Mobile Black Spot Program Round 5A

Discussion paper

Submission by the Australian Communications Consumer Action Network to the Department of Infrastructure, Transport, Regional Development and Communications

26 June 2020

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About ACCAN

The Australian Communications Consumer Action Network (ACCAN) is the peak body that represents all consumers on communications issues including telecommunications, broadband and emerging new services. ACCAN provides a strong unified voice to industry and government as consumers work towards communications services that are trusted, inclusive and available for all.

Consumers need ACCAN to promote better consumer protection outcomes ensuring speedy responses to complaints and issues. ACCAN aims to empower consumers so that they are well informed and can make good choices about products and services. As a peak body, ACCAN will represent the views of its broad and diverse membership base to policy makers, government and industry to get better outcomes for all communications consumers.

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Introduction

The Australian Communications Consumer Action Network (ACCAN) is the peak body representing all consumers on communications issues including telecommunications, broadband and emerging new services. ACCAN provides a strong unified voice to industry and government as consumers work towards communications services that are trusted, inclusive and available for all.

ACCAN thanks the Department of Infrastructure, Transport, Regional Development and Communications (the Department) for the opportunity to comment on its Mobile Black Spot Program (MBSP) - Round 5A Discussion Paper.[1]

The previous rounds of the Mobile Black Spot Program (MBSP) have been very successful, with the 2018 Regional Communications Report confirming that many people had been highly supportive of the outcomes achieved by the first three rounds of the program, during which over 600 mobile Black Spot Program towers were deployed providing many positive changes.

In 2020, mobile phone use has become ubiquitous and there is a reasonable expectation by consumers that adequate coverage will be available. Implicit in Government policy is the assumption that all Australians have mobile phone connectivity, as demonstrated by the rollout of the COVIDSafe mobile app to trace coronavirus infections across the entire population.

ACCAN broadly supports the Key Design Principles of MBSP Round 5A outlined in the Discussion Paper:

1. Delivering coverage benefits for non-commercial regional and remote areas.

2. Promoting competition outcomes.

3. Funding is available for the capital costs of proposed solutions and some operational and maintenance costs.

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. Support for state government and third-party co-contributions.

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

Lack of telecommunications connectivity denies regional, rural and remote communities the socio-economic benefits that people in metropolitan areas take for granted. Yet telecommunications service providers are now at a point where there is minimal return on investment for them in rural, remote and regional locations and there is little incentive for them to build infrastructure in these areas.

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[1] https://www.communications.gov.au/have-your-say/consultation-design-options-round-5a-mobile-black-spot-program

1. Delivering coverage benefits for non-commercial regional and remote areas.

Question 1: Comments on the coverage areas proposed to be targeted

ACCAN welcomes the three priority areas identified for Round 5A, which will allow funding to target specific areas not yet addressed by previous funding rounds:

a. High priority natural disaster-prone areas including those affected or prone to bushfire
b. New technology solutions in areas where low population densities have discouraged applications under earlier rounds
c. Major regional and remote transport corridors

a. High priority natural disaster-prone areas including those affected or prone to bushfire

The 2019-20 bushfires highlighted the importance of telecommunications networks in supporting community safety and cohesion, and the delivery of emergency response functions. More than 1000 mobile towers and other telecommunications facilities were knocked out across south-east Australia during this period, with 708 suffering outages of four hours or more.[2] Outages cut community members' access to emergency warning systems, isolated them from family members, shut down EFTPOS facilities needed to purchase goods and services and impeded communication between firefighters and other emergency response workers.

ACCAN therefore welcomes the prioritisation of natural disaster-prone areas, including those affected or prone to bushfire, in Round 5A of the MBSP, and we are pleased that a number of bushfire-affected areas have already received funding in Round 5.[3] We also welcome the Federal Government's recent announcement that $18 million (including $10 million from the Mobile Black Spots Program) will be spent on upgrades to mobile base stations, including longer lasting backup power sources.[4]

Given the failure of network resilience due to bushfire-related power cuts during the unprecedented bushfire season, the need to roll out reliable back up to enable consistent coverage in these regions during emergency situations is a high priority. Although it is inevitable that mobile networks will be affected by natural disasters such as bushfires, it is crucial that back up services and longer-lasting power sources are provided swiftly to allow community members to be reconnected as quickly as possible. Although mobile towers often have backup batteries and diesel generators, these eventually run out during extended power outages. Recognising telecommunications as an essential service and

