

Joint Committee on the National Broadband Network
Answers to Questions on Notice
Public Hearing 16 April 2012
Broadband, Communications and the Digital Economy Portfolio
NBN Co Limited

Question No: 5

Topic: NBN Rollout in Broken Hill

Ms Ley MP asked:

Could you provide an explanation for why Broken Hill was not included in the three year rollout, and why an NBN Co's spokesperson said the reason Broken Hill was not included was because the backhaul network was not completed?

Answer:

Broken Hill was not included in the three-year rollout for two main reasons.

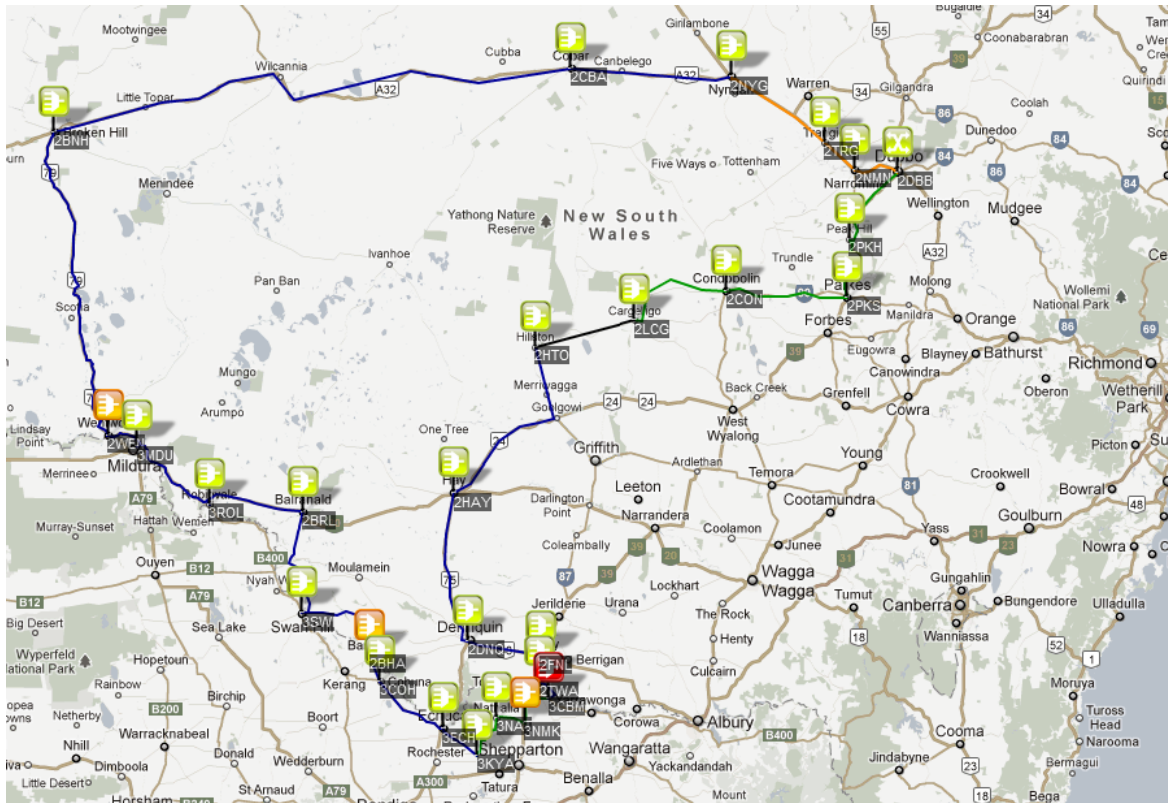
Firstly, the network is being designed in rings so that a break in one cable will not isolate a Fibre Access Node (FAN) from the parent Aggregation Node (which holds the Point of Interconnect (PoI)).

The Regional Backbone Blackspots Program (RBBP) fibre goes to Broken Hill, not through Broken Hill. It therefore represents only one part of the complete ring that will go through Broken Hill to the PoI in Dubbo (see diagram below).

To complete the ring, NBN Co will need to use a pair of fibres in the RBBP cable, as well as additional dark fibre pairs from Telstra. Under the terms of the Deal with Telstra, this dark fibre is released to NBN Co in a sequence.

The PoI for Broken Hill is in Dubbo due to a range of technical, competition and commercial factors, including advice from the Australian Competition and Consumer Commission regarding PoI locations.

Secondly, Broken Hill is scheduled to have access fibre, which connects the FAN site to each premises, built at a later time. The access fibre has been scheduled utilising a number of parameters which provide the most cost-effective build of the overall NBN Co network. This information is available in more detail at <http://www.nbnco.com.au/assets/documents/fibre-planning-fsa-scheduling.pdf>



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Question No: 9

Topic: Public Education Activity

The Joint Committee asked:

- a) In addition to explaining how consumers become connected, does NBN Co also plan to explain in clear and specific terms to the public the new large scale civic opportunities the NBN will bring? What are the key benefits that the public education campaign will choose to promote? When will this engagement begin?
- b) What is NBN Co's timeframe for providing information to small businesses about the NBN rollout?

