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**Submission to the Australian Competition and Consumer
Commission:**

**Application for Authorisation of HFC Subscriber Agreement between
NBN Co Limited and SingTel Optus Pty Ltd and other Optus entities**

29 August 2011

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1. Executive Summary

1. The Optus HFC Agreement forms part of the Government's reform of the telecommunications industry in Australia. NBN Co and Optus entered into the Optus HFC Agreement on 23 June 2011, the same day as NBN Co entered into the Definitive Agreements with Telstra. Optus has stated that it intends to use the National Broadband Network (NBN) to turbo-charge competition and to deliver the full potential of a 21st century digital life to customers¹. The Optus HFC Agreement demonstrates there is tangible industry support for the NBN rollout². It is recognition that the NBN will create a level playing field for fixed services that has the potential to bring about benefits for customers³. The Optus HFC Agreement provides greater certainty about NBN Co's revenue, will further increase the take-up of NBN services and will improve NBN Co's revenue plan⁴.
2. The Optus HFC Agreement delivers the following public benefits:
 - (a) it supports the Government's objective of achieving structural reform of the telecommunications industry in Australia and improving the availability of broadband across Australia;
 - (b) it supports the ability of NBN Co to roll out the NBN to achieve the service standards and coverage required by the Government;
 - (c) it will further increase the take-up of NBN services and provide greater certainty about NBN Co's revenues;
 - (d) it supports enhanced retail competition which has the potential to bring about significant benefits for consumers;
 - (e) it supports product development and innovation;
 - (f) it supports the development of a vibrant wholesale market;

¹ Optus, media release "*Optus reaches landmark agreement with NBN Co on HFC network*" 23 June 2011

² Deputy Prime Minister/Treasurer and Minister for Broadband, Communications and the Digital Economy, Joint media release "*NBN roll out to benefit from agreement with Optus*" 23 June 2011

³ Deputy Prime Minister/Treasurer and Minister for Broadband, Communications and the Digital Economy, Joint media release "*NBN roll out to benefit from agreement with Optus*" 23 June 2011

⁴ NBN Co, media release "*NBN Co and Optus sign Binding Agreement*" 23 June 2011

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- (g) it ensures inefficient infrastructure duplication is avoided and supports the promotion of competition, innovation and consumer take-up of next generation broadband services and applications; and
 - (h) it leads to environmental benefits.
3. NBN Co submits the Optus HFC Agreement is pro-competitive. It supports the industry structure that the Government wishes to achieve, with a national wholesale only open access FTTP network. That industry structure addresses the competition concerns that have been identified for many years arising from the current industry structure. It is also consistent with Optus' expressed intention to compete vigorously using NBN services.
 4. NBN Co submits that no public detriment arises from the Optus HFC Agreement. Optus and NBN Co are not currently competitors. Optus supplies services to end user customers using its HFC network. It does not supply services for re-supply. Optus' HFC Network is not currently configured to provide wholesale access. Optus would need to undertake a major upgrade of the HFC Network which would require significant investment. Optus has no plans to make such an investment in the network.
 5. NBN Co's wholesale only open access structure and the legislative and regulatory framework in which it operates mean that NBN Co has no ability or incentive to lessen competition in any retail markets.
 6. NBN Co submits that the Optus HFC Agreement is not likely to substantially lessen competition in any market. It might be said that the conduct will remove the potential for facilities/infrastructure based competition for fixed voice and broadband services in the small areas covered by the Optus HFC network. For the reasons set out in section 7.6 below there is no realistic prospect of such competition. Similarly, the anti-disparagement provision does not restrict competition but is directed to enhancing the policy objectives behind the NBN and take-up of NBN services by preventing Optus from expressly disparaging the NBN in the promotion and marketing of its wireless services.
 7. NBN Co submits that the public benefits that arise from the Optus HFC Agreement clearly outweigh any perceived public detriment. NBN Co therefore submits that the relevant conduct should be authorised in accordance with section 88 of the CCA.

2. The Applicants and Other Relevant Stakeholders

2.1 NBN Co

8. NBN Co Limited (**NBN Co**) was established in August 2009 as a Government Business Enterprise for the purpose of designing, building and operating the NBN infrastructure that will enable advanced digital services to be provided to all premises throughout Australia.
9. NBN Co will do so by providing a network of fibre connections to 93 per cent of premises in Australia. Wireless and satellite services will be provided to the remaining seven per cent of the population.
10. NBN Co is wholly-owned by the Commonwealth represented by two "Shareholder Ministers", the Minister for Broadband, Communications and the Digital Economy and the Minister of Finance and Deregulation.

2.2 Optus

11. SingTel Optus Pty Ltd (**Optus**) is Australia's second largest retail telecommunications service provider. Optus specialises in a broad range of communications services including mobile, local, national and long distance telephony, business network services, internet and satellite services and subscription television through its various subsidiary entities.
12. The following subsidiary entities are parties to the Optus HFC Agreement:
 - (a) Optus Networks Pty Ltd;
 - (b) Optus Internet Pty Limited; and
 - (c) Optus Vision Media Pty Limited.

These are the Optus entities which currently operate the Optus HFC network and provide services to end users using that network.

2.3 Other relevant stakeholders

13. On 7 April 2009, the Government announced the establishment of NBN Co to build and operate a new super fast NBN to:
 - (a) connect homes, schools and workplaces with optical fibre (fibre to the premises or 'FTTP'), providing broadband services to Australians in urban and regional towns with speeds of 100 megabits per second;

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- (b) use next generation wireless and satellite technologies that will be able to deliver 12 megabits per second or more to people living in more remote parts of rural Australia;
- (c) provide fibre optic transmission links connecting cities, major regional centres and rural towns; and
- (d) be Australia's first national wholesale-only, open access broadband network.⁵

14. In announcing the NBN initiative, the Government stated:

*The new investment is also the biggest reform in telecommunications in two decades because it delivers separation between the infrastructure provider and retail service providers. This means better and fairer infrastructure access for service providers, greater retail competition, and better services for families and businesses.*⁶

15. The Government's telecommunications policies are intended to dramatically improve the availability of broadband across Australia by creating a national network that is not controlled by a retail company or companies⁷. One of the Government's policy objectives is to increase the quality of broadband services for consumers in Australia, including those in regional, rural and remote Australia⁸.

16. The Explanatory Memorandum to the Telecommunications Legislation Amendment (Competition and Consumer Safeguards) Bill 2010 states:

The National Broadband Network (NBN) will deliver a wholesale-only, open access telecommunications market structure, transforming the competitive dynamics in the Australian telecommunications industry.

17. On 20 June 2010 NBN Co and Telstra announced that they had entered into a Financial Heads of Agreement. On 23 June 2011, NBN Co and Telstra entered into four agreements known as the Definitive Agreements (DAs).

⁵ Joint Media Release, Prime Minister, Treasurer, Minister for Finance, Minister for Broadband, 9 April 2009

⁶ Joint Media Release, Prime Minister, Treasurer, Minister for Finance, Minister for Broadband, 9 April 2009

⁷ Telecommunications (Acceptance of Undertaking about Structural Separation - Matters) Instrument 2011: Explanatory Statement, p.3

⁸ Telecommunications (Acceptance of Undertaking about Structural Separation - Matters) Instrument 2011: Explanatory Statement, p. 4

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18. The implementation of the DAs will provide for the progressive disconnection of copper-based Customer Access Network services and broadband services on Telstra's HFC Network (but not Pay TV Services on the HFC) that are provided to premises in the NBN fibre footprint. These services will be connected to the new wholesale-only fibre network to be built and operated by NBN Co. The Government supports the progressive migration by Telstra of fixed line carriage services that it supplies to retail customers to the NBN Co fibre network as that network is rolled out⁹.
19. NBN Co and Optus entered into the Optus HFC Agreement on the same day as the entry by NBN Co and Telstra into the DAs. The benefits that Government expects to be delivered by the NBN are maximised by the DAs and the Optus HFC Agreement.
20. The Government *"welcomed the announcement by NBN Co and Optus that they had entered into an agreement that will see Optus decommission its Hybrid Fibre Coaxial HFC) cable network and migrate customers to the National Broadband Network (NBN)"*.¹⁰ The Government has provided NBN Co with a funding agreement to enable it to enter into substantial commitments with Optus (and Telstra) and has also provided a guarantee to Optus in respect of NBN Co's financial commitment to it.¹¹

3. The NBN

21. The Government's expectations for NBN Co in implementing the NBN policy initiative are set out in the Statement of Expectations dated 17 December 2010.
22. The Statement of Expectations sets out the Government's central NBN objectives:

"to deliver significant improvement in broadband service quality to all Australians, address the lack of high speed broadband in Australia, particularly outside of the metropolitan areas, and reshape the telecommunications sector. The Government recognises that access to affordable, high speed broadband is essential to the way Australians communicate and do business. It will drive productivity, improve

⁹Telecommunications (Acceptance of Undertaking about Structural Separation - Matters) Instrument 2011: Explanatory Statement, p. 4

¹⁰ Deputy Prime Minister/Treasurer and Minister for Broadband, Communications and the Digital Economy, Joint media release *"NBN roll out to benefit from agreement with Optus"* 23 June 2011

¹¹ Deputy Prime Minister/Treasurer and Minister for Broadband, Communications and the Digital Economy, Joint media release *"NBN roll out to benefit from agreement with Optus"* 23 June 2011

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education and health service delivery and better connect our cities, regional, rural and remote communities".¹²

23. The Government's NBN objectives are set out in the Statement of Expectations and include:
- (a) **wholesale only:** the NBN has a wholesale-only, open access mandate¹³;
 - (b) **coverage:** the NBN is to provide access to high speed broadband to all Australian premises, reaching 93% of premises with fibre-to-the-premises technology by the end of the roll out period, with a minimum fibre coverage obligation of 90%¹⁴;
 - (c) **multi-dwelling units:** the Government expects that NBN Co will provide fibre-to-the-premises technology to multi-dwelling units that fall within the fibre footprint¹⁵;
 - (d) **regional areas:** prioritise the roll out in regional areas and bring forward the introduction of wireless and satellite services so that regional Australia can get better broadband access sooner¹⁶;
 - (e) **technology and broadband speeds:** fibre-to-the-premises technology providing broadband speeds of up to 100 megabits per second. Peak speeds of at least 12 megabits per second for remaining premises, served by a combination of next generation fixed wireless and satellite technologies¹⁷;
 - (f) **roll out period:** 9.5 years as set out in NBN Co's Corporate Plan¹⁸; and
 - (g) **pricing:** uniform national wholesale prices¹⁹.

