Australian
Competition &
Consumer
Commission

Draft Determination

Applications for authorisation

lodged by

NBN Co Limited

in respect of

provisions of the HFC Subscriber Agreement entered into with SingTel Optus Pty Ltd and other Optus entities

Date: **28 May 2012**

Commissioners: Sims
Schaper
Court
Dimasi
Walker
Willett

Authorisation no.: **A91290**
A91291
A91292

Public Register no.: C2012/47

Summary

In this draft determination the ACCC proposes to grant authorisation to NBN Co Limited to give effect to particular provisions contained in the Optus HFC Subscriber Agreement.

The ACCC proposes to grant authorisation for 20 years.

NBN Co Limited (NBN Co) has applied for authorisation of particular provisions contained in the Optus HFC Subscriber Agreement (HFC Agreement) entered into with SingTel Optus Pty Ltd and other Optus entities (Optus) in relation to the Optus hybrid fibre coaxial cable (HFC) network.

In broad terms the HFC Agreement provides for the migration of Optus HFC subscribers to the national broadband network (NBN) and for the decommissioning of parts of the HFC network. Under the agreement Optus will cease to supply broadband, voice and pay TV services over its HFC network to consumers. Optus will receive a migration payment for those consumers served by the Optus HFC network that elect to migrate to the NBN, including those that elect to migrate to the NBN with another retailer.

In considering whether authorisation should be granted to the HFC Agreement the ACCC must be satisfied that in all the circumstances the arrangements are likely to result in benefit to the public and that this benefit would outweigh the likely detriment to the public constituted by any lessening of competition or result in such a public benefit that the arrangements should be allowed. The ACCC notes that the arrangements before it and the market reforms initiated by the Australian Government in the telecommunications sector are complex.

The ACCC has closely examined the information before it and considers that the likely public benefits and detriments of the HFC Agreement are finely balanced.

In assessing the applications for authorisation the ACCC has concluded that the roll out of the NBN is likely to proceed in a substantially similar manner irrespective of its decision in response to the authorisation applications. In the absence of authorisation, the ACCC considers that Optus is likely to continue to provide services to consumers over its HFC network for at least the short to medium term.

The ACCC considers that the main public benefits of authorisation are clear and quantifiable. Balanced against this is the potential for public detriment to result from the removal of a significant fixed line competitor to the NBN and in particular the potential dynamic efficiency gains that would flow from competition. Such dynamic efficiency gains are difficult to determine.

The ACCC is satisfied that the HFC Agreement is likely to result in benefits to the public. In particular the HFC Agreement is likely to result in benefits by avoiding the cost of operating the Optus HFC network to provide a service the NBN is able to provide at a lower incremental cost. The ACCC considers that these cost savings are likely to be material.

The HFC Agreement is also likely to result in lower once off costs arising from the planned migration of customers from the Optus HFC network to the NBN. The HFC Agreement is also likely to deliver small environmental benefits.

Generally, the removal of a competitive constraint is likely to have negative consequences for consumers and the efficient operation of markets. In assessing NBN Co’s applications for

authorisation the ACCC has examined these potential concerns carefully and in great detail. The ACCC considers that Optus has a financial incentive to continue to operate its HFC network and that this provides the potential for competition and in particular likely dynamic efficiency gains. However there are several factors which the ACCC considers lessen the impact on competition and consumers of removing the Optus HFC network, including:

- the limited footprint of the Optus HFC network – the network only passes 1.4 million serviceable homes in three capital cities, with a customer base of approximately 500 000. Optus has stated that it has no plans to expand the HFC Network outside its current footprint;
- Optus is unlikely to undertake significant investment in its HFC network, both in terms of application and systems development and future upgrades or expansions to the network. Consequently:
  - the Optus HFC network will only compete to provide NBN entry level data and voice services;
  - over time, consumers are likely to demand services that the HFC network will not be able to supply;
  - Optus will use the NBN to provide higher speed broadband services to its customers.
- The ACCC accepts that the Optus HFC network will be uneconomic to operate once a critical mass of customers has been lost. If Optus were to decommission the HFC network in the short term then the likely detriments arising from the HFC Agreement would be diminished, especially those resulting from a loss of dynamic efficiency. The ACCC has not formed a view on when this is likely to occur.

In addition to these factors, the ACCC considers that, in the case of the NBN, the regulatory framework will mitigate some of the effects of removing a potential competitive constraint. While the precise regulatory arrangements applicable to NBN Co are still under consideration by the ACCC, it is intended that these arrangements will impose a significant constraint on NBN Co's pricing over time. In this respect, NBN Co has proposed a pricing structure (akin to a form of two-part tariff) which, along with other aspects of the regulatory arrangements which will ultimately apply to NBN Co, would be expected to provide strong incentives for NBN Co to upgrade capacity as end-user demand grows over time.

In these circumstances the ACCC considers that the potential detriments to the public from the loss of competition as a result of the HFC Agreement are likely to be less significant than may otherwise be expected. The ACCC also considers that these detriments, to the extent that they arise, will become less significant over time.

The ACCC also accepts that a number of elements of fibre to the home networks exhibit strong natural monopoly characteristics. While competition would normally be expected to result in positive market outcomes and improved efficiency, the ACCC considers that ultimately the natural monopoly characteristics of the NBN would be likely to limit the benefits of network competition.

Having considered the information before it, the ACCC is satisfied that the statutory tests to be applied in granting authorisation have been met. Accordingly the ACCC is proposing to grant authorisation to applications A91290 – A91292 to give effect to particular provisions contained in the Optus HFC Subscriber Agreement.

Next steps

The ACCC will now seek further submissions from NBN Co and interested parties before making a final determination.

Contents

List of abbreviations

ACCAN	Australian Communications Consumer Action Network
ACCC	Australian Competition and Consumer Commission
The Act	*Competition and Consumer Act 2010* (Cth)
ADSL	asymmetric digital subscriber line
applications for authorisation	NBN Co applications for authorisation A91290 – A91292
Austar	Austar United Communications Limited
CCC	Competitive Carriers' Coalition
CVC	connectivity virtual circuit
DOCSIS	data over cable service interface specification
DSL	digital subscriber line
Frontier Economics	Frontier Economics Pty Ltd
FTTN	fibre to the node
FTTP	fibre to the premises
Gbps	giga bits per second
G-PON	gigabit-capable passive optical network
HFC	hybrid fibre coaxial cable
HFC Agreement	Optus HFC Subscriber Agreement
LTE	long term evolution
Mbps	mega bits per second
NBN	National Broadband Network
NBN Co	NBN Co Limited
Optus	SingTel Optus Pty Ltd, Optus Networks Pty Ltd, Optus Internet Pty Ltd and Optus Vision Media Pty Ltd
pay TV	subscription television
RSP	retail service provider

Telecommunications Act	*Telecommunications Act 1997* (Cth)
Telstra	Telstra Corporation Limited
VHA	Vodafone Hutchison Australia Pty Ltd

1. The applications for authorisation

1.1 On 23 January 2012 NBN Co Limited (NBN Co) lodged applications for authorisation A91290 – A91292 (applications for authorisation) with the Australian Competition and Consumer Commission (ACCC).[1]

1.2 Authorisation is a transparent process where the ACCC may grant an exemption for conduct that might otherwise breach the *Competition and Consumer Act 2010* (Cth) (the Act).[2] In broad terms the ACCC may 'authorise' businesses to engage in anti-competitive conduct where it is satisfied that the likely public benefit from the conduct outweighs any public detriment that is likely to result from the proposed conduct.

1.3 The ACCC conducts a public consultation process when it receives an application for authorisation, inviting interested parties to lodge submissions outlining whether they support the application or not. Public submissions provided by NBN Co, Optus and other interested parties are available from the ACCC's website (www.accc.gov.au/AuthorisationsRegister). The ACCC has had regard to the public and confidential submissions and information provided to it in preparing this draft determination.

Provisions for which authorisation is sought

1.4 NBN Co has applied for authorisation of particular provisions contained in an agreement, the Optus HFC Subscriber Agreement, entered into with SingTel Optus Pty Ltd and other Optus entities (Optus) in relation to the Optus hybrid fibre coaxial cable (HFC) network (the HFC Agreement).

1.5 NBN Co is seeking authorisation for clauses of the HFC Agreement which provide for:

a) Optus to progressively migrate HFC customers to the National Broadband Network (NBN) as it is rolled out [clause 9.2];

b) a fixed line network preference in favour of the NBN for residential and small business customers served by Optus' HFC network (which will operate for a period of 15 years from the date the NBN is first available in an HFC serving area [clause 5.2(a)]);

c) progressive payments by NBN Co to Optus based on the actual number of customers that migrate from its HFC network to the NBN. 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 retail service provider, not merely those subscribers who remain customers of Optus after they migrate to the NBN from Optus' HFC network [clause 11.1(a)];

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 [clauses 10.1, 10.2, 10.3];

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1 A chronology of the significant dates in the ACCC's consideration of these applications is contained in Attachment B.

2 Further information about the authorisation process is contained in Attachment A.

e) Optus must not further extend the coverage of the Optus HFC network or grant any right or interest or permit any person to use, operate or provide any service over or using the Optus HFC network in an HFC serving area after deactivation and must ensure that no person can use the Optus HFC network to provide services in Australia [clauses 10.2(b);(c);(d)]. The HFC Agreement also contains limits on the disposal of the Optus HFC network [clause 10.4];

f) Optus will not proactively, by way of a direct marketing campaign, seek to obtain subscribers that will only use the Optus HFC network for voice services [clause 4.3(a)]; and

g) For a period of 15 years, Optus may not conduct a marketing campaign in respect of wireless data services targeted at retail customers within the HFC serving area which is expressly critical of or makes any express adverse statement about the performance or functionality of the national broadband network where such a statement is misleading or deceptive or involves the making of a false or misleading representation in contravention of the Australian Consumer Law (anti-disparagement provision) [clause 5.2(c)].

1.6 Authorisation is being sought because these provisions of the HFC Agreement may fall within sections 44ZZRF, 44ZZRG, 44ZZRJ, 44ZZRK, 45 or 47 of the Act.

1.7 NBN Co has not sought authorisation for the remaining provisions of the HFC Agreement.

1.8 NBN Co seeks authorisation for 20 years.

Other parties

1.9 Under section 88(6) of the Act, any authorisation granted by the ACCC is automatically extended to cover any person named in the authorisation as being a party or proposed party to the conduct. Under this provision any authorisation granted by the ACCC to NBN Co will also extend to Optus as a nominated party to the conduct.

Previous applications for authorisation

1.10 On 29 August 2011 NBN Co lodged applications for authorisation A91271-A91273 with the ACCC. Following amendments to the provisions of the HFC Agreement the August 2011 applications were withdrawn on 20 January 2012 and replaced by applications A91290-A91292 lodged on 23 January 2012. Applications A91290-A91292 were lodged to take account of changes to the anti-disparagement provision of the HFC Agreement. Applications A91290-A91292 are otherwise substantially similar to applications A91271-A91273.

1.11 The ACCC has taken account of submissions provided to it in relation to Applications A91271-A91273 as well as submissions in relation to Applications A91290-A91292 in preparing this draft determination.

2. Background to the applications

Parties to the transaction

NBN Co Limited

2.1. NBN Co was established on 9 August 2009 to design, build and operate the NBN and is a wholly-owned Australian Government company.[3]

2.2. NBN Co is governed by a specific regulatory framework that applies above the ordinary regulation for other telecommunications companies.[4] The Government also released a Statement of Expectations (SOE), which outlined its expectations in relation to a number of matters relating to the NBN and NBN Co including the coverage of the NBN, the location of points of interconnect, uniform national pricing, NBN Co's compliance with the proposed regulatory framework as well as service offerings, pricing, funding and privatisation.[5]

2.3. The Government has stated that its objective is for NBN Co to build a fibre-to-the-premises access network that connects at least 93 per cent of Australian premises, with a minimum fibre coverage obligation of 90 per cent of premises, delivering speeds of up to 100Mbps. The remainder of premises will be served via NBN Co's fixed wireless and satellite services, delivering speeds of at least 12Mbps, as well as by Telstra's existing copper network.[6]

2.4. NBN Co is subject to open access, wholesale-only, transparency and non-discrimination obligations relating to the supply of its services.[7] The Government has stated that its expectation is that NBN Co will offer open and equivalent access to wholesale services at the lowest levels in the network stack necessary to promote efficient and effective retail level competition via Layer 2[8] bitstream services in the fibre footprint.[9]

2.5. NBN Co submits that the products it will offer are described in its Corporate Plan and will be as follows:

- a uniform product construct across fibre, wireless and satellite delivery platforms, featuring the same four product components across each access network and based on the technology agnostic Ethernet bitstream framework;
- a 12Mbps download and a 1Mbps upload entry level offer across all three access technologies for the same price;

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3 NBN Co Limited website, http://www.nbnco.com.au/about-us/our-purpose.html, visited 21 November 2011.

4 See: *National Broadband Network Companies Act 2011* and *Telecommunications Legislation Amendment (National Broadband Network Measures – Access Arrangements) Act 2011*.

5 Senators The Hon Penny Wong and Stephen Conroy, *Statement of Expectations* issued to NBN Co Limited, 17 Dec 2010.

6 Ibid, paragraphs 3 – 4.

7 NBN Companies Act, s 9; sections 152AXC and 152AXD of Part XIC of the Act.

8 Layer 2 Network/Wholesale Services - the transmission layer that encodes and decodes information bits across Layer 1 infrastructure. Layer 2 is the active layer of an optical fibre network. Source NBN Co, *NBN Co Limited Corporate Plan 2011-2013*, page 155.

9 Senators The Hon Penny Wong and Stephen Conroy, Statement of Expectations issued to NBN Co Limited, 17 Dec 2010, paragraph 2.

- a Fibre Access Service with committed speed options of up to 100Mbps and peak speed options of up to 1Gbps.[10]

2.6. The Government has prescribed that NBN Co will be required to charge access seekers uniformly for services across its network for all technologies and for the basic service offering.[11]

2.7. In effect, the Government's uniform national wholesale pricing objective will require NBN Co to cross subsidise access to the NBN by charging above cost in low-cost-to-serve areas and below cost in high-cost-to-serve areas. The approach to pricing to be adopted by NBN Co in order to achieve this policy outcome is relevant to the assessment of the likely impact that the Optus HFC network would likely have upon NBN Co in the absence of the HFC Agreement.

2.8. The price and other terms for access to these services will be subject to the regulatory framework in Part XIC of the Act.

SingTel Optus Pty Ltd, Optus Networks Pty Ltd, Optus Internet Pty Ltd & Optus Vision Media Pty Ltd

2.9. Optus submits it is a leading Australian integrated telecommunications company, delivering communications, information technology and entertainment services.[12] Optus supplies a range of telecommunications services to its customers, including fixed line and mobile services.

2.10. The services supplied by Optus that are relevant to the HFC Agreement are the services that it currently supplies to residential and small business customers using its HFC network; that is telephone, broadband and pay TV services.[13] Optus does not supply wholesale services using its HFC network.[14] The Optus parties to the HFC Agreement include the Optus entities which supply services using the Optus HFC network.[15]

2.11. Deployment of Optus' HFC network began in February 1995 and by the end of 2000 about 21,000km of coaxial cable and 5500km of fibre cable had been laid in Brisbane, Sydney and Melbourne. Optus originally intended to also roll out an HFC network in Adelaide, but decided against this in 1997. Optus' HFC network currently consists of 21,000km of steel wire supporting 7000km of fibre and 25,000km of coaxial cable strung across 550,000 poles.[16]

2.12. The Optus HFC network passes approximately 2.4 million homes in Brisbane, Sydney and Melbourne. Optus submits that coverage of its HFC network is on a street-by-street basis and there are gaps within its HFC footprint. Optus does not service homes that either cannot be technically connected to its HFC network or for which the costs or

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10 Ibid, paragraph 39.
11 Ibid, paragraph 7.
12 SingTel Optus Pty Ltd, Optus Networks Pty Ltd, Optus Internet Pty Ltd and Optus Vision Media Pty Ltd Submission (Optus Submission), 20 January 2012, paragraph 2.1.
13 NBN Co Limited Submission in support of applications (NBN Co Submission), 20 January 2012, paragraph 69.
14 Ibid, paragraph 41.
15 Optus Submission, paragraph 2.2.
16 Ibid, paragraphs 2.4–2.5.

practical difficulties of connecting a premises outweigh the benefits of connecting the customer (mostly multi dwelling units). Therefore, the number of serviceable premises passed by the Optus HFC network is approximately 1.4 million.[17]

2.13. Optus' HFC customer base was reported to be 496,000 individual subscribers as of 31 March 2012, of which 429,000 are broadband subscribers.[18] Optus has also provided the ACCC with further confidential information about its subscriber base.

2.14. Optus submits that it uses its HFC network to service customers within its HFC footprint; otherwise it resells services using Telstra's copper network. Optus also submits that it uses the fibre optic cable from its HFC network for its mobile network, to deliver telecommunications to its business customers, and the fibre optic cable is also integrated into the Optus overall fibre network.[19]

The communications industry

Telecommunications broadband infrastructure

2.15. Australian consumers acquire broadband services which are based on a variety of access technologies, including copper, HFC, optical fibre and wireless networks. The availability of these technologies depends upon a consumer's geographic location.