Answer:

- a) In addition to the Public Information on Migration (from the copper to the fibre) activities, there is another broad set of public education information, which includes:
 - **Rollout milestone** communications – such as the recent three-year rollout announcement that will direct the public to the NBN Co website to learn more about upcoming rollout areas.
 - **Local construction notices and engagement** – locally-based rollout construction notices including information on possible road closures as well as expected construction commencement dates.
 - **Vertical industry outreach** – engagement with selected industry sectors such as education, health and small and medium-sized businesses to highlight how they can best take advantage of the improved ubiquitous bandwidth of the NBN.
 - **Network technology** – communications around the network's technology, why that technology was chosen and the national benefits of that technology
 - **Fixed Wireless and Satellite** - communications and rollout information. These information campaigns will include communications on the progress and availability of fixed wireless and satellite technology and, in the case of satellite, eligibility criteria and how to apply to receive a satellite service.
 - **Community Relations** communications – advertising the date, time and location of community information sessions for areas where the NBN is being rolled out so that interested members of the public can attend, ask questions and receive further information.

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- b) NBN Co is currently developing information for particular sectors including education, health and small business. The precise timeframe for providing information to small businesses is still under consideration.

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Question No: 10

Topic: Security of the Network

The Joint Committee asked:

- a) How do concerns of national security and individual privacy and safety factor into the design, construction and maintenance of the network?
- b) Is the network susceptible to cyber-attacks on individuals, organisations or governments?
- c) What strategies and technologies are used in the network to guard against these vulnerabilities?
- d) Do companies submitting tenders require security clearances before a contract is awarded?

Answer:

- a) NBN Co has adopted the Government's Protective Security Policy Framework issued by the Attorney-General's Department (AGD) and the associated Information Security Manual issued by the Defence Signals Directorate (DSD). These documents provide physical and technical security guidance for networks that are of national security concern. NBN Co's Security Framework is designed around these standards, including annual compliance reporting to AGD.
- b) Any network could potentially be a target for cyber attack. NBN Co actively engages with relevant Government agencies and other stakeholders to ensure the security and resilience of the network.
- c) NBN Co has adopted a strategy that incorporates certification and accreditation, regular testing, security validation exercises, and a range of technologies that guard against cyber attack.
- d) In those tenders where there is a potential security risk to the network (either through the provision of equipment, software or services) NBN Co consults closely with Government security agencies. There is also an evaluation of successful suppliers as part of the ongoing contract management processes.

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Question No: 14

Topic: Wireless Network

The JCNBN asked:

- a) What contingency plans does the NBN Co have if development appeals are upheld by the relevant state and territory planning authorities?
- b) Would it be more cost-efficient if the NBN Co were to lease a greater percentage of space off existing wireless towers? If so, is there any reason why the NBN Co cannot pursue this option, instead of investing in new tower infrastructure?
- c) How is the NBN Co currently responding to inquiries and applications from local governments and councils about extending the fibre footprint? How many such applications has the company received?

Answer:

- a) NBN goes through a process of choosing more than one candidate for a site. This means there are contingency plans for an alternate site should a development application rejection be upheld on appeal.
- b) It depends on the costs payable to current infrastructure owners. As part of its selection process conducted with Ericsson, NBN prioritises an existing wireless tower “co-location” over building a new tower, provided that this is more cost efficient over the long term.
- c) NBN Co is responding directly to councils and local government regarding extensions of the fibre or wireless footprint. After initial contact, NBN Co continues discussions and provides quotes for the extensions. NBN Co currently has three applications from councils.

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Question No: 15

Hansard Ref: In writing

Topic: Satellite

The Joint Committee asked:

- a) Accessing the interim satellite service required premises to install enabling infrastructure. What is the total cost of this infrastructure?
- b) Will the same infrastructure be able to access the long-term satellite service?
- c) Once the satellites are constructed and launched, when will services become available to consumers?
- d) Is the ground segment scheduled to be completed before the 2015 launch date?

Answer:

- a) The total value of the Optus contract is nearly \$200 million over five years for managed services, customer equipment and some satellite capacity. The IPStar contract for satellite capacity is approximately \$100 million over the same period. The cost of the anticipated premises infrastructure is borne by NBN Co as part of the Optus contracts.
- b) No. The long-term satellite uses Ka Band technology, with Ku-band used on the interim satellite service. As such, the long term satellite will require different customer premises equipment.
- c) From mid-2015.
- e) Yes.

