
Atten: 2021 Committee

Thank you for the opportunity to contribute to the 2021 Regional Telecommunications Review and wish to address Question 8 only.

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- Submission: approval for submission to be published and made public

8. How can investment in telecommunications infrastructure work with other programs and policies to encourage economic development in regional Australia?

Capricorn Space is a proud Australian-owned and operated company which offers Ground Segment as a Service (GSaaS) to satellite operators globally. Operating out of the Mid-West region of Western Australia, we sell airtime on our tracking antennas and retrieve data from client's satellites as they orbit overhead. We also offer our clients the ability to locate and set-up their own antennas and equipment at our site near the town of Mingenew. Both these Retail and Landlord services depend on our ability to operate with vital infrastructure, namely: power, communications, security and technical support. Without this cost-effective infrastructure base, our clients would simply take their business to another GSaaS provider in neighbouring countries such as New Zealand or Singapore, or in the extreme, simply wait till their satellite passes over a distant northern hemisphere GSaaS provider.

It is readily apparent that our business depends on high-speed, high-availability communications links to and from our site. Our clients demand high speed Gbps communications links with availability levels of at least 99.99% – an outage of less than 5 minutes over any calendar month. To achieve this level of service, it is imperative that Capricorn Space operates with diverse optical fibre pathways, thereby ensuring that if one fibre pathway were to fail the other would continue to support the service.

Another core factor to Capricorn Space's business is that we chose the area of Mingenew not just because it offers a strategically significant landing-point for Earth Observation data but it represents the epicentre of the 'satellite friendly' zone declared by the ACMA under its Embargo 49. The effect of this ruling is to ensure that new frequency assignments for terrestrial radiocommunications are prohibited thereby providing satellite services with an interference-free environment. **This is a key drawcard to the region and this same protection across multiple satellite bands does not exist anywhere else in Australia.** This seminal ruling by the ACMA will continue to usher in further growth of satellite ground services to the Mid-West region of WA.

The need for reliable, cost effective high-speed diverse terrestrial communications fibre

backbone services is crucial. The industry, globally, is currently launching hundreds (and is on track to launch thousands) of new satellites each year plus it is expanding into the realm of extremely high-speed laser and optical communications technologies. If Australia, with its geographically significant southern hemisphere-based location, and specifically the Mid-West region with its pristine atmospherics suited to next generation optical and laser services, is to capture this growing market, then it **must** establish a complementary and cost-effective fibre-based terrestrial network.

The Australian Space Agency has a mandate of tripling the sector's contribution to GDP to \$12 billion and creating an additional 20,000 jobs by 2030. Consequently, Ground Segment services, especially those based in the Mid-West region of Western Australia, will play a vital role in the Space Agency achieving this goal, thereby making high-availability high-speed communications infrastructure a fundamental input to capability.

Regards

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