¹² Statement of Expectations, p. 1

¹³ Statement of Expectations, p. 2

¹⁴ Statement of Expectations, pp. 1; 3

¹⁵ Statement of Expectations, p. 5

¹⁶ Statement of Expectations, pp. 2-3

¹⁷ Statement of Expectations, p. 1

¹⁸ Corporate Plan, p. 22

¹⁹ Statement of Expectations, p. 4

4. The Optus HFC Subscriber Agreement

4.1 Overview

24. On 23 June 2011, NBN Co and Optus signed the Optus HFC Subscriber Agreement (**Optus HFC Agreement**). The Optus HFC Agreement provides for the migration of Optus' Hybrid Fibre Coaxial Cable (**HFC**) customers to the NBN as the NBN is rolled out.
25. Under the Optus HFC Agreement, Optus will begin the progressive migration of its customers to the NBN once the network is rolled out in an area and is ready to provide services to customers currently served by Optus' HFC network.
26. **[Restriction of Publication of Part Claimed]** Optus will continue to supply services to customers using its HFC network until the NBN is built and customers have been migrated.
27. Once migration is completed, Optus will progressively decommission the parts of the HFC network that do not provide ongoing support for mobile infrastructure and business customers.
28. Optus has also agreed to a fixed line network preference in favour of the NBN for residential and small business customers currently served by the Optus HFC network, with NBN Co to make progressive payments to Optus based on the actual number of customers that migrate from Optus' HFC network to the NBN.
29. Optus estimates the total value of the agreement as approximately A\$800 million on a post tax net present value basis, with HFC customers migrated to the NBN following deployment of the network in HFC serving areas²⁰.
30. The key operative provisions of the Optus HFC Agreement are conditional on ACCC approvals and satisfactory rulings from the Australian Taxation Office. The agreement also contains various termination rights, including rights relating to agreeing an implementation plan and the market environment in which the NBN is expected to operate²¹.
31. **[Restriction of Publication of Part Claimed]**

4.2 Conduct for which Authorisation is being sought

32. The services to which the Optus HFC Agreement will relate are:

²⁰ Optus, media release "Optus reaches landmark agreement with NBN Co on HFC network" 23 June 2011

²¹ Optus, media release "Optus reaches landmark agreement with NBN Co on HFC network" 23 June 2011

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- (a) the migration of customers from the Optus HFC network to the NBN;
 - (b) layer 2 bit stream wholesale services supplied by NBN Co to Optus (as a Retail Service Provider); and
 - (c) voice, broadband and content services supplied by Optus (as a Retail Service Provider) to residential and small business customers using the Optus HFC network and the NBN.
33. The Optus HFC Agreement contains clauses which provide for:
- (a) Optus to progressively migrate HFC customers to the NBN as it is rolled out;
 - (b) a fixed line network preference in favour of the NBN for residential and small business customers served by Optus' HFC network **[Restriction of Publication of Part Claimed]**;
 - (c) progressive payments by NBN Co to Optus based on the actual number of customers that migrate from its HFC network to the NBN; and
 - (d) once migration is completed, the decommissioning by Optus of the non-optic fibre parts of the HFC network that do not provide ongoing support for mobile infrastructure and business customers.
34. To support these provisions, the Optus HFC Agreement also contains clauses which provide that Optus must not further extend the coverage of the HFC Network or grant any right or interest or permit any person to use, operate or provide any service over or using the HFC Network in an HFC Serving Area after deactivation and must ensure that no person can use the HFC Network to provide services in Australia. It also contains limits on the disposal of the HFC Network. It also contains a provision which preserves Optus' continued supply of HFC services to HFC subscribers until migration of those HFC subscribers in the ordinary and usual course consistent with its usual business practices, including that Optus will not proactively by way of a direct marketing campaign seek to obtain subscribers that will only use the HFC Network for voice services. It is not in the ordinary and usual course of Optus' usual business practices to seek to supply voice only services using the HFC Network. Thus this paragraph does not have any relevant anti-competitive purpose or effect. **[Restriction of Publication of Part Claimed]**.
35. The Optus HFC Agreement includes a provision that prevents Optus from conducting a marketing campaign in respect of wireless data services targeted at retail customers within the HFC serving area which is disparaging of the performance or functionality of the NBN (anti-

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disparagement provision). For a period of 15 years after the execution date of the Optus HFC Agreement, Optus may not conduct a marketing campaign in respect of wireless data services targeted at retail customers whose premises are within the HFC serving area which is expressly critical of or makes any express adverse statement about the performance or functionality of the NBN. Optus remains free to compete in the market for the supply of wireless services. The purpose of the anti-disparagement provision is to maximise the success of the migration of HFC customers to the NBN in those HFC areas by customers in respect of whom migration payments are being made under the Optus HFC Agreement.

36. The objective of the Optus HFC Agreement is to set out the terms on which NBN Co will reward Optus for HFC subscribers who migrate to network services provided on the NBN. These clauses are integral parts of the Optus HFC Agreement.
37. The Optus HFC Agreement is subject to ACCC approval. The key operative clauses of the Optus HFC Agreement are not binding and have no force or effect unless certain conditions are satisfied.
38. Those conditions relevantly include the ACCC granting to NBN Co and Optus an authorisation under section 88 of the Competition and Consumer Act as required to make or give effect to any contracts, arrangements or understandings that may be agreed between NBN Co and Optus in respect of the Optus HFC Agreement and to engage in the conduct contemplated by the Optus HFC Agreement.

4.3 Differences between services provided by NBN Co and services provided by Optus

39. NBN Co will supply wholesale only services to RSPs using the NBN. The products to be offered by NBN Co are described in NBN Co's Corporate Plan²². In summary, the NBN Co product set will be as follows:
 - (a) a uniform product construct across fibre, wireless and satellite, featuring the same four product components across each access network and based on the technology-agnostic Ethernet bitstream framework;
 - (b) a 12 Megabits per second downstream and a 1 Megabits per second upstream entry-level offer across all three access technologies for the same price;

²² Corporate Plan, chapter 8

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- (c) a Fibre Access Service with committed speed options of up to 100 Megabits per second and peak speed options of up to 1 Gigabits per second.²³
40. The price for access to those services will be regulated in accordance with the telecommunications regulatory framework described in section 5.6 below.
41. The services provided by Optus using its HFC Network are retail fixed line voice and broadband services provided to end users (residential and small business customers). Optus does not (and, using its existing technology, cannot) supply wholesale services using its HFC network. Further details are set out in section 2 of the Optus submission.
42. It follows that NBN Co and Optus are not currently competitors in relation to the services to which the Optus HFC Agreement relates, namely the supply of retail services to end customers or the supply of wholesale services to retail service providers (including Optus). In addition, as set out in section 2 of the Optus submission, Optus does not have any intention of investing in its HFC network in order to make it capable of supplying wholesale services.
43. However, this authorisation application is made on the basis that it might be said that the parties are actual or potential competitors in relation to those services and that the conduct the subject of the application involves an exclusionary provision or related cartel provisions. It is also made on the basis that it might be said that the conduct involves an agreement affecting competition or incorporating related cartel provisions in that it requires the decommissioning of the Optus HFC network following a period for customers to choose to migrate.
44. The Optus HFC Agreement contains provisions which relate to the supply of services by NBN Co to Optus, given Optus' agreement to progressively migrate its HFC customers to the NBN and its fixed line network preference in favour of the NBN for residential and small business customers currently served by the Optus HFC network. These provisions might be seen as NBN Co supplying carriage services on the NBN to Optus on the basis that Optus will not re-supply to residential and small business customers fixed line carriage services acquired from a competitor of NBN Co. However, as any "competitor" is at this stage merely hypothetical and even if the provision was seen as a condition relating to the supply of services, it does not have an anti-competitive purpose nor (in the absence of any alternative network operator) will it have the effect of substantially lessening competition. Accordingly, it is for abundant caution only that the parties are lodging an application for authorisation of exclusive dealing.

²³ Corporate Plan, p. 91

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4.4 Commercial rationale for the Optus HFC Agreement

45. The Optus HFC Agreement supports NBN Co's ability to achieve the objectives set out in the Statement of Expectations. **[Restriction of Publication of Part Claimed]**
46. The Optus HFC Agreement does so primarily by maximising the migration of customers to the NBN Co fibre network, through Optus' disconnection obligations, supported by restrictions on Optus' use and disposal of its HFC network and network preference commitments.
47. This facilitates Optus' ability to continue to compete in the market for high speed fixed broadband services. It also avoids the potential for Optus to duplicate infrastructure with natural monopoly characteristics. Such conduct may be privately profitable for Optus but socially wasteful. In this regard the Optus HFC Agreement is both pro-competitive and economically efficient. Further details are set out in section 6 of Optus' submission.
48. The benefits that Government expects to be delivered by the NBN are maximised by the DAs and the Optus HFC Agreement. As acknowledged by the Minister for Broadband, Communications and the Digital Economy upon the announcement of the entry into the Optus HFC Agreement and the DAs on 23 June 2011, the Optus HFC Agreement will further increase the take-up of NBN services²⁴, will improve NBN Co's revenue plan²⁵ and will provide greater certainty about NBN Co's revenue²⁶. **[Restriction of Publication of Part Claimed]**
49. The Government has set NBN Co the objective of reaching 93 percent of premises with fibre-to-the-premises technology (with the remaining seven percent to be service by next-generation fixed wireless and satellite)²⁷. The Government notes and agrees with the assumption inherent in NBN Co's Corporate Plan that NBN is to be planned as the sole national fixed line network as far as practical from the points of interconnection to premises²⁸.
50. Consistent with the Statement of Expectations and the structural reform of the telecommunications industry envisaged by the Government, the Optus HFC Agreement,

²⁴ Deputy Prime Minister/Treasurer and Minister for Broadband, Communications and the Digital Economy, Joint media release "NBN roll out to benefit from agreement with Optus" 23 June 2011

²⁵ NBN Co, media release "NBN Co and Optus sign Binding Agreement" 23 June 2011

²⁶ Deputy Prime Minister/Treasurer and Minister for Broadband, Communications and the Digital Economy, Joint media release "NBN roll out to benefit from agreement with Optus" 23 June 2011

²⁷ Statement of Expectations, p. 3

²⁸ Statement of Expectations, p. 4

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together with the DAs, assists in establishing NBN Co as the national wholesale provider of fixed line network services.

51. The entry into the Optus HFC Agreement also demonstrates there is tangible industry support for the NBN rollout. It is recognition that the NBN will create a level playing field for fixed services that has the potential to bring about benefits for customers.²⁹
52. Optus supports the establishment of the NBN as a wholesale only, open access national fixed line network:

"Optus considers that the NBN has the potential to positively reshape the fixed line telecommunications sector in Australia whilst delivering clear benefits to all Australian consumers and businesses. However, to fully realise its potential Optus has always maintained that the project will need to be true to the Government's clear commitment that it will be operated as a structurally separated, wholesale-only operation with genuine equivalent open access arrangements...A regime built on these principles has the potential to set a platform for a highly competitive retail market to emerge which in turn will help to deliver the proposed benefits of the NBN by ensuring that Australian consumers and businesses have the widest possible access to affordably priced and innovative superfast broadband services".³⁰

53. Optus has stated that it intends to *"use the NBN to turbo-charge competition and to deliver the full potential of a 21st century digital life to customers"*.³¹
54. The progressive migration of customers to the NBN, and the use of the NBN by Optus, achieves the Government's objective of an industry structure under which there is a national wholesale only open access provider of superfast broadband services with separate ownership of the RSPs who supply retail services. The continuation of a structure under which Optus, as the second largest telecommunications provider, continues to operate its own HFC network whilst also being an RSP customer of NBN is inconsistent with the Government's objective of a wholesale-only, open access telecommunications market structure.

