**Question No: 108** 

Program No. 1.1

Hansard Ref: In Writing

**Topic: Access for Schools** 

## **Senator Birmingham asked:**

How many schools and TAFE campuses across Australia currently have a fibre internet connection? Can the Department provide a list of each of these schools and TAFE campuses?

## **Answer:**

The Department of Education, Employment and Workplace Relations (DEEWR) conducted a Survey of Schools Connectivity and a Survey of TAFE Connectivity in 2010. The surveys found that of the 9693 schools surveyed, 6147 have a fibre connection. Of the 415 TAFE campuses surveyed, 332 have a fibre connection.

The Survey of Schools Connectivity can be found here:

www. deewr. gov. au/Schooling/Digital Education Revolution/High Speed Broadband/Pages/Implementation Approach. as px

The Survey of TAFE Connectivity can be found here: www.deewr.gov.au/Schooling/Programs/VEN/Pages/Implementation.aspx

In accordance with the confidentiality arrangements DEEWR has in place with education authorities, only nationally aggregated data on schools and TAFEs can be reported publicly.

**Question No: 109** 

Program No. 1.1

Hansard Ref: In Writing

**Topic: Access for Schools** 

## **Senator Birmingham asked:**

The NSW Government has completed a project with Telstra to connect 2,400 school and TAFE sites across NSW to a fibre network. Will NBN Co be required to rollout its own fibre network to these schools already connected to fibre?

## **Answer:**

Under the Statement of Expectations of 20 December 2010, the Government's objective for NBN Co is to connect 93 per cent of Australian homes, schools and businesses with fibre-to-the-premises technology providing broadband speeds of up to 100 megabits per second, with a minimum fibre coverage obligation of 90 per cent of Australian premises.

However, as also set out in the Statement of Expectations the Government does not expect NBN Co to inefficiently duplicate infrastructure existing (as at 1 January 2011) that can already support the provision of high speed broadband in accordance with the Government's broader NBN objectives. To this end, the Department of Broadband, Communications and the Digital Economy will manage a process for declaring premises adequately served. The process and criteria for making such a declaration will be developed in consultation with NBN Co and the industry generally.

**Question No: 110** 

Program No. 1.1

Hansard Ref: In Writing

**Topic: Access for Schools** 

## **Senator Birmingham asked:**

How many schools across Australia will be connected to either wireless or satellite under the NBN and will not receive a fibre connection?

### **Answer:**

The percentage of schools to receive NBN fibre, wireless or satellite connections will be determined following finalisation by NBN Co of its detailed rollout plans.

It is important to note that next generation wireless and satellite will still provide much greater speeds and broadband access than what most Australians currently experience in the areas where it is likely to be deployed.

**Question No: 111** 

Program No. 1.1

Hansard Ref: In Writing

**Topic: Access for Schools** 

## **Senator Birmingham asked:**

Will schools and TAFE campuses with a pre-existing fibre connection be required to connect to the NBN or can they maintain connection to their existing network?

### **Answer:**

Under the Statement of Expectations of 20 December 2010, the Government's objective for NBN Co is to connect 93 per cent of Australian homes, schools and businesses with fibre-to-the-premises technology providing broadband speeds of up to 100 megabits per second, with a minimum fibre coverage obligation of 90 per cent of Australian premises.

However, as also set out in the Statement of Expectations the Government does not expect NBN Co to inefficiently duplicate infrastructure existing (as at 1 January 2011) that can already support the provision of high speed broadband in accordance with the Government's broader NBN objectives. To this end, the Department of Broadband, Communications and the Digital Economy will manage a process for declaring premises adequately served. The process and criteria for making such a declaration will be developed in consultation with NBN Co and the industry generally.

**Question No: 112** 

Program No. 1.1

Hansard Ref: In Writing

**Topic: Access for Schools** 

## **Senator Birmingham asked:**

What download speeds are currently available to schools with a fibre connection?

### Answer

The Department does not have access to information for individual schools that currently have fibre connections.