2.16. An overview of the differences in these technologies to provide context for the ACCC's consideration of the HFC Agreement is provided below.

Copper access network

2.17. In Australia, Telstra operates a near-ubiquitous copper customer access network (CAN) from the exchange building to the premises. Telstra and other service providers use the CAN to supply a range of fixed-line services – including digital subscriber line (DSL) services – to end-user premises.

2.18. DSL technology, in broad terms, enables the supply of high bandwidth services such as broadband internet access. It is currently the dominant technology for fixed internet connections in Australia.[20] ADSL (asymmetric) services have a high download data rate coupled with a lower rate upload and are typically used by residential or small business consumers.

2.19. Since its introduction to Australia in 2000, the take up of ADSL services has grown to over 4.8 million services in operation.[21] ADSL 2+ was introduced in 2005, offering faster data rate broadband.

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17 Ibid, paragraphs 2.2 and 2.5.

18 Singapore Telecommunications Limited and Subsidiary Companies, *MANAGEMENT DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION, RESULTS OF OPERATIONS AND CASH FLOWS FOR THE FOURTH QUARTER AND YEAR ENDED 31 MARCH 2012*, at page 50.

19 Optus Submission, paragraph 2.3.

20 By June 2011, ADSL technology accounted for 83 per cent of fixed internet connections in Australia: ABS, *Internet Activity, Australia*, June 2011.

21 ACCC (from data obtained under customer access network record keeping rules, December 2011), *Declaration of the wholesale ADSL service under Part XIC of the Competition and Consumer Act 2010 – Final Decision*, February 2012, p.4.

Hybrid fibre coaxial networks

2.20. Hybrid fibre coaxial cable (HFC) networks, also known as 'cable', involve the use of optical fibre and coaxial cable capable of providing broadband access, subscription television (pay TV) and voice services. The optical fibre connection forms the 'backbone', with coaxial cable running from fibre nodes to the customers' premises.

2.21. The two major HFC networks in Australia are operated by Telstra and Optus. Telstra's HFC network passes approximately 2.5 million homes in Adelaide, Brisbane, the Gold Coast, Melbourne, Perth and Sydney.[22] There is a considerable degree of overlap between these networks, resulting in an estimated combined coverage of approximately 2.6 million homes.[23] Telstra uses its HFC network for pay TV and broadband services, as does Optus, which also uses HFC for voice telephony services.

2.22. Optus notes that HFC networks can typically provide download speeds of up to 30Mbps. However, with upgrading to the data over cable service interface specification (DOCSIS) 3.0 standard HFC networks can provide download speeds up to (and depending on its configuration, greater than) 100Mbps.[24] In August 2010 Optus completed the upgrade of its HFC network to DOCSIS 3.0 and launched a 'Premium Speed Pack'. Optus has noted that the DOCSIS 3.0 upgrade has increased the download speeds of its HFC network to up to four times faster than regular cable broadband when downloading most Australian hosted content.[25] Telstra upgraded its HFC network in Melbourne to DOCSIS 3.0 in 2009[26] and recently announced its intention to upgrade the rest of its HFC network to DOCSIS 3.0.[27]

2.23. Optus has further noted that it has configured its HFC network to provide upload speeds of up to 2Mbps, noting that it has chosen not to configure the network to offer greater upload speeds following an assessment of incremental cost versus benefits.[28]

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22 Australian Communications and Media Authority, *Communications Infrastructure and Services Availability Report 2006-07*, 2007, page 9.

23 Ibid.

24 SingTel Optus Pty Ltd, Optus Networks Pty Ltd, Optus Internet Pty Ltd and Optus Vision Media Pty Ltd Submission (Optus Submission), 29 August 2011 (updated 30 September 2011), paragraph 2.7.

25 SingTel Optus Pty Ltd, media release, *Optus upgrades cable broadband to deliver supersonic speeds in Brisbane, Melbourne and Sydney,* 2 August 2010.

26 Telstra Corporation Limited, media release, *Telstra unveils super-fast cable broadband - Melbourne first to be upgraded*, 10 March 2009.

27 Telstra Corporation Limited, media release, *BigPond Cable customers set to enjoy speed upgrade*, 24 November 2011.

28 Ibid, paragraph 2.20, see also footnote 5, page 7.

Optical fibre networks

2.24. Optical fibre delivers broadband internet services by transmitting information as light pulses, and is capable of carrying information at greater data rates than copper wire. This technology is currently not in wide use for residential purposes in Australia but has been used extensively to provide business services and is now to be used in the NBN.

2.25. Optical fibre permits transmission over longer distances and at higher bandwidths (data rates) than other access technologies. NBN Co notes that the optical fibre being deployed for the NBN can provide data rates of up to 1 giga bits per second (Gbps) and higher in the future.

Wireless broadband

2.26. Wireless broadband services can be offered over a mobile broadband network, a fixed wireless network, or satellite. The quality of wireless broadband services is generally dependent on the degree to which the spectrum (used for delivery within a cell-based service area) is shared by other users in that service area.

2.27. Wireless broadband technology can deliver a range of data rates - 12Mbps is the initial entry level service to be offered by NBN Co on its fixed wireless and satellite networks. Recent developments in Long Term Evolution (LTE) technology have increased available service offerings offered by mobile networks, with Telstra offering services with peak data rates of up to 40Mbps.[29] A report prepared for the UK telecommunications regulator, Ofcom, concluded that by 2017 LTE is expected to offer peak data rates of 328Mbps and by 2020 peak data rates of 2940Mbps (although data rates will depend on the availability of spectrum, environmental conditions, cell size, geographic distribution of users etc).[30]

Contention ratios and different access technologies

2.28. The optical fibre, HFC and copper networks form the access portion of a communications network.

2.29. Each network is designed and configured in a way that means that most customers will share the available capacity of the access network. Customer traffic is aggregated at particular points of the network and this can be where end-users services experience congestion (i.e. lower download and upload speeds than the expected peak). The likelihood of this occurring is called 'network contention'. Access network owners can manipulate the level of contention by increasing capacity at particular points of the network.

2.30. However, the access network component is not the sole point of contention that can affect the service quality experienced by end-users. Each access network connects to backhaul transmission systems that in turn connect to a network of routers forming the

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29 Telstra Corporation Limited website, http://go.bigpond.com/wireless/?2473PSEM&pid=G|E|D|BP|bphmbb|4GLTETerms, visited 25 November 2011.

30 Report for Ofcom by Real Wireless Ltd, *4G Capacity Gains*, 27 January 2011, page 25.

IP core network of the carrier. Various servers (such as for email, video, voice) then connect to the IP core network. It is usual practice for the IP core network and servers to be located only in the major cities (because of the cost, complexity and service requirements of the equipment).

2.31. For all access networks the backhaul, IP core and servers provide a point of contention that can affect the speeds experienced by an end user.

Products

2.32. The Australian retail and wholesale communications industry includes the provision of fixed voice, fixed broadband, mobile voice, wireless broadband, and pay TV products.[31]

2.33. Fixed voice services in Australia are provided by retail service providers over copper network, HFC or fibre networks. Mobile voice services are provided over mobile networks.

2.34. Broadband services in Australia are now supplied by a number of retail service providers using mainly copper (ADSL and ADSL2+), HFC, fibre, wireless and satellite networks.[32] Wireless broadband services are provided over mobile networks.[33]

2.35. Retail subscription TV products in Australia are offered by a number of service providers but predominantly by Foxtel and Austar.[34] Foxtel is owned by Telstra Corporation Ltd (50%), News Corporation Ltd (25%), and Consolidated Media Holdings Limited (25%). Telstra is a reseller for Foxtel and supplies some limited additional content. Optus is also a reseller for Foxtel and also supplies some limited additional content.

Market structure

2.36. The provision of fixed telecommunications services in both metropolitan and non-metropolitan areas is dominated by Telstra. Despite the regulation of access to Telstra's fixed-line networks, Telstra has endured as the dominant participant in Australian telecommunications.[35]

2.37. Telstra is a highly integrated telecommunications service provider, in terms of both vertical and horizontal integration. It owns the only ubiquitous fixed-line network in Australia as well as other key infrastructure.[36]

2.38. The migration of the industry from Telstra's copper network to the NBN will result in changes to the way in which service providers compete in retail markets. NBN Co

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31 NBN Co Limited, *NBN Co Limited Corporate Plan 2011-2013*, page 32.

32 Ibid, page 38.

33 Ibid, page 33.

34 On 10 April 2012 the ACCC announced that it would not oppose the acquisition of AUSTAR United Communications Limited by FOXTEL Management Pty Limited after accepting court-enforceable undertakings from FOXTEL.

35 See information in ACCC, *Telecommunications competitive safeguards for 2009-10*.

36 ACCC, *Assessment of Telstra's Structural Separation Undertaking and draft Migration Plan – Discussion Paper*, 30 August 2011, page 13.

submits that it’s Layer 2 wholesale services will support a range of wholesale and retail business models. NBN Co submits that larger retail service providers are expected to acquire Layer 2 products from NBN Co and use their own infrastructure to provide retail services to their end-users, while smaller retail service providers may opt to use a Layer 3[37] intermediary for incremental wholesale services.[38]

2.39. Optus presently provides retail fixed voice and broadband services using its HFC network and Telstra’s copper network (predominately using the unconditional local loop service).[39] Optus' wholesale access services are supplied using Telstra’s copper network – it does not use its HFC network to provide wholesale services.[40]

2.40. As at June 2010, the Optus HFC network accounted for 4.8 per cent of broadband services in operation within Australia.[41] Optus has approximately 496,000 subscribers on its HFC network which amounts to about 35 per cent of the 1.4 million serviceable premises passed by the HFC network.[42]

Regulatory framework

2.41. The provision of communications services in Australia is regulated by, among other things, Parts XIB and XIC of the Act. Part XIB contains industry specific prohibitions against anti-competitive conduct in the telecommunications industry, which are based on the general prohibitions in Part IV of the Act. Part XIC was introduced to make provision for an access regime to promote the long-term interests of end-users (LTIE) of telecommunications services. This framework governs the terms and conditions on which access seekers can acquire services. An important aspect of the LTIE is the efficient use of, and efficient investment in, infrastructure.

2.42. The supply of broadband services by Optus using its HFC network is not currently declared under Part XIC of the Act and is therefore not regulated. Third parties have no right to access, and Optus has no obligation to provide third parties with access to, Optus HFC services.[43]

2.43. The services to be supplied by NBN Co will be subject to regulation under Part XIC and NBN Co is prohibited from supplying services unless they are declared.[44]

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[37] Layer 3 Network/Wholesale Services - the Network layer responsible for defining how interconnected networks function; it includes routing, flow control, segmentation, error detection and error correction. Source NBN Co, *NBN Co Limited Corporate Plan 2011-2013*, page 155.

[38] NBN Co Submission, paragraph 87.

[39] Optus submission, paragraph 5.3.

[40] Ibid, paragraphs 5.13 –5.15.

[41] Ibid, paragraph 5.12.

[42] Singapore Telecommunications Limited and Subsidiary Companies, *MANAGEMENT DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION, RESULTS OF OPERATIONS AND CASH FLOWS FOR THE FOURTH QUARTER AND YEAR ENDED 31 MARCH 2012*, at page 50 and Optus Submission, paragraph 2.5.

[43] Section 152CJA(1), the Act.

[44] Ibid, paragraph 93.

Structural reform

2.44. The Government has implemented broader reforms to the structure of the telecommunications industry to assist in the transition to the NBN. As a part of this reform, the *Telecommunications Legislation Amendment (Competition and Consumer Safeguards) Act* was passed in November 2010, which introduced a framework to address Telstra's level of vertical integration.

2.45. Under this framework, Telstra submitted, and the ACCC accepted, a Structural Separation Undertaking (SSU) which provides that Telstra will cease to use its own fixed line access networks to provide retail services.

2.46. Telstra also entered into commercial agreements with NBN Co (the Definitive Agreements) that govern, among other things, the terms on which Telstra will disconnect its fixed-line customers from its networks and provide services and access to key infrastructure to NBN Co.

3. ACCC evaluation

3.1. The ACCC's evaluation of the HFC Agreement is in accordance with the relevant public benefit tests[45] contained in the Act. In broad terms, under the relevant tests the ACCC shall not grant authorisation unless it is satisfied that the likely benefit to the public would outweigh the detriment to the public constituted by any lessening of competition that would be likely to result from the HFC Agreement.

3.2. In order to measure and assess the benefits and detriments likely to result from the HFC Agreement, the ACCC has identified the relevant areas of competition and the likely public benefits and detriments in the future with the HFC Agreement and compared this to the likely future should authorisation not be granted.

3.3. In assessing the applications for authorisation the ACCC has had regard to the submissions of NBN Co, Optus, interested parties and reports prepared by Frontier Economics for NBN Co and Optus. These submissions have included information provided on a confidential basis.

3.4. NBN Co and Optus have provided confidential information expanding upon their public submissions made in support of the applications. This has included information about trends in internet usage, operational and capital expenditure as well as operational policies and strategies. This information has informed the ACCC's analysis of the likely effect of the HFC Agreement on competition and its potential to result in benefits and detriments to the public.

Framework for assessing benefits and detriments

3.5. Generally, competition can be relied upon to deliver efficient market outcomes. However, in circumstances where there are market failures, competitive markets will not generate efficient outcomes. In this respect, the ACCC accepts that a number of elements of fibre to the home networks exhibit strong natural monopoly characteristics.

3.6. The Act recognises that, in certain circumstances, arrangements which restrict competition can deliver public benefits where they address a potential market failure and therefore improve economic efficiency.

3.7. Public benefit is not defined in the Act. However, the Australian Competition Tribunal (the Tribunal) has stated that the term should be given its widest possible meaning. In particular, it includes:

> …anything of value to the community generally, any contribution to the aims pursued by society including as one of its principle elements … the achievement of the economic goals of efficiency and progress.[46]

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45 Sections 90(5A), 90(5B), 90(6), 90(7) and 90(8) of the Act. For more information about the tests for authorisation and relevant provisions of the Act, please see Attachment C of this draft determination.

46 *Re 7-Eleven Stores* (1994) ATPR 41-357 at 42,677. See also *Queensland Co-operative Milling Association Ltd* (1976) ATPR 40-012 at 17,242.

3.8. The Tribunal has noted that the question of whether a benefit is a public benefit should be directed towards:

> … the extent to which the benefit has an impact on members of the community, that is society. Does it fall into the category of "anything of value to the community generally"?
>
> …
>
> It follows that cost savings achieved by a firm in the course of providing goods or services to members of the public are a public benefit which can and should be taken into account … where they result in pass through which reduces prices to final consumers, or in other benefits, for example, by way of dividends to a range of shareholders or being returned to the firm for future investment.[47]

3.9. Public detriment is also not defined in the Act but the Tribunal has given the concept a wide ambit, including:

> …any impairment to the community generally, any harm or damage to the aims pursued by the society including as one of its principal elements the achievement of the goal of economic efficiency.[48]

3.10. In balancing public benefits and detriments, the Tribunal has indicated that it is appropriate to apply a 'form of the total welfare standard'.[49] Under a total welfare standard, public benefits are defined widely and include the benefits to producers and their shareholders (e.g. cost savings) rather than just benefits that accrue directly to consumers or the general public. However, the Tribunal has noted that it may choose to place less weight on those gains that only flow through to a limited number of members of the community.[50]

3.11. In line with the Tribunal's approach, the ACCC treats cost savings arising from increases in productive efficiency as public benefits.[51] In assessing benefits, the ACCC considers only their *net* effect, i.e. net of any transfers between different groups.

3.12. The ACCC also considers it is important, and consistent with the Tribunal's approach, to adopt a dynamic view of competition and efficiency considerations. Hence it is important to take into account not just the static costs and benefits of the conduct for which authorisation is sought, but also whether those effects will be durable and what the dynamic costs and benefits are likely to be.

The area of competition

3.13. The first step in assessing the provisions of the HFC Agreement for which authorisation is sought is to consider the area(s) of competition relevant to that conduct.

3.14. The ACCC has defined relevant markets in the telecommunications area in a number of other matters. It should be noted that the ACCC takes a purposive approach to defining markets which takes into account the material facts relevant to the issue under consideration. As such the relevant areas of competition may be different for different matters.

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47 *Qantas Airways Limited* [2004] ACompT 9 at 189.
48 *Re 7-Eleven Stores* (1994) ATPR 41-357 at 42,683.
49 *Qantas Airways Limited* [2004] ACompT 9 at 185.
50 Ibid.
51 ACCC, Guide to Authorisation, March 2007.

3.15. The ACCC considers that a precise identification of the relevant market is unlikely to be required for the purpose of assessment of the applications for authorisation and it can consider the affected areas of competition in a broad sense before assessing any public benefits and public detriments that would result or be likely to result from the conduct for which authorisation is sought.

