OPTUS

Submission in response to Federal Government Mobile Black Spot Program

Round 5A Guidelines

Public Version

November 2020

EXECUTIVE SUMMARY

1. Optus welcomes the opportunity to provide a response to the Federal Government's Mobile Black Spot Program (MBSP) Round 5A Guidelines.

2. This response follows our feedback to the Round 5A Discussion Paper in June 2020.

3. For many years, Optus has been an active participant in the MBSP, obtaining funding in several rounds for infrastructure builds in regional and remote areas of Australia.

4. Optus' participation in the MBSP builds on and complements our existing and significant network expansion programs in regional Australia.

5. To date, our mobile black spot sites have generated more than 14.3 million calls with over 1.8 million individual users taking advantage of this new coverage in some of the most remote parts of Australia.

6. As part of the program, Optus is currently co-funding and building a total of 258 mobile sites in black spots. More than 100 of these sites are now live, with many more under construction or about to start.

7. At the conclusion of these projects, Optus will have covered over:

   - 55,000 residences with new in-building services

   - 5,100km of enhanced in-car and rail coverage.

8. Significantly $43.2M of the available $80M funding in Round 5 was unallocated. This supports Optus' long-held view that the current MBSP model has literally run its course.

9. Optus believes that reform of the program is essential as it currently does not address the more limited commercial rationale for further investment in ever more remote areas.

10. As previously stated, Optus believes the MBSP should follow the lead of other models such as the Victorian Regional Rail Connectivity project, which better allow for multi-carrier asset sharing and co-building.

11. We welcome the program shift in Round 5A that encourages co-location and co-build opportunities that are essential to improve connectivity and enhance public safety in remote communities.

12. However, despite the many positives outlined in Round 5A, the program continues to be held back by what we believe to be ineffective coverage assessments which may rule out a number of good, proposed sites that should be considered for funding.

13. Optus believes the Government should change the program's coverage eligibility and assessment requirements to better reflect in-building/vehicle coverage that aligns to the design guidelines and consumers on the ground experience.

TIMING OF GRANT OPPORTUNITY PROCESSES

14. Optus believes that timings in Round 5A are overly optimistic.

15. The closing date for applicants to complete and submit their funding applications should be extended by at least three weeks, should they be released prior to Christmas 2020, to take into account the upcoming Festive Season shut down.

16. Assuming that execution of grant agreements and proposed solutions were to take place by June 2021, this would only leave 12 months to complete the infrastructure roll-out, which is simply not enough time.

17. Optus also believes the due date for roll-out completion (June 2022) is unrealistic given the complexity of negotiating co-location and co-build agreements with other MNOs and MNIPs.

18. As one of Round 5A's stated objectives is providing solutions that deliver new and improved mobile coverage to designated major regional and remote transport corridors, the process timing is unrealistic.

19. In reality it would require a minimum of two years to roll-out solutions in rail corridors and based on previous experience, up to three years for some NSW locations.

COVERAGE REQUIREMENTS

20. Existing handheld coverage proposed in Round 5A is still defined as what is listed on the carriers' public coverage maps which in Optus' case, state the general extent of coverage when using a device **outdoors.**

21. This is a flawed assumption that contradicts with the program's design requirements for handheld coverage and may represent a 20dBm difference in signal levels – the difference between being able to use a service indoors/in-vehicle with great experience or not.

22. Public coverage maps typically illustrate a carrier's "lowest" band. Taking 4G for example, this is LTE using 700MHz for Optus.

23. The Department uses varying metrics for assessing "new handheld" coverage by channel bandwidth

24. Continued metrics for the use of External Antenna in the program are irrelevant and adds unnecessary complexity and time to the preparation of applications and their assessment. Very few devices offer true benefit of an External Antenna.

25. When considering rail corridors to deliver a service inside carriage, there is a requirement to deliver up to 20dBm stronger signal than what appears on public coverage maps.

Co-build, Co-Location & other Opportunities

26. Optus believes co-build opportunities that share the prohibitive cost of deployment among multiple carriers is the best means of further extending the nation's mobile coverage footprint in areas that have symmetry and demand.

