

Mobile Coverage Programme Discussion Paper

Submission Cover Sheet

Submission Information

This cover sheet should be attached to submissions made to the Department of Communications in relation to the Mobile Coverage Programme Discussion Paper.

Contact Details

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Date:	28 February 2014

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All submissions and comments, or parts thereof, will be treated as non-confidential information unless specifically requested, and acceptable reasons should accompany each request. Email disclaimers will not be considered sufficient confidentiality requests.

Respondents lodging a submission should be aware that submissions (excluding any information agreed to be treated as confidential information) will be made publicly available, including on the Department of Communications' website. Submissions and comments will be subject to freedom of information provisions. Despite a submission being identified as confidential or sensitive, submissions may be disclosed where authorised or required by law, or for the purpose of parliamentary processes.

Do you want all or parts of the submission to be treated as confidential? Yes ☐ No ☒

If yes, identify below which parts of the submission are to be treated as confidential (and provide a reason):

If the submission contains personal information of any third party individual, indicate on this Submission Cover Sheet if that third party individual has not consented to the publication of his or her personal information:

Submission Instructions

Submissions are to be made by **5:00pm (AEST) Friday 28 February 2014**.

Where possible, submissions should be lodged electronically, preferably in Microsoft Word or other text-based formats via the email address mobilecoverage@communications.gov.au

Alternatively, submissions can be sent to the postal address below (to arrive by the due date):

The Manager
Mobile Coverage Programme
Department of Communications
GPO Box 2154
CANBERRA ACT 2615

All submissions lodged will be acknowledged by the Department of Communications by email (or by letter if no email is provided). Respondents lodging a submission who do not receive acknowledgement of their submission should contact the Department. Submissions which are not acknowledged by the Department as being received may not be considered. Respondents should be aware that emails greater than 10Mb may not be successfully delivered.

Telstra Response to the Department of Communications Mobile Coverage Programme Discussion Paper

28 February 2014

Executive Summary

The Department of Communications has sought industry comment on a discussion paper setting out proposed methods of allocating funding from the Mobile Network Extension and Mobile Black Spots programs.

The Federal Government's programme promises benefits to communities across Australia, and Telstra looks forward to participating in the tender process and competing for the opportunity to better serve the people living in these communities. Telstra welcomes this opportunity to provide comments on the potential methods of allocating the funding. Telstra believes that with some fine-tuning of the current proposals, as set out in the remainder of this submission, the tender process will result in a competitive outcome, without the need for any new regulation. A summary of Telstra's key points follows.

- Telstra believes that the tender process should allow for bids covering any of the three delivery options canvassed in the discussion paper, in order to give bidders flexibility and avoid inadvertently excluding offers that might offer higher value. In particular, the tender should provide bidders with flexibility concerning the preferred delivery option; the set of locations to be covered; the base station configuration; and the terms and price to be applied for access and co-location.
- Telstra believes the appropriate minimum quality standard that base stations should be equipped with is 3G HSPA+ broadband and voice, because stipulating a minimum standard of 4G LTE broadband data as well as 3G HSPA+ broadband and voice would require a more expensive deployment and potentially reduce the number of sites that could be covered.
- Telstra considers that any Mobile Network Operator (MNO) seeking to co-locate at a site (using existing bilateral access agreements) should be required to make a pre-commitment after the winners of the tender are known and the list of sites is confirmed. This approach will avoid expenditure being incurred on excess capacity which may not be used.
- Telstra agrees with the Department that any site funded under this programme should be subject to the existing facilities access/co-location regime, and that there is no need for additional obligations to be imposed, except to ensure that sufficient capacity is built to accommodate MNOs that are committed to co-location at the site. Australia has benefited from a relatively light-handed approach to mobile regulation and Telstra sees no reason why this programme should be treated differently.
- In relation to the proposed assessment criteria, Telstra believes that new coverage should be given more weight than the addition of another carrier to a region where coverage is already available. This is on the basis that providing access to Australians who have no existing service is more valuable than providing an alternative to those who already have access to a mobile service. In addition to how the criteria are weighted, Telstra believes that it is important any assessment process should be open, transparent and use a consistent and systematic methodology.

Introduction

Telstra welcomes the opportunity to provide comments on the potential methods of allocating the funding required to deliver the Federal Government's Mobile Coverage Programme.

Telstra owns Australia's largest and most reliable mobile network¹, and is committed to offering its customers the best mobile network experience in Australia. Telstra has invested significant amounts of shareholder capital in building its mobile network. For example, last year Telstra invested \$1.2 billion into the network to ensure that it can continue to offer its customers the greatest mobile coverage and capacity using the latest technologies, and it has committed to a similar level of network investment in 2013-14. Telstra also committed \$1.3 billion to secure additional spectrum licences from the ACMA in the 2013 'Digital Dividend' auction.