NBN Co submission

3.16. NBN Co submits the relevant areas of competition for assessing the applications are those for fixed telecommunications wholesale and retail services.[52]

3.17. NBN Co submits that the area(s) of competition in which NBN Co will supply wholesale services to retail service providers is the supply of wholesale 'resale' services, including wholesale services which support the delivery of voice and broadband carriage services.[53]

3.18. NBN Co submits that the areas of competition in which Optus supplies services to its retail customers are those in which carriage and content services are currently supplied by Optus to retail customers using its HFC network and which could be supplied over the NBN, including fixed-line carriage services and content services such as broadband and voice services.[54]

3.19. NBN Co notes that Telstra's copper network provides the only means of wholesale delivery at scale for retail service providers; in particular Telstra and Optus do not offer wholesale resale services over their HFC networks.[55]

3.20. NBN Co submits that the relevant geographic scope of the wholesale and retail areas of competition is likely to be national, however even if it were limited to the 30 Optus HFC serving areas in Sydney, Melbourne and Brisbane, the outcome will be the same.[56]

Optus submission

3.21. Optus submits that the relevant areas of competition are those for retail and wholesale supply of fixed voice and broadband services.[57]

3.22. Optus submits that the majority of retail fixed voice and broadband services are provided over Telstra's copper network, whereas the HFC Network connects only 4.8% of customers.[58]

3.23. Optus submits that it competes with Telstra in the provision of wholesale voice and broadband services by accessing Telstra's unconditioned local loop service. Optus does not provide wholesale access services over its HFC network.[59]

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52 NBN Co Submission, paragraphs 88 and 90.
53 Ibid, paragraph 88.
54 Ibid, paragraph 90.
55 Ibid, paragraph 74.
56 Ibid, paragraphs 89 and 91.
57 Optus Submission, paragraph 5.1.
58 Ibid, paragraph 5.6.
59 Ibid, paragraphs 5.12 – 5.15.

ACCC considerations

3.24. The ACCC considers that the following product areas of competition are relevant to its assessment of NBN Co's applications for authorisation.

Fixed-line access networks

3.25. Optus uses its HFC network only to supply end-users directly and does not offer wholesale services using its HFC network. Optus and NBN Co submit that Optus' HFC network is not configured to provide wholesale access and Optus notes that it has no plans to make the significant investment required to make its network wholesale-capable.[60] Optus' HFC network therefore provides an upstream competitive alternative to the NBN for Optus but not for other access seekers and thus does not operate directly in the wholesale area of competition.[61]

3.26. The ACCC considers that the area of upstream competition is relevant as Optus' HFC network is potentially capable of providing an indirect competitive constraint on NBN Co (as a wholesale-only provider) through its retail activities. In particular, where Optus competes with NBN Co through attracting retail customers to its HFC network that would otherwise have been serviced by other retail service providers on the NBN.

3.27. The ACCC does not consider Telstra's fixed-line access networks to be relevant to this analysis as, following the acceptance of Telstra's structural separation undertaking and the entering into of the Definitive Agreements, those networks will progressively cease providing voice and broadband services as the NBN is rolled out.

3.28. In relation to non-fixed line technologies, the ACCC has previously found that the constraint applied upon fixed broadband and voice services by wireless/mobile services is limited.[62] The ACCC considers that, with the increased presence of LTE networks, the use of these services is likely to evolve over the period for which authorisation has been sought. The ACCC does not consider it necessary, for the purposes of assessing NBN Co's applications for authorisation, to determine the precise level of the constraint provided by wireless.

Retail broadband services

3.29. The ACCC has previously considered that, from a consumer perspective, whether broadband services are provided over HFC, fibre or copper is unlikely to be a material factor in their decision-making process.[63] Similarly, a survey conducted by the Australian Communications and Media Authority into consumer attitudes indicates that consumers generally do not distinguish between different types of broadband.[64] From a

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60 Ibid, paragraph 8; Optus Submission, paragraph 2.24.

61 ACCC, *Telstra's exemption application in respect of the Optus HFC network – Final decision,* November 2008, page 35.

62 ACCC, *Telstra's exemption application in respect of the Optus HFC network – Final decision,* November 2008, pages 41 and 42.

63 ACCC, *Telstra's local carriage service and wholesale line rental exemption applications, Final Decision and Class Exemption,* August 2008, page 48.

64 Australian Communications and Media Authority, *Telecommunications Today – Consumer attitudes to take-up and use*, September 2007, page 18.

functional or end-use perspective, the services supplied over HFC and optic fibre technologies (or ADSL) support similar downstream applications.[65]

3.30. Both the Optus HFC network and the NBN are capable of offering a range of different broadband services with varying download and upload speeds. The ACCC notes that some of NBN Co's top-tier product offerings are unable to be offered by Optus on its HFC network without further investment or significant reengineering to the existing configuration of the HFC network. However, there is a clear area of overlap where both networks are capable of providing substantially the same retail broadband and voice services.

3.31. The ACCC considers that many end users will find these products substitutable between the two networks. Therefore, Optus' supply of retail voice and broadband services using its HFC is likely to be a competitive constraint upon the supply of similar services by other service providers utilising the NBN.

3.32. Optus submits that its HFC network is not currently suitable for the supply of business services because it is not capable of meeting business customers' typical requirements with regard to quality including availability, symmetric capacity, diversity, and consistency of service.[66] However, the ACCC has previously concluded that it is not necessary to consider a separate voice or broadband area of competition for business customers.[67]

Geographic areas of competition

3.33. The ACCC considers that a number of geographic dimensions of competition may be relevant to its analysis of the HFC Agreement. While it is likely that competition would be concentrated in the localised areas where the HFC will overlap with the NBN, the ACCC also considers that there may be flow-on effects for competition at a national level.

3.34. In this respect the ACCC notes:

- Optus has traditionally adopted a national pricing policy;
- the NBN is intended to provide ubiquitous access to broadband services with a uniform wholesale price across Australia.

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65 See ACCAN, *NBN: Guide for Consumers – The basics: The internet and broadband*, April 2011, p. 4.
66 Optus Submission, paragraphs 2.20 – 2.23.
67 ACCC, *Telstra's exemption application in respect of the Optus HFC network – Final decision*, November 2008, page 41.

The future without – the counterfactual

3.35. The ACCC applies the 'future with-and-without test' established by the Tribunal to identify and weigh the public benefit and public detriment likely to be generated by conduct for which authorisation has been sought.[68]

3.36. The ACCC compares the public benefit and public detriment likely to result from the arrangements in the future if authorisation is granted with those likely to result if authorisation is not granted (the counterfactual).

3.37. NBN Co submits that the relevant counterfactual is an assessment of the future without the HFC Agreement rather than a future with another version of the agreement. NBN Co further submits that:[69]

> … there can be no commercial certainty as to the likely future state of competition without the Optus HFC Agreement. NBN Co considers that, without the Optus HFC Agreement, the Government's NBN policy settings and regulatory framework would be 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.
>
> …
>
> NBN Co considers that the ACCC should have regard to the unique policy and regulatory environment in which the Optus HFC Agreement has been entered into.

3.38. Optus submits that if the relevant provisions of the HFC Agreement are not authorised, it is unlikely that a new agreement would be reached dealing with the same subject matter on substantially different terms.[70]

3.39. In its January 2012 submission, Optus noted that if the Telstra transaction proceeds it considered it likely that the NBN will proceed regardless of whether or not the relevant provisions of the HFC Agreement were authorised by the ACCC.[71] As noted previously, the Structural Separation Undertaking submitted by Telstra (version dated 23 February 2012) was approved by the ACCC on 27 February 2012. On 7 March 2012, Telstra issued a press release confirming that with the finalisation of the Definitive Agreements, Telstra's Structural Separation Undertaking had come into force.

3.40. NBN Co submits that such a scenario requires consideration of the likelihood of Optus extending and upgrading the HFC network or selling that network to a third party in addition to any likely changes to the way in which the NBN would be likely to proceed.[72] NBN Co considers, for a range of commercial legal and technical reasons, in the absence of the HFC Agreement it is highly improbable that:

- Optus or any other party will invest in the HFC network to expand its geographic footprint or service capabilities;

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68 *Australian Performing Rights Association* (1999) ATPR 41-701 at 42,936. See also for example: *Australian Association of Pathology Practices Incorporated* (2004) ATPR 41-985 at 48,556; Re *Media Council of Australia* (No.2) (1987) ATPR 40-774 at 48,419.

69 NBN Co Submission, paragraphs 103–104.

70 Optus Submission, paragraph 4.4.

71 Ibid, paragraph 4.8.

72 NBN Co Submission, paragraph 105.

- a third party would acquire the HFC network to compete head to head with NBN Co in wholesale markets for fixed line services;
- a third party would acquire the HFC network to compete in retail markets for the provision of fixed line services;
- Optus will use the HFC network to compete head to head with NBN Co in wholesale markets for fixed line services.[73]

3.41. Frontier Economics also submits that in the absence of the HFC Agreement it is unlikely that any other party will wish to use the Optus HFC network to provide services in competition with those provided over the NBN.[74]

3.42. NBN Co submits that without the Optus HFC Agreement, NBN Co may have to delay the rollout of the NBN within Optus HFC areas as a result of 'cherry picking' concerns. NBN Co's description of cherry picking concerns is set out at paragraph 3.48 below and discussed further in the ACCC's consideration of public benefits. NBN Co's rationale for potentially delaying the rollout of the NBN within Optus HFC areas was supported by Frontier Economics.[75] NBN Co further submits that this could result in an increase in NBN Co's long term uniform national wholesale prices.[76] The effect of the Optus HFC Agreement on NBN access prices is considered under the heading 'public benefits'.

3.43. Optus submits that in the circumstance where the relevant provisions of the HFC Agreement are not authorised but the Telstra transaction and the roll out of the NBN proceeds, the ACCC should assume that Optus will offer services using the NBN as well as continuing to offer services on the Optus HFC network to those customers within the Optus HFC network coverage area. Optus also submits that legislation enacted as part of the Government's NBN reforms effectively means that Optus will not expand its HFC network.[77] Frontier Economics supports this position, but also considers that over time, Optus will progressively migrate all of its customers to the NBN.[78]

3.44. NBN Co and Optus also made various submissions about the extent to which Optus is likely to compete with the NBN in the absence of the Optus HFC Agreement. These submissions are presented and considered in the context of the ACCC's consideration of likely public detriments arising from the Optus HFC Agreement.

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73 NBN Co Submission, paragraph 111.

74 Frontier Economics Pty Ltd, *Application for the authorisation of the HFC subscriber agreement between NBN Co and SingTel Optus - AN EXPERT REPORT PREPARED FOR NBN CO AND SINGTEL OPTUS*, December 2011, paragraph 96.

75 Frontier Economics Pty Ltd, *Application for the authorisation of the HFC subscriber agreement between NBN Co and SingTel Optus - AN EXPERT REPORT PREPARED FOR NBN CO AND SINGTEL OPTUS*, December 2011, paragraph 61.

76 NBN Co Submission, paragraphs 113–118.

77 Optus Submission, paragraphs 4.12 and 4.13.

78 Frontier Economics Pty Ltd, *Application for the authorisation of the HFC subscriber agreement between NBN Co and SingTel Optus - AN EXPERT REPORT PREPARED FOR NBN CO AND SINGTEL OPTUS*, December 2011, paragraph 95.

ACCC considerations

Is the HFC Agreement necessary for the NBN roll out to proceed?

3.45. Consistent with NBN Co's submissions, the ACCC considers that the HFC Agreement is likely to result in a faster take-up of services on the NBN by Optus HFC subscribers through:

- the disconnection and migration obligations it imposes on Optus;
- the restrictions it imposes on Optus' use of its HFC network in the future;
- the fixed-line network preference commitments required of Optus.[79]

3.46. NBN Co submits that the 'continuation of a structure under which Optus, as the second largest telecommunications provider, continues to operate its own HFC network whilst also being a retail service provider of the NBN is inconsistent with the Government's objective of a wholesale-only, open access telecommunications market structure.'[80]

3.47. However, the ACCC considers that the HFC Agreement is not a prerequisite to achieving the Australian Government's desired telecommunications market structure in the long-term for the reasons set out in paragraph 3.122 and following.

3.48. Consistent with the submissions of Optus cited above, the ACCC considers that the NBN is likely to be rolled out irrespective of whether authorisation is granted for the relevant provisions of the HFC Agreement. NBN Co submits that:[81]

> In a hypothetical future without the Optus HFC Agreement, there are a range of potential changes to the NBN roll out plan and impacts on NBN Co's pricing and profitability.
>
> … NBN Co considers that it is theoretically possible that Optus would be in a position and have the incentive to seek to retain those high value customers through its ability to offer lower retail prices to those customers than other RSPs who offer retail services using the NBN. In theory, Optus will be in a unique position because, unlike other RSPs, the "wholesale" price it faces in any one HFC area will not need to be set taking into account any cross subsidy required to achieve uniform national wholesale prices across its entire customer base. NBN Co considers that this will provide Optus with an unfair competitive advantage..
>
> If this were to occur, this could lead NBN Co to regard the Optus HFC areas as "cherry picked". As a result and given NBN Co's aim to maximise roll out progress and customer take up over time, without the HFC Agreement, NBN Co may have to delay the roll out of the NBN within the Optus HFC areas.

3.49. The ACCC accepts that a decision not to authorise the relevant provisions of the HFC Agreement may result in some changes to the specific parameters of the NBN roll out including, for example, the timing of roll out at particular locations. However the ACCC does not consider that a decision not to grant authorisation would materially alter the intended roll out of the NBN. NBN Co submits that the Optus HFC network passes 2.4 million premises in affluent low-cost-to-serve areas and fast-growth corridors in Brisbane, Melbourne and Sydney.[82] Given the commercial incentives for

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[79] See also NBN Co Submission, paragraphs 138, 142 - 143, and 193.

[80] NBN Co Submission, paragraph 64.

[81] NBN Co Submission, paragraphs 115–117.

[82] Ibid, paragraph 106.

the NBN to attract customers in low-cost-to-serve areas, the ACCC considers it unlikely that NBN Co would defer the roll out of the NBN within the Optus HFC areas to any significant degree.

3.50. On balance, the ACCC considers it likely that the roll out of the NBN would proceed in a substantially similar manner irrespective of a decision by the ACCC to grant or deny authorisation for the relevant provisions of the HFC Agreement.

Optus to supply broadband using its HFC network and as a retailer using NBN

3.51. If the relevant provisions of the HFC Agreement are authorised by the ACCC, the Optus HFC network would be progressively decommissioned in line with the roll out of the NBN and Optus' HFC existing subscribers would be required to migrate to the NBN in order to retain a fixed line service. If the authorisation for the HFC Agreement is not granted, the ACCC considers it likely that the agreement would be terminated.

3.52. In the context of a scenario in which the HFC Agreement does not proceed, NBN Co submits that Optus would be commercially likely to continue to operate the HFC network, minimise operating costs and progressively decommission it, when operating costs are too high, in favour of the NBN.[83]

3.53. In the absence of the HFC Agreement, Optus has submitted that it is likely to offer services using the NBN as well as its own HFC network.[84] The ACCC considers it likely that Optus would prioritise the provision of services using its own HFC network over the provision of services using the NBN where possible.[85] In particular, information provided by Optus on a confidential basis indicates that the marginal or additional cost it will incur in serving a customer on its HFC network will be significantly below the price of acquiring wholesale services from the NBN to provide the same service to the customer. This cost differential provides scope for Optus to earn higher profits and/or offer lower prices by using its own HFC network. The ACCC considers that this is likely to provide a strong incentive for Optus to serve its customers using the HFC network wherever feasible.[86]

3.54. In this regard Frontier Economics has noted that, without the HFC Agreement in the short-to-medium term Optus is likely to continue to provide services to some consumers over the HFC network. Frontier Economics also considers that over time, Optus is likely to migrate all of its customers to the NBN.[87]

3.55. Optus has also submitted that it will only offer services using the Optus HFC network to customers who are within the Optus HFC network coverage area, and that it will not expand the Optus HFC network.[88]

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83 NBN Co Submission, paragraph 110.

84 Optus submission, paragraph 4.12.

85 See also Frontier Economics Pty Ltd, *Application for the authorisation of the HFC subscriber agreement between NBN Co and SingTel Optus - AN EXPERT REPORT PREPARED FOR NBN CO AND SINGTEL OPTUS*, December 2011, paragraphs 138 – 139.

86 Ibid at paragraphs 138 – 139.

87 Ibid at paragraph 95.

88 Optus Submission, paragraphs 4.12 – 4.13.

3.56. NBN Co's Corporate Plan predicts that 'as demand for bandwidth increases it will become increasingly difficult for any non-fibre delivery platform to compete, based on the current technology upgrade maps for each technology'.[89] The ACCC considers that if demand for higher data rates grows as predicted in NBN Co's Corporate Plan, and in the absence of significant network upgrades being undertaken by Optus, the business case for the Optus HFC network is likely to deteriorate over time.