²⁹ Deputy Prime Minister/Treasurer and Minister for Broadband, Communications and the Digital Economy, Joint media release *"NBN roll out to benefit from agreement with Optus"* 23 June 2011

³⁰ Optus submission on the Implementation Study for the National Broadband Network to Senate Select Committee on the National Broadband Network (27 May 2010), p4

³¹ Optus, media release *"Optus reaches landmark agreement with NBN Co on HFC network"* 23 June 2011

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4.5 Period of Authorisation sought

55. The parties are seeking authorisation for the above described conduct contemplated by the Optus HFC Agreement for a period of 20 years.
56. Optus' commitment to only use the NBN for fixed line services for mass market customers within the HFC footprint, along with granting a first right of refusal to build any point-to-point fibre Optus may require within that area, applies for **Restriction of Publication of Part Claimed** from the date the NBN is first available in an HFC serving area. The term of the anti-disparagement provision is 15 years from the date of the Optus HFC Agreement.
57. These provisions are intended to maximise the number of customers that will migrate to the NBN. The number of customers that migrate to the NBN and the Average Revenue per User (**ARPU**) are key inputs to NBN Co's revenue plan³². As noted in NBN Co's Corporate Plan, the construction of the NBN is estimated to take 9.5 years to complete on the basis of the Definitive Agreements with Telstra, since NBN Co has access to existing underground infrastructure, exchange space and transit backhaul³³. NBN Co must take a long-term view extending well beyond this period, typical of any major infrastructure project. As noted in the Corporate Plan, NBN Co's 30-year business model has been developed to assess the long-term viability of the Company, to articulate clear long-term objectives for the Company and to determine the long-term funding needs of NBN Co. Within the Corporate Plan, section 10, *Financial Forecasts* and Section 11, *Funding NBN Co*, specifically address the Corporate Plan in the context of the 30-Year business model.
58. The financial forecasts in section 10 of the Corporate Plan use a 30 year timeframe. The 30-year extended timeframe has been used because of the long-term nature of the assets in which NBN Co is investing and the long payback period associated with a major infrastructure project of this magnitude³⁴. The Corporate Plan highlights the following years in order to assist in evaluating the financial forecasts:
- (a) FY2011 – 2013 Period covered by the Corporate Plan;
 - (b) FY2021 End of main network construction;
 - (c) FY2023 Beginning of the Established Network Operations Phase;

³² Corporate Plan, section 9.

³³ Corporate Plan, p. 22

³⁴ Corporate Plan, p. 133

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- (d) FY2028 Long term steady state; and
- (e) FY2040 End of 30-year business model³⁵.

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59. The 20 year authorisation period sought by the parties is appropriate because it aligns with the term of the relevant provisions in the Optus HFC Agreement. The term of those provisions is appropriate because they maximise the number of customers to migrate to the NBN, in particular during the critical main construction period and the established network operations phase. The 20 authorisation period is appropriate due to the long-term nature of the assets in which NBN Co is investing. It is typical of a major infrastructure project³⁶. The advantages identified by Minister Conroy on 23 June can only be fully obtained if the period of the effect of the agreement aligns with the timeframe of the project.

5. Framework for analysis

5.1 Overview of relevant market(s)

60. The provision of fixed telecommunications services in both metropolitan and non-metropolitan areas is dominated by Telstra. Telstra's dominance is a function of its incumbency, its ownership of the ubiquitous copper access network and its vertically integrated business structure. Telstra's dominance is reflected in its dominant and enduring share of both fixed line subscribers and revenues, pricing power and a lack of local loop unbundling.
61. As at December 2010, Telstra accounted for approximately 72% of total retail and wholesale fixed line revenues (i.e. fixed voice, fixed broadband, fixed data and fixed wholesale). Telstra's share of total revenues is around 4.5 times greater than its nearest competitor, Optus, which accounted for approximately 16%. No other market participant accounted for more than a 5% share of fixed line revenues³⁷.
62. The following table provides estimates of fixed broadband revenue shares for each RSP as at December 2010:

³⁵ Corporate Plan, p. 133

³⁶ See, for example: Re: AGL Cooper Basin Natural Gas Supply Arrangements (1997) ATPR ¶41-593 at 44,216; Applications for Authorisation Mereenie Producers - Gasgo Sales Agreement ACCC Final Determination 7 April 1999; BHP Billiton Iron Ore Pty Ltd - Authorisation - ACCC Final Determination 1 February 2006.

³⁷ J.P. Morgan, Australian Telecom Sector in 2010, 13 April 2011, p.1

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Fixed Line Revenues December 2010 (approx \$16 Billion)		
RSP	Share of Revenues (%)	Change from FY09
Telstra	72%	-0.8%
Otus	16%	0.3%
iiNet	4%	0.9%
Primus	2%	0.0%
TPG	3%	0.2%
Macquarie Telecom	1%	0.0%
AAPT	2%	-0.6%

63. Telstra's dominant share of fixed line revenues is due to four factors:
- (a) As a consequence of its ownership of the ubiquitous copper access network, Telstra is the largest provider of wholesale fixed line services;
 - (b) Telstra has the largest fixed broadband footprint of any provider. Telstra provides fixed broadband services nationally (i.e. both metropolitan and non-metropolitan areas) while most competitive RSPs focus heavily in metropolitan areas only;
 - (c) Telstra has the largest market share of fixed voice and broadband subscribers. According to J.P. Morgan, "*with a 72% fixed market share, Telstra remains clearly dominant in this segment today*"³⁸; and
 - (d) Telstra has the highest ARPU of any fixed line service provider. For example, in the six months leading up to December 2010 Telstra's broadband ARPU was \$56.40 per month compared to the average ARPU for all other broadband RSPs of around \$49 per month.³⁹
64. At the delivery network level, Telstra's copper network infrastructure is an RSP's only means of wholesale delivery at scale⁴⁰. RSPs have limited choice given the non-existence of HFC-resale from both Optus and Telstra.

³⁸ J.P. Morgan, Australian Telecom Sector in 2010, 13 April 2011, p.35

³⁹ Calculations based on data from J.P. Morgan, Australian Telecom Sector in 2010, 13 April 2011, p.26

⁴⁰ Corporate Plan, p. 34

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65. Telstra has the largest fixed broadband footprint in Australia. Of a total of 5,069 Telstra exchanges⁴¹ around 2077 (41%) are ADSL enabled by Telstra⁴². (About 98% of homes and businesses are serviced by these 2077 exchanges). By contrast as at 30 September 2010 only 561 exchanges (11%) had one other Unconditioned Local Loop Service (ULLS) and/or Line Sharing Service (LSS) access seeker (a service provider with DSLAM infrastructure) and only 426 (8%) exchanges were deemed to be ‘competitive’ (i.e. with 2 or more RSPs having installed DSLAM equipment used for ULLS and LSS)⁴³.
66. As at December 2010, Telstra’s market share of retail fixed broadband subscribers was 44.4% followed by Optus and iiNet with 18% and 12 % respectively. In the 12 months to December 2010 Telstra’s share of the fixed broadband market increased. This increase is because Telstra is winning a greater share of new broadband customers in addition to winning customers from other smaller competitive RSPs. Estimates of fixed broadband market shares for each RSP (by subscriber number) for the calendar years 2009 and 2010 are as follows⁴⁴.

Australian Broadband Subscribers (2009 - 2010)		
RSP	Share of subscribers (%) Dec 2009	Share of subscribers (%) Dec 2010
Telstra	43.4%	44.4%
Optus	19.0%	18.3%
iiNet	8.6%	12.1%
TPG	8.6%	9.6%
Other xDSL	20.5%	15.7%
Total subscribers (,000)	5,166	5,391

67. Telstra’s dominance of the wholesale and retail fixed broadband markets allows it to charge a premium for its services. At the retail level this is reflected by higher prices and lower service quality relative to other RSPs:
- (a) Telstra’s higher retail prices are reflected by its higher average revenue per user (ARPU) relative to other RSPs. For the half year 2011-11 Telstra average ARPU

⁴¹ ACCC, *Communications Infrastructure and Services Availability in Australia 2008*, p.7

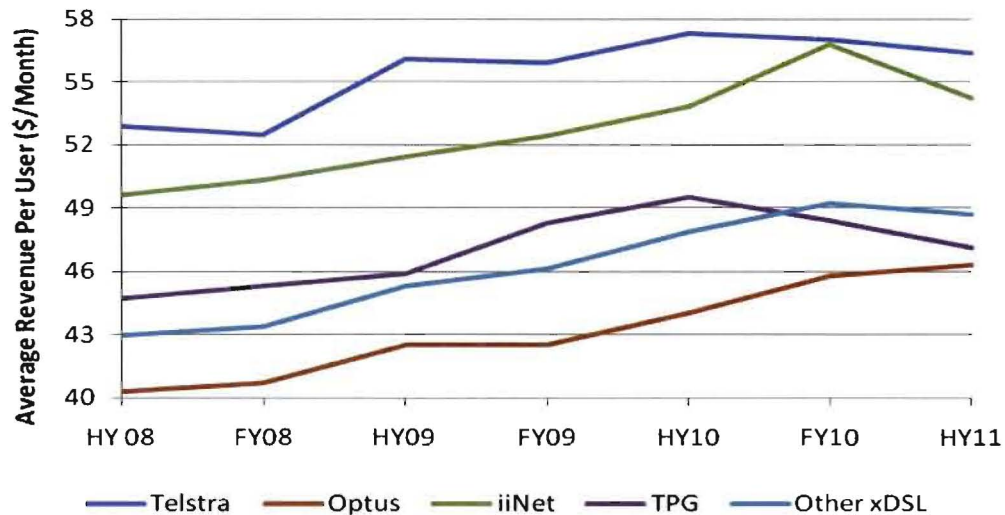
⁴² Telstra Wholesale, *ADSL Enabled Exchanges Version 130*, 15 July 2011

⁴³ Corporate Plan, p. 33

⁴⁴ Corporate Plan, p. 34

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was approximately 15% higher than the average ARPU of all other RSPs. The figure below charts the fixed broadband ARPU for each of the major RSPs⁴⁵.