Telstra has built a mobile network in Australia that is substantially greater in geographic coverage than any other operator, which means that Telstra's network is the only one available in many areas. Although Telstra is the only operator in these areas, the local communities still benefit from competition elsewhere in Australia because Telstra and the other mobile carriers all offer national pricing which does not discriminate by geography.

While Telstra has invested in providing expansive geographic coverage, in a country the size of Australia there are always going to be areas of limited mobile coverage. Telstra is acutely aware of the challenges faced by people who may live, work or be travelling through areas without mobile service. Telstra maintains the largest presence in regional and rural Australia of any mobile carrier, so the company hears firsthand from customers and local community members about the impact of limited mobile coverage. While Telstra strives to serve customers wherever they need mobile services, the commercial reality is that in some areas the costs are too high and demand too low to make the required investment commercially viable.

For this reason, Telstra welcomes the Government's initiative to assist consumers in remote and hard to serve areas by contributing \$100 million under its Mobile Network Expansion and Mobile Black Spots Projects.

These projects, and others like them, have potential to deliver great benefit to communities. The most recent analogous project, the Western Australia Government's Regional Mobile Communications Project (RMCP), was delivered by Telstra following a competitive tender. The RMCP has provided \$106 million of value to local businesses and communities, emergency service organisations, and state and local governments, going far beyond the \$39.2 million of expenditure made by the Western Australia Government.²

The Federal Government's programme promises similar benefits to a number of communities across Australia by complementing existing commercial networks, rather than overbuilding existing infrastructure. Telstra looks forward to participating in the tender process and competing for the opportunity to better serve the people living in those communities.

Telstra notes that the mobile market in Australia is highly competitive and expects that the tender will be competitive too, assuming the current facilities-based open access regime is applied to the new infrastructure built under this programme.

¹ <http://www.telstra.com.au/mobile-phones/coverage-networks/networks/>

² Refer to the section "What is Telstra's role?" in the FAQ explaining the RMCP at http://www.commerce.wa.gov.au/scienceinnovation/Content/Programs/Regional_Mobile_Communications_Project/

Answers to Questions in the Discussion Paper

Mobile Network Expansion Project

Telstra believes that the tender process should allow for bids covering any of the three delivery options canvassed in the discussion paper, in order to give bidders flexibility in how they develop their proposals and avoid inadvertently excluding offers that might offer higher value. In particular, the tender should provide bidders with flexibility concerning the preferred delivery option, the set of locations to be covered; the base station configuration; and the terms and price to be applied for access and co-location.

- 1. Would an appropriate minimum quality standard be that base stations must provide high-speed 4G LTE mobile broadband data communication services and also high quality 3G mobile voice and broadband data services? If this is not an appropriate minimum quality standard, what is?**

3G HSPA+ broadband and Voice should be the minimum requirement because stipulating a minimum standard of 4G LTE broadband data as well as 3G HSPA+ broadband and voice would require a more expensive deployment and potentially reduce the number of sites that could be covered. MNO spectrum holdings are also important to what can reasonably be offered as a minimum standard, noting that LTE solutions in sub 1 GHz spectrum (which provides better coverage) are unlikely to be viable until there is deployment of 700 MHz network infrastructure across existing metro and regional coverage areas.

Telstra believes it would be more cost effective to start with a minimum of a 3G deployment and then give MNOs flexibility to upgrade to other technologies over time as the business case for these technologies becomes viable. Carriers who subsequently co-locate should also be free to implement technology appropriate to their own business requirements, as long as they meet the minimum 3G HSPA+ broadband and voice specification.

- 2. What are the most appropriate indicators that could be used to specify the minimum quality standards that should apply to the mobile services being provided through the programme? For instance, should it be a minimum received service signal indication (RSSI) in decibel milliwatts (dBm)? A similar approach was adopted recently in the UK where a comparable programme specified a minimum RSSI for 3G voice and basic data service of -85dBm on roads and -75dBm in community areas (outside premises).**

Signal strength is just one indicator of relative quality. Different technologies support good quality at significantly differing signal strength. Even within the same technology, a specific signal power can deliver good quality in one area but not another, depending on the level of interference. Differences in user device design also cause variations in received signal strength.

For signal strength to be used as the indicator Telstra recommends that an elevated external Omni antenna be used. This will remove most of the variability due to how the device is held and from obstructions such as local clutter and vegetation effects.

