

# 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:	27 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.

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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):*

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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](mailto: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.

## **Submission to the Mobile Coverage Programme**

**February 27, 2014**

Thank you for the opportunity for Regional Development Australia Northern Inland NSW to provide a response to the Federal Government's Mobile Coverage Programme. A long term integrated and systematic expansion of mobile voice and data coverage for Regional Australia is a vital component to growing our Digital Economy. Please find below our responses to the questions raised in the Discussion Paper. We also attach a summary of responses from the 13 Local Government Areas in Northern Inland NSW with regard to their priority black spot areas (See Appendix 1).

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?

**Response – Yes the minimum quality standard for base stations should be high-speed 4G LTE mobile broadband data communication services and also high quality 3G Mobile voice and broadband data services, as we require equitable communications in regional Australia to maximise productivity savings by use of technology. This would also encourage the development of this technology in Australia**

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).

**Response - Due to the vast geographic areas in rural, regional and remote Australia we have to use every method available to maximise the coverage foot print. Whilst those standards might work in a small highly-urbanised country like the UK, if used in Australia, they would dramatically reduce the mobile coverage footprint.**

**Therefore we would recommend making quality standards not as stringent i.e.**

- -95 to -100 dBm on roads – Which would encourage the use of car kits/external antennae
- -85 dBm in community areas
- Dropout rates of between 5%-10%
- Tilt angles a maximum of 4 Degrees

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

**Response – Given the competitive nature of Mobile Network Operators in Australia, we believe it would be an extremely difficult task to negotiate an agreement, potentially requiring many years to complete, whilst regional Australians continue to suffer from poor mobile voice and data coverage.**

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?

**Response – This is a credible idea and would give maximum flexibility for expanding the Mobile Network; using the best option for particular areas with the added advantage of cost comparisons.**

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

**Response – Yes. We need every possible tower to make it more cost effective and easier to rollout, which Low Impact sites such as these would provide.**

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

**Response – Yes. We need every option on the table to provide the best coverage expansion possible for regional Australia.**

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)?

**Response – No. It would not be realistic for Network Infrastructure Providers to provide backhaul. We would suggest outsourcing this to NBN Co as it would differ from site to site depending on the existing backhaul routes. NBN Co would be well placed to undertake this work.**

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

**Response – We believe Delivery Option 3(b) – Network Infrastructure provider to co-ordinate implementation would be best, given that:**

- **We need to move towards a wholesale network open to all Mobile Network Providers;**
- **We are now working on sites that are increasingly uneconomic to Mobile Network Operators, so they tend to add additional costs onto quotes to ensure they get shareholder value;**
- **There is a need for increased competition in regional Australia; and**
- **In the past network expansion sites have been handed to the dominant MNO, who may then resist making facilities available to other Mobile Network providers. This in-turn disadvantages people with mobile phones from other providers.**

**NBN Co would be a good option to be the Network Infrastructure provider, given that:**

- **They are already well versed in site acquisition and construction with Fixed Wireless;**
- **Fixed Wireless uses virtually the same equipment as a Mobile network does;**
- **As NBN Co is a Government owned enterprise, we would be very confident of receiving real and factual information on how much it costs to construct each site;**
- **The Government could consider allocating part of the 700 Mg/hz spectrum to NBN Co to build the network; and**
- **In the future the Government could also consider selling the whole network so as to fund more expansion of Mobile coverage with a similar approach.**

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

**Response – We would recommend using the same construction as Vodafone applied to the Newell Highway, 90m Guyed Mast towers which provide sufficient**

**height for coverage, particularly in flat terrain. Such towers have a low profile, are visibly less conspicuous and can easily accommodate multiple carriers.**

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

**Response – Yes we believe it will. The non-dominant MNOs are extremely interested in improving their mobile network in regional Australia.**

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

**Response – Yes we believe they should to avoid non-genuine responses from MNOs. We need as much certainty and commitment to expand regional Australia's Mobile coverage as possible.**

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

**Response – We suggest in the vicinity of 30% additional costs, given that the power, tower and access will be in place and would only require mobile base station equipment.**

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?

**Response – We believe there should be some scope to exclude base stations from these requirements. We need to make the Programme as flexible as possible, so as to ensure the best chance of expanding mobile coverage in regional Australia.**

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)?

**Response – We would recommend using the benchmarks set by NBN Co in setting up their Fixed Wireless network. Given they are a Government Enterprise, you**

would receive more accurate costings than those provided by a commercial operator.