- (b) Lower service quality is reflected by lower download limits compared to competitive service offerings which have a similar price point – see table below⁴⁶.

RSP	Plan Type	Total Data (GB)	Bundled Price Per Month	Notes
Broadband Price \$49.95 per month (standalone)				
iiNet	ADSL2+	200	\$79.90	Phone cost an additional 29.95/month
Telstra	ADSL2+	50	\$99.90	Multiple product benefits - fixed line plus \$20 post paid mobile
TPG	ADSL2+	180	\$60.95	\$10 minimum monthly spend on home phone +\$1 line rental
Optus	ADSL2+	120	\$79.94	Phone cost an additional 29.95/month
Broadband Price \$69.95 per month (standalone)				
iiNet	ADSL2+	400	\$99.90	Phone cost an additional 29.95/month with 20c local calls
Telstra	ADSL2+	200	\$120.90	Multiple product benefits - self install 1-port modem fixed line plus \$20 post paid mobile
TPG	ADSL2+	250	No bundle available	Premium offering - once quota is reached speeds are slowed to 4Mbps/1Mbps
Optus	ADSL2+	500	\$99.94	Phone cost an additional 29.95/month

68. Over the last 12 months there has been a significant reduction in unbundling activity. In the 12 months to December 2010 the number of unbundled lines dropped 35% compared to the preceding 12 months. According to J.P Morgan this slowdown in unbundling activity can be explained by a renewed broadband push by Telstra.

⁴⁵ J.P. Morgan, Australian Telecom Sector in 2010, 13 April 2011, p.26

⁴⁶ J.P. Morgan, Australian Telecom Sector in 2010, 13 April 2011, p.28

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5.2 Optus services

69. Optus supplies a range of telecommunications services to its customers, including fixed line and mobile services. The services supplied by Optus that are relevant to this application are the services that it currently supplies to retail customers using its HFC network.
70. The Optus HFC Network passes approximately 2.2 million premises in Brisbane, Sydney and Melbourne. Optus HFC does not serve multi-dwelling units and some hard to reach single dwelling units, hence the serviceable premises passed by the Optus HFC network is approximately 1.4 million. Optus currently has approximately 500,000 subscribers using its HFC network⁴⁷.
71. Optus supplies voice and broadband services to end customers using its HFC network. Optus does not supply any wholesale services to RSPs for re-supply using its HFC network.
72. The Optus HFC Network is not capable of open access wholesale service supply for resale and there are substantial coverage gaps of the network in the HFC serving areas.

5.3 NBN Co services

73. NBN Co will supply wholesale only services to RSPs using the NBN. The products to be offered by NBN Co are described in NBN Co's Corporate Plan and summarised in section 4.3 of this submission⁴⁸.
74. As a wholesale provider of services with no participation in any retail market, NBN Co's structure is intended to address the problems currently arising from the primary infrastructure owner and wholesale access provider retaining the ability to directly compete against its wholesale customers in the retail sector.⁴⁹
75. As noted in paragraph 14 above, the Government's intention is that this separation between the infrastructure provider and retail service providers will result in *"better and fairer infrastructure access for service providers, grater retail competition, and better services for families and businesses"*.
76. In announcing the NBN initiative on 7 April 2009, the Government indicated that NBN Co would be wholesale-only, and operate on an open access basis, subject to clear oversight by the

⁴⁷ Corporate Plan, p. 42

⁴⁸ NBN Co will have a limited ability to supply directly to utilities.

⁴⁹ Corporate Plan, p. 31

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ACCC, and as such would provide an open platform for the development of robust retail level competition⁵⁰.

77. NBN Co will provide Layer 2 wholesale services only, providing flexibility to support a range of wholesale and retail business models. Larger RSPs are expected to acquire Layer 2 products from NBN Co and use their own infrastructure to provide retail services to their end users. Smaller RSPs may opt to use a Layer 3 intermediary for incremental wholesale services. The diversity of possible business models is expected to result in lower barriers to entry for RSPs and to open up competition both in the major population centres and in regional areas.⁵¹

5.4 Wholesale markets

78. The market or markets in which NBN Co will supply wholesale only services to RSPs, including Optus, are a broad market or markets for the supply of wholesale 'resale' services, including wholesale services which support the delivery of voice broadband carriage services (i.e. Layer 2 bitstream services).
79. The geographic scope of these markets, for the purposes of this application, is likely to be national. However, even if the geographic scope is limited to the 30 Optus HFC areas in Sydney, Melbourne and Brisbane, the relevant analysis will be the same.

5.5 Retail markets

80. The relevant retail markets in which Optus supplies and will supply services to its retail customers are primarily those in which carriage and content services are currently supplied by Optus to retail customers using its HFC network and which will be supplied over the NBN (or which will be capable of being supplied over the NBN), including fixed-line carriage services and content services such as broadband and voice services.
81. The geographic scope of these markets, for the purposes of this application, is likely to be national. However, even if the geographic scope is limited to the 30 Optus HFC areas in Sydney, Melbourne and Brisbane, the relevant analysis will be the same.

⁵⁰ National Broadband Companies Bill 2011, National Broadband Network Companies Bill 2010, Telecommunications Legislation Amendment (National Broadband Network Measures - Access Arrangements) Bill 2010 Explanatory Memorandum, p. 9

⁵¹ Corporate Plan, p. 31

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5.6 Regulation of the relevant market(s)

82. The supply of broadband services by Optus using its HFC network is not currently regulated. These services are not declared under Part XIC of the CCA. Third parties have no rights to access the services provided by that network and Optus has no obligation to provide third parties with access to those services or to supply wholesale services for resale.
83. The services to be supplied by NBN Co will be regulated. NBN Co is prohibited from supplying services unless they are declared (Section 152CJA, CCA). Once declared, NBN Co will be required to comply with the Category B standard access obligations. NBN Co will be required to comply with the non-discrimination obligations in section 152AXC and 152AXD of the CCA. That section provides that NBN Co must not, in complying with any of its Category B standard access obligations, discriminate between access seekers.
84. NBN Co is developing a Wholesale Broadband Agreement (**WBA**) which will set out the complete set of terms and conditions of access to all of NBN Co's services and products being provided over NBN Co's fibre, wireless and satellite networks. Once finalised, the WBA published on NBN Co's website will constitute NBN Co's standard form of access agreement pursuant to section 152CJA of the CCA, effectively declaring all of NBN Co's products and services.
85. NBN Co is proposing to lodge a Special Access Undertaking (**SAU**) with the ACCC under Part XIC of the CCA. An SAU is intended to provide regulatory certainty to an investor in relation to the issues covered by the SAU and for the term of the SAU. The SAU will also provide certainty to the market about the way NBN Co will engage and operate for the term of the SAU⁵².
86. The SAU discussion paper released by NBN Co on 28 July 2011 provides a detailed description of NBN Co's proposed approach for its SAU.
87. The SAU and the WBA will operate in a complementary way. For example, NBN Co's commitments in the SAU will determine how NBN Co exercises certain rights under the WBA (e.g. to change prices)⁵³.

⁵² Corporate Plan, p. 106

⁵³ Corporate Plan, p. 107

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5.7 Counterfactual

88. The provisions in respect of which authorisation is sought are integral to the Optus HFC Agreement. The objective of the Optus HFC Agreement is to set out the terms on which NBN Co will reward Optus for HFC subscribers who progressively migrate to network services provided on the NBN. These clauses support this progressive migration. **[Restriction of Publication of Part Claimed]**
89. The relevant counterfactual is an assessment of the future without the Optus HFC Agreement (rather than assuming a version of the Optus HFC Agreement will be in place without the relevant provisions).
90. NBN Co submits that there can be no commercial certainty as to the likely future state of competition without the Optus HFC Agreement. Without the Optus HFC Agreement, the Government's NBN expectations, policy settings and regulatory framework are likely to require revision, including the semi-distributed POI structure and the implementation of uniform national wholesale pricing. However, the nature and extent of that revision is a matter for speculation. As a matter of law, it is not permissible to construct a counterfactual on the basis of mere speculation. The counterfactual must be commercially realistic or likely.
91. NBN Co submits that given the unique policy and regulatory environment in which the Optus HFC Agreement has been entered into, the ACCC should assess the public benefits against any anti-competitive detriments arising from the Optus HFC Agreement, compared with the current state of competition in the relevant markets.
92. **[Restriction of Publication of Part Claimed]** In a hypothetical scenario without the Optus HFC Agreement where Optus continued to operate its HFC network and NBN Co rolled out a national broadband network, it might be that the Optus HFC network is overbuilt by the NBN. It might also be that Optus would be likely to cherry pick high revenue customers and supply services to those customers as a vertically integrated provider. This hypothetical scenario is addressed below, including its impact on NBN Co's capacity to provide uniform wholesale pricing.

6. Public Benefits arising from the Optus HFC Agreement

6.1 Achievement of structural reform of the telecommunications industry in Australia Overview

93. As noted in section 3 above, the Government has decided to establish NBN Co to build and operate the NBN delivering superfast broadband to 93% of premises with fibre-to-the-premises technology.
94. NBN Co is intended to “*dramatically improve the availability of broadband across Australia by creating a national network that is not controlled by a retail company or companies.*”⁵⁴
95. A key element of the Government's NBN initiative is to fundamentally change the structure of the Australian telecommunications industry by establishing NBN Co as a wholesale-only company and provide access to the NBN to all telecommunications retail service providers on an open and non-discriminatory basis.
96. As noted by the ACCC in its June 2009 submission to the Department of Broadband, Communications and the Digital Economy: “*Equivalence in access can only be ensured by a non-integrated or a fully structurally separated network operator.*”⁵⁵
97. The Optus HFC Agreement supports NBN Co's ability to achieve the Government's NBN objectives set out in the Statement of Expectations. It is consistent with the market structure the Government wishes to achieve, where a retail company does not control the network that is to be used to provide superfast broadband nationally. It also improves NBN Co's ability to achieve its targeted take up of services and projected financial returns.
98. The Optus HFC Agreement maximises the migration of customers to the NBN Co fibre network, through Optus' disconnection obligations supported by restrictions on Optus' use and disposal of its HFC network and network preference commitments.
99. The Optus HFC Agreement complements the DAs between NBN Co and Telstra, which provide for the progressive disconnection of customer premises from Telstra's copper network and HFC network (to be used only to provide pay TV) as the NBN is rolled out. The structural separation of Telstra by way of the DAs is a key element of the Government's reforms and an

⁵⁴ Telecommunications (Acceptance of Undertaking about Structural Separation - Matters) Instrument 2011: Explanatory Statement, p.3

⁵⁵ ACCC Submission to the Department of Broadband, Communications and the Digital Economy, “*National Broadband Network: Regulatory Reform for 21st Century Broadband*” (June 2009), p8

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element that the ACCC itself considers to be vital to the success of the Government's proposed structural reform of the industry:

"The ACCC is of the view that structural separation of Telstra is the only framework that will ensure equivalence in access during the transition to the NBN and is the only form of separation consistent with the type of wholesale–retail market structure the Government envisages for the NBN environment of the future".⁵⁶

6.2 Roll out of the NBN and uniform national wholesale pricing

100. The Optus HFC Agreement supports the ability of NBN Co to roll out the NBN to achieve the service standards and coverage required by the Government, as set out in the Statement of Expectations and Corporate Plan.
101. The progressive migration of customers from the Optus HFC Network to the NBN is expected to enhance the take up rates on the NBN, thereby improving NBN Co's business plan.
102. The Government has acknowledged that the Optus agreement to migrate its HFC customers to the NBN and to decommission its HFC network will provide greater certainty about NBN Co's revenue, and will further increase the take-up of NBN services.⁵⁷
103. The Government has established the NBN with an wholesale-only, open access mandate⁵⁸.
104. NBN Co is required to charge access seekers uniformly for services across its network for all technologies and for the basic service offering, in support of the Government's objective of enabling uniform national wholesale prices⁵⁹.
105. The Agreement with Optus supports NBN Co's ability to deliver uniform national wholesale pricing on an open access basis as required by the Statement of Expectations and the creation of a level playing field for all fixed services retail service providers (RSPs).