**Question No: 113** 

Program No. 1.1

Hansard Ref: In Writing

**Topic: Access for Schools** 

## **Senator Birmingham asked:**

Queensland's Department of Education and Training are trialling iPad and wireless devices in schools to promote learning outcomes. When the NBN is installed in schools, will the Department guarantee that students will be able to connect iPads and wireless devices through the necessary wifi technology?

## **Answer:**

NBN Co Limited will be a wholesaler of high-speed broadband services. It will be up to schools to install appropriate wireless routers and other relevant technology to enable the usage of iPad and wireless devices over the National Broadband Network through wifi technology once it is connected.

**Question No: 114** 

Program No. 1.1

Hansard Ref: In Writing

**Topic: Access for Schools** 

## **Senator Birmingham asked:**

Reports have been made regarding the Circular Head Christian School in Tasmania, which was the first primary school connected to the NBN. The school claimed that the connection was running full speed at 100 mbps at the day the Government launched the service, but has since averages less than a third of this speed. After these reports surfaced (and five days later), the speed was fixed. Why did the connection at Circular Head Christian School fall below less than a third of what was promised?

## **Answer:**

The Circular Head Christian School did not receive the speed it had purchased because the retail service provider (RSP), Internode, did not buy enough backhaul to support a 100 megabit per second connection.

NBN Co Limited provides a wholesale broadband service to RSPs from a premise to a point of interconnect. From this point, it is up to the RSP to provide enough backhaul to support the end users speed requirement.

In this case, Internode purchased 10 megabits of backhaul, which was insufficient to supply the 100 megabit per second service it was marketing. The Department of Broadband Communications and the Digital Economy understands that Internode has addressed this by purchasing additional backhaul capacity.

**Question No: 115** 

Program No. 1.1

Hansard Ref: In Writing

**Topic: Access for Schools** 

## Senator Birmingham asked:

What level of contact has the Department or NBN Co had with Circular Head Christian School? Is it in contact regularly to monitor speeds and implementation of the NBN?

## **Answer:**

The Department of Broadband, Communications and the Digital Economy had no contact with the Circular Head Christian School.

NBN Co Limited's (NBN Co) staff that manage the Tasmanian operations had phone contact with the Circular Head Christian School regarding their concerns.

As NBN Co provides wholesale-only broadband services, end users should in the first instance raise concerns over their services with their retail service provider (RSP). The RSP will then work with NBN Co where necessary to resolve those concerns.

**Question No: 116** 

Program No. 1.1

Hansard Ref: In Writing

**Topic: Access for Schools** 

## **Senator Birmingham asked:**

Did NBN Co or the Department take a role in ensuring that Circular Head Christian School's speed was increased after reports that it had slowed significantly? If so, what was the role taken by the Department to increase the speed?

## **Answer:**

No. It is appropriate for end users, such as Christian Head Christian School, to raise concerns with retail service providers, who will then work with NBN Co Limited where necessary to resolve problems.

**Question No: 117** 

Program No. 1.1

Hansard Ref: In Writing

**Topic: Access for Schools** 

## **Senator Birmingham asked:**

The school has reportedly said that it is "urging the Government to speed up the rollout, so that it can connect to other schools." Why can't the school connect to other schools which have a fast ADSL connection, or which already have fibre?

## **Answer:**

As schools are connected to the ubiquitous National Broadband Network, high-speed broadband services will support the use of interactive content, such as virtual classrooms, and enhance remote learning opportunities and enable teachers and students to have better access to online curriculum content.

**Question No: 118** 

Program No. 1.1

Hansard Ref: In Writing

**Topic: Wireless** 

## **Senator Boswell asked:**

Does the government still maintain that by 2020 twenty five percent of Australian households will have wireless technology, and how has government reached these assumptions?

### **Answer:**

The NBN Co Limited (NBN Co) *Corporate Plan 2011-2013* estimates that by financial year (FY) 2025 16.3 per cent of residential homes will be wireless only. This is equivalent to 13 per cent of total premises (residential and business) by FY2025.

According to Roy Morgan data, 13 per cent of households (excluding the business market) were wireless only as at FY2010 which NBN Co forecasts to grow to 15 per cent of residential homes by FY2015, 16.3 per cent by FY2025 and 16.4 per cent by FY2040.

