

Mobile Black Spot Submission Round 5A

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

Question 1 Are there any comments on the coverage areas proposed to be targeted?

As a volunteer firefighter (38 years) and RFS contractor I applaud the decision to prioritise bushfire prone areas. During this last Summer's fires, mobile coverage was patchy at best and non-existent for many of the areas I was a contractor/volunteer in (Gooniwiga near Inverell, Rocky Dam near Yetman, around Copeton Dam and Warialda Rail (less than 5kms from Warialda township) . UHF was totally missing in much of those areas, so the lack of communication left myself and others vulnerable to unnecessary risk in the event of wind changes or other unforeseen circumstance.

No towers were damaged causing this situation, just a severe lack of mobile coverage. A small population is no excuse for Telcos or the State and Federal Governments to ignore bushfire prone areas.

Question 2 Are there any comments on the types of proposals that would be eligible for funding, including the required coverage outcomes?

As a lay person in telecommunication it seems obvious to me that shared infrastructure with its cost savings should be mandatory for all new towers. This would at least provide some competition where there is none now

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

Question 3 Is the RAN model an effective sharing model for Australia?

Radio Access Networking from my limited understanding seems to be a more efficient and practical use of mobile technology. If it allowed better coverage outcomes, then if it isn't utilised now it should be.

Question 4 What other design options could be considered that provide multi-provider outcomes

- c. Major regional and remote transport corridors

In the early days of mobile phone introduction highway coverage was touted to be a priority (August 15th, 2002). Seventeen years and 20 million dollars later this has still not

been achieved as parts of the Newell Highway, New England highway, Gwydir Highway to name a few, still have blackspots and patchy coverage so its about time this anomaly was addressed. While it is understood there is less mobile use on roads the advantage to those who live along these routes will be profound. With the hands-free Bluetooth in modern cars and trucks the use of mobile phones on these roads will increase if there is sufficient coverage.

Corridor coverage should only have sectored coverage on routes that are in sections of a road /highway that are population free such as National Parks or unpopulated areas. Anywhere else mobile towers should be omni directional to allow the maximum benefit to the surrounding population, in turn, creating greater numbers of customers to the Telcos.

2. Promoting competition outcomes

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

Question 5 Are there any comments on the funding cap for Round 5A and eligible costs ?

If a telco or other interested party was to use satellite for the intended upgrade of service then it should be of a standard that eliminates conversation lag. While it is possible to become accustomed to lag, often the other party who is unfamiliar with it can become confused at the stilted and time delayed conversation

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

Question 6 Are there any comments that you wish to make in relation to eligibility to apply for funding?

This is a common sense and economically feasible proposal that benefits Telcos and customers and allows local councils (as a mobile infrastructure provider) to improve reception and coverage in their areas. Local councils have a better idea of coverage issues than any bureaucrat in a Telco based hundreds of kilometres away so funding assistance should be available to local entities for the life of the infrastructure.

5. Support for state government and third party co-

Question 7 Are there any comments that you wish to make regarding ways the program could assist potential state government and third-party co-contributors?

A federal communications tax could be a means to fund mobile infrastructure to help mobile coverage of 98% of Australia's land mass (not population). If Telcos were taxed 0.01 of a cent for every call made on mobile phones that would generate 3.65 million dollars per million phone calls daily per year. I am sure there are more than a million calls into, out of and within Australia every day and the money generated could be used to upgrade coverage Australia wide saving the government money. Socially and politically such a tax would be innocuous, just ask anyone who has had to wait three weeks to get their phone fixed.

6. Mobile Services need to be provided for a minimum period

Question 8 Are there any comments regarding the need for a shorter minimum operational period, particularly in remote and very remote areas?

10 years should be the absolute minimum and if after that period a Telco wishes to cease transmitting from that area then the infrastructure and site should be surrendered in working order to any other entity that wishes to operate the facility, free of charge. This would discourage operators from closing a site and sitting on it till it was financially viable e.g. if a mine was mothballed for a number of years then reopened or a National Park became the focus of tourists in the future.

Question 9 Are there any comments on the proposed equivalency requirement and 4G reference power levels for handheld and external antenna coverage?

In areas that have satisfactory coverage now, 4G should maintain or enhance that coverage as a minimum. If in the future 5G becomes the standard the same rule should apply.

