25 January 2024

The Hon Stephen Jones MP
Assistant Treasurer
House of Representatives
Parliament House
Canberra ACT 2600

Via: PreBudgetSubmissions@treasury.gov.au

Dear Assistant Treasurer

The Australian Mobile Telecommunications Association (AMTA) welcomes the opportunity to outline the mobile industry's view regarding priorities for the Government's 2024-25 Budget.

AMTA is the peak industry body representing Australia's mobile telecommunications industry. AMTA members include the mobile network service providers, handset manufacturers, network equipment suppliers, retail outlets and other suppliers to the industry.

AMTA welcomes the Albanese Government's investment in the deployment of the National Messaging System (NMS) and the creation of a Public Safety Mobile Broadband (PSMB) task force, as well as the establishment of an SMS Sender ID Registry announced in the 2023-24 Budget. AMTA also welcomes the Government reinforcing its focus on innovation, and particularly the announcement of seven critical technologies, including Advanced Information and Communication Technologies, which includes advanced radio frequency technologies such as 5G and 6G.

However, we would like to see the Government do more to drive the adoption of 5G in Australia and to remove barriers to mobile deployment. We have outlined our recommendations on how to do so in this submission.

There are also a number of priority areas for AMTA that align with government priorities. These include preparing for, and responding to, natural disasters, the transition from the legacy 3G networks and digital inclusions, including for First Nations communities. AMTA and the telecommunications industry will continue to work with government to address the challenges and take advantage of the opportunities of these policy priorities.

We look forward to engaging with the Government on the issues outlined in our submission.

Yours sincerely

Louise Hyland
Chief Executive Officer
Australian Mobile Telecommunications Association Ltd

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Recommendations

The Australian Mobile Telecommunications Association (AMTA) recommends the Albanese Government:

<u>5G in Australia</u>

1. **Allocate Government funding for research and development initiatives focused on 5G technology. Encouraging innovation and collaboration between academia, industry, and government will contribute to the development of 5G solutions and applications and help solve Australia's productivity problem *(section 2iii).***

2. **Develop a whole of government National Mobile Tech Strategy, in coordination and collaboration with the mobile telecommunications sector, government departments and agencies to ensure Australia has a plan for the critical technologies of 5G and 6G *(section 2iv).***

3. **Continue to invest in 5G-related training and skills that support the digitalisation of the Australian economy and empower Australia's workforce to take advantage of the emerging opportunities in the digital economy *(section 2v).***

4. **Invest further to build public confidence in the safety of telecommunications networks, including 5G mobile networks, and to address misinformation about electromagnetic energy (EME) emissions which has caused concern in some parts of the community *(section 2vi).***

<u>Mobile Telecommunications Infrastructure Deployment</u>

5. **Improve the regulatory settings for the deployment of mobile telecommunications infrastructure by updating the 'Powers and Immunities' framework in Schedule 3 of the *Telecommunications Act 1997* to accommodate the more efficient and effective deployment of network infrastructure *(section 3i).***

6. **Drive State and Territory infrastructure planning reform to create harmonisation across Australia and allow for expedited approvals for telecommunications infrastructure *(section 3ii).***

<u>Spectrum Allocation</u>

7. **Set spectrum auction reserve prices at a level which do not artificially inflate the price and find a pragmatic and realistic approach to spectrum licence renewal pricing *(section 4i).***

8. **As part of the National Mobile Tech Strategy, the Government should incorporate a strategic policy plan relating to the access and allocation of spectrum in Australia *(section 4ii).***

Telecommunications and Natural Disasters

9. **Continue to work with the mobile industry to ensure that appropriate messaging is used that informs people about the reliance of the telecommunications networks during natural disasters, and to provide equipment to keep communities connected during natural disasters *(section 5i).***

10. **Ensure that industry is engaged as the Public Safety Mobile Broadband (PSMB) framework is established *(section 5ii).***

11. **Work with the telecommunications industry on the funding requirements and other arrangements to deliver Temporary Disaster Roaming *(section 5iii).***

