legacy technologies while requiring consumers to pay for unsubsidised, super alternatives such as LEO satellites.

Together, these recommendations aim to strengthen the Uomo framework to ensure all Australians can access reliable, future-ready connectivity.

¹ Australian Government, 'Australian Government response to 2024 Regional Telecommunications Independent Review Committee report' (September 2025) p4.

² Vocus, 'Vocus submission – Allocation design for the technical matters for the 2 GHz MSS band consultation' (20 August 2025).

³ The Hon Anika Wells MP, Albanese Government takes next steps on regional telecommunications reform' (18 September 2025) <[Albanese Government takes next steps on regional telecommunications reform | Ministers for the Department of Infrastructure](#)>.

Universal Common Offering Layer

Achieving the UOMO requirements will require a substantial investment in ground stations and fibre networks to enable MNOs to deliver D2D services at scale. To accelerate delivery of the UOMO and reduce duplication of investment, Vocus recommends exploring models to establish a universal common offering layer of neutral ground infrastructure, accessible to multiple MNOs as well as any future PUOMPs.

Building shared, neutral ground stations with fibre connectivity would support the accelerated delivery of UOMO by lowering barriers to entry and enabling MNOs to deliver D2D services more quickly. Critically, the use of shared, neutral infrastructure potentially unlocks economies of scale and provides stronger investment value. By enabling multiple providers to operate from shared sites, the model avoids duplicative capital expenditure on similar ground station facilities built in close proximity and accelerates service availability. Importantly, this approach also supports more efficient investment in the terrestrial fibre and backhaul networks required to connect ground stations into broader telecommunications networks.

The other potential benefits include:

- (a) **Enhanced Public Safety:** Enabling a shared, industry-wide D2D model will allow the expansion of Triple Zero access and strengthen emergency service capabilities nationwide.
- (b) **Infrastructure Resilience:** The shared ground segment improves overall network resilience and spectrum efficiency, making it a technically robust solution.
- (c) **Service Diversification:** This model would facilitate broader industry participation in satellite service delivery via neutral infrastructure. The diversification of providers reduces dependence on a single provider, which promotes stronger competition and consumer outcomes, as well as service resilience.
- (d) **Economic Growth:** Expanding satellite service availability is essential to bridging the digital divide to include remote and regional communities in the growing digital economy. It also underpins the future competitiveness of Australia's critical sectors, which will require enhanced communications services to embrace automation and deploy technologies at scale.

Vocus also recommends considering providing dedicated spectrum to satellite operators to deliver neutral ground infrastructure which multiple providers could use. This approach is being considered in many other countries such as the US, Canada, Brazil, Japan and the UK in order to advance D2D services. Historically, spectrum – such as the 2GHz Mobile Satellite Services (MSS) band – has been allocated to MNOs. This would potentially unlock spectrum-as-a-service models and broaden market participation in satellite services.

Building the universal common offering layer would require considered collaboration across government and industry. From an industry perspective, this type of model relies on the availability of certain technologies and coordinated participation across the supply chain. A key requirement will be the availability of ground station providers that can operate as independent national infrastructure and manage a high volume of satellite traffic. Traditional ground stations typically track one satellite at a time, creating congestion and limiting the full potential of satellite networks. Emerging technologies are now addressing this challenge, paving the way for scalable, shared infrastructure.

One such example of this innovation is Vocus's investment in Quasar Satellite Technologies (Quasar). By leveraging the CSIRO's technology, Quasar enables stations to connect with hundreds of ground stations simultaneously, significantly increasing throughput and reducing congestion. Combined with Vocus's leadership in LEO ground station services and network management, this partnership exemplifies how advanced electromagnetic interference (EMI) mitigation capabilities and multi-beam phased array can enable efficient spectrum usage and co-existence with other existing users and non-terrestrial systems. This is an important example of the transformative technologies which can be used to establish national satellite infrastructure that supports high-volume, multi-provider access – laying the foundations for a universal common offering layer. This type of model would accelerate the objectives of the UOMO, by potentially widening the range of providers who can use neutral ground infrastructure to deliver coverage.

Urgently Modernise Funding Arrangements

Delivering the UOMO using emerging technologies requires urgent reform of outdated public funding arrangements that continue to subsidise legacy technologies. As a leader in LEO satellites, Vocus recognises that these technological advancements are rewriting the connectivity rulebook for regional communities and industries.⁴ Modernising policy

⁴ Vocus, 'From niche to mainstream: How LEO Satellite is transforming remote Australia today' (28 April 2025) <<https://www.vocus.com.au/vocus-blog/from-niche-to-mainstream-how-leo-satellite-is-transforming-remote-australia-today>>;

settings to support targeted, technology neutral investment will be critical to enabling the efficient delivery of the UOMO objectives.

The Government's response to RTIRC recognised that *'Looking forward, the Government will continue to ensure reform, program modernisation and investment in regional connectivity is directed to areas of greatest need and impact, informed by the findings and recommendations of the MacTiernan Review.'*⁵ Vocus supports this development and has expressed longstanding concerns, as outlined in other submissions, that funding arrangements are failing regional, remote and rural Australians.⁶ Our core proposition is simple: public funds should deliver public services. Where public funds are available, they should be allocated through competitive processes that maximise service outcomes for Australian consumers.

Under the current Universal Service Obligation (USO) funding arrangements, consumers ultimately bear the cost of industry levies including the Telecommunications Industry Levy (TIL) and the Regional Broadband Scheme (RBS). The TIL primarily funds Telstra's delivery of standard telephone services and payphones, while the RBS funds NBN Co's delivery of broadband services, including through the Statutory Infrastructure Provider (SIP) regime. The existing USO funding schemes were designed around legacy service models and require urgent reform to effectively address regional, remote and rural connectivity challenges.

The introduction of the UOMO creates an additional universal service framework that will also require sustainable funding. While the draft UOMO Bill enables the use of Public Interest Telecommunications Services Special Account (PITSSA) funds to support contracts or grants for the UOMO, it is critical that consumers are not asked to bear the cost of another levy-based scheme before the existing USO funding arrangements are reviewed holistically. Modernising the TIL and RBS frameworks is a necessary precursor to ensure public funding across all universal service mechanisms, including the UOMO, is targeted and effectively used to maximise service outcomes for Australian consumers.

We strongly urge reform of public funding arrangements to adopt a competitive, technology-neutral approach that directs investment toward solutions capable of meeting the connectivity needs of all Australians and fully realising the potential of the UOMO.

Vocus, 'Vocus fast tracks LEO satellite service deployment' (14 July 2024) <<https://www.vocus.com.au/vocus-news/vocus-fast-tracks-leo-satellite-service-deployment>>.

⁵ Australian Government (n 1) p8. The 2024 RTIRC Report recommended *'rigorous evaluations of the current telecommunications investment programs to ensure public investment is well targeted and efficiently delivered.'*⁶ In response, the Government has acknowledged that *'The MacTiernan Review recognises the importance of broader universal service reform, and the Government has consulted on and is carefully considering potential approaches to improve delivery and funding of baseline fixed services provided to homes and businesses'.*

⁶ See previous submissions, including Vocus, 'Sunsetting of the Telecommunications (Participating Persons) Determination (2025); Vocus, 'Funding of universal telecommunications services discussion paper' (2024) <<https://www.infrastructure.gov.au/sites/default/files/documents/futs2024-vocus.pdf>>; Vocus, 'Vocus Response to 2024 Regional Telecommunications Review' (2024) <<https://www.infrastructure.gov.au/sites/default/files/documents/rtirc-2024-240731-vocus-response-rtirc.pdf>>.