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[2] https://www.smh.com.au/politics/federal/more-than-1000-mobile-towers-and-nodes-went-down-during-the-bushfires-20200430-p54opo.html

[3] Including, for instance, Jingellic in NSW. The Land, 2020. 'Govt to fund 182 new mobile towers in regional blackspots', 21 April 2020. Available: https://www.theland.com.au/story/6729682/strong-signal-182-new-mobile-towers-for-regional-blackspots/?src=rss

[4] Department of Infrastructure, Transport, Regional Development and Communications, *Mobile Black Spot Program— Round 5A— Discussion paper 2020*

prioritising provision of necessary fuel sources, such as diesel, for backup operation in the case of natural disasters would help support this initiative.

In addition, the MBSP Round 5A needs to consider funding the use of alternative technologies to ensure the resilience of telecommunications networks during bushfires and other natural disasters. ACCAN recommends that the Mobile Black Spots program should be expanded to include boosters, repeaters and other equipment that can be used to extend coverage and support connections in at risk areas.

In addition to our support of the eligible natural disaster-prone areas identified for mobile blackspot solutions in the Round 5A discussion paper,[5] we wish to highlight the importance of ensuring consistent mobile network coverage in two of these identified areas – i.e. emergency disaster coordination zones and evacuation and assembly points. ACCAN has received feedback from members that lack of connectivity at emergency gathering centres is an issue in their communities. For example, Wamboin Communications Action Group, on the border of the ACT and NSW, has reported that their community fire shed - a designated gathering point geographically suitable for assembly in times of fire - is regrettably situated in a mobile blackspot.

While we welcome prioritisation of funding for natural disaster-prone regions in MBSP Round 5A, we reiterate the RRCCC's observation that the discussion paper offers no clarity on how natural disaster-prone areas will be defined or geographically delineated and does not stipulate which natural disasters other than bushfires are in scope. Further clarification is needed here to include not only bushfires and floods but severe storms and cyclones, in addition to floods and bushfires.

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

ACCAN strongly supports this area of focus.

Providing affordable, new alternative technology solutions in remote areas to assist businesses and students to access data and voice services in the absence of conventional services is welcome. Areas with high Indigenous populations and other remote townships and villages are particularly poorly serviced by mobile service coverage which impacts service delivery organisations as well as the communities themselves.

In areas with low population densities, mobile network operators (MNOs) are reluctant to build and operate services due to lower potential revenue opportunities and minimal return on investment. The Government will need to provide greater incentives to attract the interest of MNOs in these regions and be prepared to invest more public funding into infrastructure and networks due to the limited market-based incentives for telcos in remote regions.

The infrastructure sharing model proposed in the discussion paper[6] and discussed at length below is one suitable solution which could be leveraged to help service these previously

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[5] Robin Eckermann, additional report , Regional Telecommunications Independent Review Committee' 2015

[6] Department of Infrastructure, Transport, Regional Development and Communications, *Mobile Black Spot Program— Round 5A— Discussion paper 2020* op cit.

neglected areas. It offers a cost-effective solution to expand coverage and increase capacity. For example, using the Radio Access Network (RAN) sharing model:

- one operator could deploy infrastructure and offer roaming options to customers of the other two networks; or

- a neutral operator could build and operate infrastructure on a wholesale-only basis, enabling access to customers of all three networks.[7]

- Similarly, a proportionally higher level of public funding will need to be invested, , and in some cases the Government may be required to fund infrastructure outright, due to the limited market-based incentives for MNOs to service sparsely populated regions.

c. Major regional and remote transport corridors

ACCAN has received numerous consumer reports of a lack of mobile connectivity for people travelling by road and rail. For example, large numbers of daily commuters on the NSW South Coast rail line are prevented from accessing the internet required for working via mobile devices and laptops due to a one-hour mobile blackspot between the Illawarra's Northern Suburbs and the Sutherland shire.