1. Introduction

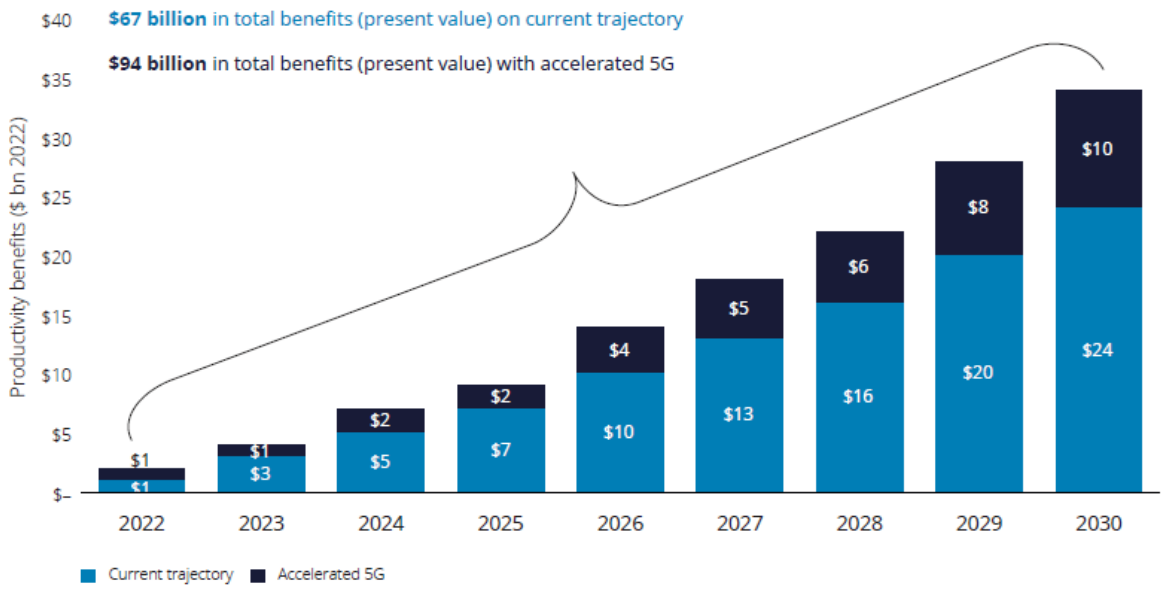
Digital connectivity is indispensable to the daily lives of Australians and serves as a cornerstone for future socio-economic prosperity. Mobile networks, recognised as the most efficient means of delivering ubiquitous high-bandwidth connectivity on the go, play a pivotal role in meeting consumer demands and driving technological innovation.

The Australian economy is undergoing a profound shift towards digitalisation, with information technology and communications becoming increasingly intertwined. Mobile devices have evolved into indispensable extensions of individuals and businesses across all sectors leverage digital tools for various functions, driving productivity and innovation.

Mobile networks are essential providers of communication services, connecting Australians to emergency, education, health, and government services. Economic modelling from Deloitte estimates that 5G will increase Australia's GDP by $67 billion (in 2022 dollars) by 2030[1]. Accelerating 5G adoption could also bring huge economic dividend, with modelling showing that if we maintain our current global leadership in terms of adoption of 5G devices, the uplift to Australia's economy is worth $27 billion by 2030 (in 2022 dollars).

Technology adoption is an intense race, and the earlier businesses can develop and see the potential 5G applications, the larger the productivity benefits. Australia can unlock this dividend by lifting business readiness and re-energising the policy regime for 5G.

Chart 1.1: The dividend from continued investment and greater use of 5G



Note: The figures in Chart 1.1 are in real 2022 dollars. They do not add to the total present value benefits because they are first discounted at a rate of 7% per year.
Source: Deloitte Access Economics (2021).

[1] *5G Unleashed: Realising the potential of the next generation of mobile technology*. Australian Mobile Telecommunications 2022. Deloitte Access Economics. https://amta.org.au/5g-unleashed-deloitte-access-economics/#:~:text=The%20report's%20economic%20modelling%20estimates,uplift%20in%20economic%20benefit%20over

2. 5G in Australia

i. *5G and future mobile technologies will help solve Australia's productivity problem*

Australia has faced persistent challenges in boosting productivity levels in recent years, which impacts our national economic growth. To address these challenges, it is imperative that the Government, consumers and businesses embrace transformative technologies like 5G, and, in the future, 6G.