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

**Response – The assessment criteria is certainly comprehensive and designed to deliver the best value for money to the Australian taxpayer, however in our opinion the sheer scope and prescriptiveness of the criteria may alienate potential bidders.**

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

**Response – As stated previously, we need to move away from anecdotal evidence, towards a strong evidence base. We recommend assessment criteria driven by automatic collection of data, for example through Smart Phone Apps and predicted coverage maps. Failing this, we would recommend utilising Regional Development Australia committees, who through their connections with local communities and all levels of Government are extremely well placed to know where the problem areas are within our respective boundaries.**

**RDAs are also well placed to negotiate collaborative efforts to help establish sites, i.e. Councils to provide roads or funding towards site establishment such as the case with Inverell Shire Council and Copeton Dam.**

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

**Response – Again, we need to move away from anecdotal evidence, towards an assessment criteria driven by automatic collection of data through Smart Phone Apps and predicted coverage maps. Until such time, RDAs are well-placed to provide a guide to sites required.**

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

**Response – Given that most NBN fixed wireless sites are located around the outskirts of cities or towns, which already have reasonable mobile coverage, the coverage outcomes may be limited. However, we are certain that NBN fixed wireless sites in certain locations may be attractive to MNOs wishing to address mobile black spots.**

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

**Response – NBN Co can play a central and significant role in improving both mobile coverage area and competition/choice for regional Australia, by being engaged to build a wholesale network. NBN Co have the experience, towers, backhaul and most importantly, no vested interest in prioritising shareholder returns to the detriment of regional communities.**

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?

**Response – Improved customer service, internal processes and public relations.**

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)?

**Response – We would strongly recommend a group be set up, including among others, NBN Co, MNOs, AMTA, ACMA and the Department of Communications to devise a way forward. The Department of Communications needs to take the lead with its main focus to expand mobile coverage in regional Australia over the next ten years.**

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

**Response – Through cooperation and sharing of sites and their establishment (power, towers and access) plus provisioning of transmission backhaul. RDAs could also play a key role in setting up collaborative efforts with communities to establish sites by focussing on site acquisition, access and power.**