NBN Co commissioned Ovum to undertake a comprehensive examination of wireless-only homes in Australia. Outcomes of this work suggested that wireless only homes would trend to 15.6 per cent in 2020.

**Question No: 119** 

Program No. 1.1

Hansard Ref: In Writing

**Topic: Wireless** 

## Senator Boswell asked:

If the amount of wireless households in Australia goes beyond twenty five percent, how does the Government intend to ensure that the NBN remains a viable project?

## **Answer:**

See answer to Question on Notice No. 89.

**Question No: 120** 

Program No. 1.1

Hansard Ref: In Writing

**Topic: Line Rental** 

## Senator Boswell asked:

The Government maintains that the set line will enable people in the country to obtain fast efficient broad band where wireless cannot. One issue that has been raised is that set line broad band will carry with it an additional line rental fee. People in the city who have access to wireless don't have to pay this fee. However, by adding a line rental to the already existing broad band service, isn't NBN Co forcing people in the bush and country areas to pay an extra fee that people in the city don't have to pay?

## **Answer:**

In today's market, copper based DSL fixed line broadband (such as ADSL) is typically delivered over a Telstra telephone line, which normally incurs a monthly line rental fee. As such, the monthly price paid by end users is often comprised of both line rental and broadband fees. Alternative broadband technologies such as wireless or mobile broadband are not delivered via a telephone line and typically do not incur a line rental fee.

When considering the National Broadband Network (NBN) fixed line fibre network, NBN Co will offer an access product and pricing construct that will support the ability for retail service providers to offer a bundled broadband and voice product, with voice services delivered via an Analogue Telephone Adaptor (ATA) or using Voice over Internet Protocol (VoIP) technology.

As such, it is likely that retailers offering NBN Co services will move away from applying a line rental fee. This is consistent with current market pricing models where fixed line broadband is delivered without a Telstra line rental fee (such as Naked ADSL) and with the pricing being offered for NBN services in Tasmania.

However, final retail pricing on the NBN is ultimately a matter for retail service providers.

In terms of NBN pricing for regional and metropolitan areas, NBN Co will deliver uniform national wholesale pricing across its network. For a 12 megabit per second service across fibre, wireless and satellite platforms, NBN Co will charge a wholesale access price of \$24 per month, irrespective of end user location. The Government expects that this will result in retailers offering consistent pricing to end users irrespective of location.

**Question No: 121** 

Program No. 1.1

Hansard Ref: EC 110

**Topic: Competition & Consumer Safeguards Bill** 

## **Senator Fisher asked:**

Has the Government, through any of its Ministers or otherwise, given any indications or made any overtures to the Greens or Senator Xenophon – for example, at the eleventh hour during the debate of the Competition and Consumer Safeguards bill in the Senate or since – about the commencement date of that committee?

### **Answer:**

The Government is committed to a high level of transparency and accountability regarding NBN Co activity.

The terms of reference for the Joint Committee on the NBN were tabled in the House of Representatives and agreed on 1 March 2011.

Membership has been finalised and the Joint Committee will deliver its first report to both Houses of Parliament and to shareholder Ministers on 31 August 2011, and report every six months thereafter.

The Committee held its first meeting in late March 2011.

**Question No: 122** 

Program No. 1.1

Hansard Ref: EC 110

**Topic: Competition & Consumer Safeguards Bill** 

## **Senator Fisher asked:**

What did the Prime Minister mean when she says in her letter: 'The committee would be able to call witnesses, including MPs, about the performance of the NBN or other matters of interest?' What could she have meant? Were you consulted by the PM in the drafting of this letter, given that your Department was not? Who wrote it?

### **Answer:**

The Joint Committee (the Committee) on the rollout of the NBN was established with very wide Terms of Reference and a balanced membership and any Member or Senator will be able to be a participating member.

According to the Committee's Terms of Reference the Committee has the power to call for witnesses to attend and for documents to be produced.

**Question No: 123** 

Program No. 1.1

Hansard Ref: EC 110

**Topic: Competition & Consumer Safeguards Bill** 

## **Senator Fisher asked:**

[The Prime Minister] goes on to say as of 23 November last year: 'The government will be writing to the Productivity Commission and the ACCC to advise against these arrangements,' because earlier on she confirms that those bodies and NBN Co will, if required, appear and contribute advice to the committee. Does anyone at the table know whether or not the government has written to the Productivity Commission and the ACCC some three months later?