5G has the capacity to revolutionise industries, enhance connectivity, and optimise operations, which allows for increased productivity across various sectors. 5G enhances decision-making, reduces downtime, and fosters a more agile and competitive business environment. By harnessing the transformative power of 5G, Australia can overcome our productivity challenges, fostering economic growth and global competitiveness in the longer term.

ii. *More needs to be done to encourage 5G adoption and adaptation for business*

Australia was one of the first countries to adopt 5G, which demonstrated our nation's commitment to staying at the forefront of technological advancements. While our early rollout has translated into global leadership in 5G adoption, take-up and usage of the technology has subsequently plateaued, resulting in Australia slipping from fifth place globally in 2020 and 2021 to twentieth place in 2023.[2]

5G is now available to 85 percent of the Australian population[3] but a large share of the Australian population is yet to switch to 5G, with an estimated 5G mobile subscriber penetration of 30 percent at the end of 2022[4].

An Austrade report found that 5G in Australia has the potential to unlock billions of dollars in value-added industry uplift by 2030, across industries such as healthcare, mining, transport, manufacturing and utilities[5]. By mid-2025, it is expected that 95 per cent of Australians will have 5G coverage. Yet despite the rapid adoption of 5G across Australian households, industry adoption is still emerging. In fact, 73 per cent of businesses in Australia have yet to realise the full potential of 5G[6].

5G's low latency, high bandwidth, and reliability can revolutionise critical infrastructure, enabling real-time data analysis and decision-making. To encourage greater adoption, more needs to be done by Government to highlight the benefits and applications of 5G across various industries. 5G is not merely about faster internet; it's a transformative force for sectors like security, energy, transportation, utilities, healthcare, and more.

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2 According to GSMA Intelligence reports, Australia was ranked fifth of 113 countries in 2020 and 2021 for percentage of the population with 5G capable device (6.54% and 18.51% penetration respectively) but slipped to eleventh place in 2022 (29.48% penetration) and twentieth place in 2023 (37.84% penetration).

3 https://www.telstra.com.au/5g

4 https://www.ericsson.com/en/reports-and-papers/mobility-report/closer-look/south-east-asia-and-oceania

5 https://www.austrade.gov.au/news/insights/insight-australia-s-multibillion-dollar-5g-opportunities#:~:text=By%202025%2C%20it%20is%20expected,the%20Australian%20population%20by%202025).

6 https://amta.org.au/wp-content/uploads/2022/03/5G-Unleashed-Final-Report_combined-v2.pdf

AMTA notes the decision by the Albanese Government in the October 2022 Budget to discontinue round two of the Australian 5G Innovation Initiative. AMTA acknowledges the difficult economic circumstances in which the Government is operating and understands that cost savings are required.

Industry needs to see that 5G is worth investing in, and to do this, they need to see a vote of confidence from Government. That is why we would like to see the Government offer incentives to specific industries such as healthcare, transportation, and agriculture to adopt 5G solutions can drive sector-specific innovation and use.

This could be achieved through research and development initiatives focused on 5G technology, to encourage innovation and collaboration between academia, industry, and government. This will contribute to the development of 5G solutions and applications in Australia.

The economic benefit and the improved productivity will be realised through business adoption of 5G. A concerted push for 5G adoption, particularly for businesses, will help Australia regain its competitive edge and global standing in the 5G race, as well as foster a technologically advanced and digitally connected society.

iii. A whole of government approach is needed through a National Mobile Tech Strategy

AMTA welcomes Minister Husic's acknowledgment of 5G and 6G as critical technologies, but this is only the first step. Australia lacks a national policy or strategy for the utilisation of 5G or 6G. Without a well-defined plan, the potential of these critical enabling technologies will not be realised.

5G and 6G should be part of a broader national strategic framework through a comprehensive, whole-of-government strategy. This approach would enable Australia to address our strategic gap in relation to a strategy for mobile technology.

We ask that the Albanese Government develop and implement a whole-of-government National Mobile Tech Strategy. The National Mobile Tech Strategy would involve coordination and collaboration across different government departments and agencies, working together to maximise the benefits of 5G and other technologies, as well as planning for 6G. The Strategy should require consideration of 5G and future generations of mobile technology in the delivery of Government services.