⁵⁶ ACCC Submission to the Department of Broadband, Communications and the Digital Economy, *"National Broadband Network: Regulatory Reform for 21st Century Broadband"* (June 2009), p9

⁵⁷ Deputy Prime Minister/Treasurer and Minister for Broadband, Communications and the Digital Economy, Joint media release *"NBN roll out to benefit from agreement with Optus"* 23 June 2011

⁵⁸ Statement of Expectations, p. 2

⁵⁹ Statement of Expectations, p. 7

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106. Uniform national wholesale pricing, which is distance and technology independent, provides a wide range of substantial economic and social benefits:
- (a) Uniform national wholesale pricing will lower the barriers to entry for RSPs, facilitating a higher number of players with significant scale and therefore greater levels of retail competition and innovation. This can be contrasted with pricing for the Unconditioned Local Loop Service (ULLS) which has experienced competition in only a limited number of exchanges (426 out of 5069 exchanges) due primarily to the costs associated with long-distance, non-metro backhaul.
 - (b) Greater competition in rural and regional Australia lowers the costs of doing business in those geographies, and addresses concerns about the emerging “digital divide”. The number and frequency of transactions increases with access to affordable broadband and this contributes to the capacity of regional areas to increase their relative attractiveness for investment and employment.
 - (c) More extensive retail competition resulting from uniform national wholesale pricing will also facilitate greater take-up by end users.
 - (d) More ubiquitous take up of high speed services by end users will in turn stimulate the development of new applications and services that require these speeds, increasing the utility of the NBN.
 - (e) Higher numbers of services in operation and a shift in population and commuting patterns are likely to result in meaningful carbon abatement from reduced transport requirements and increase the feasibility of smart metering and demand-side energy management.
 - (f) Increase the viability of long-term in-home health care and reduce the geographic restrictions of education and training.⁶⁰
107. Optus HFC customers are located in metropolitan areas⁶¹. NBN Co anticipates that those customers are higher margin customers. Further details of those customers are set out in section 6 of Optus' submission. The impact of demand and ARPU on NBN Co's expected Internal Rate of Return is illustrated in Exhibit I.10 to NBN Co's Corporate Plan.⁶²

⁶⁰ NBN Co Public Position Paper: Proposed NBN Co Points of Interconnect, p. 2

⁶¹ Corporate Plan, p 42

⁶² Corporate Plan, p. 25

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108. The migration of Optus HFC customers to the NBN pursuant to the Optus HFC Agreement will increase the take-up rate of the NBN by such higher margin customers, thereby improving NBN Co's ability to cross-subsidise lower margin areas and offer lower uniform national pricing.
109. NBN Co's ability to cross-subsidise lower margin areas in this way will be more limited should Optus HFC customers not migrate to the NBN as contemplated by the Optus HFC Agreement. In its January 2009 report to the Expert Panel on the NBN, the ACCC recognised this:

"Wholesale cross-subsidies — that is, averaged access prices — are unsustainable if there is infrastructure-based competition in regions which provide the subsidy (e.g. metropolitan markets)".⁶³

...

"However, if access seekers in metropolitan areas have no other option but to purchase access services from the NBN operator — that is, if there is no possibility that the NBN will be bypassed — averaged access charges may be sustainable".⁶⁴

...

"The sustainability of cross-subsidies at the wholesale level will depend on whether there is competition in the provision of wholesale services, say because service-based competitors are able to build their own networks to compete, and/or because there are alternative platforms from which service-based competitors can purchase wholesale services. If there is competition at this level, averaged access prices will not be sustainable".⁶⁵

110. Without the Optus HFC Agreement, one possibility is that NBN Co would be required to roll out the NBN in the Optus HFC areas in any event. If Optus continued to operate its HFC network and provide services to customers using that network, NBN Co's ability to offer a uniform wholesale access price would be threatened. As noted by the ACCC in its January 2009 report to the Expert Panel on the NBN:

⁶³ ACCC Assessment of Proposals, National Broadband Network Process: Report to Expert Panel, Appendices Public Version (January 2009), p111

⁶⁴ ACCC Assessment of Proposals, National Broadband Network Process: Report to Expert Panel, Appendices Public Version (January 2009), p111

⁶⁵ ACCC Assessment of Proposals, National Broadband Network Process: Report to Expert Panel, Appendices Public Version (January 2009), p131

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"If the NBN does duplicate existing networks and compete with them, averaged access prices would be unsustainable if competition from alternative networks drives down the access price the NBN operator could charge in metropolitan areas".⁶⁶

6.3 Supports enhanced retail competition

111. The Government has acknowledged that the Optus HFC Agreement recognises that the NBN will create a level playing field for fixed services that has the potential to bring about real benefits for customers⁶⁷. Optus considers that *"This deal supports the NBN to create a level playing field for all telcos. Australian consumers will be the winners."*⁶⁸
112. NBN Co's ability to deliver uniform national wholesale pricing on an open access basis and the creation of a level playing field for all fixed service RSPs has the potential to bring about benefits for consumers.
113. It is important to note that under the Optus HFC Agreement, NBN Co will make payments to Optus based on the number of subscribers who are migrated to the NBN from Optus' HFC network by any RSP, not merely those subscribers who remain customers of Optus after they migrate to the NBN from Optus' HFC network⁶⁹. Those customers therefore become more contestable by RSPs as a result of migration to the NBN under the Optus HFC Agreement.
114. Post migration, retail competition will be enhanced as the customers become more contestable by RSPs on the open access level playing field of the NBN for wholesale high speed broadband services, allowing innovation of service; more diverse service offers; competitive pricing; and faster and cheaper replacement of older, HFC technology constraining potential digital services.
115. The migration of Optus HFC customers to the NBN pursuant to the Optus HFC Agreement will enable Optus to compete more effectively, including through the orderly migration of Optus HFC customers to the NBN, efficiencies created through the use of a single network and the superior service provided by the NBN compared to the HFC service.

⁶⁶ ACCC Assessment of Proposals, National Broadband Network Process: Report to Expert Panel, Appendices Public Version (January 2009), p132

⁶⁷ Deputy Prime Minister/Treasurer and Minister for Broadband, Communications and the Digital Economy, Joint media release *"NBN roll out to benefit from agreement with Optus"* 23 June 2011

⁶⁸ Optus, media release *"Optus reaches landmark agreement with NBN Co on HFC network"* 23 June 2011

⁶⁹ See clause 11.1 and definition of "Migrate" in Optus HFC Agreement

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116. Section 6 of the Optus submission provides further details of these public benefits of the Optus HFC Agreement.
117. The NBN, which will utilise FTTP technology and hence be complementary to (rather than competitive with) wireless technologies, will also likely lead to increased competition and lower prices for wireless broadband services.
118. The complementary nature of fixed and wireless technologies is reflected in the business models of many telecommunications providers. Indeed both Telstra and Optus emphasise that as a full service telecommunications provider their ability to bundle both fixed and wireless services is a key competitive advantage. Similarly, Telecom New Zealand, Singtel, Eircom, France Telecom, Bell Canada, Verizon, Belgacom, Deutsche Telekom, Telia Sonera, AT&T and SwissCom, as well as many other telecommunications providers, all compete in both the fixed and wireless markets.
119. The anti-disparagement provisions in the Optus HFC agreement will have no effect on competition for wireless broadband services. Its only purpose is to support the migration of customers by ensuring a discouraging marketing environment does not arise, by disparaging NBN based fixed line services, at the time migration to the NBN is being encouraged by NBN Co and all RSPs. Optus is free to compete in the market for the supply of wireless services. In this regard, it is important to note that Optus does not currently promote its wireless services with reference to either its HFC network or Telstra's copper network. To the contrary, Optus promotes its wireless network in terms of speed, coverage, reliability and value for money that it provides. This is consistent with Optus' business model of being a full service telecommunications provider and being able to meet the fixed and wireless telecommunications needs of its customers.
120. The NBN will facilitate the use of femto cells, which are very small wireless cells that are installed in the home or office and potentially offer users lower cost mobile data when at home or in the office.
121. Greater use of wireless technologies in the home and office will intensify competition between fixed and mobile devices. Furthermore, the growth in the use of devices that are seamless between fixed and wireless platforms will mean that end users do not have to pay for multiple devices which will lower their overall telecommunications spend. Accordingly, this is why

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the parties have given careful thought to, and made provision for, the way they will conduct themselves in relation to fibre and wireless⁷⁰.

122. The progressive migration of those customers to the NBN is also likely to support Optus' expressed intention to compete vigorously using NBN services as set out in section 6 of the Optus submission.

6.4 Supports product development and innovation

123. As noted above, the Government expects that NBN Co will design, build and operate an integrated NBN to provide access to high speed broadband to 93 per cent of Australian homes, schools and businesses with fibre-to-the-premises technology providing broadband speeds of up to 100Mbps. All remaining premises will be served by a combination of next-generation fixed wireless and satellite technologies providing peak speeds of at least 12 megabits per second⁷¹.

124. The Government intends that the delivery of improved access to broadband will generate a plethora of direct and indirect benefits to Australian consumers, businesses and the government sector. Such benefits will be realised through a greater use of productivity enhancing applications such as telecommuting, telehealth and video conferencing⁷².

125. There are currently five main technologies being used to deliver broadband to residential consumers in Australia:

- (a) Telstra's copper network (ADSL; ADSL 2+);
- (b) Telstra and Optus HFC networks;
- (c) Fibre (e.g. Greenfields);
- (d) Wireless; and
- (e) Satellite⁷³.

