

Mobile Black Spot Program
Department of Infrastructure, Transport, Regional Development and Communications
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Dear Sir/Madam

Consultation on design options for Round 5A of the Mobile Black Spot Program

Thank you for the opportunity to comment on the above detailed design options for the next sub-round of the Mobile Black Spot Program. The Town of Port Hedland (Town) supports infrastructure sharing models that promise delivery of competitive mobile coverage to previously uneconomic regional and remote areas, in circumstances where those shared models can be secured.

As you are aware, the Pilbara Region is resource sector dominated, with mining predominantly exporting Iron Ore. Iron Ore remains a key contributor to economic stability in Australia.¹

In the Town of Port Hedland local government area, telecommunications infrastructure and networks for a number of the large miners in the resources sector, are generally best-in-class. Small-to-medium business enterprises, not-for-profits, light industry and community households in Port Hedland and South Hedland and on the fringes of these town sites, generally operate on systems separate to the latter and experience connectivity issues (phone and internet), limiting capacity for business and industry diversification and general operations, and hindering community connectivity in an isolated and remote environment. This can impact population turnover, the regional skill base, and business viability issues for both small business and the not-for-profit sector.

Communications issues also pose a structural barrier to achievement of the Closing the Gap outcomes on Indigenous disadvantage including digital inclusion, access to government services, and the distribution of emergency bushfire and cyclone warnings. That said, it is understood that there has been a focus at a Commonwealth and State level on addressing communications issues in remote communities with Yandeyarra Aboriginal Community in the Pilbara having received a base station.

The Town provides the following comments on the proposed three-pronged approach to delivery of Round 5a, giving due consideration to the questions posed.

¹ Regional Development Australia Pilbara, *Pilbara Quarterly Economic Update*, Issue No 4, April 2020. Available at: http://www.rdapilbara.org.au/resources/site1/General/Economic%20Updates/RDA0106_Quarterly%20Update_Issue%204_WEB.pdf

1. Delivering coverage benefits for non-commercial regional and remote areas
a. High priority natural disaster-prone areas including those affected or prone to bushfire

The Town supports the focus on high priority natural disaster-prone areas and while fully supportive of funds being applied to bushfire zones, requests that due consideration also be given to other areas at high risk from natural hazards. Broome to Exmouth (incorporating Port Hedland) is the most cyclone prone area on the Australian coast and climate change has the potential to alter the magnitude of cyclones. The latter coupled with sea-level rise, will substantially increase the Town's exposure to risk. Tropical Cyclone Veronica occurred in March 2019 and sat off the Pilbara coast for 24-hours causing extensive damage to resource sector and local government coastal assets. In fact, the Australian Bureau of Meteorology cited Cyclone Veronica as being the most costly cyclonic weather event to impact the Western Australian coastline.²

It is recommended that use of the terminology 'flood prone areas' captures riverine flooding and storm surge inundation.

Endorsement from the State/Territory Government, local council or emergency services' organisations is integral to expert knowledge exchange, partnership arrangements, prioritising funding based on assessed risk and leveraging opportunities, associated with a proposal.

b. New technology solutions in areas where low population densities have discouraged applications under earlier rounds

The Town supports reservation, and higher levels of funding, for solutions that deliver services to low population areas in remote and very remote regions. While innovative and shared solutions are highly desirable and every effort should be made to secure such solutions, their achievement is contingent on agreement from telecommunications providers for co-location, and the economic viability of solutions. It is understood that some of the newer solutions can be quite costly (as indicated in the GSM Association document provided at footnote 1 of the document). Some remote areas may also be disadvantaged if they are unable to secure infrastructure sharing models. This could have significant economic and social impacts on the community.

c. Major regional and remote transport corridors

The Town strongly requests that consideration be given to eligibility for proposals that strengthen fringe areas in towns that experience marginal coverage. These are significant drop out points for businesses and communities that are not located close to centralised telecommunications stations. In Port Hedland, these areas host considerable supply chain and light industry enterprises that service the mining or community sector. In other words, they facilitate significant economic and social outcomes.

² Australian Bureau of Meteorology, *Severe Tropical Cyclone Veronica*, 18 – 28 March 2019. Available at: <http://www.bom.gov.au/cyclone/history/veronica.shtml>

Consideration should also be given to eligibility for ‘networking’ Indigenous communities through the provision of new low-cost technology solutions such as range extension devices (eg: Cel-Fi repeaters), where small populations would warrant this approach.

The Town also supports alignment of mobile connectivity with key routes of economic and social benefit defined within **either** the Roads of Strategic Importance Initiative or National Land Transport Network. This approach would need to account for work already undertaken by State/Territory Governments and telecommunications providers in delivering telecommunications infrastructure along these routes.