There is an opportunity for the mobile telecommunications sector to work more closely with the Government to ensure we have co-ordinated policy across government which leverages the benefits of 5G and plans for future mobile technologies.

iv. We need to get the settings right for greater 5G adoption and deployment, in tandem with preparing for 6G.

While the anticipation for 6G technology is understandable, it is crucial that the Albanese Government maintains focus on the regulatory settings for the deployment of 5G and driving better adoption across industry. The deployment of 5G infrastructure is well underway, however the barriers to efficient planning approvals

and deployment are significant, resulting in slower rollout and increased cost to network operators. These costs are ultimately borne by consumers.

Much of the planning reforms required to ensure more streamlined deployment of 5G infrastructure will equally be applicable to 6G technology. By streamlining regulations, addressing infrastructure challenges, and promoting investment and adoption of 5G, we can set the stage for a seamless transition to 6G when the time comes.

5G technology serves as a transformative enabling capability. 5G provides high-speed data transmission, low latency, and the ability to connect a vast number of devices simultaneously, driving unprecedented opportunities across various industries. From smart cities to precision agriculture, telemedicine, autonomous transportation, robotics and industrial automation, 5G enables a seamless flow of data, creating a foundation for real-time decision-making and connectivity that is indispensable in the digital age.

The Albanese Government has rightfully emphasised emerging technologies such as quantum computing and artificial intelligence (AI), recognising their immense potential for the future. AI and Machine Learning techniques, especially deep learning, has rapidly advanced over the last decade, and it has already been deployed across several domains involving image classification and computer vision, ranging from social networks to security. However, the successful implementation of these technologies relies heavily on the robust foundation provided by 5G networks. Without efficient, widespread 5G infrastructure, the data transfer and low-latency requirements of quantum computing and AI applications become considerably more challenging to achieve.

That is why AMTA would like to see the Albanese Government focus on getting the regulatory settings right for 5G and consider funding initiatives to increase adoption by business. By prioritising 5G, Australia can solidify its position as a leader in the digital age, laying the groundwork for a seamless integration of quantum computing, AI, and other transformative innovations.

In addition, it is important to not lose focus on 6G. Work is currently underway at international forums such as the International Telecommunications Union (ITU) and the Third Generation Partnership Project (3GPP) to identify radio spectrum and develop standards for 6G. It is vital that Australia plays a prominent role in identifying and preserving radio spectrum for 6G, and in setting standards, so that Australia can remain at the forefront of mobile technology on the global stage.

v. 5G education and skills

It is crucial that Australia's workforce is adequately equipped with the skills and training needed to harness the full potential of this transformative innovation. AMTA supports the Albanese Government's commitment to establishing Jobs and Skills Councils (JSCs). These Councils can play a pivotal role in addressing the pressing need for upskilling and reskilling the Australian workforce, ensuring that our labour market remains competitive and adaptive.

By focusing on 5G-related training and skills development, we can empower our workforce to take advantage of the emerging opportunities in the digital economy, enabling individuals to thrive in new roles and industries, while also enhancing

Australia's overall economic resilience and growth in the 5G era. Government funding allocated for research and development initiatives focused on 5G technology also encourages collaboration between academia and industry by providing real-life opportunities for skills enhancement and development.

Australia should continue to prioritise investments in training and skills development in tandem with infrastructure development, as both are fundamental in realising the full potential of 5G technology.

vi. Invest in electromagnetic energy education and communications

In 2019, the former government allocated $9 million over four years to build public confidence in the safety of telecommunications networks, including 5G mobile networks, and to address misinformation about electromagnetic energy (EME) emissions which has caused concern in some parts of the community.

Community concern around new 5G deployments still exists and there is a need for further independent (from industry) and authoritative information about the safety of 5G.
Consequently, AMTA is seeking a new commitment from the Government to continue this program as 5G reaches into the middle and outer suburban areas of capital cities and regional centres.

The Albanese Government should continue to invest in Council and community education regarding the need for the safe deployment of additional and augmented mobile network infrastructure.