27. Policy and guideline amendments (such as clearly nominating eligible locations) can, and will, encourage the expansion of co-build projects that allow industry to deploy new sites at a cost that can be halved or reduced to one third.

28. Optus has always supported measures to encourage greater sharing of infrastructure.

29. Given the likely economic challenges associated with funding new sites we strongly recommend that Government funding is provisioned for shared build.

30. Optus notes that some 70 per cent of site costs relate to passive infrastructure, so sharing of passive infrastructure remains a priority. However we believe there is also benefit in shared Radio Access Network models, subject to successful technical and commercial agreements.

31. The MBSP may be more effective if it allows for the entry of a neutral host to own infrastructure and active equipment. The three carriers would have the opportunity of connecting to sites owned and run by the neutral host supplier independently.

32. However, a site being offered under an active host model should not be excluded if a second MNO cannot be secured by the time of submission. Trials such as these are crucial and can be successful with one MNO in support.

33. Optus believes wording of the co-location clause within the current guidelines should be amended as follows:

    If a Mobile Coverage Solution, being a greenfield build, is unable to support an additional MNO other than those already participating, applicants must provide a detailed explanation of why it is not technically and commercially feasible to reconfigure the Mobile Coverage Solution to support an additional MNO at incremental cost to the Co-locating MNO. The Department's technical advisor will review the technical advice from the applicant. If the Department's view is that co-location is technically possible, then the applicant must be prepared to offer co-location at incremental cost to an MNO seeking to co-locate on the Mobile Coverage Solution, or the Department may remove the Mobile Coverage Solution from the assessment process.

34. It needs to be understood that an MNIP also offering neutral host RAN solutions may well see two MNOs using an active RAN share and other MNO or NBN Co co-locating under the program as a standard co-lo, passive infrastructure sharing model. This would still be a win for all despite potentially only one MNO being agreeable to an active RAN share model.

35. Listing eligible locations and/or offering an EOI to market, would better allow Government to see where multiple carriers/MNIPs have an interest in applying for MBSP Funding. This would make it easier for carriers to discuss potential opportunities to jointly bid when they can openly discuss clearly identified eligible locations.

The Victorian Regional Rail Connectivity model

36. In April 2018, the Victorian Government announced a project to enhance regional rail coverage and invited carriers to submit an EOI for the $18 Million project.

37. Optus invited Telstra and VHA to collaborate on a response during which time we worked through competition law challenges.

38. As an industry, we worked with the Victorian Government to allocate the $18 Million towards deployment of carrier grade repeater solutions on its rail fleet.

39. To supplement the on-board repeater solutions, the carriers constructed 35 new mobile towers within the rail corridors under co-build/co-design models.

40. Critical to the success of this program, and the ability to work more collaboratively and within competition laws, was the very clear coverage objectives provided (5 Regional Rail Lines) that all responders understood upfront.

41. The co-build arrangements from this program provides a model that could be adopted for the blackspots programs. Key to this approach was the EOI process including specified sites, which should be adopted for the Federal program.

TRIAL SOLUTIONS & CLUSTERS

42. Optus welcomes the possible inclusion of Cluster Mobile Coverage Solutions to Round 5A.

43. Not being a recognised option in previous rounds led to Optus not being awarded a number of good solutions, particularly at Killcare (small cells), Nambucca Heads (small cells and mini macros) and the Illawarra Rail Line project.

44. The current wording in clause 4.2.7 “not currently used in Australia” may limit more innovative and collaborative approaches, particularly when it may involve two or more carriers within a trial solution.

NATURAL DISASTER PRONE AREAS

45. The increasing regularity of extreme weather events in Australia - such as flood, cyclone, storm and bushfire - illustrates the importance of improving communications coverage and resilience in regional areas.

46. This was no more so than the 2019-20 Australian bushfires which had devastating impacts on rural communities due to their unprecedented ferocity and widespread geographical reach.

47. Optus welcomes the prioritisation of coverage solutions in natural disaster prone areas in Round 5A.

48. Priority should not be given to bushfire prone areas alone. The Government must also consider areas prone to other natural disaster events such as cyclones and flooding.