Given the complexities Telstra suggests for the purposes of cross-comparison that bidders be asked to predict coverage based on a set reference – e.g. a particular frequency and technology received by customer equipment of a set type and height above the ground, and using an agreed propagation model. If all carriers predict coverage using a common set of standards, then some degree of relative comparison could be made.

3. Does delivery option 2 for the \$80 million Mobile Network Expansion component raise any additional issues that need to be considered?

The Discussion Paper highlights the disadvantages of delivery option 2, namely likely higher costs per site and as a consequence fewer sites being funded; increased complexity in the administration and compliance monitoring of the arrangement; and, to the extent that they occur, a delay in the realisation of competition benefits. At this stage, Telstra cannot see any additional issues beyond what has been already noted.

4. Could options 3(a) or 3(b) for the \$80 million Mobile Network Expansion Project be delivered in conjunction with options 1 or 2 to enable network infrastructure providers to compete with MNOs?

While options 3(a) or 3(b) could theoretically be delivered in conjunction with options 1 or 2, the benefits of this construct, when compared to the other delivery options, are less obvious due to the presence of an additional party in the value chain.

5. Should bidders be able to propose to incorporate the use of base stations owned by NBN Co as part of their bid?

Telstra cannot see any reason why base station sites owned by NBN Co should not be able to be incorporated into a bid, as these could enable cost effective solutions in some situations. However, most of the NBN Co wireless sites are expected to lie within the existing coverage footprint provided by MNOs, so the opportunity for co-location may be limited.

6. Should a joint bid (between a specialist network infrastructure provider and a MNO) be permitted? Should it be encouraged?

Although, as mentioned above, the benefits of option 3 are less clear when compared to the other delivery options, Telstra sees no reason why joint bids between specialist network infrastructure providers and MNOs should not be permitted, if they result in the delivery of a solution which is cost-efficient and fit for purpose.

7. Is it realistic to expect specialist network infrastructure providers to provide backhaul (recognising that they would presumably need to contract with a third party to provide this)?

If specialist network infrastructure providers are not able to provide backhaul themselves, they should be permitted to sub-contract this work to a third party. Telstra believes that if a bid is based on a delivery method which is cost-effective and workable, then it should be eligible to be considered.

8. Is option 3(b) suitable for Australia's regional mobile market?

Telstra considers that option 3(b) is possibly suitable for unserved areas in Australia's regional mobile market, but notes that not all customers may benefit as there is a lot of differentiation in the frequency bands supported by various devices. Customers of one MNO can only access wholesale coverage from another MNO if their devices support the band used in that specific area.

Given MNOs are the only ones able to provide a mobile service to customers, and are likely to be capable of building and operating the network as efficiently and cheaply as a network infrastructure provider, it is unclear what additional benefits would result from choosing this delivery option.

Mobile Black Spots Project

Telstra agrees with the concept of third party co-contributions towards sites which would be funded under the \$20 million Mobile Black Spots Project, assuming they possess the experience to manage complex negotiations with multiple parties. However there would need to be some rules in place to mitigate the risks related to securing both the funding required to build the sites, and the necessary approvals to gain access to appropriate sites.

Once the list of sites is determined, along with the associated third party contributors there would need to be an assurance that the funds will be committed by a specified date. If the funds do not eventuate by this date the associated site should be dropped from the list or re-prioritised lower in comparison to sites that have the funding secured. In these circumstances, the government should be responsible for communicating with the local communities and groups.

An alternative approach to consider is for the government to secure the co-contribution once the sites have been determined. This will eliminate the risk to bidders and reduces the complexities of negotiating with multiple parties and potentially being liable for not delivering a site if negotiations fail for any reason. This approach needs to be assessed against the benefits of negotiating and securing co-contributions directly with the third parties based on existing relationships.

Open Access and Co-location Provisions

Telstra agrees that any sites funded under the program should be subject to an open access/co-location regime, but is cautious about the establishment of bespoke regulatory obligations for what could be a relatively small number of sites. The existing open access regulatory regime is well established and supported by commercially negotiated access agreements that allow for reciprocal access to sites and co-location of equipment. Bidders should have the flexibility to use these existing agreements, or to indicate a willingness to negotiate alternative access terms on a reciprocal basis, noting that the existing regulatory arrangements provide for access terms to be regulated by the ACCC if parties are unable to reach agreement.

Telstra considers that any additional open access/co-location obligations imposed by the tender process should be limited to ensuring sufficient capacity is built at these sites to accommodate those MNOs that are committed to co-location.