We therefore welcome the fact that Round 5A of the MBSP is targeting funding of transport routes - roads of strategic importance and roads defined under the national transport network - to enable carriers to provide more consistent coverage for people using the roads and communities living around transport corridors. There are a range of benefits that will accrue from improved coverage along transport corridors – including safety and access to emergency assistance, increased productivity, more efficient freight operations, encouraging regional tourism and connecting regional communities.

Question 2: Comments on types of proposals eligible for funding, including required coverage outcomes

 ACCAN's consultation with the industry has identified some constructive elements to be taken into account in deciding which proposals should be most eligible for funding. In particular, we believe there is merit in an area focus for development, rather than a site-specific focus, to provide MNOs with more flexibility in how they deliver coverage along highways.

We would also encourage the Department to expand the Mobile Blackspots Program to subsidise the cost of expensive mobile antennae and repairs to enable consistent connectivity across long distances. For example, the Telstra T-Go car-mounted repeater, which allows mobiles in a car to pick up signals from a significantly wider area, currently retails at $8648. This price is prohibitively expensive for ordinary consumers living in remote areas and could offer far better mobile connectivity for these communities if the cost was subsidised by the MBSP.

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[7] Robin Eckermann, independent report, 2015

[8] https://checkout.telstra.com.au/consumer/accessories/technology-iot/20406 (checked on 22 June 2020)

2.   Promoting competition outcomes.

The promotion of competition in mobile black spot areas is welcomed by ACCAN. In regions where improving mobile network coverage is most challenging – primarily those with small population densities - there is a need for policies that counteract natural monopolies and offer alternative services for consumers.

ACCAN supports prioritising solutions that provide coverage from more than one MNO and provide commercial incentives for MNOs other than those awarded funding to deliver services from funded infrastructure. However, we believe there is merit in incorporating this approach in the initial program design to stimulate co-operation between MNOs at the bidding stage of the development before funding is awarded. This approach would allow the parties to collaborate on both the type of solution offered and site location for the development, rather than negotiations for co-location occurring post-build which can advantage the incumbent.

Proposals offering complementary services have the potential to deliver more efficient use of infrastructure, as well as complementary fixed services. ACCAN has long supported co-location of mobile infrastructure on NBN fixed wireless towers, but we are aware of the practical limitations experienced in identifying locations suited to the delivery of mobile and fixed network infrastructure.

ACCAN has received feedback from members that, while competition is likely to be a positive development for mobile blackspot areas, provider competition is a relatively new concept in regional Australia. For people who have lived in remote areas with limited service options for an extended period, education about the possibility of choice and how to investigate and choose available options may need to be a key factor for this initiative to be successful.

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

The Radio Access Network (RAN) sharing model, which has been successfully used in New Zealand to provide services to mobile black spots by allowing a single base station and tower to be used for three separate services,[9] offers a viable alternative to improve connectivity in Australia's mobile black spot regions. Network sharing has the potential to reduce costs, maximise efficiency and competitiveness, enhance customer satisfaction and deliver both better coverage and environmental outcomes in remote areas of Australia.

In order to promote competition, infrastructure sharing should go beyond sharing passive infrastructure. It is disappointing that only 28% of MBSP Round 1-4 funded projects offer passive infrastructure sharing (co-location) given the significant public investment to date.

This outcome strongly suggests that an additional emphasis on active infrastructure sharing is needed, combined with a preparedness for a higher government contribution to support more competitively neutral outcomes. The precedent of the Victorian Rail Connectivity Project, where three carriers collaborated to share carrier infrastructure and provide

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[9] https://www.thercg.co.nz/

carriage services over shared transport lines, should be used to guide the design of Rounds 5A and 6.

Flexibility will also be needed as different considerations are likely to apply depending on the location of a funded project and associated costs for competing networks.

Question 4: Design options that could be considered that provide multi-provider outcomes

Other forms of shared infrastructure system other than RAN are also currently used internationally, and these offer a viable alternative for improving mobile connectivity in Australia's remote mobile black spot areas. Two key alternative network sharing models are the Shared Rural Network (SRN) and the Mobile Virtual Network Operators (MVNO)

First, the Shared Rural Network (SRN), which shares towers and antennas between multiple providers, is being rolled out in the United Kingdom. Four UK mobile network operators have agreed to work together, investing £532 million in addition to £500 million from the UK Government, to eliminate total 'not spots' in the connectivity landscape. The UK Government anticipates the deal will improve connectivity for 280,000 households and 16,000km of roads across the country.[10] A number of Australian independent infrastructure providers have expressed interest in being involved in an SRN-style model locally and have expressed a willingness to operate it on an open access basis.