3.57. Optus submits that it has no plans to undertake any further major upgrades of its HFC network.[90] The ACCC notes that once the NBN has been built, Optus would have the option to either invest further in the capability of its HFC network or to buy access to the NBN in order to supply higher quality services to end users. There would be a range of factors that would influence this decision, and which make it less likely that Optus would continue to build rather than buy access into the future:

- first, the cost of making available network capacity to cable broadband services is likely to increase as more capacity is required. This reflects the fact that the HFC network was not originally designed to support very high broadband services, and while a number of incremental upgrades could boost available capacity, a point will be reached beyond which additional capacity could only be added by way of a more fundamental re-engineering of the network. Duplication costs may also deter the development of applications on the HFC network;
- second, the G-PON design of the NBN provides an assured technology upgrade path that cannot currently be matched by upgrade paths available to HFC networks;
- third, the ubiquitous nature of the NBN and government backing means that NBN Co will likely become an entrenched network operator over time.

3.58. Optus has also submitted that the technical capability gap between the NBN and the Optus HFC network will grow as the NBN is upgraded over time while the Optus HFC network remains static.[91] Optus also submits that:[92]

> Whilst HFC networks also have an upgrade path to higher speeds allowing peak speeds of over 300Mbps, HFC technology will lag the capability of fibre to the premise technology. More pertinently, as mentioned earlier, it is unlikely that such future technology would ever be deployed on the HFC Network because it effectively requires significant re-engineering of the network through node splitting or extending fibre deeper into the network (this pushes the HFC Network to more closely resemble a fibre to the premise network with fibre being provided closer to the home and the coaxial portion shared with fewer users). This is costly and would require significant capital expenditure.

3.59. On balance, the ACCC considers it likely that in the absence of the HFC Agreement Optus would use its existing network (as currently configured with limited further investment) to provide services to relevant customers within the HFC serving area until the demands of a sufficient number of consumers exceed the technical capabilities of the Optus HFC network. There will be a point in time where the number of customers Optus can service on its HFC network will fall below a critical level. At this level it

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89 NBN Co, *NBN Co Limited Corporate Plan 2011-2013*, page 39.
90 Optus submission, paragraph 2.10.
91 Optus Submission, paragraph 6.33.
92 Ibid, paragraph 2.31.

will be less costly for Optus to service all its customers using the NBN, rather than incurring the continuing cost of maintaining and operating the HFC network. Ultimately, Optus will decommission its HFC network when the number of customers on the HFC network falls below a critical level. At that level it will be cheaper for Optus to service the remaining HFC customers on the NBN than on the HFC network.

Conclusion on likely future without

3.60. The ACCC considers that the likely future without the provisions sought to be authorised would involve the following:

- NBN roll out is likely to proceed broadly in line with current expectations. On balance, the ACCC does not propose to accept NBN Co's submission that there is a real chance of significant delay to the roll out of the NBN within the Optus HFC areas;
- Optus would be likely to provide services via its established HFC network where possible, but would be unlikely to invest significant capital to expand or upgrade its HFC network in the presence of the NBN;
- ultimately, Optus will decommission its HFC network when the number of customers on the HFC network falls below a critical level. At that level it will be cheaper for Optus to service the remaining HFC customers on the NBN than on the HFC network. The ACCC has not reached a view on when this is likely to occur.

Public benefit

3.61. As noted previously, the ACCC considers that competition can generally be relied upon to deliver efficient outcomes. In circumstances where there are market failures, however, competitive markets will not necessarily generate the most efficient outcomes. The Act recognises that, in certain circumstances, arrangements which restrict competition can deliver public benefits where they address a potential market failure such as natural monopoly and improve economic efficiency.

3.62. There are three aspects to economic efficiency that are relevant to the ACCC’s consideration of NBN Co’s applications for authorisation, in broad terms these are:

- productive efficiency – being the production of goods and services using the most cost-effective means;
- allocative efficiency – in which resources are employed to their most valued use in society;
- dynamic efficiency – involves the economically efficient use of resources over time and incorporates innovation and responses to changes in the market.

3.63. NBN Co and Optus provided a number of public and confidential submissions as well as other supporting material detailing the potential benefits to the public of the HFC Agreement. The ACCC has had regard to the material provided by NBN Co and Optus, including the confidential material detailing cost savings which may be gained by avoiding the duplication of future network expenditure and an orderly migration of HFC customers to the NBN, in assessing the applications for authorisation.

3.64. Broadly, NBN Co submits that the HFC Agreement will deliver a range of benefits to the public, including:[93]

- achievement of the Government's telecommunications industry policy;
- supporting the Government's objective of achieving structural reform of the telecommunications industry (improved take-up of NBN services and projected financial returns);
- addressing inefficient duplication of infrastructure (duplication of continuing network expenditure);
- supporting the ability of NBN Co to roll out the NBN to achieve the service standards and coverage required by the Government;
- supporting enhanced retail competition and orderly migration of customers to the NBN;
- supporting product development and innovation, as well as consumer take-up of next generation broadband services and applications;
- supporting the development of a vibrant wholesale market;
- avoiding higher prices across the NBN;
- environmental benefits.

3.65. In its submission Optus has supported the benefits put forward by NBN Co.[94]

3.66. A report prepared by Frontier Economics for NBN Co and Optus was also provided. Frontier Economics considers that the benefits from the HFC Agreement are:

- reductions in aerial cabling;
- cost savings from operating one network instead of two networks;
- costs savings from lower migration costs;
- lower costs of debt from larger, more predictable cash flows;
- greater ability to maintain uniform access prices across Australia.

3.67. The ACCC notes that NBN Co has identified the anticipated benefits with reference to a counterfactual that differs from the ACCC's view of the likely counterfactual. Specifically, NBN Co has submitted that:[95]

> Some of the public benefits that flow from the Optus HFC Agreement are enhancements of benefits that arise if the NBN proceeds. Given the policy context in which NBN has entered into the Optus HFC Agreement (including the Definitive Agreements and the position of Telstra as a result) and the complex nature of the NBN project, the ACCC should give significant weight to these benefits.

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93 NBN Co Submission, paragraphs 125 – 200. NBN Co has provided further information on a confidential basis in support of this submission.

94 Optus submission, paragraph 6.2 and 6.4 – 6.42. Optus has provided further information on a confidential basis in support of this submission.

95 NBN Co submission, paragraph 205.

3.68. NBN Co also submits that under a counterfactual where both the Telstra Transaction and the NBN roll out proceed in the absence of the HFC Agreement, NBN Co may have to delay the rollout of the NBN within the Optus HFC areas.[96] On this basis, NBN Co submits that:[97]

> …while many of the public benefits identified in the sections below arise ultimately over the long term from the roll out of the NBN, it would be incorrect to assume that those benefits will be likely to arise, or will be likely to arise at the same time or to the same extent, in a hypothetical future in which the Telstra Transaction and the NBN proceeds, without the Optus HFC Agreement. To the contrary, the Optus HFC Agreement contributes to the achievement of those benefits more quickly and more significantly than without the Optus HFC Agreement.

3.69. However, as concluded in the previous section, notwithstanding NBN Co's submissions about delaying the NBN roll out to HFC areas, the ACCC considers it likely that the roll out of the NBN would proceed in a substantially similar manner irrespective of whether the ACCC grants or denies authorisation for the relevant provisions of the HFC Agreement.

3.70. Having considered the submissions put to it by NBN Co and interested parties the ACCC considers that the HFC Agreement is likely to result in public benefits arising from cost savings from operating a single network (the NBN) instead of two (the NBN and the Optus HFC network). The ACCC also considers that the HFC Agreement is likely to result in some improvements in the efficiency of connecting customers to the NBN as a result of the increased likelihood of coordinated or orderly migration of customers. The HFC Agreement is also likely to result in environmental benefits relating to improved visual amenity and increased safety.

3.71. The ACCC does not propose to accept claimed public benefits relating to:

- improved take up of NBN services and projected financial returns, and subsequent avoidance of higher prices across the NBN;
- the roll out of the NBN or earlier roll out of the NBN within HFC areas for the reasons set out above;
- the creation of a level playing field or the 'equitable treatment' of Optus HFC customers with other telecommunications users.

3.72. The ACCC's assessment of the public benefits likely to arise as a result of the HFC Agreement follows.

Cost savings – avoiding duplication of future network expenditure

3.73. Duplication of infrastructure is inefficient where service(s) could be provided at a significantly lower average cost by a single network.[98] The ACCC considers that to the extent the HFC Agreement is expected to reduce or avoid inefficient duplication of infrastructure, public benefit will arise. The ACCC considers that avoiding inefficient duplication of infrastructure will result in lower average costs for servicing network customers therefore promoting improvements in allocative and productive efficiency.

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96 Ibid, paragraph 117.

97 Ibid, paragraph 123.

98 Baumol, WJ and Binder AS, *Economics Principles and Policy*, South Western Cengage Learning 2009, 11th edition, page 220.

3.74. In this regard NBN Co submits that it will build and operate the NBN in areas that are currently served by the Optus HFC network, in line with the Australian Government's expectations.[99]

3.75. NBN Co notes that the Optus HFC network would require significant investment to support the applications envisaged to be available on the NBN. NBN Co considers that further investment in Optus' HFC network would result in inefficient duplication of infrastructure and that this could also lead to reduced take-up of the NBN, higher unit costs and potentially higher costs across the network.[100] NBN Co submits that the HFC Agreement removes the risks of reduced take-up and higher unit costs, resulting in NBN Co being able to harness the economies of scale inherent in network infrastructure to promote competition, innovation and consumer take-up of next generation broadband services and applications.[101]

3.76. Frontier Economics considers that the marginal costs of providing services on the NBN are likely to be lower than those of providing a similar level of service over an HFC network, although the nature of NBN Co's charging arrangements means it is likely to set prices that seek to recover more than the marginal cost of providing wholesale broadband access due to the need to recover fixed and common costs.[102]

3.77. The HFC Agreement is likely to deliver cost savings to society by providing an incentive for Optus to migrate its customers to the NBN, thereby avoiding the costs associated with network duplication. In this respect Frontier Economics has submitted that the HFC Agreement is likely to bring forward the economies of scale likely to emerge from the operation of the network earlier than would otherwise be the case.[103]

3.78. The ACCC acknowledges that it is Government policy for the NBN to be rolled out in areas that are currently serviced by HFC and other networks, irrespective of whether the HFC Agreement is authorised.[104] The Optus HFC network represents a sunk cost in an economic sense and is not a cost that can be avoided. Therefore, the avoidance of inefficient duplication and investment arising from the HFC Agreement is applicable to future maintenance and upgrades to the Optus HFC network that would be avoided as a result of the HFC Agreement.

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99 NBN Co Submission, paragraphs 186–187.

100 Ibid, paragraphs 188–190.

101 Ibid, paragraph 190 – 191.

102 Frontier Economics Pty Ltd, *Application for the authorisation of the HFC subscriber agreement between NBN Co and SingTel Optus - AN EXPERT REPORT PREPARED FOR NBN CO AND SINGTEL OPTUS*, December 2011, paragraph 63.

103 Frontier Economics Pty Ltd, *Application for the authorisation of the HFC subscriber agreement between NBN Co and SingTel Optus - AN EXPERT REPORT PREPARED FOR NBN CO AND SINGTEL OPTUS*, December 2011, paragraph 53.

104 Senators The Hon Penny Wong and Stephen Conroy, Statement of Expectations issued to NBN Co Limited, 17 Dec 2010, page 1.

3.79. NBN Co and Optus have submitted that the HFC Agreement could potentially remove inefficient investment duplication arising from:

- any continuing expenditure required to keep the Optus HFC network operational (this includes expenditure on the physical network as well as expenditure on application and systems development that may be required in future);
- future upgrade or expansions to the Optus HFC network.

Continuing expenditure

3.80. While telecommunications networks are typically capital intensive and require substantial sunk investment, continuing expenditure requirements (including operating expenditure and capital expenditure) can also be significant. Optus provided details of continuing expenditure requirements for its HFC network on a confidential basis.[105] The confidential information provided by Optus included actual and forecast expenditure data by category. The data included a breakdown of operating and capital expenditure including expenditure on the physical infrastructure and related systems. Optus also identified the extent to which expenditure is fixed or variable with changing customer numbers over time.

3.81. The ACCC notes that under the HFC Agreement, the cessation of expenditure on the HFC network is likely to occur progressively as the NBN is rolled out and the HFC network is decommissioned. The ACCC considers that the benefit from avoiding inefficient expenditure will exist in each year that the Optus HFC network would otherwise have been operational.

3.82. If the arrangements proceed, Optus will progressively decommission its HFC network. Customers, who in the absence of the arrangements would have been provided services using the HFC network, will be provided with services using the NBN. The economic cost saving to society from operating one network instead of two networks is the difference between the resource costs of providing services to these customers using the HFC network and the resource costs of providing the same services to these customers using the NBN. Confidential information provided by Optus and the NBN indicates these costs savings are likely to be material.

Upgrades and expansion

3.83. In relation to potential expansion and upgrades to the Optus HFC network, the ACCC notes Optus' submissions:[106]

> Optus has no plans to expand the HFC Network outside its current footprint, nor does it have any plans to undertake any further major upgrades of the network.
>
> …
>
> Whilst HFC Networks also have an upgrade path to higher speeds allowing peak speeds of over 300Mbps, HFC technology will lag the capability of fibre to the premise technology. More

105 Optus submission, paragraph 6.11. Optus has also provided information on a confidential basis in support of this submission.

106 Optus Submission, paragraphs 2.10 and 2.31.

pertinently, as mentioned earlier, it is unlikely that such future technology would ever be deployed because it effectively requires significant re-engineering of the network through node splitting or extending fibre deeper into the network (this pushes the HFC Network to more closely resemble a fibre to the premise network with fibre being provided closer to the home and the coaxial portion shared with fewer users). This is costly and would require significant capital expenditure.

3.84. Optus has further submitted that there will be no incentive for it to undertake investment to upgrade its HFC network in a post-NBN environment because it is unlikely to recover its investment as a result of competitive pressures exerted by the NBN.

3.85. The ACCC considers that it is unlikely, in the absence of the HFC Agreement, that Optus would elect to undertake significant investment in its HFC network by either node splitting or taking steps necessary to support the provision of wholesale services over its HFC. The ACCC notes that Optus may elect to undertake limited network upgrades to allow the HFC network to continue to meet customer service standards/expectations, of a similar magnitude to that which it has undertaken to date.

Conclusion

3.86. With respect to the submitted benefit concerning the duplication of network expenditure, the ACCC considers that:

- public benefits are likely to arise from the cessation of continuing expenditure requirements associated with the Optus HFC network and that these benefits are likely to be material; and
- more limited public benefits are likely to arise from avoiding investment to upgrade the Optus HFC network.

Cost savings through orderly migration of HFC customers to the NBN

3.87. NBN Co and Optus submit that the HFC Agreement will generate benefits through the orderly migration of the Optus HFC customers to the NBN. Optus also submits that the HFC Agreement will ensure that its customers receive equitable treatment to customers on the Telstra network and will have the ability to access the superior suite of services that will be offered over the NBN as soon as possible.[107]

3.88. Frontier Economics submits that if Optus is able to migrate more of its customers in a given area to the NBN at the one time, this may create opportunities for Optus and NBN Co to coordinate their activities. For example, costs to Optus and NBN Co would be reduced by migrating a series of customers on each truck and technician visit.[108]

3.89. Optus and NBN Co provided confidential estimates of likely savings to arise from the orderly migration of Optus HFC customers to the NBN.[109] However, the ACCC considers that these estimates are likely to overstate the likely benefit that can only be

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107 NBN Co submission, paragraph 157, and Optus submission, paragraph 6.20.

108 Frontier Economics Pty Ltd, *Application for the authorisation of the HFC subscriber agreement between NBN Co and SingTel Optus - AN EXPERT REPORT PREPARED FOR NBN CO AND SINGTEL OPTUS*, December 2011, paragraph 71.

109 NBN Co confidential submission 23 February 2012, paragraps 54 – 60; Optus' confidential response to ACCC's questions, 22 February 2012, p. 1-2.

derived if the HFC Agreement proceeds. This is primarily because the comparison is made between an orderly migration enabled by the Optus HFC Agreement and migration on an ad hoc basis. The ACCC considers it likely that there would be a degree of coordination in the absence of the HFC Agreement to ensure that the connection of customers to the NBN (when that occurs) is as efficient as possible, rather than migration on a purely ad hoc basis. The ACCC notes that the processes regarding connection to the NBN are still being established.

Conclusion

3.90. The ACCC considers that there are likely to be some cost savings through the orderly migration of Optus HFC customers as a result of the HFC Agreement. Moreover the ACCC notes that the value of the cost savings is likely to be greater where co-ordination avoids prolonged consumer driven migration from the Optus HFC to the NBN.

Environmental benefits

3.91. NBN Co has submitted that the decommissioning of Optus' HFC network, which is largely aerial, will result in improvement in visual amenity, reduction in risk to network integrity, and some benefits to safety to the public and the workforce.[110]

3.92. The ACCC accepts that there may be some benefits as a result of the HFC Agreement as submitted. However, the ACCC does not see these benefits as being particularly significant. For example, the NBN is expected to be aerial in some locations, albeit with potentially narrower diameter cables than the existing HFC network.