There has been substantial investment in key transport networks across Australia under the National Partnership on Land Transport and Infrastructure Projects and certainly key freight routes (through both concessional loans and road packages) in the north. These have collectively focused on economic growth and productivity and connectivity for communities.

The Pilbara hosts four of the largest miners in the world as well as smaller operations and exploration teams, remote Indigenous communities, and sizeable pastoral stations. As noted, it is an area prone to natural disasters, primarily cyclone and bushfire. The Great Northern Highway and South West Coastal highway are key freight routes; facilitate drive-in, drive-out workforces; provide access to large mining operations, key government services (particularly health services); and support tourist activity.

The Town supports consistent hand-held coverage in proximity to townships and around truck stops, rest areas and major areas of interest along key transport corridors.

Improved connectivity between the Town of Port Hedland and Karratha (located 235km away) is a high priority. The North West Coastal Highway connecting both towns can be extremely hazardous and is traversed by multi-vehicle trailer combinations and oversized loads, high tourism and local town and considerable mine traffic.

Karratha affords significant access to retail, services, supply chains, health, and relationships, including between members of Indigenous communities. The nearest town to Port Hedland other than Karratha is Broome which is 600km away. Karratha Hospital represents the greatest investment in health services in regional Western Australia, provides state of the art services and equipment, telehealth services, an expanded emergency department and helipad, and a one-stop shop for primary and allied health services.³

In Western Australia, regional roads have a much higher fatality rate than metropolitan roads due to high speeds, fatigue, traffic combinations, cattle, wild animals, bushfires, flooding, road black spots and driver inexperience. A total of 93 people were killed or seriously injured in 2017 in the Pilbara and 454 people were killed or seriously injured from 2013-2017 with a large proportion aged 20-29 years of age.⁴ Without costly vehicle antennas, coverage is extremely patchy, natural hazard warnings are limited, and access in case of emergencies is heavily

³ Government of Western Australia, WA Country Health Service, *Completed Project – Karratha Health Campus*. Available at: <http://www.wacountry.health.wa.gov.au/karratha>.

⁴ Government of Western Australia, Road Safety Commission, *Saving Lives Together*. Available at: <https://www.rsc.wa.gov.au/Statistics/Regional-Statistics/Pilbara>

constrained. In other words, without improved mobile telecommunications infrastructure, lives are at risk.

2. Promoting competition outcomes

The economic and service benefits of co-location (including RAN models) are understood, and it makes technical and economic sense to engage potential Mobile Network Operators (MNOs), in the negotiations and framing of a proposal. That said, the suggested guidelines cite that to date 28 percent of proposals from rounds 1 to 4 offered co-location and that these were generally targeted at more commercially viable proposals or centres of population. The focus of Round 5a is on less commercially viable centres and co-sharing is influenced by the funding priorities of MNOs at a given point in time. Currently a number of MNOs are facilitating upgrades from 3G to 4G technologies.

Prioritising funding solutions from at least two MNOs may impact remote centres where connectivity is a significant issue and co-sharing from two providers cannot be secured. It may be more appropriate to determine priority based on securing co-sharing arrangements **or where these cannot be secured**, the applicant demonstrating attempts to achieve co-sharing arrangements. The substantial value of economic and social benefits derived from a proposal should be considered.

Pursuing complementary services such as fixed wireless broadband is highly beneficial in towns where poor mobile and internet connectivity are both issues and where this arrangement can be negotiated. Given the Regional Connectivity Program funding stream sits under the same Department as the Mobile Black Spots Program and arises from the *2018 Regional Telecommunications Review* which also looked at reliable mobile coverage, it might be appropriate to consider complementary telecommunications services as part of the co-sharing analysis for the purpose of prioritising funding allocations.

3. Funding is available for the capital costs of proposed solutions with funding recipients and some ongoing costs.

The Town supports higher capped capital funding where multiple base stations are required or RAN models are delivered, as well as support of some operational costs. The Town views that the former should reflect higher construction costs in remote areas associated with higher transport costs; higher design standards (i.e. cyclone and flooding); and site visit, high labour, accommodation and material, costs. Perth construction costs are the highest in the nation⁵ and costs remain elevated in Port Hedland which is 160 above Perth (which is calculated at 100).⁶ As noted, it is also understood that some of the newer technologies are considerably more expensive than for example, 3G technologies, due to the infrastructure required to meet the same level of coverage.

4. Funding is available for mobile network operators, and for mobile infrastructure providers with priority given to solutions offering services from at least two mobile network operators

⁵ Rawlinson's Construction Cost Guide 2018

⁶ Regional Development Australia Pilbara, *Economic Prospects and the Cost of doing business in the Pilbara*, p.16.