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Question No: 19

Hansard Ref: In writing

Topic: Greenfields development - Bonnyrigg

Mr Hartsuyker MP asked:

- a) Were any homes in the Bonnyrigg greenfields development constructed using Telstra Velocity fibre specifications instead of NBN Co specifications?
- b) If so, how many homes were built using Telstra Velocity specifications?
- c) Why were the homes not built using NBN specifications?
- d) What changes were required to ensure that all homes in the Bonnyrigg development could be connected to the NBN?
- e) What was the total cost of the remediation work?
- f) Who paid for the remediation work?
- g) When did the remediation works begin and finish?
- h) Did NBN Co receive regular updates on the progress of the remediation works?
- i) If so, to whom were the updates provided, and were these progress reports brought to the attention of the CEO of NBN Co?
- j) Did NBN Co provide updates about the remediation works to the office of the Minister for Broadband, Communications, and the Digital Economy? If so, on what dates, and specifically to whom, were the updates provided?

Answer:

- a) Field staff have confirmed dwellings cabled in Bonnyrigg were cabled to other providers' specifications. Approaches did vary between premises – and did not appear to suggest a single installation model.
- b) Refer to response a) above. Some homes had power leads and earth provided; others did not. However specific counts were not made of each variant type.
- c) There have been a variety of industry approaches to supplying fibre to homes. The Bonnyrigg development was well advanced at the time NBN Co specifications were released.
- d) No changes were made by NBN Co to its practices to provide a standard installation into homes. A 'back to back' installation was utilised in many premises where no internal conduit path was supplied. In a small number of cases, the builder arranged for re-location of a power point.
- e) NBN Co was able to install in premises using standard installation techniques.
- f) NBN Co was able to install services in premises using standard installation techniques.

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- g) NBN Co installation work commenced from August 2011 in this estate. We do not record dates of any builder remediation activity.
- h) NBN Co's subcontractor project managers were monitoring the progress on behalf of NBN Co; however, builder remediation was not the subject of regular reporting.
- i) Not applicable.
- j) We are unaware of such updates being provided.

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Question No: 20

Hansard Ref: In writing

Topic: Greenfields development: Watson and McGregor

Mr Hartsuyker MP asked:

- a) Were any homes in either of the above mentioned developments constructed using Telstra Velocity fibre specifications instead of NBN Co specifications?
- b) How many homes in each development were built using Telstra Velocity specifications?
- c) Why were the homes not built using NBN specifications?
- d) What changes were required to ensure that all homes in the developments could be connected to the NBN?
- e) What was the total cost of the remediation work for each site?
- f) Who paid for the remediation work?
- g) When did remediation works begin and finish?
- h) Did NBN Co receive regular updates on the progress of the remediation works?
- i) If so, to whom were the updates provided, and were these progress reports brought to the attention of the CEO of NBN Co?
- j) Did NBN Co provide updates about the remediation works to the office of the Minister for Broadband, Communications, and the Digital Economy?
- k) If so, on what dates, and specifically to whom were the updates provided?
- l) Are residents in the development able to keep their old phone numbers when they connect to the NBN?

Answer:

- a) Some dwellings in Watson and McGregor were cabled to other providers' specifications instead of NBN Co specifications. We do not normally have visibility of arrangements between developers and the suppliers of pit and pipe, so cannot advise whose specifications were used.
- b) Refer to response a) above.
- c) The initial stages of Watson and McGregor were well advanced at the time specifications were released.
- d) The construction approach would vary based on premises conditions. For example, some homes in Watson required re-location of lead-in conduit.
- e) NBN Co was able to install in premises using standard installation techniques.
- f) NBN Co has been able to install in premises using standard installation techniques and would have met its own costs in doing so.

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- g) NBN Co installation activity commenced in August 2011. We do not record dates of builder remediation activity.
- h) NBN Co's subcontractor project managers were monitoring the progress on behalf of NBN Co; however, builder remediation was not the subject of regular reporting.
- i) Not applicable.
- j) We are unaware of such updates being provided.
- k) Not applicable.
- l) This question is best directed to Retail Service Providers. NBN Co provides Layer 2 infrastructure to RSPs.

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Question No: 21

Topic: Consultation with building industry regarding new homes

Mr Hartsukyer MP asked:

What consultation has taken place with the building industry to ensure that new homes are designed to properly accommodate the Network Termination Device (NTD) and other NBN equipment?

Answer:

NBN Co has consulted extensively with the building industry to ensure new homes are designed to properly accommodate the NBN equipment. This engagement includes industry groups, builders (including their sales, design and construction staff), developers (including their consultants), and State and local government stakeholders.

Engagement ranges from 'tool box talks' through to formal presentations at trade conferences and scheduled industry presentations (such as Housing Industry of Australia member briefings). In the national building briefing in 2011, around 70,000 members were invited through one industry association alone.

In addition, industry newsletters are used to convey design requirements to members. These industry engagements are fundamental to ensuring NBN specifications remain current.

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Question No: 22

Topic: Consultation with the Australian Building Codes Board

Mr Hartsukyer MP asked:

Has NBN Co consulted with the Australian Building Codes Board about integrating NBN specifications into Australian building design specifications and codes?

Answer:

NBN Co has extensive engagement with peak building and cabling industry groups to specifically understand and integrate the requirements of any Australian building design specification and codes into our work instructions and practices. To date we have not sought to formalise NBN specifications within the building codes.