3. Mobile Telecommunications Infrastructure Deployment

i. Changes to Schedule 3 of the Telecommunications Act

The *Telecommunications Act 1997* has served as the foundation for regulating telecommunications in Australia for decades. However, in the ever-evolving landscape of technology, it has become increasingly evident that the 'Powers and Immunities' framework in Schedule 3 requires updating to accommodate the more efficient, timely and effective deployment of network infrastructure. In addition, the Act should provide greater recognition of the essential nature of the infrastructure and address urgent issues including amendments required to respond to recent legal proceedings on the deployment of cabling on bridges.

The emergence of new technologies like 5G and the increasing demand for seamless connectivity call for a more flexible and adaptive regulatory framework. By making the necessary changes to the *Telecommunications Act,* we can help ensure that the deployment of low-impact telecommunications infrastructure is streamlined, without compromising on essential environmental and safety considerations.

This reform will not only foster innovation and economic growth but also help Australia stay at the forefront of telecommunications advancements, ensuring that we have access to the connectivity we need to be competitive and thrive in the digital age. It is imperative that we adapt our regulatory framework to embrace the future of mobile telecommunications.

ii. State and Territory planning reform

In tandem with the required changes to the Telecommunications Act at the federal level, there is a pressing need for infrastructure planning reform at the State and Territory levels. The inclusion of the need for harmonisation and expedited approvals for telecommunications infrastructure within the State and Territory Planning Ministers' communique, and the subsequent formation of the 'Mobile Telecommunications Working Group' has provided a significant opportunity to achieve this reform.

Current planning regulations often create roadblocks for the efficient deployment of telecommunications infrastructure, hindering our ability to meet the growing connectivity demands of our population. Reforming these regulations to facilitate the streamlined installation of telecommunications infrastructure that does not always require Council development approval (but still protects heritage and the environment) is essential to our nation's digital future. Such reform will not only benefit the telecommunications industry but also encourage investment, innovation, and economic growth.

By working together to create a more conducive regulatory environment, we can ensure that Australia's telecommunications infrastructure is robust, adaptable, and ready to meet the evolving needs of our citizens and businesses.

4. Spectrum Allocation

i. Spectrum costs impact future investment

Mobile network operators face an ever-increasing demand to invest in and upgrade their networks to keep pace with the growing connectivity needs of consumers and businesses. Operators must navigate a complex landscape where conditions for investment are becoming progressively challenging. The exponential growth in data consumption, driven by streaming services, the Internet of Things (IoT), and the cost of rolling out 5G technology, has intensified the economic pressure on mobile network operators as they enhance their infrastructure.

One of the significant hurdles that operators face is the high cost of spectrum pricing. Spectrum is a finite and valuable resource, and the Government normally auctions spectrum licences to the highest bidder to help ensure this spectrum is put to its highest value use. Additionally, the cost to renew expiring spectrum licences also poses a similar financial challenge for network operators. As licences expire, operators must participate in costly renewal processes, further depleting their resources to invest in infrastructure.

The price of spectrum at auction along with this perpetual cycle of spectrum licence renewal reduces the budget available to network operators to invest in network infrastructure upgrades and expansion, including the development of advanced technologies such as 5G. This reduced investment constrains the delivery of new and improved services to consumers.

To address these challenges, it is crucial for governments and regulatory bodies to strike a balance between revenue generation from spectrum allocation processes and ensuring that mobile network operators have the financial capacity to invest in the next generation of telecommunications infrastructure.

Setting auction reserve prices at a level which does not artificially inflate the price and finding a pragmatic and realistic approach to spectrum licence renewal pricing is essential to sustaining and advancing the quality and availability of mobile services, fostering innovation, and meeting the growing demands of a digitally connected society.

ii. Access to spectrum

Access to sufficient quality and quantity of spectrum is integral to fostering investment in mobile networks, thereby facilitating the digital transformation of industries. As mobile communications become ever more relied upon, effective spectrum management emerges as a key determinant of the telecommunications sector's social welfare and economic performance, influencing national competitiveness and productivity.