⁷⁰ NBN Co's assessment of wireless revenues, wireless-only residential homes and wireless broadband is set out in the Corporate Plan, see, in particular, pp. 32-33; 41; 116

⁷¹ Statement of Expectations, p. 1

⁷² See National Broadband Network Overview, Department of Broadband, Communications and the Digital Economy, May 2010

⁷³ Corporate Plan, p. 38

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126. Whilst each of these technologies is able to compete effectively for a share of the broadband market at relatively low speeds, technologies other than fibre have technical limitations that make delivery at higher speeds increasingly difficult⁷⁴.
127. The delivery of a high-speed broadband network using fibre is capable of providing distinct advantages over other technologies, such as the existing copper telephone wires or wireless-based systems. These advantages include:
- (a) Fibre is capable of carrying broadband signals at full speed for more than 40 kilometres from an exchange and is immune from nearby interference. In contrast, ADSL over the existing copper telephone network, signal speed decreases as distance increases from the exchange and generally becomes unserviceable beyond 4.5kms.
 - (b) Fibre provides symmetric speeds. By contrast most broadband networks today are like one-way roads. ADSL, which the majority of internet users have today, provide download speeds of around 12 Mbps and upload speeds of no more than 1 Mbps. Similarly HFC cable TV connections which have download speeds of up to 100 Mbps have limited upload speeds of just 2 Mbps. This asymmetry tempers the end user experience and limits the type of applications commonly used by end users. By contrast fibre networks provide symmetric connection speeds thus enabling a whole range of business and creative activities that cannot be done today. This is especially important for enabling high-quality videoconferencing.
 - (c) Fibre networks are capable of delivering greater data capacity to individual premises compared to existing ADSL and HFC networks. Accordingly, the NBN's capacity will allow households and businesses to use a wide range of high bandwidth online applications, simultaneously.
 - (d) Fibre networks provide improved stability and reliability of service relative to ADSL and HFC networks. Fibre is the most reliable broadband technology that supports applications that need guaranteed levels of performance.
 - (e) Fibre networks are scaleable. The NBN will initially be capable of supplying services that are faster than anything that can be achieved now and in the future the same fibre network will support increasingly faster speeds simply by replacing the equipment at each end. Hence, the use of national open access fibre network is an

⁷⁴ Corporate Plan, p. 38

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efficient and cost effective way of meeting Australia's current and future broadband needs.

128. NBN Co believes that demand for bandwidth will continue to grow. As illustrated in Exhibit 2.13 of the Corporate Plan, as demand for bandwidth increases, NBN considers that it will become increasingly difficult for any non-fibre delivery platform to compete, based on the current technology upgrade maps for each technology⁷⁵.
129. NBN Co's Corporate Plan states that NBN Co will initially offer an entry level service on its fibre network of 12Mbps, with incremental tiers up to a maximum of 1,000Mbps for standard GPON consumer services. Future technical upgrades are likely to see even higher speeds becoming available at increasingly competitive costs⁷⁶.
130. NBN Co expects that the main limiting factor in the early years of the NBN is likely to be the availability of applications that require high bandwidth. Without these applications, consumers have limited reasons for migrating to the speeds offered by the NBN, and price becomes the main factor in driving consumer choices. NBN Co's strategy is based on the expectation that as higher bandwidth becomes available, applications that take advantage of that bandwidth will be developed⁷⁷.
131. In the near term (1-5 years), applications such as Internet Protocol Television (**IPTV**) and Video-on-Demand (**VoD**) are expected to emerge in Australia, as they have in many other markets, which will only be possible on networks that offer sustained speeds of 10-20Mbps. In the medium term (5-10 years), applications such as remote hosting and 3D imaging that are already in development are expected to become mainstream, pushing bandwidth demands up towards 100Mbps. In the long-term (10+ years) there are already products in development – such as Ultra High-definition video (4320p)¹³ – that are expected to require speeds of 250+Mbps⁷⁸.
132. The NBN facilitates the development of applications that take advantage of the high bandwidth and speed available through the NBN technology.

⁷⁵ Corporate Plan, p. 39

⁷⁶ Corporate Plan, p. 39. The speeds actually experienced by end users via fibre, fixed wireless or satellite will depend on a number of factors including the retail broadband plan they choose, their equipment and their in premises connection.

⁷⁷ Corporate Plan, p. 39

⁷⁸ Corporate Plan, p. 39

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133. The Optus HFC Network currently offers typical speeds of up to 20Mbps downstream and 1 Mbps upstream⁷⁹ (although, following the upgrade of its network in Brisbane, Melbourne and Sydney to DOCSIS 3.0 technology in 2010, the Optus HFC Network can now technically provide maximum download speeds of up to 100 Mbps). Higher speeds are possible using upgraded equipment but this is subject to uptake limits and greater asymmetry in down and upload speeds⁸⁰. Any such upgrade would also involve significant costs. Details of the technical capabilities of the Optus HFC Network are set out in section 2 of the Optus submission.
134. The Optus HFC network does not have the capability to facilitate the development of applications that take advantage of higher bandwidth and meet future customer requirements (especially business customer needs) outstripping the capacity of the Optus HFC Network⁸¹. Details of the upgrade to the Optus HFC Network that would be required to achieve improved network performance, including details of the significant capital expenditure required to achieve that upgrade, are set out in section 2 of the Optus submission.
135. The Optus HFC customer base is a high value customer base which is expected to demand applications that take advantage of higher bandwidth. The progressive migration of those customers to the NBN in accordance with the Optus HFC Agreement will facilitate the development of such applications as those customers become contestable on an open access level playing field (the NBN) for wholesale high speed broadband services. Section 6 of the Optus submission further addresses this issue.

6.5 Supports a vibrant wholesale market

136. NBN Co will be a provider of wholesale services. However, these wholesale services will be at a sufficiently low layer in the supply chain to allow other service providers to offer 'value-added' wholesale services to RSPs. Optus is likely to operate as a wholesaler/aggregator of NBN services.
137. The Optus HFC Agreement supports the achievement of the Government's objective of a national wholesale only open access network to be provided by the NBN. This will support the development of a vibrant wholesale market where other service providers are able to offer 'value-added' wholesale services to RSPs using the NBN.

⁷⁹ Corporate Plan, p. 43

⁸⁰ Implementation Study, pp 107-108.

⁸¹ Implementation Study, pp 107-108.

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138. These 'value-added' wholesale services could include the supply of services for use or resale by those RSPs which could range from a small addition to the service which is provided by NBN to a complete product which is readily able to be resold with minimal intervention by the RSP. As noted by the ACCC, vibrant wholesale markets are an important input for ensuring vigorous competition in the downstream retail markets⁸². **Restriction of Publication of Part Claimed**
139. The Optus HFC Network is not currently capable of open access wholesale service supply for resale and there are substantial coverage gaps of the network in the HFC serving areas. This is detailed in section 2 of the Optus submission.

6.6 Inefficient duplication of infrastructure

140. The Government has determined that NBN Co will build and operate a fibre to the premises network that provides high speed broadband to all Australian premises.
141. The Government has determined that the NBN will *"have a uniform wholesale architecture that is built once that allows people to get onto the network with the same price issues no matter where those customers are and with the same systems and the same interfaces that provide the same services"*⁸³.
142. The Government has determined that this network be built, regardless of the existing HFC networks. As a result of this decision, NBN Co will be building and operating the NBN in areas that are currently served by the Optus HFC network.
143. The NBN that the Government expects NBN Co to build is described in detail in NBN Co's Corporate Plan. As noted in paragraph 49 above, the Government agrees with the assumption inherent in NBN Co's Corporate Plan that NBN is to be planned as the sole national fixed line network as far as practical from the points of interconnection to premises.
144. The technological capabilities of the NBN are outlined in section 6.4 above. For the Optus HFC Network to be able to support the sorts of applications that the NBN will be able to support would require very significant investment and capital expenditure in that network by Optus.
145. Details of the upgrade to the Optus HFC Network that would be required to achieve improved network performance to support the sorts of applications that the NBN will be able to support,

⁸² ACCC's Advice to Government on National Broadband Network Points of Interconnect

⁸³ M Quigley, CEO, NBN Co, transcript of appearance before Joint Committee on the National Broadband Network - Rollout of the National Broadband Network, Tuesday 5 July 2011, p. 12

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including details of the significant capital expenditure required to achieve that upgrade, are set out in section 2 of the Optus submission.

146. Such investment would result in inefficient infrastructure duplication, given the Government's requirement that NBN Co roll out the NBN in those areas. It could also lead to lower take-up of the NBN, higher unit costs and potentially higher prices across the network. **Restriction of Publication of Part Claimed**
147. The Optus HFC Agreement removes these risks. By promoting service based competition over an open access network supplying layer 2 services, the NBN will harness the economies of scale inherent in network infrastructure to promote competition, innovation and consumer take-up of next generation broadband services and applications.

6.7 Environmental benefits

148. The decommissioning of the Optus HFC network will considerably reduce the quantity of aerial cabling in Optus HFC areas which are aerially deployed, with NBN Co likely to deploy the majority of the NBN underground and utilise only a small percentage of the aerial locations currently used by Optus. This will lead to a corresponding improvement in visual amenity, reduction in risk to network integrity and some benefits to safety to the public and the workforce over time.
149. The development of the NBN and the attendant improvements in video conferencing and other communication technologies utilising the next generation broadband capacities of the NBN will also likely lead to reductions in usage of private and public transport and inter-city travel. This would be likely to make a significant contribution to a reduction in greenhouse emissions in Australia.
150. Writing in the Telecommunications Journal of Australia, Rodney S. Tucker notes:

"A recent report commissioned by the City of Seattle⁸⁴ found that if a FTTP or FTTN network was to be installed in Seattle, the resulting gains in energy efficiency in industry and the reduction in usage of private and public transport would result in a greenhouse emissions reduction of 600,000 tonnes of CO₂ per annum in the Seattle area. These gains would come from improved teleconferencing, increased telecommuting and the attendant reduction in traffic congestion. Scaling this result from the population of the greater Seattle area to the population of Australia,

⁸⁴ see Columbia Telecommunications Corporation, 'Benefits beyond the balance sheet: quantifying the business case for fiber-to-the-premises in Seattle,' http://www.seattle.gov/broadband/docs/SeattleFTTNBenefits_091109.pdf

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suggests that a greenhouse reduction in Australia of up to 10 million tonnes of CO₂ per year could be achieved. The Seattle study does not include an allowance for reduced inter-city air travel enabled by enhanced telepresence. We have calculated the greenhouse gas reductions that could be achieved if 50% of business air travel on the Melbourne to Sydney route were to be replaced by teleconferencing. This calculation shows that this reduction in business travel would save Australia an additional 2 million tonnes of CO₂ per year".⁸⁵

151. The NBN may be more energy efficient than the existing HFC networks and wireless access networks. For example, at an access rate of 10 Mb/s a wireless network would consume approximately four times more energy than a FTTP network. At all access rates, HFC networks use more power per user than FTTP networks. At access rates above 10 MB/s, the difference becomes exponentially more significant⁸⁶.