## **Answer:**

On 17 December 2010, The Hon Bill Shorten MP wrote to Mr Gary Banks, Chairman of the Productivity Commission, advising that 'the Productivity Commission may be called upon by a new Joint Parliamentary Committee established to monitor the progress of the National Broadband Network (NBN) rollout.'

On 9 February 2011, the Hon David Bradbury MP, wrote to Mr Graeme Samuel, Chairman, Australian Competition and Consumer Commission, advising that 'the Australian Competition and Consumer Commission may be called upon to assist with the deliberations of a new Joint Parliamentary Committee established to monitor the progress of the National Broadband Network rollout.'

**Question No: 124** 

Program No. 1.1

Hansard Ref: EC 110

**Topic: Competition & Consumer Safeguards Bill** 

## Senator Fisher asked:

The government is pretty keen to get this joint parliamentary committee up and running, isn't it?

### **Answer:**

The Government is committed to a high level of transparency and accountability regarding NBN Co activity, and welcomes the opportunity for further scrutiny of bringing broadband to all Australians.

On 1 March 2011, the Joint Committee on the NBN was established. The 16-member committee held its first meeting in late March and its first report is due on 31 August 2011.

**Question No: 125** 

Program No. 1.1

Hansard Ref: In Writing

**Topic: NBN Co Business Case** 

## **Senator Fisher asked:**

Is there a legislative guarantee with regard to the provision of uniform wholesale pricing of the NBN services throughout all regions of Australia? What sort of indexation will apply to the wholesale charge increases per annum?

## **Answer:**

NBN Co Limited (NBN Co) has been instructed to deliver uniform national wholesale pricing of National Broadband Network services in the Statement of Expectations which states that (page 7):

"... NBN Co will be required to charge access seekers uniformly for services across its network for all technologies and for the basic service offering."

The Telecommunications Legislation Amendment (National Broadband Network Measures—Access Arrangements) Act 2011, passed by Parliament on 28 March 2011, authorises conduct engaged in by NBN Co in order to deliver uniform national pricing.

The NBN Co *Corporate Plan 2011-2013* outlines extensive NBN Co modelling of wholesale pricing, including how prices are expected to decline over time.

**Question No: 126** 

Program No. 1.1

Hansard Ref: In Writing

**Topic: NBN Co Business Case** 

## **Senator Fisher asked:**

Another Australian company, Vividwireless says it is sufficiently impressed with the price and performance of LTE technology that it could use it for the deployment of planned network expansions in major East Coast capital cities. According to vividwireless, its two month trial has delivered peak downstream bandwidths up to 128Mbps and consistent bandwidths between 40 - 70Mbps using 20MHz of spectrum in the 2.3GHz band. Once again, are these test results at all concerning in terms of the long-term viability of the NBN project?

## **Answer:**

Wireless technologies play an important role in Australia's broadband landscape and are well suited to providing services to areas with a low population density as well as complementing fibre access in other areas. However, because wireless broadband is a shared access technology—meaning that the available broadband capacity is shared among all users in an area—achieving a consistently high speed is dependent on there being only a small number of users.

Peak speeds achieved under test conditions do not necessarily indicate average peak speeds that will be experienced by end users.

The NBN Co Limited (NBN Co) *Corporate Plan 2011-2013* estimates that by financial year (FY) 2025 16.3 per cent of residential homes will be wireless only.

**Question No: 127** 

Program No.1.1

Hansard Ref: In Writing

**Topic: Telstra Heads of Agreement** 

## Senator Fisher asked:

What portion of the \$9 billion paid to Telstra is for leasing its infrastructure and what portion is for Telstra migrating its customers?

## **Answer:**

Negotiations between Telstra and NBN Co Limited on the Definitive Agreements are ongoing.

The Department of Broadband, Communications and the Digital Economy is not in a position to comment on the commercial-in-confidence detail of these negotiations.

