Chapter Nine

Progress on wireless and satellite

Overview

9.1 Overall, the committee received little evidence related to progress on the wireless and satellite fronts, the next generation technologies which are supposedly going to service the up to 10 per cent of Australian premises left out of the 90–93 per cent fibre footprint area.

9.2 The committee is unsure whether the lack of information received reflected a lack of progress, lack of transparency on behalf of NBN Co and the Government, or a lack of effective communication to key stakeholders and the public.

9.3 The committee's main concern is that the design and roll-out of the NBN's next generation wireless and satellite services does not seem to be being prioritised by the Government or by NBN Co. The committee is deeply worried that, if this is indeed the case, regional and remote Australians are set to remain deprived of effective, affordable, broadband services and essential telecommunications infrastructure while their comparatively well-serviced urban cousins receive all the benefits of Fibre to the Premises broadband services.

Evidence received

9.4 Of the evidence that was provided to the committee, the two primary concerns raised were that:

- the lack of information available is compromising investments in infrastructure and forward planning by businesses and end-users; and
- regional and remote Australians' needs are being deferred until after the fibre network is rolled-out, or at least substantially progressed.

Lack of available information

9.5 The Australian Communications Consumer Action Network described how the lack of information is a key concern for prospective end-users who may be in the 10 per cent:

> Ms Corbin—With the National Broadband Network we have got 100 megabits per second in some areas and a lot less in some remote spaces. So we are getting a lot of feedback from those people who believe they are going to be in the 10 per cent. What should they expect if their service is being delivered by satellite or wirelessly?

> Senator FISHER—I am not sure they know enough about the government's promise in that respect to even start to work out what they are entitled to expect, do they?
>
> Ms Corbin—That has been a massive problem too.[1]

9.6 AUSTAR United Communications, describing itself as regional Australia's leading subscription television provider, suggested that the current approach is prioritising the roll-out of fibre in urban and metropolitan centres in a way which is detrimental to not only the 10 per cent who will ultimately be outside the NBN's fibre footprint, but also those who may ultimately get FTTP but will have to wait until towards the end of the NBN's eight-year roll-out to receive those fibre-based services:

> Since our original Senate Select Committee response nine months ago, AUSTAR has refined its views on how a 4G wireless broadband network could play an integral part in the rapid roll-out of NBN level services to regional and remote parts of Australia. Regional and rural Australia remains a broadband backwater, and we continue to be concerned by the potential delay, by years, of a fibre roll-out to most of our market.
>
> AUSTAR holds the 2.3GHz and 3.5GHz spectrum licences within regional areas, and we believe the short- and long-term benefits of a wireless solution should not be overlooked in the buildout of the NBN. The NBN will strive to connect as many homes as possible to a fibre network, but wireless will offer speeds beginning at 12Mbps and growing to 100Mbps+ with technologies being developed around the world compatible with AUSTAR's spectrum holdings. Wireless can be rolled out much more quickly and at a much lower cost than fibre technologies, and in markets where it will eventually overlap, will be a complementary consumer offering.[2]

Update from NBN Co on progress

9.7 At the committee's hearing in Canberra on 15 April 2010, Mr Michael Quigley, CEO of NBN Co, provided the following update on progress:

> We are also working on the satellite and wireless solutions for the approximately 10 per cent of premises not covered in the fibre footprint and, in providing those radio solutions, the dimensioning becomes even more important…we have got to provide committed information rates. To implement the architecture and the designs we are doing, we will of course procure a range of equipment and capabilities.[3]

9.8 Subsequently, Mr Quigley indicated that although NBN Co may be 'working on the satellite and wireless solutions', when it comes to working out the wholesale

---

1 Ms Teresa Corbin, Deputy CEO, ACCAN, *Committee Hansard*, Canberra, 15 April 2010, pp 38–39.

2 AUSTAR United Communications Ltd, *Submission 116*, p. 1.

3 Mr Michael Quigley, CEO, NBN Co Ltd, *Committee Hansard*, Canberra, 15 April 2010, p. 44.

pricing of wireless and satellite services, those are matters NBN Co is deferring until after fibre-prices have been settled:

> If you are talking about trying to get a uniform price across the country, our first step is to try to make sure we can design the network to get a uniform price across the fibre footprint, which is where we are focusing the attention at the moment. We will then come to the wireless and satellite parts of the network and try to do likewise. But remember: we have to do all of this in consultation with the ACCC. Even for Tasmania stage 1 we consulted with the ACCC to make sure that when it comes to pricing issues we get guidance from the regulator.[4]

9.9 In response to a question on notice, NBN Co provided further details of their progress on wireless, stating:

> The wireless network design for the remaining 10% has been progressing with investigations into a range of factors including:
>
> - Spectrum options for the wireless network;
> - Technology choices (eg. LTE or WiMax); and
>
> Workshops have been held with potential technology vendors but no formal technology procurement process has been initiated (as is the case with the fibre and satellite networks) as the technology choice will depend on the outcomes of the investigations above.[5]

9.10 In relation to satellite, NBN Co explained:

> The satellite network design is progressing based on an assumption of NBN Co launching a minimum of two satellites in the 2014/15 timeframe to provide broadband services to premises in the non-fibre and non-wireless areas. A formal procurement process has commenced with a Request for Capability Statement released in January 2010. Responses to this RCS are being evaluated and it is our intention to release a Request for Proposal later in 2010.[6]