7. Public Detriments

7.1 No public detriments

152. There are unlikely to be any detriments to the public resulting from the Optus HFC Agreement.
153. The services to be provided by NBN Co will be wholesale only services, the supply of which will be regulated in accordance with the telecommunications regulatory framework.
154. Once the NBN is rolled out, Optus does not intend to use its HFC network to provide wholesale services for resale in competition with the NBN. Rather, Optus *"intends to use the NBN to turbo-charge competition and to deliver the full potential of a 21st century digital life to customers"*⁸⁷. This is detailed in section 2 of the Optus submission.
155. Optus has an addressable market of 2.2 million, of which it is able to serve only 1.4 million using its existing HFC network. Those customers will, together with all other customers of premises to be connected to the NBN, receive the benefits of the NBN and the Optus HFC Agreement set out in section 6 above.

⁸⁵ Tucker, Rodney S, 2010, *Broadband facts, fiction and urban myths*, Telecommunications Journal of Australia 60 (3): pp. 43.1 to 43.15

⁸⁶ Tucker, Rodney S, 2010, *Broadband facts, fiction and urban myths*, Telecommunications Journal of Australia 60 (3): pp. 43.1 to 43.15, Figure 8

⁸⁷ Optus, media release *"Optus reaches landmark agreement with NBN Co on HFC network"* 23 June 2011

156. Any detriment which might theoretically arise by reason of giving effect to the Optus HFC Agreement (including the conditions described above) will be nugatory, given:
- (a) the Optus HFC Network is not a current wholesale competitor and is not a credible potential wholesale competitor for technical, operational, service comparability and investment barrier reasons (see section 2 of the Optus submission);
 - (b) NBN Co is subject to access and price regulation and must offer wholesale access on non-discriminatory terms to all seekers; and
 - (c) NBN Co will not participate in retail markets and has no incentive to deny access to wholesale services.

7.2 Potential perceived detriments

157. Although NBN Co does not consider that any public detriment arises from the Optus HFC Agreement, NBN Co is aware of public criticism of aspects of the Optus HFC Agreement, as well as criticism of aspects of the Definitive Agreements between NBN Co and Telstra that could also potentially be levelled against similar aspects of the Optus HFC Agreement.

158. Those criticisms are addressed in sections 7.3 - 7.5 below.

7.3 NBN Co as a new monopoly

159. A number of commentators have argued that the migration of customers from the existing Telstra and Optus HFC infrastructure to the NBN and the decommissioning of existing infrastructure will remove infrastructure-based competition, creating a new wholesale-level monopoly which will result in higher prices for consumers⁸⁸.

160. Such observations raise concerns that NBN Co will seek to earn economic profits and may exercise its market power to the detriment of competition. Other concerns include that, in the absence of competition, NBN Co will face little incentive to minimise costs or to innovate.

161. Each of these concerns has been addressed by the regulatory regime applying to NBN Co.

⁸⁸ Australian (Lauren Wilson), Labor hails 'historic milestone', 24 June 2011; Malcolm Turnbull, Conroy Holds Gun to Telstra's Head - Shoots Own Foot, 23 June 2011 (see <http://www.malcolmturnbull.com.au/media/releases/conroy-holds-gun-to-telstra%e2%80%99s-head-%e2%80%93-shoots-own-foot/>) and most recently in his speech to the National Press Club on 3 August 2011; Courier Mail (Steven Scott), NBN deal to keep network complete, 24 June 2011; West Australian (Nick Butterfly), Telstra finally signs up for move to NBN, 24 June 2011; Victorian Government Submission to the House of Representatives Standing Committee on Infrastructure and Communications Inquiry into the Role and Potential of the National Broadband Network, p12; Australian (Henry Ergas), Dial M for Monopoly and Send the Bill to Consumers, 24 June 2011; Australian (Features), One way or another this will be Labor's monument, 24 June 2011.

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162. The ability for NBN Co to earn economic profits is limited given that NBN Co is prohibited from providing a service which is not a declared service. This means that all revenue and profits earned by NBN Co will be subject to regulatory oversight by the ACCC. Moreover, as set out in section 5.6 above and as detailed in NBN Co's discussion paper *Introducing the NBN Co SAU*, NBN Co is committed to lodging with the ACCC a Special Access Undertaking (SAU). The SAU will set out a number of commitments which will provide NBN Co the opportunity, but not a guarantee, to recover its costs and earn an appropriate return on capital over a 30 year period. The SAU will also establish prudency measures to ensure that NBN Co is only allowed to recover costs which are efficiently incurred.
163. Concerns that NBN Co may exercise its market power to the detriment of competition are addressed by the legislative amendments contained in the Access Arrangements Act and the NBN Companies Act:
- (a) The NBN Companies Act contains a wholesale-only supply obligation along with 'lines of business restrictions' which together prohibit NBN Co from competing in downstream retail markets. Accordingly, NBN Co will have no incentive to restrict or limit the supply of wholesale services to the detriment of competition in retail markets.
 - (b) The Access Arrangements Act requires NBN Co to supply on a non-discriminatory basis. This requirement means that NBN Co is prevented from favouring any one or group of access seekers to the detriment of competition⁸⁹.
164. In addition, NBN Co does not have a retail arm. This is a very different structure to the vertical and horizontal integration of Telstra. The structure of NBN Co means that the competition concerns that arose from Telstra's structure are unlikely to arise. In any event, the NBN Companies Act contains powers to enable the Government to take steps to address any structural concerns that might arise in the future.⁹⁰
165. As noted by the ACCC in its June 2009 submission to the Department of Broadband, Communications and the Digital Economy:

"The ACCC considers that a wholesale-only network operator has few incentives to discriminate against downstream rivals. In general, without a retail arm to which it

⁸⁹ Explanatory Memorandum (and Supplementary Explanatory Memorandum) to *Telecommunications Legislation Amendment (National Broadband Network Measures - Access Arrangements) Bill 2010*.

⁹⁰ *National Broadband Network Companies Act 2011*, Divisions 3 and 4

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may seek to provide an advantage, a wholesale-only operator would gain little from favouring one access seeker over another, thereby ensuring true equivalence. On the other hand, vertical integration of any form into downstream markets, even when subject to regulatory measures, will not ensure equivalence".⁹¹

166. In any event, Optus does not (and, using its existing technology, cannot) supply wholesale services using its HFC network. Optus' HFC Network is not currently configured to enable wholesale access. Optus would need to undertake a major upgrade of the HFC Network which would require significant investment. Optus has no plans to make such an investment in the network. Further details are set out in section 2 of the Optus submission. As set out in section 7.6 below, any such investment (by Optus or a third party) would be high risk, given that currently no HFC operators provide wholesale services and the technology solution, once developed, will be unproven. In addition, the level playing field provisions contained in the Access Arrangements Act discourage further investment in the Optus HFC network by either Optus or any other third party (see section 6 of the Optus submission).
167. As a result of the Optus HFC Agreement, broadband customers in the Optus HFC footprint will now have access to an open access network with improved technical capacity compared to that available on the HFC network, noting the inherent capacity constraints of HFC (see section 2 of the Optus submission).
168. As a consequence of competition in downstream markets and constant technological change in the industry there will be considerable pressure on NBN Co to innovate and undertake product development. For this reason NBN Co has committed to establish a Product Development Forum (PDF). As detailed in the *Product Development Forum (PDF) Processes* (released on 28 July 2011) the intention of the PDF is to establish a forum by which NBN Co can work with RSPs on an equal basis to undertake product development activities in an effective and cost efficient manner.

7.4 Anti-disparagement provision will not limit competition between fixed and wireless networks/services

169. The purpose of the anti-disparagement provision is to ensure that Optus does not make any disparaging statements about the NBN when promoting and marketing its wireless services to customers in the HFC serving areas⁹². This provision is limited in scope and operates only so

⁹¹ ACCC Submission to the Department of Broadband, Communications and the Digital Economy, *"National Broadband Network: Regulatory Reform for 21st Century Broadband"* (June 2009), p19

⁹² See similar criticisms made of wireless marketing restrictions in Telstra Definitive Agreements: Australian (MITCHELL BINGEMANN, ANNABEL HEPWORTH), NBN deal with Telstra 'absurd and wasteful', 4 July

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that Optus may not conduct a marketing campaign in respect of wireless data services targeted at customers in its HFC areas which is expressly critical of or makes any express adverse statement about the performance of functionality of the NBN. An adverse marketing environment created by campaigns in HFC areas disparaging the NBN at a time when migration of HFC customers is being encouraged would defeat or diminish the encouragement of migration to NBN based fixed line service by Optus and other RSPs and indeed also by copper customers. This would be contrary to government policy and reduce the benefits to the public of the NBN project outlined in this submission.

170. The confined nature of the prohibition on disparagement and the relatively small Optus HFC areas means Optus will remain free to compete in the market for the supply of wireless services. Optus is not restricted from marketing those wireless services on the basis of the features it offers. Optus promotes its wireless network in terms of speed, coverage, reliability and value for money and for obvious reasons relating to the nature of those services does not promote its wireless services with reference to either its HFC network or Telstra's copper network.
171. The parties consider that wireless services are complementary to fibre services. As noted in NBN Co's Corporate Plan and in section 6.4 above, whilst there are currently five main technologies capable of competing effectively for a share of the broadband market at relatively low speeds, technologies, other than fibre, have technical limitations that make delivery at higher speeds increasingly difficult⁹³.
172. It is possible for wireless broadband services to deliver speeds of 12Mbps (the initial entry level service to be offered by NBN Co on its fibre network). However, the quality of wireless broadband services is highly sensitive to the number of users on a cell, meaning that advertised rates of 10-25Mbps often translate into actual rates of less than 2-3Mbps. Exhibit 2.15 of NBN Co's Corporate Plan (p41) illustrates this sensitivity for the next generation of wireless, highlighting that despite the promise of LTE providing 100Mbps, average actual user throughput will be considerably less.

2011; Australian (Paul Fletcher), BROADBAND MONOPOLY IS BAD POLICY, BAD BUSINESS, AND BAD FOR YOU, 30 June 2011 [Paul Fletcher is a Liberal MP, a former telecommunications executive and author of *Wired Brown Land: Telstra's Battle for Broadband* (New South Books, 2009)]; Australian (Terry McCrann), Non-compete clause exposes flaws of NBN, 25 June 2011; Australian (Annabel Hepworth, Tracy Lee, additional reporting: Lauren Wilson, Mitchell Bingemann), Business Fears Curbs on Competition: NBN power grows with \$11bn deal, 24 June 2011

⁹³ Corporate Plan, p. 38

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173. The Government's policy objectives to provide superfast broadband to all Australians in the national interest over the long term would in part be thwarted by disparagement of the NBN leading to wireless substitution, as the productivity gains and future proofing of the fibre based fixed line network cannot be achieved to the same degree by wireless network services owing to technical limitations.
174. The anti-disparagement provision will have no impact on the capacity for Optus to develop its wireless network as it sees fit. It can promote wireless services as it currently does and in any manner it sees fit including as complementary to fibre services as long as it does not expressly disparage the NBN to customers in the HFC serving area in the process. It has no effect on any other providers of wireless services and will not undermine the ability of Optus or any other provider of wireless services to invest in wireless networks or supply wireless services.
175. NBN Co considers that the NBN will facilitate further competition in the provision of wireless broadband services, as set out in section 6.3 above.