**Question No: 128** 

Program No. 1.1

Hansard Ref: In Writing

**Topic: Telstra Heads of Agreement** 

## **Senator Fisher asked:**

Given that the Government still has to pass the NBN Companies Bill and Access Arrangements Act through Parliament and a definitive agreement is yet to be signed with Telstra, how confident are you that that can be done before June?

## **Answer:**

Negotiations between NBN Co Limited (NBN Co) and Telstra continue to progress.

On 18 March 2011 Telstra announced to the market that a shareholder vote on Definitive Agreements between Telstra and NBN Co on 1 July was no longer practicable and it was looking at options for an alternative date.

The media release is available online at

www.telstra.com.au/abouttelstra/investor/asx-announcements ('Telstra updates shareholders on potential EGM timing'). An extract of the announcement is below:

"Work continues to reach final agreement as soon as possible."

However, there are statutory timeframes required for the necessary Ministerial, ACCC and Telstra Extraordinary General Meeting processes which means there is a minimum timeframe from the time the agreements are finalised to when a shareholder vote can occur. Given this, we have no reached the point where a 1 July meeting is no longer practicable.

The company is currently looking at options for an alternative meeting date, including taking into account the full year results announcement requirements, and will advise shareholders once it is in a position to set the date of the meeting."

**Question No: 129** 

Program No. 1.1

Hansard Ref: In Writing

**Topic: International comparisons to the NBN** 

## **Senator Fisher asked:**

On February 9 this year, a spokesperson for Minister Conroy said that "investment in Australia's road, rail, telecommunications and utility infrastructure faces vastly different factors than countries such as South Korea". Can the Department explain what these factors are and the difference between those factors in Australia and South Korea?

### Answer:

There are a range of demographic, geographic, sociological and economic differences between the Australian and South Korean situations. The key differences include:

- Australia's population density is 2.7 people per square kilometre compared with South Korea's which is 487 people per square kilometre.
- Approximately 80 per cent of South Koreans live in high-density housing dominated by clusters of high rise condominiums and apartments, so provision of fibre to the premises is often via fibre to a communications room in the basement, and backbone fibre to a communications cupboard on each floor. In Australia, according to the Australian Bureau of Statistics, 78 per cent of residents live in separate houses, 13 per cent in flats, units or apartments, and 9 per cent in semi-detached terrace houses or townhouses. NBN Co Limited will be connecting over 13 million premises with fibre to the premise technology. As a result the cost at which fibre can be provided is different due to the configuration of premises in Australia.

**Question No: 130** 

Program No. 1.1

Hansard Ref: In Writing

**Topic: International comparisons to the NBN** 

## **Senator Fisher asked:**

Is it therefore inappropriate to also compare Australia's broadband infrastructure with countries such as Japan, Singapore and Sweden?

### **Answer:**

No, however, when comparing Australia's broadband infrastructure with other countries such as Japan, Singapore and Sweden it is important to ensure that local circumstances are taken into account. For instance, a comparison of broadband infrastructure between Australia and Singapore needs to take into account factors such as Singapore's land mass of 704 square kilometres compared to Australia's land mass of 7,617,930 square kilometres.

**Question No: 131** 

Program No. 1.1

Hansard Ref: In Writing

**Topic: International comparisons to the NBN** 

## **Senator Fisher asked:**

A spokesperson for Senator Conroy on February 9 called comparisons to South Korea like comparing "apples with oranges". Does this mean that all previous comparisons between Australia's and South Korea's broadband networks are incorrect?

## **Answer:**

No. However, it is important to compare aspects of broadband infrastructure on similar terms. Unqualified comparisons particularly between the cost and configuration of the rollout in one location compared to another are not accurate.

**Question No: 132** 

Program No. 1.1

Hansard Ref: In Writing

**Topic: International comparisons to the NBN** 

## **Senator Fisher asked:**

The Department's NBN website suggests that the NBN is needed because "Australia's broadband infrastructure is falling behind technology leaders like South Korea." Why is this particular comparison to South Korea correct where other comparisons are incorrect?

## **Answer:**

In terms of broadband infrastructure technology, South Korea is one of the world leaders in the rollout of fibre optic broadband infrastructure. For instance, by 1997, South Korea had laid a backbone fibre optic cable to cover 80 cities and has had significant public and private sector investment in broadband technology. Further, South Korea has one of the highest broadband penetration rates in the world.