3.93. NBN Co has also submitted that through improvements in video teleconferencing and other communication technologies that will be supported by the NBN, the NBN will likely lead to reductions in usage of private and public transport and inter-city travel. NBN Co has argued that this is expected to make a significant contribution to a reduction in greenhouse emissions in Australia.[111]

3.94. However, the ACCC considers that the greater use of technology in place of transport is a change that cannot be attributed to the HFC Agreement. Rather, the ACCC considers that to the extent such changes occur, they are likely to occur as a result of the introduction of the NBN rather than the decommissioning of the Optus HFC network pursuant to the HFC Agreement.

3.95. NBN Co has also noted that the NBN is expected to be more energy efficient than existing HFC networks at all access rates, but particularly at access rates in excess of 10Mbps.[112] Optus submits that:[113]

> …FTTP networks such as the NBN are likely to have lower power requirements and will therefore have lower carbon dioxide emissions than the present HFC network. This is because the HFC network has active elements which translate from the fibre portion of the network to the

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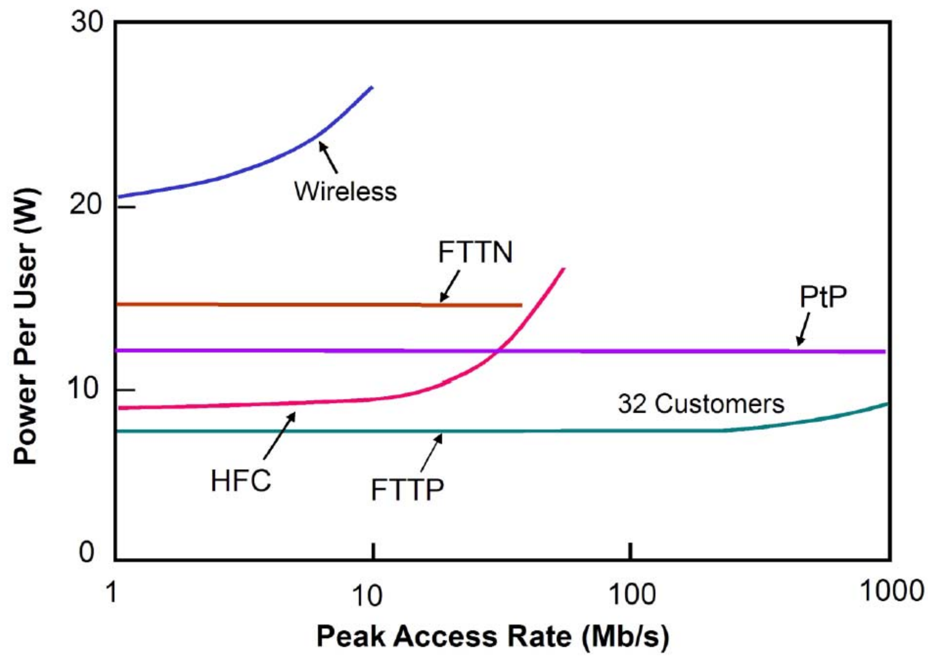
110 NBN Co Submission, paragraph 195.
111 Ibid, paragraph 197.
112 Ibid, paragraph 199.
113 Optus Submission, paragraph 6.41.

coaxial portion of the network (this is at each node). The FTTP network does not have any such requirements being passive between the exchange and the end-user premises.

3.96. The ACCC sought further information from NBN Co regarding the magnitude of expected energy efficiency of the NBN relative to the existing HFC network. In response, NBN Co submitted that as a rough guide, each HFC subscriber service may require four watts in addition to the power required to run the network terminating device and the power required to aggregate/signal process and distribute data to the hub. This is in comparison to 0.38 watts per NBN subscriber in addition to the power required to run the network terminating device and the power required for the transit and aggregation equipment.[114]

3.97. NBN Co also provided a graph that was taken from a paper by Rod Tucker[115] showing power per user against peak access rates:[116]

Figure 1: Power per user for different access technologies against peak access rate[117]



3.98. The ACCC notes that at lower peak access rates, there is not a substantial difference between the power per user required by HFC and fibre to the premises (FTTP) networks. As submitted by NBN Co, the difference between them increases with higher peak access rates, particularly those in excess of 10Mbps.

3.99. The ACCC considers that there may be some gains in energy efficiency by decommissioning the Optus HFC network and migrating customers to the more energy

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114 NBN Co response to ACCC questions of 7 October 2011, paragraphs 41–45.

115 Rod Tucker, *Broadband Facts, Fictions and Urban Myths*, in Telecommunications Journal of Australia, vol 60, no 3, 2010, Monash University Press.

116 NBN Co response to ACCC questions of 7 October 2011, paragraphs 38 and 39.

117 Diagram acronyms: fibre to the node (FTTN), fibre to the premise (FTTP), hybrid fibre coaxial (HFC), point to point (PtP).

efficient NBN. However, such energy efficiency gains do not appear to be material at the relevant peak access rates. More importantly however, the greater energy efficiency of the NBN compared to the Optus HFC network is likely to have already been captured in the consideration of duplication of future network expenditure as it is reflected in the difference in operating costs between the two networks.

Conclusion

3.100. The ACCC considers that the HFC Agreement is likely to give rise to some environmental benefits as compared to the counterfactual, largely arising from improvement in visual amenity and safety for the public and relevant workforce. However, the ACCC considers that these benefits are likely to be small. The ACCC considers that the anticipated benefits arising from reduced power consumption should not be double counted and are already reflected in the reduced operating costs which form part of the efficiency benefits discussed under the heading 'Cost savings – avoiding duplication of future network expenditure'.

Uniform national wholesale pricing and improving NBN Co's business plan

3.101. The Government's policy is for the NBN to provide ubiquitous access to broadband services with a uniform wholesale price across Australia. Effectively, this is to be achieved by the imposition of a cross subsidy from generally low cost to serve metro customers to higher cost to serve rural and regional customers. Unlike NBN Co, Optus does not have any obligation to provide services across Australia on a uniform basis.

3.102. The following sections consider the extent to which the HFC Agreement may support NBN Co's business plan and its ability to deliver uniform national wholesale pricing, as well as potentially lower national wholesale prices.

Uniform national wholesale pricing

3.103. NBN Co submits that the HFC Agreement will enhance the commercial viability of the NBN project, and that the migration of customers from the Optus HFC network to the NBN is expected to enhance take-up rates and improve NBN Co's business plan, including providing greater certainty of revenue. NBN Co submits that Optus' high margin HFC customers are likely to have a positive effect on NBN Co's expected internal rate of return.[118] In turn, NBN Co submits that the HFC Agreement supports its ability to deliver uniform national wholesale pricing on an open access basis as required by the Government's Statement of Expectations, and that its ability to cross subsidise lower margin areas will be more limited should Optus HFC customers not migrate to the NBN as contemplated by the HFC Agreement.[119]

3.104. NBN Co submits that uniform national wholesale pricing on an open access basis will lead to substantial economic and social benefits including:[120]

- enhanced retail competition and innovation;

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[118] NBN Co Submission, paragraphs 141 – 146 and 148 –149.
[119] Ibid, paragraphs 146 – 147 and 150.
[120] Ibid, paragraph 147.

- lower costs of doing business in rural and regional Australia and reduced concerns about the ‘digital divide’, improved investment and employment capacity;
- greater take-up of high data rate services, stimulating innovation in the development of new applications utilising superfast broadband;
- a shift in population and commuting patterns that are likely to result in meaningful carbon abatement from reduced transport requirements;
- increased feasibility of smart metering and demand-side energy management;
- increased viability of long-term in-home health care and reduced geographic restrictions of education and training.

3.105. However, the ACCC considers that in accordance with the counterfactual, NBN Co would be required to deliver uniform national wholesale pricing on an open access basis with or without of the HFC Agreement.

Improvement to NBN Co’s business plan and scope for ‘cherry picking’

3.106. Frontier Economics submits that in the absence of the HFC Agreement, Optus will likely continue to serve low cost customers using its HFC network, with the effect of reducing the number of consumers taking up an NBN service and increasing the average cost faced by NBN Co and threatening its ability to earn a normal profit. Frontier Economics notes that NBN Co could seek to retain these low cost customers by lowering its service prices to encourage Optus to migrate its customers to the NBN. Frontier Economics notes that uniform pricing obligations would require NBN Co to reduce its service prices nationally such that the price is below its average cost of supplying all its customers. Frontier Economics submits that in the alternative NBN Co could accept the loss of low cost customers to Optus. Frontier Economics contends that this would have the effect of increasing NBN Co’s prices to cover its increased average cost and slowing migration of customers to the NBN.[121]

3.107. Frontier Economics considers that cherry picking is likely to be more pronounced where NBN Co is obliged to price more than the entry level product at uniform prices, and where the unit cost of providing services in different geographic areas and using different technologies varies greatly. Frontier Economics considers that having a uniformly priced entry level service will serve as an anchor on the prices NBN Co can charge for other tiers nationally. Further, Frontier Economics submits that NBN Co’s Wholesale Broadband Agreement contains a commitment to price a series of specified fibre speed tiers on a uniform national basis. Frontier Economics notes that capital cost per premises for activating NBN fibre to the premises services for the 93rd percentile is likely to be at least three times that of connecting a service to the bottom 10 percentile. Frontier Economics submits that the combination of these factors suggests there is significant scope for cherry picking to occur using the Optus HFC network. Frontier Economics submits that it is hard to tell the extent of such cherry picking and therefore the threat to NBN Co’s revenue and uniform pricing obligations.[122]

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[121] Frontier Economics Pty Ltd, *Application for the authorisation of the HFC subscriber agreement between NBN Co and SingTel Optus - AN EXPERT REPORT PREPARED FOR NBN CO AND SINGTEL OPTUS*, December 2011, section 7.2

[122] Ibid, paragraph 131.

3.108. The Competitive Carriers Coalition (CCC) submits that:[123]

> … the continued operation of the Optus HFC [network] in metropolitan locations would allow cherry picking by Optus, and put pressure on the ability of NBN Co to provide national pricing and competitive neutrality for downstream retailers.
>
> …
>
> …the long term interest of end-users is, on balance, better served by the ACCC authorising the arrangements proposed in the definitive agreement and the undertaking than they would be by the continued operation of a [sic] vertically integrated HFC networks in the hope that the intermodal competition that has always been absent in the Australian market would develop sometime in the future.

3.109. With respect to NBN Co's ability to cross-subsidise services, the ACCC notes that NBN Co has not explicitly asserted that without the HFC Agreement it will not be able to offer uniform national wholesale prices, nor has material been provided to support such a proposition.

3.110. NBN Co's Corporate Plan indicates significant additional equity funding would be required if cherry-picking is allowed to occur at the most lucrative brown-field areas.[124] The ACCC notes however that the materiality of the threat of cherry picking posed by the Optus HFC network is unclear.

3.111. Frontier Economics submits that it is hard to tell the extent of such cherry picking and therefore the threat to NBN Co's revenue and uniform pricing obligations.[125] NBN Co submits that:[126]

> It is theoretically possible that Optus could offer lower retail prices for services supplied over the HFC network in HFC areas. However, mere theory or speculation is not a sufficient basis on which to conclude that this is likely to occur and there is no commercially relevant or meaningful "real world" evidence to suggest that Optus would do so. In any event, if Optus were to offer lower retail prices for services supplied over its HFC network, only Optus HFC customers would benefit from those lower prices. For NBN Co, other RSPs and customers other than the Optus HFC customers, the offer by Optus of lower retail prices to its HFC customers would likely result in the following detriments:
>
> (a) NBN Co is likely to defer roll out in those areas and so the benefits of the NBN for RSPs and consumers in those areas will be delayed.
>
> (b) NBN Co's profitability and viability would be likely affected and NBN Co may need to raise its uniform national wholesale prices. This would mean consumers and RSPs may have to pay higher prices nationally.

3.112. As noted in paragraphs 3.49-3.50, the ACCC does not accept that NBN Co is likely to defer the roll out to low-cost-to-serve areas. The ACCC accepts that NBN Co's (short term) profitability could be affected if customers choose to take a lower cost service on the Optus HFC network. However, an assessment of the net impact on NBN Co's profitability and/or the uniform national wholesale price would need to take account of

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123 Competitive Carriers' Coalition Submission, 29 September 2011, page 2.

124 NBN Co, *NBN Co Limited Corporate Plan 2011-2013*, page 52.

125 Frontier Economics Pty Ltd, *Application for the authorisation of the HFC subscriber agreement between NBN Co and SingTel Optus - AN EXPERT REPORT PREPARED FOR NBN CO AND SINGTEL OPTUS*, December 2011, paragraphs 131 – 148.

126 NBN Co submission, paragraph 12.

(among other things such as the regulatory approach and customer willingness to pay) the lower costs to NBN Co as a result of not paying migration fees to Optus.

Improvement to NBN Co's business plan and internal rate of return

3.113. NBN Co submits that the HFC Agreement improves its ability to achieve its targeted take-up of services and projected financial returns as well as maximises the migration of customers to the NBN through Optus' disconnection obligations.[127] NBN Co contends that the HFC Agreement will have a positive impact on its internal rate of return. The ACCC notes that a positive impact on the internal rate of return suggests that the expected cost of the HFC Agreement to NBN Co (migration payments) is less than the anticipated additional revenues earned from customers who migrate to the NBN as a result of the HFC Agreement, all in net present value terms.

3.114. NBN Co provided information to the ACCC on a confidential basis concerning its financial modelling of the effects of the HFC Agreement. However, the ACCC notes that this financial modelling is highly sensitive to input assumptions, particularly the expected average revenue to be derived from Optus HFC customers on the NBN over time, and the extent to which these customers may migrate to the NBN in the absence of the HFC Agreement. The ACCC is unable to conclude with a sufficient degree of certainty that the HFC Agreement will result in an increase in NBN Co's internal rate of return.

3.115. Further, the ACCC considers that the transfer of customers from one provider to another such that the receiving firm's customer base and financial returns are increased does not, in itself, constitute a public benefit. For example, if the transfer does not generate any efficiency benefits, the benefits to the NBN from attracting these customers will be the same as the costs to Optus from losing them. That is, there will be no net benefits. Where the improved financial returns reflect the elimination of duplication and improved cost efficiency these have already been taken into account by the ACCC in this draft determination.

3.116. The ACCC notes the submissions of NBN Co that the HFC Agreement could avoid higher NBN access prices. However, the ACCC does not accept that the HFC Agreement is likely to result in any public benefit arising from avoiding higher NBN access prices given the uncertainties surrounding:

- the net effect of the HFC Agreement on NBN Co's expected internal rate of return;
- the final regulatory parameters that will apply to NBN Co's access pricing;
- customers' willingness to pay for NBN Co's services.

Improvement to NBN Co's business plan – reduced cost of debt

3.117. Frontier Economics submits that the HFC Agreement will lead to higher and more certain revenues leading to a 'faster move into profitability' which should reduce the

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[127] NBN Co submission, paragraph 137 – 138.

cost to NBN Co of raising debt.[128] Notwithstanding the uncertainty outlined above with respect to the effect of the HFC Agreement on NBN Co's profitability/internal rate of return, in general terms the ACCC considers that a reduction in risk is likely to result in a lower cost of capital. However, neither Frontier Economics nor NBN Co has quantified the anticipated benefit to NBN Co or the magnitude of the expected reduction in the cost to it of raising debt.

3.118. The ACCC considers that the cost of debt is likely to depend on the level of debt as well as the ability of the NBN to service the debt. The HFC agreement will likely increase the level of debt (as the NBN will make significant migration payments to Optus) and increase the ability of the NBN to services the debt. The ACCC also notes that NBN Co's status as a government enterprise may influence the cost to NBN Co of raising debt. For these reasons the net effect of the HFC Agreement on NBN Co's cost of debt is unclear.

Conclusion

3.119. In light of the counterfactual against which the ACCC is assessing the HFC Agreement, the ACCC is not satisfied that the benefits cited by NBN Co in relation to the delivery of uniform national wholesale pricing are likely to arise as a result of the HFC Agreement.

3.120. For the reasons set out above, the ACCC considers that the effect of the HFC Agreement on NBN Co's financial position, including its cost of capital, is uncertain. Any increase in rate of return that reflects improved cost efficiency is taken into account elsewhere in this draft determination. Further, the precise regulatory arrangements applicable to NBN Co are still under consideration. In the context of this uncertainty, and also uncertainty around a customers' willingness to pay, it is not clear that any positive effect on NBN Co's internal rate of return would necessarily translate to lower NBN access prices.

Other benefits

3.121. NBN Co has submitted that the HFC Agreement will result in a range of additional public benefits. The ACCC's assessment of these claimed benefits is set out below.

Achievement of Government's telecommunications industry policy and structural reform

3.122. NBN Co submits that 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 with all telecommunications retail service providers able to access the NBN on an open and non-discriminatory basis.[129] NBN Co also cites a statement made by the ACCC in a submission to the Department of Broadband, Communications and the Digital Economy from June 2009: 'Equivalence in access can only be ensured by a non-integrated or a fully structurally

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128 Frontier Economics Pty Ltd, *Application for the authorisation of the HFC subscriber agreement between NBN Co and SingTel Optus - AN EXPERT REPORT PREPARED FOR NBN CO AND SINGTEL OPTUS*, December 2011, paragraph 72.