The Town supports funding applications from both mobile network operators and mobile infrastructure providers. This provides for shared delivery models for mobile connectivity which is critical for remote towns where non-commercial considerations may exist.

Where mobile infrastructure is separately funded to retail services, probity would suggest a retail agreement is in place for the operational period of the proposed solution. Redundant and new technologies would need to be considered in the context of these agreements.

5. Support for state government and third-party contributions

The Town supports State Governments and third parties working collaboratively on proposals and co-contributions, in line with identified State or local priorities. It is important that co-contributions are not mandatory for funding approval as discretion rests with the State and third parties to contribute, currently significant fiscal impediments apply to discretionary and grant funding, and State and local priorities may vary.

Negotiations for co-contributions should rest with the applicant. While it is understood that co-contributions will not form part of the cost over coverage formula which is critical in the current fiscal environment, they will form part of the overall value for money assessment regarding the cost of the proposed solution to the Commonwealth.

For an applicant that is a non-telecommunications provider, it would be useful to have more information on navigating the complexities of the federal/state arrangements for telecommunications roll out and the development of related proposals. Perhaps a pathways or key considerations guide would be beneficial.

6. Mobile services need to be provided for a minimum period after asset completion.

Ten-year contracts seem reasonable but would need to be considered in the context of emerging technologies and potential redundancies of base stations.

Given some providers are switching off 3G in the future, it makes economic sense to commence with minimum 4G solutions, with permissibility to upgrade existing infrastructure to newer technologies where service and coverage requirements have been met. Coverage should be modelled against the 4G reference power levels for handheld and external antenna coverage. While coverage claims should be tested against the MNOs public 3G and 4G coverage maps, these maps are not particularly granular and do not always reflect black spots within coverage maps.

7. Other design principles

Some of the small cells are the only form of telecommunications connection for remote Indigenous communities and network resilience is important in disaster prone areas. Battery technology and backhaul solutions are expensive and backup generators are limited and take time to position. Twelve hours coverage seems reasonable for small cell solutions but the cost of auxillary back up power needs to be considered in the value for money calculations for disaster prone areas, so they are not disadvantaged in competing for Commonwealth funding. Indigenous communities also need to be advised of any potential ongoing cost impost on the community.

In identifying sites where independent power systems or redundant backhaul could be funded, consideration should be given to declared bushfire prone areas under emergency management Acts, cyclone and flood/inundation prone areas, other significant disaster prone areas, and towns and remote Indigenous communities within these zones. Disaster warnings pre and post an event are critical across the phases of emergency management. Key sites during and after an emergency include some of those referenced in the proposed guidelines for round 5a and from the Town's perspective, consideration should be given to coordination centres, assembly centres (i.e. cyclone shelters), emergency services facilities and local government depots.

8. Proposed assessment criteria

Criterion 1 – New coverage outcomes

New coverage for an MNO is a necessary criterion. What may become problematic is where agreement can be secured with one MNO to deliver broader coverage outcomes but due to limited commercial benefit, a shared infrastructure arrangement cannot be achieved, and regional community coverage is not effectively secured. Further, (as mentioned) there are no points for alternative communications solutions on the same base station because of the siloed approach to funding delivery.

Criterion 2—Coverage benefit

This seems a reasonable approach in circumstances where a shared MNO infrastructure arrangement can be achieved.

Criterion 3 – overall value for money

Factors considered under criterion 3 generally seem logical and reasonable.

The cost to the Commonwealth of the proposed solution obviously needs to be considered but due regard should be given to:

- remote project management and construction costs which will vary according to remoteness;
- the difficulty in accessing co-contributions in the current fiscal environment (as suggested, applicants may need to demonstrate due diligence in seeking co-contributions to reduce the cost to the Commonwealth); and
- cost of new innovative technologies.

Further, the degree to which the proposal provides services from more than two providers is supported in-principle, but it is suggested that an applicant should not be disadvantaged where they demonstrate this cannot be achieved.

Value for money should also incorporate consideration of the economic and social benefits that can be derived from improved coverage. For example, telecommunications are key to:

- reducing isolation for residents in remote areas, improving safety, and limiting the exodus of skilled workers to city centres; and
- supporting the operations of small business, not-for-profit and local government sectors that underpin the resource sector economy.

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In such instances, the return to the Commonwealth and State/Territory occurs through improved GDP, GSP contributions and other taxes.

Please feel free to contact Lee Furness, Director Infrastructure Services on (08) 9158 9749 should you require further information.

Yours sincerely



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