## Appendix 1: Summary of responses from Northern Inland NSW Local Government Areas

### Northern Inland NSW Mobile Coverage Sites Required as at December 2013

Number	Coverage Area	Possible Site	Reason	Tower	Power	Road Access	Council Priority	Council Area	Federal Government Electorate
1	Hillgrove	Hillgrove Mine	Mine workers and residents	No	Yes	Yes	1	Armidale	New England
2	Marple		Residents/Safety	No	No		2	Armidale	New England
3	Thalgarrah		Residents/Safety	No	No		3	Armidale	New England
4	Rockvale		Residents/Safety				4	Armidale	New England
5	Whytaliba	Delta	Residents/Safety				1	Glen Innes Severn	New England
6	Matherson Valley	White Rock	Residents/vehicles				2	Glen Innes Severn	New England
7	Wellingrove Village	White Rock	Potential wind-farm site				3	Glen Innes Severn	New England
8	Pinkett Rd		Residents/vehicles				4	Glen Innes Severn	New England
9	Gilbralter Range National Park		Emergency services				5	Glen Innes Severn	New England
10	Gunnedah (residential)	Blackjack	Residents/Businesses/Bushfire safety				1	Gunnedah	New England
11	South Gunnedah	Blackjack Mtn	No mobile coverage	Yes	Yes	Yes	2	Gunnedah	New England
12	Curlewis		Residents/Businesses/Bushfire safety		Yes		3	Gunnedah	New England
13	Kelvin Road (15km)		Farming operations				4	Gunnedah	New England
14	Oxley Highway (Mullaley/Tambar Springs)		Public safety/lack of coverage				5	Gunnedah	New England/Parkes
15	Evans Road	Blackjack Mtn	Residents	Yes	Yes	Yes	6	Gunnedah	New England
16	Copeton Dam area		High traffic area/recreation				1	Gwydir	New England/Parkes
17	Crooble area	Stack Trig.	Residents/businesses		Yes	Yes	2	Gwydir	Parkes
18	Gulf Creek area	Messines	Lack of coverage	Yes	Yes	Yes	3	Gwydir	Parkes
19	Upper Horton area		Residents				4	Gwydir	Parkes
20	Coolatai area		Residents				5	Gwydir	New England
21	Ben Lomond/Wandsworth		Residents/motorists/fire safety				1	Guyra	New England
22	Aberfoyle/Wards Mistake		Bushfire zone/high traffic				2	Guyra	New England
23	Guyra Tingha Rd/Kings Gap		Bushfire zone/high traffic				3	Guyra	New England
24	Ebor Area		Residents/high traffic volumes				4	Guyra	New England
25	Oban						5	Guyra	New England
26	Copeton Dam	Fig Tree Hill	100 000 annual visitors/surrounding residents	No	No	Yes	1	Inverell	New England/Parkes
27	Gwydir Highway Inverell - Glen Innes	White Rock	high vehicle traffic	No	No	Yes	2	Inverell	New England
28	Bonshaw		Residents/businesses	No	No	No	3	Inverell	New England
29	Nullamanna	Gagan Mountain	Residents/businesses	No	No	No	4	Inverell	New England
30	Graman	Graman Telstra	Residents/businesses	Yes	Yes	Yes	5	Inverell	New England
31	Pindari Dam	The Pines	Residents/businesses		Yes	Yes	6	Inverell	New England
32	Eastern side of Currububulla coming into village	Mt Terrible or Mt	Residents and businesses in village				1	Liverpool Plains	New England
33	North side of Werri Creek "Deeks Rd"	Mt Terrible	Residents				2	Liverpool Plains	New England
34	Northern side of Willow Tree between Mt Helen and	NBN Tower	Residents and businesses				3	Liverpool Plains	New England
35	Big Jacks Creek						4	Liverpool Plains	New England
36	Toomelah/Boggabilla	Water Tower	Public safety/agriculture				1	Moree	Parkes
37	Tulloona(Moree to Boggabilla Newell Highway)		Residents/businesses/motorists				2	Moree	Parkes
38	Garah - Moree		Residents/businesses/motorists				3	Moree	Parkes
39	Goondiwindi - Boomil(Bruxner Rd)		Residents/businesses/motorists				4	Moree	Parkes
40	Baan Baa - Boggabri(Kamilaroi Highway)		Mining expansion/residential				1	Narrabri	Parkes
41	Maules Creek - Baan Baa		Mining expansion/residential				2	Narrabri	Parkes
42	Wee Waa - Burren Junction	Merah North	Farming operations	Yes	Yes	Yes	3	Narrabri	Parkes
43	Narrabri - Coonabarabran via Newell Highway(Jacks Creek)		Residents/businesses/motorists				4	Narrabri	Parkes
44	Pilliga & Pilliaga Forest	Pilliga	Bushfire zone/recreation	No	Yes	Yes	5	Narrabri	Parkes
45	Dungowan Dam Valley		Residents/Dam coverage				1	Tamworth	New England
46	Moore Creek - Moonbi Gap		Residential growth				2	Tamworth	New England
47	Chaffey Dam		Residents/Tourists				3	Tamworth	New England
48	New England Highway near Banalasta	Vodafone Pole	Highway coverage/high traffic volumes				5	Tamworth	New England
49	Obunbil - Niangala		Serve residents				5	Tamworth	New England
50	Urbenville	TV Tower above	Service Town/ Nat Parks and for natural disasters	Yes	Yes	Yes	1	Tenterfield	Page
51	Drake		Service Town/ vehicles and for natural disasters				2	Tenterfield	New England
52	Mingoola/Bruxner Way		Service Town/ vehicles and for natural disasters	Yes	Yes	Yes	3	Tenterfield	New England
53	Liston		Service Town/ Mt Lindesay Rd	Yes	y	Yes	4	Tenterfield	New England
54	Torrington		Tourists/National Park.natural disasters				5	Tenterfield	New England
55	Kingstown	Round Mountain		Yes	Yes	Yes	1	Uralla	New England
56	Uralla-Walcha Rd						2	Uralla	New England
57	Kentucky						3	Uralla	New England
58	Balala						4	Uralla	New England
59	Enmore						5	Uralla	New England
60	Walcha Rd/Woolbrook		Emergency Services				1	Walcha	New England
61	Ingelba/Aberaldie		No coverage				2	Walcha	New England
62	Yarrowitch	Porters Camp	Residents/Mobile data	Yes	Yes	Yes	3	Walcha	New England
63	Glen Morrison						4	Walcha	New England
64	Winterbourne						5	Walcha	New England