Power levels for 4G should be a minimum of RSRP -100dbm in the whole of the coverage area, as windy, rainy, or cloudy days interfere with, and weaken signal. This minimum would still give a satisfactory service during those weather events.

I question why those who live outside the major population areas should have to fit vehicles with external antennae's or households with antennae's or repeaters. These devices are expensive (\$1000 to \$3000) and do not always deliver the anticipated outcomes.

As mobile phones have become an integral asset to new technology and an essential tool for business in rural and remote areas it beggar's belief that regional users should be treated as second class citizens in a so-called developed country. Having to invest in

extra equipment just to have the same coverage as our city counterparts has led to inequity and inequality for rural and remote people.

As a comment, if internet could be improved (we are on Skymuster 1) and the lag time and unreliability be eliminated many rural households could use mobile phones through Wi Fi, however at present the drawbacks to the current system outweigh the benefits and the coverage is minute

7. Other design principles

Network resilience

Question 10 What criteria should be used to identify key sites where independent power systems or redundant backhaul could be funded?

In rural areas that are subject to fire and/ or floods independent power systems are essential to maintain signal output during these events which may be of long duration.

Question 11 Are there any comments regarding the requirement for at least 12 hours of auxiliary backup power for small cells?

Auxiliary power backup by way of solar, wind or generator should be inbuilt and ongoing especially in areas where communication is essential for accidents, business, or natural disasters. Regional areas do not have the luxury of a large hospital just down the road so telecommunication is far more important for the wellbeing of rural residents than those in metropolitan areas where the frivolity of Facebook prevails.

Criterion 1—New coverage outcomes

Criterion 2—Coverage benefit

Criterion 3—Overall value for money

Question 12 Do you have any comments on the proposed assessment criteria?

I would add another criterion that does not rely on purely fiscal practicality and that would be, "Social Benefit"

The requirement for good medical facilities, good mobile coverage and good internet is far more important in regional areas than areas of high population. While this round attempts to address poor mobile coverage in less populous regions it should be noted that because of our less concentrated population, good telecommunication is an extremely important part of doing business, maintaining a social fabric and in emergency situations a matter of life and death. The knowledge that a mobile phone

is truly mobile (not just a fair-weather friend) gives assurance and independence to those in more remote locations.

Further comment relevant to poor or no reception

From personal experience we must retain our landline as many of our neighbours now rely on mobile alone. This is a discriminatory cost as landlines are becoming less reliable and require greater maintenance (Exchange and cable installed 1974).

We have tried to utilise a Yargi but the use of an omni directional antennae and a directional antenna did not achieve a signal for us. The investigation alone cost \$970 and if successful, the two antennae and solar powered electricity supply would have added \$3000 to that. I hope the black spot programme will address this as I am sick of living with third world telecommunication and having to pay for it.

Wi Fi from our satellite connection is available in our house but the conversation quality because of lag time and the dropout rate make it useless.

Mobile signal, where available, has weakened substantially in the last few years and areas that used to be good for reception are much more prone to dropouts and weak signal. Weather conditions such as cloud, storms, wind, and rain play havoc with the pathetic signal available. That is why as mentioned earlier a signal strength of RSRP -100 should be the minimum on a **fine** day. Anything less will only add to remote user frustration and anger.

At one stage when working very remotely in W.A, I used a satellite phone as the government subsidised their purchase. While their size and sophistication have improved the cost of using them is prohibitive bordering on usury. They are still bulky, useless indoors and can have reception and lag problems.

I am 72 years of age and used mobile phones from the old bag phones to Android and Apple smart phones and while coverage has improved it is rendered useless through black spots and indifference by governments to regional people in a so called developed country. I hope the blackspot programme will not dash my hopes for an equal and equitable outcome for non-metropolitan citizens of our country.

Thank you

Bob Swain



NSW RURAL FIRE SERVICE



Your reference
Our reference

10/06/2020

To whom it may concern

RE: Support for Mobile Black spot submission

The main complaint from volunteers and the public during the recent fire season was up to date mapping. Many of our volunteers have mapping apps on their phones, they would spend time accurately mapping the fires, only to find they could not send the maps to Fire Control for down load to RFS programs as real time intelligence. Brigade Captains also found it difficult to organise volunteers to crew trucks, as the only coverage they could receive was at high points or intermittent coverage.

Upgrades to improve reliability and coverage would be of great benefit. To the Volunteers and contractors involved, in dealing with disaster incidents in rural and regional Australia.

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