129 NBN Co submission, paragraph 135.

separated network operator'.[130] NBN Co considers that the HFC Agreement supports NBN Co's ability to achieve the Government's telecommunications policy and the specific NBN objectives set out in the Statement of Expectations.[131]

3.123. Frontier Economics submits that the introduction of the NBN will result in the transformation of the industry from one in which Telstra is the overwhelmingly dominant wholesale and vertically integrated retail provider to one in which NBN Co will be the dominant wholesale only provider. Frontier Economics submits that the transformation 'will finally address the problem of anti-competitive discrimination at its root cause' and that 'this should not be overlooked by the ACCC in assessing the competitive effects of the proposed agreement'.[132] Frontier Economics also submits that 'NBN Co – as a monopoly provider of wholesale fixed-line services – will have no incentive to agree to terms that will advantage one downstream retail service provider over another.'[133]

3.124. The ACCC considers that the HFC Agreement is not required to deliver the reforms that have been initiated by the Australian Government. In particular, the HFC agreement is not necessary for the NBN to become the dominant fixed line access network operating on a wholesale only and open access basis, and for the associated industry reform to be realised.

Supports a vibrant wholesale market

3.125. NBN Co submits that the HFC Agreement supports the achievement of the Government's objective of a national wholesale only open access network to be provided by the NBN, and that this will support the development of a vibrant wholesale market in which other service providers are able to offer wholesaler/aggregator services using the NBN. NBN Co submits that Optus is likely to operate as a wholesaler/aggregator of NBN services and that the Optus HFC network is not currently capable of open access wholesale service supply for resale. NBN Co also submits that a delay to the roll out of the NBN in Optus HFC areas will result in a delay to the expected benefit from the development of a vibrant wholesale market.[134] The ACCC notes Optus' submission that the HFC Agreement will ensure Optus is 'in the best possible position to compete with Telstra in the wholesale market'.[135]

3.126. The ACCC accepts NBN Co's submission that it is likely that Optus will offer wholesaler/aggregator services. However the ACCC considers that this is likely to be the case with or without the HFC Agreement. The ACCC notes Optus' submission:[136]

> The current market for the supply of wholesale voice and broadband services is fragmented. Whilst Optus competes with Telstra in key metropolitan areas (through its DSL infrastructure, not the HFC network), Telstra does not face meaningful competition in much of regional and rural

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130 Ibid, paragraph 136.
131 Ibid, paragraph 125.
132 Frontier Economics Pty Ltd, *Application for the authorisation of the HFC subscriber agreement between NBN Co and SingTel Optus - AN EXPERT REPORT PREPARED FOR NBN CO AND SINGTEL OPTUS*, December 2011, paragraph 51.
133 Ibid, paragraph 54.
134 NBN CO submission, paragraphs 179 – 183.
135 Optus Submission, paragraph 6.18.
136 Ibid, paragraph 6.18.

> Australia. The NBN opens up the opportunity for a genuine national scale competitor to Telstra to emerge in the wholesale market. Optus plans to be this competitor.

In particular the ACCC considers that Optus would be likely to use its best endeavours to position itself as a meaningful competitor in the wholesaler/aggregator market, irrespective of any decision made in relation to the HFC Agreement.

3.127. The ACCC does not accept that there will be any significant change to NBN Co's roll out schedule as a result of the HFC Agreement for the reasons set out under the ACCC's consideration of the likely counterfactual. Accordingly, the ACCC does not accept that the HFC Agreement is likely to 'bring forward' any benefits relating to enhanced competition in the wholesale market.

Promotes enhanced retail competition

3.128. NBN Co submits that its ability to implement uniform national wholesale pricing on an open access basis and the creation of a level playing field for all fixed service retail service providers has the potential to bring about real benefits for customers. NBN Co notes that payments to Optus under the HFC Agreement are not contingent upon customers remaining with Optus on the NBN; NBN Co considers that this will increase the contestability of these customers. NBN Co argues that this will benefit consumers through innovation of service, diverse service offers, competitive pricing, and faster and cheaper replacement of 'older, HFC technology constraining potential digital services'.[137]

3.129. NBN Co also submits that the NBN will be complementary to (rather than competitive with) wireless technologies and will lead to increased competition and lower prices for wireless broadband.[138] NBN Co also submits that the NBN will facilitate greater use of femtocells,[139] reducing overall spend on telecommunications.[140]

3.130. The ACCC considers that the creation of a level playing field and subsequent benefits to consumers set out above are generally not directly attributable to the HFC Agreement. In particular the ACCC notes that all retail service providers will have equal access to the NBN with or without the HFC Agreement. The ACCC also considers that the benefits of enhancing competition for wireless broadband are not appropriately attributed to the HFC Agreement.

Supports product development and innovation

3.131. NBN Co submits that the NBN will lead to 'a plethora of direct and indirect benefits to Australian consumers, businesses and the government sector'. The benefits are submitted to arise through greater use of productivity enhancing applications such as telecommuting, telehealth and video conferencing.[141]

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137 NBN Co submission, paragraphs 154–156.

138 Ibid, paragraph 159.

139 A femtocell is a device (basestation) used to improve mobile network coverage on a small scale by connecting to the service provider's network generally via fixed broadband. Typically, the range of a femtocell is around 10 meters.

140 NBN Co submission, paragraphs 162 – 163.

141 Ibid, paragraph 167.

3.132. NBN Co notes that broadband is currently supplied by a variety of technologies including Telstra's copper network, the HFC networks and wireless. NBN Co expects continued growth in demand for higher data rates. NBN Co submits that while each of the technologies is capable of competing effectively for market share at relatively low data rates, non-fibre technologies have technical limitations that 'make delivery at higher speeds increasingly difficult' and that it will be increasingly difficult for them to compete.[142]

3.133. NBN Co submits that the limited availability of applications that require high data rates will be the main limiting factor in the early years of the NBN on the demand for high data rate services and that without such applications consumers would have limited reasons for migrating to the data rates offered by the NBN. NBN Co expects that 'as higher bandwidth becomes available, applications that take advantage of that bandwidth will be developed'.[143]

3.134. NBN Co further submits that 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'. NBN Co submits that customers on the Optus HFC network are typically high value and likely to demand applications that take advantage of high data rates. It is on this basis that NBN Co submits that the migration of customers from the Optus HFC network to the NBN in accordance with the HFC Agreement will facilitate innovation and development of applications that utilise high data rates.[144]

3.135. The ACCC considers that the submissions of NBN Co regarding product development and innovation are generally not attributable to the HFC Agreement. This is because NBN Co will be required to roll out (overbuild) the NBN within the Optus HFC network footprint. As a result, while some Optus HFC customers may seek to utilise applications that require higher data rate services offered by the NBN, these customers will have equal opportunity to access the NBN through their retail service provider, which could be Optus or another service provider.

3.136. The ACCC accepts NBN Co's submissions that in the absence of significant network upgrades being undertaken by Optus, in the longer term as demand for higher data rates increases, Optus' HFC network is unlikely to be able to support applications that require high data rates. Further, the ACCC considers that at some point in the future, the Optus HFC network is likely to become economically unviable to the extent that expected HFC revenues may become insufficient to justify the continuing expenditure requirements of the Optus HFC network.

3.137. The ACCC considers that the roll out of the NBN will proceed irrespective of the HFC Agreement. The ACCC considers that Optus HFC network customers who may be likely to take advantage of applications that require higher data rates than that available on the Optus HFC network are likely to migrate to the NBN irrespective of the HFC Agreement. As such, the ACCC does not consider that requiring Optus' customers (who wish to retain fixed line services) to migrate to the NBN as proposed under the

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142 Ibid, paragraphs 168 – 171.
143 Ibid, paragraphs 172 – 173.
144 Ibid, paragraphs 177 – 178.

HFC Agreement would result in significant innovation and development of high data rate applications that would not otherwise occur.

ACCC conclusion on public benefits

3.138. The ACCC considers that the HFC Agreement is likely to result in benefits to the public from reduced duplication of infrastructure expenditure as a result of the cessation of operational and capital expenditure on the HFC network which is greater that the expenditure which NBN Co would incur in serving these same customers. The ACCC considers that these benefits are likely to be material.

3.139. The ACCC also considers that some public benefits are likely to arise from cost savings as a result of a coordinated migration of Optus HFC customers to the NBN.

3.140. Finally, the HFC Agreement is likely to give rise to limited environmental benefits over the counterfactual, largely arising from improvement in visual amenity and safety for the public and relevant workforce, although these benefits are likely to be small.

Public detriment

3.141. The ACCC considers that competitive markets are generally the most effective means of ensuring that a variety of services are delivered to consumers at affordable, sustainable prices through the most efficient providers. As noted previously the competitive process encourages firms to produce goods and services at least cost (productive efficiency), use resources to produce the goods and services that are most valued by consumers (allocative efficiency) and innovate by developing new products and production processes (dynamic efficiency). However the ACCC accepts that a number of elements of fibre to the home networks exhibit strong natural monopoly characteristics.

3.142. Agreements between competitors can reduce or eliminate competition between market participants. Such agreements also have the potential to increase barriers to entry. This can lead to increased prices and reduced choice for consumers and significant inefficiencies.

3.143. In its submissions NBN Co has argued that the HFC Agreement is unlikely to result in any detriments to the public, [145] noting:

- lack of infrastructure-based competition is unlikely to substantially lessen competition;
- the anti-disparagement provision will not limit competition between fixed and wireless networks/services;
- the anti-disparagement provision will not undermine technological innovation;
- decommissioning the Optus HFC Network will not limit competition.

NBN Co further contends that any theoretical detriment which may arise would be immaterial.[146]

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[145] See NBN Co Submission, paragraph 211 to 255. NBN Co has provided further information on a confidential basis detailing this view.

3.144. In its submissions Optus has argued that the HFC Agreement will not result in public detriment as the HFC network will not act as a competitive constraint on the NBN, [147] noting:

- Optus does not currently have the technical ability to supply wholesale access services over its HFC Network and has no plans (or incentive) to upgrade the HFC Network to do so in the future;
- the HFC Network does not currently act as an effective competitive constraint on the Telstra copper network, or on RSPs supplying services over the Telstra copper network, including Telstra;
- the inherent limitations of the HFC Network means that it will be less able to compete against the NBN;
- the NBN will be subject to strict regulatory controls which limits the impact of any possible competitive constraint that the HFC Network could have on the NBN.

3.145. The ACCC considers however that public detriment is likely to result from the HFC Agreement. In particular the ACCC considers that the proposed restriction upon Optus' future use of its HFC network is likely to remove a source of competitive tension which could deliver improvements in both allocative and dynamic efficiency. The ACCC considers that the HFC Agreement could have negative consequences for price and non-price competition at the retail level and thereby remove an indirect constraint on the wholesale services offered by NBN Co.

3.146. While recognising the potential for these detriments to arise, the ACCC considers that there are several factors that are likely to lessen the impact on competition and consumers of removing the Optus HFC network. In particular the Optus HFC network has a limited footprint and Optus has stated that it has no plans to expand its HFC Network. The ACCC also considers that Optus is unlikely to undertake significant investment in its HFC network, both in terms of application and systems development and future upgrades or expansions to the network. Consequently the Optus HFC network will only compete to provide NBN entry level data and voice services. The ACCC considers that over time, consumers are likely to demand services that the HFC network will not be able to supply and that Optus will use the NBN to provide higher speed broadband services to its customers.

3.147. In addition to these factors NBN Co is subject to regulation under Part XIC of the Act. While the precise regulatory arrangements applicable to NBN Co are still under consideration by the ACCC, it is intended that these arrangements will impose a significant constraint on NBN Co's pricing over time. In addition, NBN Co has proposed a pricing structure (akin to a form of two-part tariff) which, along with other aspects of the regulatory arrangements which will ultimately apply to NBN Co, would be expected to provide strong incentives for NBN Co to upgrade capacity as end-user demand grows over time.

3.148. In these circumstances the ACCC considers that the potential detriments to the public likely to result from the loss of competition as a result of the HFC Agreement are likely

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[146] NBN Co Submission, paragraph 215.

[147] See Optus Submission, paragraph 7.1 to 7.45. Optus has provided further information on a confidential basis detailing this view.

to be less significant than may otherwise be expected. The ACCC also considers that these detriments, to the extent that they arise, will become less significant over time.

3.149. The ACCC's assessment of the public detriments likely to result from the provisions of the HFC Agreement for which authorisation has been sought follows.

Migration of Optus' HFC customers to the NBN and restrictions on Optus' future use of its HFC network

3.150. As set out in Chapter 1 of this draft determination, the HFC Agreement broadly provides:

- for the progressive migration of the Optus HFC subscribers to the NBN as the NBN is rolled out;[148]
- that NBN Co will make progressive payments to Optus based on the actual number of subscribers that migrate from its HFC network to the NBN. Payment of the migration payment does not require that subscribers remain customers of Optus after they migrate to the NBN from Optus' HFC network;[149]
- once migration within an HFC serving area has been completed, Optus will decommission the non-optic fibre parts of its HFC network within that area that do not provide ongoing support for mobile infrastructure and business customers;[150]
- that Optus must not further extend the coverage of the Optus HFC network or grant any right or interest or permit any person to use, operate or provide any service over or using the Optus HFC network in an HFC serving area after deactivation.[151] Optus must also ensure that no person can use the Optus HFC network to provide services in Australia.[152] The HFC Agreement also contains limits on the disposal of the Optus HFC network.[153]

3.151. The ACCC considers that there are a number of factors relevant to its consideration of the potential public detriment which may arise as a result of the migration of Optus' HFC subscribers and the proposed restrictions on its future use of the HFC network, being:

- the scope for the HFC network to continue to meet consumer demand;
- the extent to which the Optus HFC may promote competition and efficiency in fixed-line access networks;
- potential impact on NBN Co's wholesale access prices;
- potential impact on non-price aspects of NBN Co's services and efficiency.

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148 NBN Co Submission, paragraph 46(a).
149 Ibid, paragraph 46(c).
150 Ibid, paragraph 46(d).
151 Ibid, paragraph 47.
152 Ibid.
153 Ibid.

The scope for the HFC network to continue to meet consumer demand

3.152. Optus has noted that HFC networks typically can provide download speeds of up to 30Mbps however with upgrading to the DOCSIS 3.0 standard HFC networks can provide download speeds of up to 100Mbps.[154] The DOCSIS 3.0 upgrade of the Optus HFC network was completed in August 2010. The Optus HFC network is currently configured to provide upload speeds of up to 2Mbps. Optus has noted that it has chosen not to configure the network to offer greater upload speeds following an assessment of incremental cost versus benefits.[155]

3.153. NBN Co considers that demand for higher data rates will continue to grow, and that as demand increases it will become increasingly difficult for any non-fibre delivery platform to compete.[156] NBN Co argues that if the historic rate of increase is maintained over the next 15 years, download speeds in 2025 will be in excess of 1Gbps.[157]

3.154. NBN Co has noted that in the near term (1-5 years), applications such as internet protocol television and video-on-demand (VoD) are expected to emerge in Australia, requiring networks offering sustained data rates of 10-20Mbps. NBN Co considers that in the medium-term (5-10 years), applications such as remote hosting and 3D imaging are expected to become mainstream, pushing data rate demands up towards 100Mbps. NBN Co notes that in the long-term (10+ years) products such as ultra high-definition video are expected to require data rates of 250+Mbps[158].

3.155. NBN Co notes that it 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 G-PON consumer services. NBN Co considers that future technical upgrades are likely to see even higher data rates becoming available at increasingly competitive costs.[159]

3.156. The ACCC notes that NBN Co will offer superfast broadband services via retail service providers to businesses and consumers across a range of data rates (see Figure 2 below). NBN Co has stated that its expectations of the growth in demand for speeds is conservative, and in particular is considerably lower than the extrapolation of increasing speeds implied by the history of internet access technologies.[160]

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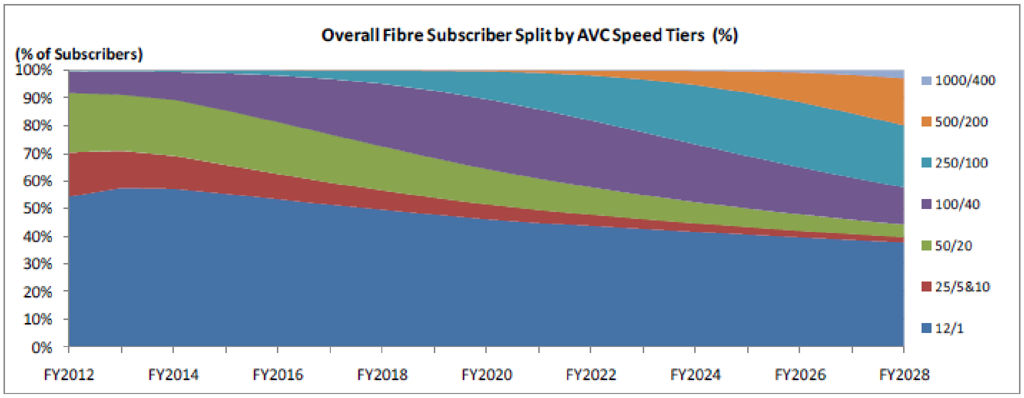
[154] Optus Submission, paragraph 2.8.
[155] Ibid, paragraph 2.29, see also Optus Submission footnote 14, page 9.
[156] NBN Co, *NBN Co Limited Corporate Plan 2011-2013*, page 38 -39.
[157] Ibid.
[158] Ibid.
[159] Ibid.
[160] NBN Co, *NBN Co Limited Corporate Plan 2011-2013*, page 128.