7.5 Anti-disparagement provision will not undermine technological innovation

176. The anti-disparagement provision will not hinder technological innovation and the provision of new technologies to Australian consumers⁹⁴.
177. To the extent that there are further developments in wireless technology enabling the provision of faster wireless services to consumers, Optus will be free to offer and promote those services to its customers. The anti-disparagement provision will not act as a disincentive for Optus or any other competitor to invest in developing improved wireless technologies should it wish to do so.
178. As noted in section 6.3, the NBN will facilitate the use of femto cells, potentially offering users lower cost mobile data when at home or in the office and intensifying competition between fixed and mobile devices.

⁹⁴ See similar criticisms made of wireless marketing restrictions in Telstra Definitive Agreements: Courier Mail (Tim Hughes), 'Dinosaur' forced on telco, 27 June 2011 [Tim Hughes is a director of Value Capital Management]; Australian (JENNIFER HEWETT), Gillard gambles on delivering a digital future, 25 June 2011; Australian (Henry Ergas), Dial M for Monopoly and Send the Bill to Consumers, 24 June 2011; Australian (Annabel Hepworth, Tracy Lee, additional reporting: Lauren Wilson, Mitchell Bingemann), Business Fears Curbs on Competition: NBN power grows with \$11bn deal, 24 June 2011.

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7.6 Decommissioning the Optus HFC Network will not limit competition

179. It may be argued that the provisions which require Optus to decommission its HFC network are anti-competitive. Indeed, in relation to information contained in NBN Co's Corporate Plan, one commentator argued that:

*"What is most striking about the plan is that its anti-competitive features are far worse than previously understood - since the plan is to decommission hybrid fibre coaxial (HFC) cable modems, street by street, as fibre is installed."*⁹⁵

180. These criticisms rely on three assumptions all of which are incorrect and fundamentally fail to appreciate the broader policy context.

181. The first assumption is that the existing HFC network provides the opportunity for infrastructure based competition with the NBN. Given that the NBN will operate on an open access, wholesale only basis, it is questionable whether the continued operation of the Optus HFC network would result in greater competition in downstream retail markets. In contrast, it is expected that the open access level playing field of the NBN will itself enhance retail competition as the customers become more contestable by RSPs (see section 6.3). Further, as discussed at paragraph 72 and in sections 6.4 and 6.6 (as well as section 2 of the Optus submission), HFC networks are shared platforms and have a number of technological limitations which makes the provision of wholesale services using HFC networks problematic. In fact NBN Co knows of no HFC network anywhere in the world which is being used to deliver layer 2 wholesale services which are comparable to the fibre based services which will be provided over the NBN.

182. The second assumption is that competition between two or more networks is more productively efficient than having one national open-access wholesale only network. In other words, it is assumed that having the HFC network compete with the NBN will result in lower prices to consumers. Such an assumption ignores the well recognised natural monopoly characteristics of fixed broadband networks and the benefits gained by avoiding inefficient duplication of infrastructure (see section 6.6 above).

183. Given the high fixed cost nature of both HFC and fibre networks, lower prices will only result from the combination of minimising total costs and by maximising network take-up. Even having regard to the fact that Optus' existing network is a sunk cost (i.e. that the fixed costs have already been incurred), the ongoing operation of Optus HFC network for the purposes of

⁹⁵ Michael Porter, 25 November 2010, Competition Bites the Dust see <http://www.ceda.com.au/research/infrastructure/national-broadband-network/2011/4/1/competition-bites-the-dust>

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supplying broadband carriage services will not be costless, but will instead increase total costs. By way of example, on 10 March 2009, Telstra announced that it would upgrade its HFC network in Melbourne with the installation of DOCIS 3.0 software. This investment was expected to cost approximately \$300 million and cover about 1 million homes⁹⁶.

184. In addition to increased costs, competition between Optus' HFC network and the NBN would likely have an adverse impact on the take-up of the NBN and its ability to deliver uniform national prices. Higher production costs and lower take-up would presumably result in higher access prices for NBN Co's layer 2 bitstream services. Higher access prices will dampen competition between RSPs in downstream broadband markets resulting in higher retail prices and decreased investment and innovation by RSPs. That is, the public benefits arising from the roll out of the NBN and uniform national wholesale pricing, as described in section 6.2 above, would be substantially reduced.
185. The third assumption underlying statements that the decommissioning of the Optus network is anti-competitive is that there are parties willing to purchase or utilise Optus' HFC network in order to compete with the NBN. This implies that Optus would be willing to supply wholesale broadband services over the network or that a third party would be willing to purchase the network for the purpose of competing with the NBN. Both of these outcomes are unlikely. As set out in paragraph 154 above (and in section 2 of the Optus submission), Optus does not intend to use its HFC network to provide wholesale services for resale in competition with the NBN once the NBN is rolled out. In any case, the provision of wholesale services, by either Optus or any third party acquirer of the Optus HFC network, will require additional investment in the network (see sections 6.4 and 6.6 above and section 2 of the Optus submission). Any such investment will be high risk, given that currently no HFC operators provide wholesale services and the technology solution, once developed, will be unproven. In addition, the level playing field provisions contained in the Access Arrangements Act discourage further investment in Optus HFC network by either Optus or any other third party (see section 6 of the Optus submission).
186. The arrangements in the Optus HFC Agreement that relate to the Optus HFC network will maximise productive and allocative efficiency for the following reasons:
- (a) They prevent the use of the Optus HFC network for cherry picking thus increasing the number of users of the NBN. This in turn will maximise the economies of scale

⁹⁶ *Telstra unveils super-fast cable broadband – Melbourne first to be upgraded:* Telstra Media Release, 10 March 2009

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and scope that are inherent in the NBN, lead to lower access prices for RSPs and facilitate the achievement of uniform national wholesale prices (see section 6.2);

- (b) They lower the risk profile of the NBN. As a consequence, NBN Co's future cost of debt may be lower which may mean lower access prices for NBN Co's services; and
- (c) They avoid the unnecessary cost that would be required to upgrade the existing HFC network in order for it to provide NBN comparable wholesale services (see section 6.6).

187. There are also substantial coverage gaps in the Optus HFC networks which the NBN rollout will address. The Optus network has 36% of houses within its coverage area as unserviceable. Optus claims that its coverage gap is comprised of MDUs, distances and heritage overlays. Details of the gaps in the Optus network are set out in section 2 of the Optus submission. Any solution that relies on the HFC networks would require these gaps to be filled⁹⁷. The Optus HFC Agreement will support NBN Co's objective to service these gaps, including the Government's expectation that NBN Co will provide fibre-to-the-premises technology to multi-dwelling units that fall within the fibre footprint⁹⁸.

8. Competition Assessment

188. NBN Co submits that the conduct will not give rise to any anti-competitive detriment.
189. As set out above, NBN Co considers that NBN Co and Optus are not actual competitors or potential competitors in the supply of services to RSPs. As a result, the conduct is unlikely to have effect of restricting or limiting the supply of services by Optus, given it has no current intention or capability to provide services to RSPs for resale using its HFC network once the NBN has been rolled out in those areas.
190. It might be said that the conduct will remove the potential for facilities/infrastructure based competition for fixed voice and broadband services in the small areas covered by the Optus HFC network. This concern is addressed in detail in section 7.3.
191. Given Optus has no current intention or capability to provide services to RSPs for resale using its HFC network, there is no realistic prospect of facilities/infrastructure based competition in

⁹⁷ McKinsey & Company and KPMG, *National Broadband Network Implementation Study*, released 6 May 2010, p.108

⁹⁸ See paragraph 23 above

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those areas (see section 2 of the Optus submission). For the Optus HFC network to be technologically capable of competing with the NBN over time would require substantial investment by Optus in that network⁹⁹. As to whether Optus has any plans to make such an investment, see Optus' submission.

192. In addition, as set out in section 7.3 above, given the ownership structure and regulatory regime which applies to NBN Co, NBN Co has no ability or incentive to engage in conduct to the detriment of competition.
193. In a hypothetical scenario involving facilities-based competition in low cost to serve areas, the combination of network duplication and the operation of the non-discrimination obligations in section 152AXC and 152AXD of the CCA may lead to national averaged access prices that are unsustainable in the long term, as set out in section 6.2 above.
194. Given the Optus HFC network currently covers only a small number of areas in Sydney, Melbourne and Brisbane, without the Optus HFC Agreement, Optus would be required to acquire services from NBN Co to enable Optus to provide fixed voice and broadband services to the remainder of its customer base. In such a scenario, Optus would be both a wholesale customer of NBN Co and a vertically integrated competitor to NBN Co (arising from Optus' ownership and operation of the HFC network), unconstrained by the requirement that NBN Co provide wholesale services nationally at a uniform price. This is the type of ownership structure that the regulatory reform to the telecommunications industry is seeking to remove (see section 2.3 and 6.1 above).
195. NBN Co submits the Optus HFC Agreement is pro-competitive. It supports the industry structure that the Government wishes to achieve, with a national wholesale only open access FTTP network. That industry structure addresses the competition concerns that have been identified for many years arising from the current industry structure (see section 2.3 and 6.1 above). It is also consistent with Optus' expressed intention to compete vigorously using NBN services (see section 6 of the Optus submission).

9. Conclusion

196. The Optus HFC Agreement forms part of the overall reform and restructuring of the telecommunications industry in Australia that the Government wishes to achieve through the establishment of the NBN. The Optus HFC Agreement significantly enhances the achievement of that objective, through improving uptake and increasing certainty of NBN Co's

⁹⁹ Corporate Plan, p 43

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revenue plan, achieving a faster roll out and migration of customers in areas served by the Optus HFC network, providing enhanced retail competition, supporting product development and innovation and delivering efficiency gains and environmental benefits.

197. The Optus HFC Agreement does not result in any anti-competitive detriments and will not have the effect of lessening competition in any relevant market, given the level playing field created by the NBN and the regulatory regime in which it will operate.
198. NBN Co submits that the public benefits that arise from the Optus HFC Agreement clearly outweigh any public detriments that could be said to arise. NBN Co therefore submits that the conduct should be authorised in accordance with section 88 of the CCA.