49. It is noted the Government is not seeking to release GIS datasets that would determine possible priority sites suitable for inclusion under the program.

50. Instead applicants are encouraged to seek out guidance and written support from State/Territory Governments and Rural Fire Services to ensure coverage solutions meet natural disaster criteria e.g. the NSW Rural Fire Service bushfire prone land online mapping tool: https://www.rfs.nsw.gov.au/plan-and-prepare/building-in-a-bush-fire-area/planning-for-bush-fire-protection/bush-fire-prone-land/check-bfpl

51. Optus believes this approach may lead to lack of consistency and possibly even see agencies on the ground favouring one carrier over another.

52. State Governments invest significant time prioritising locations based on many factors, including feedback from Emergency Services. This locally generated information is critical in ensuring sites can be planned in areas that have demand behind them.

53. Optus believes this information should be provided directly to the Federal Government, and by request be made available to program applicants. This would ensure verified data that is consistent and accurate is provided to applicants.

TRANSPORT CORRIDORS

54. It should be noted that in-vehicle/train coverage for transport corridors and for in-building coverage requires tighter signal levels than displayed in the coverage modelling requirements table in paragraph 4.2.3 of the Round 5A guidelines.

55. Optus recommends that a simplified level of -100dBm is introduced instead to deliver in vehicle/regional in-building and -90dBm for Rail.

ASSESSMENT CRITERIA

56. As previously indicated, Optus is concerned Round 5A will use the same flawed coverage metrics as every previous round. This means that Round 5A may not deliver the hoped-for coverage improvements in natural disaster prone areas.

57. Under the assessment criteria, applicants are required to deliver 4G-like services, yet coverage assessment will combine the carriers' 3G and 4G public coverage maps - this seems at odds with the objectives of the program.

58. Optus believes the imperative of improving connectivity in rural and regional areas would be better supported by the Federal Government making improvements to its processes and systems to encourage further extension of market investment into more difficult areas, including improving infill coverage.

59. The program's coverage assessment methodology effectively treats "outdoor" coverage, as shown on carriers' websites, to "in building" levels. If areas covered by a proposed solution already receive "outdoor" coverage (as shown on carriers' websites), this is not deemed as "new coverage" and will rank proposed sites lower or cause them to be ruled as totally ineligible. Examples of this have happened in every round.

60. This was clearly borne out in MBSP Round 5 where $43.2M of the available $80M was not allocated.

61. Optus submitted a comprehensive bid, but due to coverage guidelines that do not reflect the actual coverage on the ground, we were awarded 83 sites with $30M government funding.

62. This amounted to 17% of our overall submission for 207 sites.

63. Optus has offered over $200M investment as part of the program to date, but only $75M of our proposed capital contribution has been approved under the program guidelines.

64. The decreasing success rate of bids in each program round reflects on the coverage eligibility criteria.

65. We have lobbied for change to the coverage criteria for all rounds of the program as this remains the single largest impediment for allocation of sites.

66. Each MNO's claims for new in-building coverage will be tested during Round 5A using same flawed methodology from previous rounds. This will see bid coverage being assessed against the carriers' public coverage maps.

67. Public coverage maps represent the general extent of a mobile network when using a device outdoors or with an external antenna. So in other words, like-for-like coverage is not being considered during the assessment.

68. The program's flawed coverage guidelines, which use public coverage maps to determine 'eligibility' and 'new coverage', has had significant impacts on site selection throughout every program round. As a result, many attractive sites, submitted by Optus in its program applications, have not proceeded.

69. MBSP design should use as criteria "new handheld coverage at -90dBm" which is an in-building level of radio coverage and addresses the feedback from residents in regional areas.

70. This could easily be introduced without issue and would deliver overall improvement to the program.

71. Failure to address this coverage assessment shortcoming could mean that proposed new sites may only progress if two carriers are involved in the coverage solution, the site is in a disaster prone area or transport corridor or is part of a neutral host arrangement under the trial solutions option.

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