Commentary from the Implementation Study

9.11 The Implementation Study, released on 6 May 2010, contained significant discussion on the challenges and options available to the Government and NBN Co in terms of next-generation wireless and satellite services. In a chapter titled 'Ensuring national availability of high-speed broadband', the Implementation Study recommended that the fibre footprint be extended to 93 per cent of premises (up from 90 per cent), that another four per cent of premises (the 94th to 97th percentiles) be serviced by wireless operators (following a yet-to-be-started Expression of Interest and tender process that may ultimately be unsuccessful anyway), and that the final

4 Mr Michael Quigley, CEO, NBN Co Ltd, *Committee Hansard*, Canberra, 15 April 2010, p. 61.

5 NBN Co, answer to question on notice, 15 April 2010 (received 11 May 2010), p. 28.

6 NBN Co, answer to question on notice, 15 April 2010 (received 11 May 2010), p. 29.

three percent (the 98th to 100th percentiles) be serviced by a satellite program yet to be launched by NBN Co.[7]

Committee view

9.12 In the absence of any compelling evidence to the contrary, the committee can only assume that the Government and NBN Co have not come up with a business plan or decided upon a final course of action.

9.13 In terms of the proposals contained in the Implementation Study as a way forward from the mess the Government has created, both the wireless and satellite solutions proposed by the Implementation Study, as discussed in chapter two, already depart from the Government's objective of delivering at least 12 Mbps to the final ten percent.

9.14 Although these premises were already, under the Government's initial FTTP announcement, going to be receiving substantially inferior services to those premises serviced by fibre (speeds of 12 Mpbs as opposed to the up to 100 Mbps promised for fibre), the Implementation Study's recommendation is to extend the discrepancy even further, recommending that the 12 Mpbs speed be redefined as a 'peak data rate target'.[8] In practice, this means that those on satellite services might expect a mere 300–400 kilobits per second (kbps),[9] which equates to just 0.3–0.4 Mpbs.

9.15 To add insult to injury, the Implementation Study then recommends that an 'entry-level service' for satellite services should be provided 'with a lower peak data rate and average data rate' of just 6 Mpbs and 200 kbps respectively and that this should be 'priced at a comparable level to entry-level fibre and wireless products'.[10] Such a suggestion translates into those Australians in the three percent of premises covered only by satellite solutions being asked to pay the same 'entry-level' price for what is a vastly different service to that available on fibre. While the entry-level fibre service is likely to provide (and the Implementation Study recommends that it does provide) committed speeds of 20Mbps, the entry-level package for satellite services will provide an average service speed that is one one-thousandth (or 0.1 per cent) of what is available for the same price on fibre.

9.16 Additionally, the wireless solution proposed by the Implementation Study, as discussed in chapter two, is not actually a solution. Rather, what the Implementation

---

7 McKinsey-KPMG, *Implementation Study for the National Broadband Network*, 5 March 2010, Chapter 5.

8 McKinsey-KPMG, *Implementation Study for the National Broadband Network*, 5 March 2010, p. 275.

9 McKinsey-KPMG, *Implementation Study for the National Broadband Network*, 5 March 2010, p. 293.

10 McKinsey-KPMG, *Implementation Study for the National Broadband Network*, 5 March 2010, p. 297.

Study proposes is that the Government conduct an as yet unstarted Expression of Interest and then tender process for a commercial provider to build and operate a fixed-wireless network.[11] In the absence of an acceptable bid, the Implementation Study proposes that NBN Co 'be required to build the network and offer services on a wholesale-only basis'.[12] Translated into reality, the effect of that recommendation is that even the watered-down next-generation wireless services trumpeted by the Government as such an improvement on the current services available to rural and remote Australian premises are years away. And presently, no-one is even sure what the solution will actually end up being in any case.

9.17 Finally, the committee notes that even if the Government does follow the Implementation Study's recommendations and seeks to have next-generation wireless and satellite services operating at some future point, there is little in the Implementation Study which suggests these will ever be commercially viable without significant government subsidies. The Implementation Study is largely silent on just how large and ongoing those subsidies will need to be. What is clear is that large subsidies akin to those provided under the current Australian Broadband Guarantee program[13] will remain a fixture of the commercial and government funding landscape.

9.18 The committee repeats its calls in previous chapters of this report that the Government immediately provide a response to the Implementation Study and that the Government and NBN Co also provide a detailed business plan for how, when, where and for how much the NBN will be rolled out throughout the entirety of the nation.

---

11 McKinsey-KPMG, *Implementation Study for the National Broadband Network*, 5 March 2010, Recommendation 45, p. 309.

12 McKinsey-KPMG, *Implementation Study for the National Broadband Network*, 5 March 2010, Recommendation 45, p. 309.

13 The Australian Broadband Guarantee is an initiative designed to help residential and small business premises access a metro-comparable broadband service regardless of where they are located. Under the Australian Broadband Guarantee, a metro-comparable broadband service is defined as any service that offers a minimum 512kbps download and 128kbps upload data speed, 3GB per month data usage at a total cost of $2500 GST inclusive over three years (including installation and connection fees). From 1 July 2010, these minimum standards are being increased to 1 Mbps download, 256 kbps upload and 6 GB per month data usage. The program works by paying internet service providers that register with the program a subsidy to provide metro comparable broadband services to residential and small business premises where such services would not otherwise be available. The Government has allocated $250.8 million over four years to fund the Australian Broadband Guarantee. See: Department of Broadband, Communications and the Digital Economy, 'Australian Broadband Guarantee', www.dbcde.gov.au/broadband/australian_broadband_guarantee, accessed 11 May 2010; Senator the Hon. Stephen Conroy, 'Threshold service speeds to double under the Australian Broadband Guarantee', Media release, 10 May 2010, http://www.minister.dbcde.gov.au/media/media_releases/2010/043, accessed 13 May 2010.