Figure 2



Source: NBN Co Corporate Plan, 17 December 2010 at page 129.

3.157. The ACCC notes that Optus' HFC network is currently capable of offering similar entry level services to consumers as those offered by the NBN and offers download data rates of up to 100Mbps.

3.158. As noted previously[161], once the NBN has been built Optus will have the option to either invest further in the capability of its HFC network or to buy access to the NBN in order to supply higher speed services to end users. In this environment the ACCC considers that it is unlikely that Optus would elect to undertake significant investment in its HFC network, including upgrades such as node splitting to allow it to offer higher speeds over its HFC network.

3.159. The Australian Bureau of Statistics (ABS) publishes a number of data sets which provide an indication of current and historical internet activity in Australia[162], including data demonstrating significant growth in the volume of data downloaded in Australia (see figure 3 below).

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161 See for example paragraph 3.57 of this draft determination.

162 Australian Bureau of Statistics, 8153.0 - Internet Activity, Australia, December 2011, released 30 March 2012.

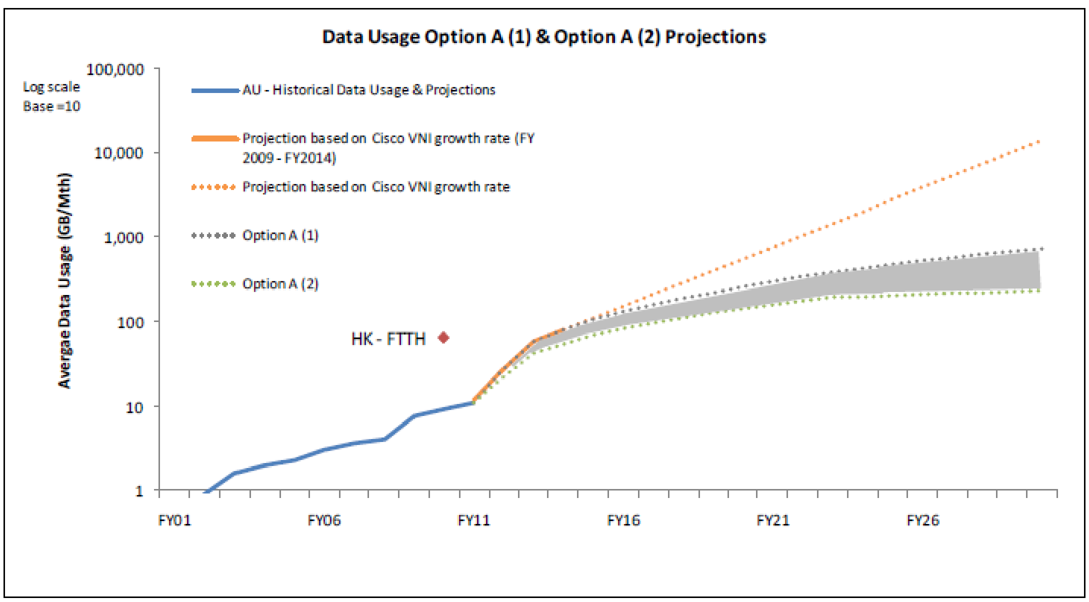
Figure 3

	Dec Qtr 2007	Dec Qtr 2008	Dec Qtr 2009	Dec Qtr 2010	Dec Qtr 2011
Volume of data downloaded (TB)					
Dial-up	2,693 4%	1,079 1%	294 <1%	183 <1%	96 <1%
Broadband					
Fixed line			113,410 89%	174,665 91%	322,280 93%
Wireless			14,251 11%	16,990 9%	23,142 7%
Total broadband	56,638 96%	80,274 99%	127,661 100%	191,655 100%	345,422 100%
Total growth		42%	60%	50%	80%

Source Australian Bureau of Statistics, 8153.0 - Internet Activity, Australia, December 2011, released 30 March 2012

3.160. NBN Co has also published projections of average data user usage for the forecast period of FY2011 to FY2030 (see Figure 4 below), NBN Co states that these projections are conservative and consider saturation of usage, slowing growth in online hours and increasing delivery of content on multicast applications.[163]

Figure 4



Source: ABS, 8153.0 Internet Activity Australia for period pre – FY10, NBN Co Option A (1) & Option A (2) Projections, Cisco VNI Index 2009-2014, OFTA.

Source NBN Co Corporate Plan, 17 December 2010 at page 127.

163 NBN Co, *NBN Co Limited Corporate Plan 2011-2013*, page 127.

3.161. The ACCC notes that Optus' HFC network and the NBN are shared networks – that is the capacity available over the fibre optic cable is used to link a number of end users to the exchange. The Optus HFC is configured to allow this capacity to be shared by up to 200 users – being a significantly greater number of users than that of the NBN in which a single fibre will connect no more than 32 premises. The Optus HFC is also used to distribute an extensive digital television service involving linear and some video on demand channels, potentially limiting the network capacity that can be allocated to Optus' cable broadband services.

3.162. While incremental upgrades could 'boost' network capacity available to cable broadband services, if demand continues to grow strongly at the same rate observed in the ABS data (see Figure 3 above), a point will be reached beyond which the HFC could only continue to meet demand by way of a more fundamental re-engineering of the network. Such a re-engineering of the network would require significant capital investment by Optus.

3.163. The ACCC considers that it is more likely that Optus would, as required, migrate HFC customers to the NBN and by so doing purchase the additional capacity it requires to meet the needs of its subscribers.

3.164. On balance the ACCC considers that in the absence of the HFC Agreement there is scope for the Optus HFC network to meet consumer demand, predominantly in relation to entry level data services. The extent to which this alternate source of supply may otherwise have encouraged increased take-up by consumers of broadband products is discussed below. The ACCC also notes that the Optus HFC network offers an alternate source of supply for consumers within the HFC Serving Area that wish to obtain 'voice only' services. The ACCC recognises however that, over time, consumers are likely to demand services that, in the absence of significant investment, the HFC network will not be able to supply.

The extent to which the Optus HFC network may promote competition and efficiency in fixed-line access networks

3.165. NBN Co will offer a wholesale service with a variety of selectable features and functionality, enabling retail service providers to build differentiated products.[164] The ACCC considers that this provides scope for price and value competition between services offered by retail service providers over the NBN and Optus over its HFC network, including in circumstances where this competition is not initiated by Optus. Retail service providers, including Optus, currently offer a range of incentives to subscribers which affect the 'value' of the product acquired – these incentives include services (for example increases to download limits) and infrastructure (for example the inclusion of a free modem). The ACCC considers that such 'value' incentives promote competition and deliver benefits to consumers.

3.166. As noted previously, the Optus HFC network is an established network with a comparatively lower marginal cost to Optus than that of acquiring equivalent services over the NBN. This provides Optus with a competitive advantage vis-à-vis NBN retail service providers when pricing its HFC services to consumers. This comparative cost

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[164] NBN Co, *NBN Co Wholesale Access Service Product and Pricing Overview for Service Providers,* December 2011, see for example page 15.

advantage to Optus of using its HFC network has been recognised by Frontier Economics[165] and is a factor contributing to the concerns of some interested parties about the capacity of the Optus HFC network to cherry pick high value consumers.[166]

3.167. In its submission the Competitive Carriers Coalition (CCC) has noted that entry level broadband services offered over the HFC networks of Telstra and Optus have been priced at an equivalent price-point to that of their ADSL service offerings.[167] NBN Co has submitted that as a retail service provider, Optus has not used its HFC network to vigorously compete with Telstra or any other participants in retail markets. NBN Co considers that this is reflected in Optus' retail competitive strategy as well as a number of its public policy and regulatory positions.[168]

3.168. The ACCC notes that there are a number of reasons why a business may elect to adopt standardised headline prices for its products or services, including to promote a consistent brand image and to limit consumer confusion and frustration. In the context of the telecommunications market, a mix of pricing strategies are adopted with some retail service providers differentiating their on-net and off-net products through both price and non-price dimensions.

3.169. In the absence of authorisation, if Optus were to adopt a common pricing policy for its HFC and equivalent NBN service offerings, two scenarios may arise:

- Optus may elect to average the comparative cost benefits to it of its HFC network across its equivalent NBN broadband offerings, resulting in lower prices overall for some Optus services; or
- Optus may elect to earn a comparatively higher margin on its HFC service offerings.

3.170. Optus has provided information on a confidential basis regarding its likely approach to pricing HFC services if the HFC Agreement were not to be authorised. The ACCC considers that if Optus were to take a higher margin on HFC services rather than engage in price competition (discounting or special offers) then the potential for price competition generated by the Optus HFC network would be lessened. In this respect the ACCC notes that Optus would be unlikely to initiate price competition if it did not expect a sufficient increase in its market share to make such a strategy profitable.

3.171. The ACCC considers that if Optus were to compete through price based strategies such as lower prices for most of its voice and broadband services (NBN or HFC based) or by differentiating its HFC-based voice and broadband services through price or 'value' (i.e. additional download limits, free over the top offers), then this price based competition would be likely to place pressure on the retail prices offered by NBN-based service providers.

3.172. The ACCC also considers that if Optus did not elect to engage in price-based competition for its HFC services with NBN-based service providers, then its continued

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165 Frontier Economics Pty Ltd, *Application for the authorisation of the HFC subscriber agreement between NBN Co and SingTel Optus - AN EXPERT REPORT PREPARED FOR NBN CO AND SINGTEL OPTUS*, December 2011, paragraph 63, 140 – 148.

166 See for example submission by the Competitive Carriers Coalition provided in relation to A91271-A91273 dated 29 September 2011.

167 Ibid.

168 Optus Submission, paragraphs 7.16 to 7.21.

presence in the market could provide additional incentives for NBN-based service providers to improve their retail product offerings in order to better differentiate their services from Optus' HFC-based services.

3.173. The ACCC recognises however that the scope for the Optus HFC network to act as a direct competitive constraint is geographically limited to a relatively small number of Australian premises (approximately 12%), being those that are potentially serviceable by the Optus HFC network. In this respect Optus has stated that it has no plans to expand the HFC Network outside its current footprint.

3.174. The ACCC considers that the Optus HFC network has the potential to promote competition and efficiency in fixed-line access networks. However the ACCC also recognises that, given the current configuration of the Optus HFC network and the likelihood that this configuration will not be upgraded in the presence of the NBN, the potential allocative efficiency benefits of competition in these circumstances may be relatively small and non-enduring.

Potential impact on NBN Co's wholesale access prices

3.175. As discussed above, the Optus HFC is an established network that has a comparative cost advantage to Optus in the provision of services, providing scope for Optus to use its HFC network to stimulate competition in retail markets. Competitive pressure at the retail level has the potential to indirectly influence the wholesale pricing decisions of NBN Co for services offered over the NBN. By providing an alternate source of services to consumers, the Optus HFC network can 'divert' customers away from NBN retail service providers, impacting on returns to NBN Co. Such competition has the potential to influence the wholesale access prices charged by NBN Co.

3.176. However, as identified above for a number of reasons any competition generated by the Optus HFC network is likely to be limited to entry level products in HFC serviceable areas. In light of these circumstances the ACCC does not expect that the Optus HFC network would have a significant impact on NBN Co's national wholesale access prices.

3.177. Frontier Economics argues that NBN Co's wholesale charges will already be constrained to a large extent so that any additional constraint offered by retail services provided over the Optus HFC network is likely to be immaterial. Frontier Economics further considers that the geographic limitations of Optus' HFC network mean that any possible competitive constraint would be limited in its scope.[169]

3.178. As noted previously, NBN Co is subject to regulation under Part XIC of the Act. While the precise regulatory arrangements applicable to NBN Co are still under consideration by the ACCC, it is intended that these arrangements will impose a significant constraint on NBN Co's pricing. Furthermore, regulatory frameworks often include customer engagement processes to ensure that investments are made in accordance with customers' preferences and willingness to pay. NBN Co has proposed including processes of this nature in its regulatory arrangements. In addition, NBN Co has proposed a pricing structure (akin to a form of two-part tariff) which, along with other

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169 See for example Frontier Economics Pty Ltd, *Application for the authorisation of the HFC subscriber agreement between NBN Co and SingTel Optus - AN EXPERT REPORT PREPARED FOR NBN CO AND SINGTEL OPTUS*, December 2011, paragraphs 64 and 102.

aspects of the regulatory arrangements which will ultimately apply to NBN Co, would be expected to provide strong incentives for NBN Co to upgrade capacity as end-user demand grows over time.

Potential impact on non-price aspects of NBN Co's services and efficiency

3.179. In general terms the removal of an effective competitive constraint from a vertically integrated supplier in a downstream market can have a detrimental impact upon the efficient operation and delivery of upstream services. The more enduring this constraint, the more significant its loss.

3.180. As noted previously, Optus has approximately 496 000 subscribers on its HFC network, which amounts to about 35 per cent of the serviceable premises passed by the HFC network. In its submission the CCC has argued that Optus has not sought to price differentiate its cable and ADSL products, such that benefits of intermodal competition have not arisen in Australia. The ACCC notes however that when considering the national market for fixed broadband services, Optus has a comparatively lower market share at approximately 19 per cent.[170] The ACCC recognises that there are a number of factors which limit the usefulness of comparisons of market shares between national and local markets in the telecommunications industry. Nonetheless the ACCC considers that in order to have secured a market share of 35 per cent, the Optus HFC network must offer a competitive alternative that is attractive to consumers across a range of factors including non-price factors such as quality and service.

3.181. The ACCC recognises that, in the absence of the HFC Agreement, Optus would have incentives to attract and retain customers on its HFC network wherever possible – due in large part to the lower marginal cost Optus will incur in providing entry level services to customers (compared to serving the same customers on the NBN). The ACCC also notes that as a committed investment, Optus will also have strong incentives to earn the greatest return possible on this investment. As noted above these factors provide scope for Optus to use its HFC network to stimulate competition in retail markets, providing an indirect influence on the actions of NBN Co in the provision of services over the NBN. This indirect influence over the actions of NBN Co has the potential to stimulate dynamic efficiency and deliver benefits to the public.

3.182. The ACCC is concerned that the removal of the competitive constraint provided by the Optus HFC network in the downstream market may have a detrimental impact upon the efficient operation and delivery of wholesale services by the NBN. The presence of an established integrated network would be a factor to which NBN Co would have regard in developing its wholesale product offerings, considering the prudence of its expenditure and the quality of the service it delivers (e.g. network reliability and responsiveness to outages).

3.183. Without the HFC Agreement, consumers who can access either HFC or NBN-based service will be able to choose between acquiring Optus' HFC services or services from NBN-based retail service providers.

3.184. Both network providers will have incentives to attract customers to their network through providing services that consumer's value. This could result in consumers having access to products that are more appropriate for their preferences which could

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170 NBN Co Submission, paragraph 76.

manifest in different ways. If some consumers only wish to pay for a service with basic specifications, competition between the providers would make it more likely that those services would continue to be available over time. In addition, competition between the networks to attract customers could influence the timing of NBN Co's decision to develop and offer services that it would be difficult for the Optus HFC network to match (without Optus undertaking significant further investment).

3.185. NBN Co has also noted that competition in downstream markets and constant technological change in the industry will place considerable pressure on it to innovate and undertake product development. NBN Co has noted that a Product Development Forum will be established with retail service providers to undertake product development activities in an effective and cost efficient manner. [171]

3.186. The ACCC considers that without the HFC Agreement, the presence of the Optus HFC network would provide NBN Co with incentives to ensure that the non-price aspects of its services are delivered efficiently. The ACCC recognises however that there are limitations upon the influence of Optus. In particular it is likely that the Optus HFC network will only compete to provide NBN entry level data and voice services.

3.187. The ACCC also acknowledges that NBN Co has proposed a pricing structure (akin to a form of two-part tariff) which, along with other aspects of the regulatory arrangements which will ultimately apply to NBN Co, would be expected to provide strong incentives for NBN Co to upgrade capacity as end-user demand grows over time.

3.188. Further, the ACCC recognises that the competition generated by the Optus HFC network is likely to be geographically limited.

Conclusion

3.189. The ACCC considers that the HFC Agreement, by providing for the decommissioning of an otherwise competing network, removes a source of competitive tension which could deliver improvements in both allocative and dynamic efficiency. In particular the removal of this competitive constraint could have negative consequences for price and non-price competition at the retail level and could remove an indirect constraint on the wholesale services offered by NBN Co. The ACCC considers however that several unique factors associated with its limited scale and life are likely to lessen the impact on competition and consumers of removing the Optus HFC network. Further, the potential loss of dynamic efficiency benefits is inherently uncertain and limited by the potential life of the HFC network.