Additionally, Australian MNOs have well established reciprocal access agreements which are routinely used. Carriers currently operate under the National Co-location Task Force (NCTF) framework which governs the timing and processes for site sharing to ensure consistency and uniformity in the industry. The agreement to follow this framework, which places operational detail around the facilities access regime of the *Telecommunications Act 1997*, was assembled in joint collaboration under a joint working party and with the carriers collectively providing input. Telstra has a demonstrated record of complying with its obligations and commitments in this space.

The above arrangements are working. This is demonstrated by the fact that Telstra alone currently has more than 3,200 site share arrangements in place.

9. What are the appropriate specifications for a base station to be able to accommodate at least two other MNOs?

All MNOs have standard antenna deployment configurations which are designed to provide optimal performance for their equipment. The requirements vary depending on a variety of factors.

The design characteristics for towers and their footings will vary depending on terrain, the location and appropriate height of the structure in the area – for example cyclone-grade towers in certain areas, or visually sympathetic designs in more dense urban/metropolitan environments. Local Government and vocal community lobby groups can also lead to modified tower design outcomes in some locations.

While a basic specification is necessary for high level estimation and provisioning, Telstra's experience has shown that attempts to impose a one-size-fits-all approach to tower deployment (organisationally and also in responding to tenders) can generate more exceptions to the specifications than there are applications of it. Additionally, provision of a fully-specified tower which is not fully utilised is expensive and results in inefficient allocation of funds.

Telstra agrees with the application of standard MNO requirements in nominal design specifications; however, it also advocates the need to incorporate a level of operational flexibility in the practical application of any specification standard.

10. Will the proposed open access provisions be sufficient to encourage other MNOs to use the base stations to provide mobile services?

Telstra believes that open access and co-location is not an issue that requires further regulation. Telstra's existing infrastructure is readily available for co-location. As noted above, Telstra believes that any additional obligations imposed by the tender process should be limited to ensuring sufficient capacity is built for those MNOs that are committed to co-location at each site. Otherwise, the facilities access regime and the existing bilateral (and reciprocal) tower access agreements between MNOs are sufficient to establish the terms and conditions of access.

Australia has benefited from a relatively light-handed approach to mobile regulation and the mobile market demonstrates that when the regulatory system allows network quality and coverage to become a competitive advantage in the retail market, investment will flow.

11. Should MNOs be required to pre-commit to/co-invest in the base stations for which they wish to share infrastructure?

Telstra considers that pre-commitment to co-locate at each site should be provided by any MNO wanting access (under existing bilateral access agreements) once the winners of the tender are known, to ensure sufficient capacity is built at each site. Building additional capacity without the commitment that other MNOs will co-locate may lead to inefficient outcomes including a smaller number of sites being established and those sites that are established having excess capacity.

12. What is the estimated additional cost of requiring all new base stations to meet the open access requirements?

Telstra agrees that it will be more efficient and cost effective to accommodate additional MNO requirements during the initial design and construction phases. However, the cost to provision additional MNO requirements will vary depending on the type of area and tower required for a particular site (e.g. hilltop, open paddock, or town area).

In a regional environment where there is ample space for a guyed-mast structure which can be constructed on-site the cost for a 3-MNO tower may be 30-50% higher than a tower built for just one MNO. In circumstances where a prefabricated heavy-capacity monopole is required and must be transported to site, the structure can cost much more (potentially up to 500% more) to accommodate 3 MNOs than a monopole with sufficient structural load capacity for just Telstra's equipment.

Specifically considering Telstra's network; in many cases, Telstra typically designs its towers to accommodate a second headframe to accommodate an additional layer of antennas and where structural load permits, this space is made available to other users – as evidenced by the number of approved co-locations on Telstra structures.

13. Should the proposed open access provisions be applicable to base stations funded under the \$20 million component or should there be scope to exclude some base stations from these requirements?

As noted above, Telstra considers that any sites funded under the program should be subject to existing co-location provisions and that any additional obligations imposed by the tender process should be limited to ensuring sufficient capacity is built for those MNOs that are committed to co-location. Accordingly, Telstra sees no need to differentiate the sites that are funded under Mobile Black Spots Project from the sites funded under the Mobile Network Expansion Project.

14. What are the most appropriate models/benchmarks for establishing access and backhaul pricing and for reflecting in that pricing the value of the public funding received by the owner of the facilities (such that access seekers receive an appropriate discount from the market price for access to the facility)?

Telstra cautions against imposing a prescriptive pricing approach while the sites and the level of subsidy at each site are unknown. While the level of subsidy a site receives is a key consideration in establishing appropriate pricing for access and co-location, other factors are also relevant, including the ongoing cost of operating and maintaining the sites. In many cases, the revenue generated from these sites will not be sufficient to recover the cost of operating and maintaining these sites. Telstra therefore considers that bidders should be afforded sufficient flexibility to specify their approach to pricing in their tender response, noting that existing regulatory arrangements provide recourse to the ACCC if parties are unable to agree.