Second, Australia's strong Mobile Virtual Networks Operator (MVNO) ecosystem could be harnessed in remote areas to increase competition to benefit consumers. To facilitate this, ACCAN recommends that the Government provide incentives and give preference to mobile telecommunications networks who grant full network access to MVNOs in remote areas, and promote transparency about how to access MVNO networks.

Network provider Vocus Communications has recommended separating funding for tower and backhaul elements of the MBSP program to encourage competition on federally co-funded mobile towers, lower over-inflated backhaul costs and incentivise bids from open-access, carrier-neutral backhaul providers. Currently, the cost of backhaul to and from these towers is a factor that stops many mobile telcos from co-locating equipment under the MBSP scheme, but separate funding could facilitate more colocation and shared backhaul services between competitors. Split funding could benefit players like Vocus, which are excluded from bidding by the scheme's current configuration.

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[10] https://telecoms.com/502942/uks-1-billion-shared-rural-network-is-going-ahead/

3. Funding is available for the capital costs of proposed solutions and some operational and maintenance costs.

ACCAN welcomes the proviso that funding is available for both the capital costs of proposed solutions and some operational and maintenance costs. Restricting funding to capital costs will discourage telecommunications providers from applying because it is less financially viable.

As with the Regional Communications Program, lack of long-term government funding support may limit the scope of proposals received in Round 5A of the Mobile Blackspots Program. Rather, offering operational as well as capital government investment will provide RSPs with the confidence and incentive to commit to providing regional, rural and remote telecommunications infrastructure.

Question 5: Comments on the funding cap for Round 5A and eligible costs

As the Round 5A discussion paper has noted, where mobile black spot telecommunications solutions require multiple base stations, as in the cases of roads, a higher level of Commonwealth funding may be required. Similarly, a higher cap may be required to support a RAN solution in a remote or very remote area.[11]

In these cases and others where there is minimal or no market-based incentives for industry investment, Government must be prepared to contribute a greater percentage of capital and operational funding and, in some cases, may need to provide full funding.[12] A Commonwealth funding cap of $500,000 per solution may not be sufficient to service these areas, and reinforce digital exclusion for these communities, so consideration should be given to incorporating greater flexibility of funding levels.

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[11] Department of Infrastructure, Transport, Regional Development and Communications, *Mobile Black Spot Program— Round 5A— Discussion paper 2020* op cit.

[12] Robin Eckermann, independent report, 2015

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: Comments in relation to eligibility to apply for funding

ACCAN supports the proposal that Round 5A will prioritise funding solutions that provide a service from at least two mobile networks to enable network sharing solutions such as the RAN model. The use of infrastructure sharing models as a new method of delivering competitive mobile coverage to previously uneconomic regional and remote areas is welcomed.

Because the volume of network traffic in sparsely populated areas is not a capacity limiting consideration, the most economically efficient approach to improving coverage in these regions involves using a single shared infrastructure, such as towers and backhaul. Open-access to towers built by wholesale operators to all major telcos would remove the duplicative costs of multiple providers installing multiple sets of equipment on a single tower.[13]

ACCAN therefore welcomes extending funding to mobile network infrastructure providers, rather than just telecommunications service providers, to expand potential for servicing remote regions. Making MBPS Round 5A funding available to providers of independently owned wireless infrastructure such as Axicom, which owns, operates and manages a portfolio of approximately 2000 towers in Australia,[14] may open up new opportunities and creative solutions for providing mobile coverage to previously neglected areas.

The Field Solutions Group's 'multi-use' tower strategy, developed in collaboration with Optus and awarded funding under MBSP Round 5, is the kind of creative approach needed to provide network connectivity in these regions. Providing a range of connectivity solutions increases the benefits available to regional consumers, and we encourage the Department to provide incentives for such approaches in Round 5A.