Augmenting mobile base-station sites with additional spectrum is typically the most efficient method to enhance network capacity. Alternatives such as upgrading existing technology or deploying new infrastructure are costly and time-consuming. New additional spectrum will also be required to efficiently introduce 6G services when this

next generation of mobile technology becomes available around the end of this decade.

Acquiring access to new mobile spectrum will be essential for continuing Australia's leadership in adopting new, spectrally efficient mobile technologies, and meeting the ongoing escalating demand for mobile data services.

Spectrum underpins the digital economy as well as core infrastructure, including critical sectors like telecommunications, aviation, manufacturing, energy, and defence. Spectrum is a scarce resource, and one that requires careful management for Australia's innovation and security.

In the United States, President Biden called radio frequency spectrum one of America's *"most important national resources".* The Biden Administration have stated that America's economy, technological leadership and security depend on spectrum.

In order to promote innovation and US leadership in wireless technologies, the Biden Administration has committed to careful planning and cooperation among government agencies and the private sector and has released a National Spectrum Strategy outlining how this will be achieved[7].

In Australia, the Australian Communications and Media Authority publishes a plan each year to manage spectrum through the Five-Year Spectrum Outlook[8]. However, this is a detailed annual work program to plan and allocate spectrum, rather than a strategic policy document.

As part of the National Mobile Tech Strategy, the Government should incorporate a strategic policy plan relating to the access and allocation of spectrum in Australia.

[7] National Spectrum Strategy, National Telecommunications and Information Administration, United States Department of Commerce: https://www.ntia.gov/issues/national-spectrum-strategy
[8] Five Year Spectrum Outlook 2023-28: https://www.acma.gov.au/five-year-spectrum-outlook

5. Telecommunications and Natural Disasters

i. Government investment to prepare for, and respond to natural disasters

We continue to see compounding natural disasters impacting communities across Australia. AMTA and the industry understand the critical importance of connectivity during these times. Mobile network providers work closely with Government agencies, emergency services and other essential services to ensure that we can reconnect these vital networks as soon as it is safe to do so.

AMTA and the telecommunications industry welcome the Albanese Government's $50 million Telecommunications Disaster Resilience Innovation (TDRI) program, to support and accelerate the development and deployment of new, innovative technologies and solutions to address known communications issues during natural disasters. The TDRI program builds on the Strengthening Telecommunications Against Natural Disasters (STAND) programs, where the telecommunications industry worked with government to provide equipment which has successfully kept communities connected during recent natural disasters.

While no network can ever be 100 per cent disaster proof, the telecommunications industry also continues to directly invest in equipment to respond quickly to natural disasters, including the provision of back-up equipment, such as Cells of Wheels and Mobile Exchanges on Wheels.

There are rising community expectations about the ability of mobile networks to remain operational during these times. The mobile industry will continue to work with the Government to ensure that appropriate messaging is used that informs people about the reliance of the telecommunications networks on the availability of power.

The telecommunications industry will also continue to engage with the Minister for Communications and the Minister for Emergency Management to keep the government informed on what industry is doing to prepare for natural disasters.

ii. Public Safety Mobile Broadband

Mobile networks already play a critical role in providing communication during disasters and emergencies, both to the public and to Public Safety Agencies and Emergency Service Organisations. In the May 2023 Budget, the Albanese Government announced $10.1 million to establish a central Taskforce to drive the delivery of a Public Safety Mobile Broadband (PSMB) capability. The Taskforce will establish the framework for delivering a mobile broadband service that provides Public Safety Agencies with fast and secure voice, video and data communications and instant access to data, images and information in critical situations.

AMTA welcomes the Government's investment in PSMB and would like to ensure industry continues to be engaged as the framework is established. It is important that the Government continues to prioritise the establishment of a public safety network and drive an outcome in the near future. This topic has been debated for some time

now and significant work done to date with investment in a proof of concept as well as the Commonwealth's independent review citing many recommendations to see an outcome delivered to Australia's first responders.

iii. Temporary Disaster Roaming (TDR)

The Albanese Government announced in October 2023 it will work with the telecommunications industry to scope a Temporary Disaster Roaming capability.

AMTA welcomes the Government's support for this proposal and looks forward to working with it on the funding requirements and other arrangements to transform the proposal into a tangible and impactful project.