Imposing additional prescriptive pricing requirements through the tender process may have the unintended consequence of discouraging bidders from bidding at more remote (and therefore more expensive to operate) sites. Accordingly, Telstra considers that bidders should be allowed the flexibility to develop their proposals, including the terms and price that will apply for access and co-location, which can be considered against all of the assessment criteria, including that of ensuring open access and co-location.

Proposed Assessment Criteria

15. Do the proposed assessment criteria achieve the right balance to deliver the best value for money outcomes?

Telstra believes that the proposed assessment criteria generally achieve a suitable balance, but government should also consider additional non-coverage related benefits, such as subsidised access for emergency services, as value in kind contributions that may be offered by bidders.

16. Should the proposed assessment criteria be weighted, and if so, how?

Telstra believes that new coverage should be given more weight than the addition of another carrier to a region where coverage is already available. This is on the basis that providing access to Australians who have no existing service is more valuable than providing an alternative to those who already have access to a mobile service.

Additionally, Telstra suggests that coverage could be broken into coverage using a handheld device (which is typical usage) and that using a device with an external antenna (which would provide maximum coverage extent). Telstra believes that handheld coverage should be weighted greater than new external antenna coverage.

In addition to how the criteria are weighted, Telstra believes that it is important that any assessment process should be open, transparent, and use a consistent and systematic methodology. These two programmes have finite resources and there is considerable community expectation around the benefits they will deliver. As such, it is particularly important that the community understand the criteria that the Government has applied.

17. Is there a more effective means of assessing seasonal demand than proposed in criterion 3(c)?

Criterion 3(c) suggests using the number of sites/rooms/cabins offered by accommodation providers within the new footprint. This may underestimate the actual demand in a locality due to multiple occupancy of the suggested accommodation options. Telstra would suggest using visitor numbers, which it should be possible to source from local councils or tourism bodies.

Utilising the NBN fixed wireless network

18. To what extent would the use of the NBN fixed wireless network result in improved mobile coverage outcomes in regional Australia?

Generally, with MNOs currently providing coverage beyond the expected locations that NBN Co will be deploying fixed wireless infrastructure, there will be limited opportunity for improving coverage by co-locating with the NBN fixed wireless network. There will be specific locations where, for example, in building coverage may be improved simply due to relative location differences between the NBN site and MNO sites, however it is unlikely that the economics would support an MNO investing for such localised improvements.

Overall, it is expected that most community coverage shortfalls will lie beyond the extent of NBN fixed wireless sites, however, if co-locating with NBN minimises costs and is fit for purpose then Telstra sees no reason why this infrastructure should not be used. This applies equally to other suitable infrastructure such as water towers or broadcast structures.

19. How best can a greater role for NBN Co improve competition and choice for consumers in regional Australia?

Telstra believes that NBN Co's infrastructure should be accessible at market rates, i.e. under the existing regime for sharing sites between carriers. This should provide sufficient incentive for MNOs to move into areas which may be currently underserved, while also avoiding additional tax payer subsidies or undermining the value of existing commercial infrastructure. When considering potential benefits around competition, it should be noted that communities in areas where there may only be one network operator already benefit from competition between operators in the rest of the country because all carriers maintain national pricing that does not discriminate by geography.

20. In addition to base station location, design and backhaul access, what other considerations would NBN Co need to take into account if it were to also support mobile coverage and competition benefits as part of its mandate?

Most of the activities of NBN Co are expected to lie within existing MNO's mobile coverage footprint, so the opportunity for NBN contribution to this programme is minimal and potentially a distraction from its primary focus of delivering a fixed broadband network.

21. How can early engagement between NBN Co and MNOs be facilitated in the design of each base station? Is there a role here for the Australian Mobile Telecommunications Association (AMTA)?

As noted in Telstra's response to question 20, most of the activities of NBN Co are expected to lie within existing MNOs' mobile coverage footprint, so the opportunity for NBN contribution to this programme is minimal and potentially a distraction from its primary focus.

Telstra does not see a role for AMTA in the engagement process. Existing arrangements are already in place and used by MNOs and NBN to request access to facilities.

22. How can the Mobile Coverage Programme best complement any role that the NBN fixed wireless service plays in improving mobile coverage and competition?

As noted in the response to question 20, Telstra believes that NBN Co should focus on developing its sites for the delivery of the fixed broadband network.