It is important to recognise that despite assertions to the contrary, South Korea is planning and delivering the rollout of fibre to the premises, as that nation recognises that FTTP provides the best broadband solution for their community.

**Question No: 133** 

Program No. 1.1

Hansard Ref: In Writing

Topic: International comparisons to the NBN

## **Senator Fisher asked:**

If comparisons to South Korea are not appropriate, what does the Department believe are some countries that it is appropriate to compare Australia's broadband infrastructure needs to?

### **Answer:**

As advised in response to Question on Notice No. 130 and 131, it is not inappropriate to use international comparisons, however it is important to compare aspects of broadband infrastructure deployed internationally on similar terms. Every country has a unique combination of market conditions, including the penetration and geographic reach of existing services; competitive and regulatory factors; demographic characteristics; and social and economic need.

**Question No: 134** 

Program No. 1.1

Hansard Ref: In Writing

**Topic: NBN Rollout** 

## **Senator Fisher asked:**

The Government has stated that 1 gigabyte speeds will be available over the NBN in the future. What date will these speeds become available?

### **Answer:**

Any decisions around the timing of 1 gigabit per second services is a commercial matter for NBN Co Limited (NBN Co) taking into account technical considerations. NBN Co's *Corporate Plan 2011-2013* indicates that its Product Roadmap which defines the services that will be made available to Retail Service Providers, commences in April 2011 with the product set then evolving with four additional feature and functionality 'releases'. This includes "Product Release Four: High Speed Enterprise Services" which will deliver very high speed (i.e. up to 1 gigabit per second services) services for high-end enterprise products (pp 99-100).

Question No: 135

Program No. 1.1

Hansard Ref: In Writing

**Topic: NBN Rollout** 

## **Senator Fisher asked:**

Is the Department measuring any economic indicators in the first release sites after the NBN rollout is complete to judge any impact upon the local economy?

## **Answer:**

The Department is not measuring economic indicators in the first release sites. The first release sites have been selected as part of NBN Co Limited's (NBN Co) live trial of its network design and construction methods. The first release sites represent the diversity of situations NBN Co will encounter across Australia in the network rollout, so sites have been

selected that allow the company to test different design and construction techniques.

**Question No: 136** 

Program No. 1.1

Hansard Ref: In Writing

**Topic: Contractors** 

## **Senator Fisher asked:**

NBN Co and the Tasmania government scrapped the original agreement with Aurora Energy to provide Aurora with equity in a privatised NBN. What were the reasons behind this decision?

## **Answer:**

Based on respective commercial positions, NBN Co Limited, Aurora Energy and the Tasmanian Government agreed not to pursue a joint venture arrangement in NBN Tasmania. The parties have entered into a commercial arrangement that appropriately represents Tasmania's interest by Aurora Energy's participation in the rollout of the NBN in Tasmania.

**Question No: 137** 

Program No. 1.1

Hansard Ref: In Writing

**Topic: Contractors** 

## **Senator Fisher asked:**

Was the decision to end the joint venture agreement with Aurora a political decision with relation to the fact that the Government does not know if NBN Co will eventually be privatised?

### **Answer:**

A joint venture arrangement was not ultimately pursued for Tasmania.

NBN Tasmania Limited (NBN Tasmania) and Aurora Energy have built a strong working relationship and Aurora Energy will continue its role as managing agent for NBN Tasmania in Stage 2 of the rollout.

All parties are strongly committed to the successful rollout of the National Broadband Network in Tasmania.

**Question No: 138** 

Program No. 1.1

Hansard Ref: In Writing

**Topic: NBN Rollout** 

## Senator Fisher asked:

Has NBN Co considered delaying the rollout in Brisbane? Whose decision would this rest with – NBN Co or the Minister?

### **Answer:**

The recent floods in Brisbane have not altered NBN Co's responsibility for the continued rollout of the National Broadband Network (NBN) in Brisbane and the nation generally.

Development of a rollout plan for Brisbane, including deployment in the second release sites in and around Brisbane, is the responsibility of NBN Co Limited.