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[13] Robin Eckermann, op cit

[14] https://www.axicom.com.au/

5.   Support for state government and third-party co-contributions.

Question 7: Comments regarding ways the program could assist potential state government and third-party co-contributors

ACCAN agrees with the Regional Telecommunications Independent Review Committee's 2018 recommendation that co-investment should continue to feature in future regional telecommunications initiatives, as it has previously proved successful in improving connectivity in regional areas.[15] It has also leveraged considerable investment in previous rounds of the Mobile Black Spots Program.

In relation to third party co-contributors, we believe the Federal government can play a role in facilitating linkages between potential infrastructure providers and local communities. Building a business case takes resources that are often limited in community organisations and local councils. The Department may receive higher quality applications from local community groups if funding is provided for a facilitator to assist with brokering industry and government partnerships on their behalf.

ACCAN is aware that these resourcing arrangements exist in some government procurement processes. This stage-based approach or more collaborative procurement has been adopted by the NSW Government.[16] The Victorian Government has an approach that enables the market to propose projects and then proceed through a multi-stage assessment process.[17]

We consider the MBSP Round 5A program is an opportunity for the adoption of this approach, and assistance of this kind could be provided after an initial expression of interest. Research published by the Regional Australia Institute illustrates that collaborative processes between governments and communities, as well as the private sector, offer a new way to deliver effective outcomes while minimising costs.[18]

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[15] 2018 Regional Telecommunications Review, p28 – accessed at https://www.communications.gov.au/publications/2018-regional-telecommunications-review-getting-it-right-out-there

[16] https://www.afr.com/companies/nsw-overhauls-mega-projects-amid-cost-blowouts-20180604-h10y6b

[17] https://www.dtf.vic.gov.au/sites/default/files/2018-03/Market-led-Proposals-Guideline-November-2017%20%282%29.pdf

[18]

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

Question 8: Comments regarding the need for a shorter minimum operational period, particularly in remote and very remote areas

ACCAN welcomes the requirement that mobile services be provided in remote regions for a minimum period after asset completion, as consumers in geographically isolated areas find it very difficult to access other alternatives. However, we do not support a shorter operational timeframe for this very reason. If a subsidised MBSP service were to be offered for a shorter term, and previous alternative services have been wound back to make way for the MBSP roll out, these communities could be left in a worse position than they were to begin with.

Question 9: Comments on proposed equivalency requirement and 4G reference power levels for handheld and antenna coverage

ACCAN supports the proposed equivalency requirement and the minimum 4G requirement with 3G service delivery becoming optional. As Telstra will be switching off 3G services by 2024 to open up bandwidth for 5G, and other carriers are also likely to transition away from 3G services during the proposed operational period of Round 5A, it would be impractical and unhelpful for providers to build infrastructure that is only suitable for 3G technology. It is therefore important that Round 5A establish a new minimum service requirement.

Governments should be aware, however, that there is community concern in regional and remote areas in relation to the switch-off of 3G networks. Two of ACCAN's members, the Country Women's Association and Isolated Children's and Parents Association, report that people in remote and regional areas are concerned about the closure of 3G networks, because previous switch-offs have resulted in a deterioration of service and coverage.   For income consumers using older handsets, there is apprehension about the closure of 3G, as they will no longer be able to use existing devices to access telecommunications networks and be forced into incurring additional expense.

7.   Other design principles

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

ACCAN supports initiatives to use sites with independent power systems and/or redundant backhaul as this is likely to be more efficient. However, at this stage we have no suggestions for the selection criteria to be used in identifying key sites.

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

ACCAN supports the requirement that at least 12 hours of auxillary backup power should be available for small cells. However, we suggest that 12 hours should be a minimum period for auxillary back up power, given that power outages can be longer in more remote and isolated areas. At least 24 hours would be a more suitable timeframe for telecommunications services to adequately deliver the connectivity needed during emergencies in high risk areas.

However, telecommunications are not currently classed as an essential service in bushfire emergencies, and consequently are not given priority access to fuel. This highlights the importance of longer back up periods for small cells in high risk areas. Alternative fuel sources for backup power for small cells should be explored – for example, not only diesel but also renewable energy sources such as solar and wind power.

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