Other restrictions proposed by the HFC Agreement

3.190. The HFC Agreement contains a number of provisions which the ACCC considers are unlikely to result in any significant public detriment.

Fixed line network preference

3.191. Under the Agreement Optus will grant a fixed line network preference in favour of the NBN for residential and small business customers served by Optus' HFC network. This

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[171] NBN Co Submission, paragraph 233.

preference will be for a period of 15 years from the date the NBN is first available in an HFC serving area (circa 2014).

3.192. The ACCC notes that a fibre network offering open access and uniform national wholesale pricing for certain products, is likely to negatively impact upon a risk assessment of the ability of a prospective network to recover the significant investment costs associated with entry. The ACCC considers that it is highly unlikely that an alternate provider would enter this market to compete against the NBN for the provision of fixed line services to Optus. The ACCC does not see this as being a consequence of the HFC Agreement itself and accordingly does not consider that the provision results in public detriment.

Voice-only restrictions

3.193. The HFC Agreement provides that Optus will not proactively by way of a direct marketing campaign seek to obtain subscribers that will only use the Optus HFC network for voice services (the voice only restraint). The ACCC recognises that the voice only restraint will only have practical implications until such time as the proposed migration of Optus HFC subscribers to the NBN is complete.

3.194. The HFC Agreement broadly provides that Optus will receive a per subscriber migration payment for each HFC subscriber that migrates to the NBN. NBN Co separately notes that the Optus customer base is high value.[172] The ACCC expects that the migration payment is likely to have been negotiated with regard to a number of factors, including the current and expected value of the Optus customer base. The ACCC notes that an unexpected expansion in the voice only component of this customer base may have a negative impact upon NBN Co's assessment of the business case supporting the HFC Agreement.

3.195. The ACCC notes that Optus currently offers 'voice only' Home Phone plans to subscribers and potential subscribers, including those located in the HFC serving areas. The ACCC considers that the restriction proposed by the HFC Agreement will limit the promotional activities that may otherwise have been undertaken by Optus in the ordinary course of business. This may hinder Optus' ability to compete to supply fixed-line services, reducing the dynamic benefits from competition. To the extent that Optus undertakes national marketing programs, the restriction imposed by the HFC Agreement is likely to have some effect on Optus' marketing practices outside of the scope of the geographic boundaries of the HFC serving area.

3.196. The ACCC considers that the 'voice only' restraint proposed by the HFC Agreement is likely to result in some public detriment.

Anti-disparagement provision

3.197. The HFC Agreement also provides that for 15 years, Optus may not conduct a marketing campaign in respect of wireless data services targeted at retail customers within the HFC serving area which is expressly critical of or makes any express adverse statement about the performance or functionality of the national broadband network where such a statement is misleading or deceptive or involves the making of a

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[172] NBN Co Submission, paragraph 135.

false or misleading representation in contravention of the Australian Consumer Law (anti-disparagement provision).[173]

3.198. The ACCC notes that the revised anti-disparagement provision replicates obligations that, in the absence of the HFC Agreement, Optus would have under the Australian Consumer Law. Accordingly the ACCC does not consider that the provision results in public detriment.

ACCC conclusion on public detriments

3.199. In broad terms the HFC Agreement is likely to result in public detriment by constraining Optus' freedom to use its HFC network.

3.200. In particular the ACCC considers that the proposed restriction upon Optus' future use of its HFC network is likely to remove a source of competitive tension which could deliver improvements in both allocative and dynamic efficiency. The ACCC considers that the HFC Agreement could have negative consequences for price and non-price competition at the retail level and is likely to remove an indirect constraint on the wholesale services offered by NBN Co.

3.201. While recognising the potential for these detriments to arise, the ACCC considers that there are several factors that lessen the impact on competition and consumers of removing the Optus HFC network, such that the potential detriments to the public from the loss of competition as a result of the HFC Agreement are likely to be less significant than may otherwise be expected. The ACCC also considers that these detriments, to the extent that they arise, will become less significant over time.

3.202. On balance the ACCC considers that the proposed restrictions upon Optus' future use of its HFC network are likely to result in public detriment. The ACCC recognises that these detriments are likely to be more significant within the HFC serving areas and are likely to lessen over time.

Balance of public benefit and detriment

3.203. In general, the ACCC may only grant authorisation if it is satisfied that, in all the circumstances, the conduct for which authorisation is sought is likely to result in a public benefit, and that public benefit will outweigh any likely public detriment.

3.204. As noted previously, in balancing public benefits and detriments, the ACCC and the Tribunal apply a modified total welfare standard. Under a total welfare standard, public benefits are defined widely and include the benefits to producers and their shareholders (e.g., cost savings) rather than just benefits that accrue directly to consumers or the general public. Under the modified standard the Tribunal has noted that it may choose to place less weight on those gains that only flow through to a limited number of members of the community.[174] The ACCC also considers it is important to take a dynamic view of the likely costs and benefits of the conduct for which authorisation is sought under this framework.

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173 Ibid, paragraph 48.

174 *Qantas Airways Limited* [2004] ACompT 9 at 185.

3.205. The ACCC notes that the arrangements before it and the market reforms initiated by the Australian Government are complex. The ACCC has closely examined the information before it and considers that the likely public benefits and detriments of the HFC Agreement are finely balanced. The ACCC considers that the main public benefits of authorisation are clear and quantifiable. Balanced against this is the potential for public detriment to result from the removal of a significant fixed line competitor to the NBN and particularly the potential dynamic efficiency gains that would flow from competition. The extent of such dynamic efficiency gains are difficult to determine.

3.206. The ACCC considers that, in the absence of the HFC Agreement:

- the roll out of the NBN is likely to proceed broadly in line with current expectations;
- Optus would have a strong incentive to provide services via its established HFC network where possible. However, Optus would be unlikely to invest significant capital to expand or upgrade its HFC network in the presence of the NBN; and
- ultimately Optus will decommission its HFC network when the number of customers on the HFC network falls below a critical level. At that level it will be cheaper for Optus to service the remaining HFC customers on the NBN than on the HFC network. The ACCC has not reached a view on when this is likely to occur.

3.207. The ACCC considers that the HFC Agreement is likely to result in benefits to the public. The HFC Agreement does this by:

- promoting productive efficiency gains by reducing the duplication of some infrastructure expenditure through the cessation of continuing HFC expenditure requirements (to the extent that these same continuing expenditure requirements would not be incurred in accessing the NBN);
- providing some cost savings through the coordinated migration of Optus HFC customers to the NBN; and
- providing some environmental benefits, largely arising from improvement in visual amenity and safety for the public and relevant workforce.

The ACCC considers that collectively these benefits to the public are likely to be material and not trivial in nature.[175]

3.208. Balanced against this, the ACCC considers that public detriment is likely to result from the HFC Agreement. The ACCC notes that competition between market participants will generally result in a range of benefits to the community, including lower prices, improvements in the quality of goods and services, improvements in customer choice, innovation, and improved productivity.

3.209. In particular the ACCC considers that the proposed restriction upon Optus' future use of its HFC network is likely to remove a source of competitive tension which could deliver improvements in both allocative and particularly dynamic efficiency. The ACCC considers that the HFC Agreement could have negative consequences for price

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175 *Re Application by Michael Jools, President of the NSW Taxi Drivers Association* [2006] ACompT 5 at paragraph 22.

and non-price competition at the retail level and is likely to remove an indirect constraint on the wholesale services offered by NBN Co.

3.210. The ACCC considers however that there are several factors which are likely to lessen the impact on competition and consumers of removing the Optus HFC network, including:

- NBN Co will overbuild the Optus HFC network, providing an alternate source of wholesale higher speed broadband services to Optus. In this environment the ACCC considers that it is unlikely that Optus would elect to undertake significant investment in its HFC network, including upgrades such as node splitting to allow it to offer higher speeds over its HFC network;
- the scope for competition is predominantly in relation to entry level data and voice services. Over time, consumers are likely to demand services that, in the absence of investment, the HFC network will not be able to supply;
- the scope for the Optus HFC network to act as a direct competitive constraint is geographically limited to a relatively small number of Australian premises (approximately 12%) that are potentially serviceable by the Optus HFC network.

In these circumstances the ACCC considers that the potential detriments to the public from the loss of competition are likely to be less significant than may otherwise be expected. The ACCC also considers that these detriments, to the extent that they arise, will become less significant over time.

3.211. The ACCC also considers that the ‘voice only’ restraint proposed by the HFC Agreement will limit the promotional activities that may otherwise have been undertaken by Optus in the ordinary course of business, resulting in some public detriment.

3.212. The ACCC accepts that a number of elements of fibre to the home networks exhibit strong natural monopoly characteristics. As the HFC network is already in existence, there is potential for competition with the NBN. While competition would normally be expected to result in positive market outcomes and improved efficiency, the ACCC considers that ultimately the natural monopoly characteristics of the NBN would be likely to limit the benefits of network competition. Competition from the Optus HFC network would not be sustainable in the long term because:

- it is unlikely that Optus would undertake the significant investment required to provide services comparable to those demanded on the NBN over time;
- as users demand higher quality services, it is likely that Optus will migrate those customers onto the NBN; and
- as the majority of ongoing costs of operating the HFC network remain stable regardless of the number of users, as utilization declines the cost per user goes up until the network becomes unviable. The ACCC accepts that Optus is likely to shut down the HFC network once the number of users declines below a critical level.

3.213. Having considered the information before it, the ACCC is satisfied that the tests in sections 90(6), 90(7), 90(5A), 90(5B) and 90(8) are met. The ACCC is therefore proposing to grant authorisation to allow NBN Co to give effect to the nominated provisions of the HFC Agreement.

Period of authorisation

3.214. NBN Co has sought authorisation for a period of 20 years, noting that certain commitments provided by Optus under the HFC Agreement are for a period of 15 years, in particular:

- 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 15 years 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.

3.215. NBN Co argues that the 20 year authorisation period sought is appropriate because it aligns with the term of the relevant provisions in the HFC Agreement. NBN Co submits that 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.

3.216. Having considered the submissions put to it the ACCC is proposing to grant authorisation for a period of 20 years.

Consultation

3.217. The ACCC will now seek further submissions from interested parties. In addition, the applicant or any interested party may request that the ACCC hold a conference to discuss the draft determination, pursuant to section 90A of the Act.

4. Draft determination

The applications

4.1. On 23 January 2012 NBN Co Limited (NBN Co) lodged applications for authorisation A91290-A91292 with the Australian Competition and Consumer Commission (the ACCC).

4.2. Application A91290 was made using Form A Schedule 1, of the *Competition and Consumer Regulations* 2010. The application was made under subsection 88(1A) and 88(1) of the Act to:

- make and give effect to a contract, arrangement or understanding, a provision of which is or may be an exclusionary provision within the meaning of section 45 of the Act;
- make and give effect to a provision of a contract, arrangement or understanding, a provision of which is, or may be, a cartel provision and which is also, or may also be, an exclusionary provision within the meaning of section 45 of that Act.

4.3. Application A91291 was made using Form B Schedule 1, of the *Competition and Consumer Regulations* 2010. The application was made under subsection 88(1A) and 88(1) of the Act to:

- make and give effect to a contract or arrangement, or arrive at an understanding, a provision of which would have the purpose, or would have or might have the effect, of substantially lessening competition within the meaning of section 45 of the Act;
- make and give effect to a contract or arrangement, or arrive at an understanding a provision of which would be, or might be, a cartel provision (other than a provision which would also be, or might also be, an exclusionary provision within the meaning of section 45 of that Act).

4.4. Application A91292 was made using Form E Schedule 1, of the *Competition and Consumer Regulations* 2010. The application was made under subsection 88(8) of the Act to:

- engage in conduct that constitutes or may constitute, exclusive dealing.

4.5. In particular, NBN Co seeks authorisation of particular provisions contained in an agreement (the Optus HFC Subscriber Agreement) entered into with SingTel Optus Pty Ltd and other Optus entities (Optus) in relation to the Optus hybrid fibre coaxial cable (HFC) network (the HFC Agreement).

4.6. Section 90A(1) requires that before determining an application for authorisation the ACCC shall prepare a draft determination.

The net public benefit test

4.7. For the reasons outlined in Chapter 3 of this draft determination, the ACCC is satisfied that the conduct for which authorisation is sought is likely to result in a public benefit that would outweigh the detriment to the public constituted by any lessening of competition arising from the conduct.

4.8. The ACCC is satisfied that the conduct for which authorisation is sought is likely to result in such a benefit to the public that the conduct should be allowed to take place.

4.9. The ACCC therefore **proposes to grant** authorisation to allow NBN Co to give effect to the following provisions contained in the agreement (the Optus HFC Subscriber Agreement) entered into with SingTel Optus Pty Ltd and other Optus entities (Optus) in relation to the Optus hybrid fibre coaxial cable (HFC) network:

a) Optus to progressively migrate HFC customers to the National Broadband Network (NBN) as it is rolled out [clause 9.2];

b) a fixed line network preference in favour of the NBN for residential and small business customers served by Optus' HFC network (which will operate for a period of 15 years from the date the NBN is first available in an HFC serving area [clause 5.2(a)]);

c) progressive payments by NBN Co to Optus based on the actual number of customers that migrate from its HFC network to the NBN. 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 retail service provider, not merely those subscribers who remain customers of Optus after they migrate to the NBN from Optus' HFC network [clause 11.1(a)];

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 [clauses 10.1, 10.2, 10.3];

e) Optus must not further extend the coverage of the Optus HFC network or grant any right or interest or permit any person to use, operate or provide any service over or using the Optus HFC network in an HFC serving area after deactivation and must ensure that no person can use the Optus HFC network to provide services in Australia [clauses 10.2(b);(c);(d)]. The HFC Agreement also contains limits on the disposal of the Optus HFC network [clause 10.4];

f) Optus will not proactively, by way of a direct marketing campaign, seek to obtain subscribers that will only use the Optus HFC network for voice services [clause 4.3(a)]; and

g) for a period of 15 years, Optus may not conduct a marketing campaign in respect of wireless data services targeted at retail customers within the HFC serving area which is expressly critical of or makes any express adverse statement about the performance or functionality of the national broadband network where such a statement is misleading or deceptive or involves the making of a false or misleading representation in contravention of the Australian Consumer Law (anti-disparagement provision) [clause 5.2(c)].

4.10. The ACCC is proposing to grant authorisation for a period of 20 years.

4.11. This draft determination is made on 28 May 2012.

4.12. The attachments to this determination are part of the draft determination.

Further submissions

4.13. The ACCC will now seek further submissions from interested parties. In addition, the applicant or any interested party may request that the ACCC hold a conference to discuss the draft determination, pursuant to section 90A of the Act.

Attachment A — the authorisation process

The Australian Competition and Consumer Commission (the ACCC) is the independent Australian Government agency responsible for administering the *Competition and Consumer Act 2010* (the Act). A key objective of the Act is to prevent anti-competitive conduct, thereby encouraging competition and efficiency in business, resulting in a greater choice for consumers in price, quality and service.

The Act, however, allows the ACCC to grant immunity from legal action in certain circumstances for conduct that might otherwise raise concerns under the competition provisions of the Act. One way in which parties may obtain immunity is to apply to the ACCC for what is known as an 'authorisation'.

The ACCC may 'authorise' businesses to engage in anti-competitive conduct where it is satisfied that the public benefit from the conduct outweighs any public detriment.

The ACCC conducts a public consultation process when it receives an application for authorisation. The ACCC invites interested parties to lodge submissions outlining whether they support the application or not, and their reasons for this.

After considering submissions, the ACCC issues a draft determination proposing to either grant the application or deny the application.

Once a draft determination is released, the applicant or any interested party may request that the ACCC hold a conference. A conference provides all parties with the opportunity to put oral submissions to the ACCC in response to the draft determination. The ACCC will also invite the applicant and interested parties to lodge written submissions commenting on the draft.

The ACCC then reconsiders the application taking into account the comments made at the conference (if one is requested) and any further submissions received and issues a final determination. Should the public benefit outweigh the public detriment, the ACCC may grant authorisation. If not, authorisation may be denied. However, in some cases it may still be possible to grant authorisation where conditions can be imposed which sufficiently increase the benefit to the public or reduce the public detriment.

Attachment B — chronology of ACCC assessment for applications A91290-A91292

The following table provides a chronology of significant dates in the consideration of the applications by NBN Co.

DATE	ACTION
23 January 2012	Applications for authorisation lodged with the ACCC.
31 January 2012	Additional information sought from NBN Co. Additional information sought from Optus.
9 February 2012	Closing date for submissions from interested parties in relation to the substantive applications for authorisation.
23 February 2012	Additional information provided by NBN Co. Additional information provided by Optus.
28 May 2012	Draft determination issued.

Attachment C — the tests for authorisation and other relevant provisions of the Act

Competition and Consumer Act 2010

Section 90—Determination of applications for authorisations

(1) The Commission shall, in respect of an application for an authorization:

(a) make a determination in writing granting such authorization as it considers appropriate; or

(b) make a determination in writing dismissing the application.

(2) The Commission shall take into account any submissions in relation to the application made to it by the applicant, by the Commonwealth, by a State or by any other person.

Note: Alternatively, the Commission may rely on consultations undertaken by the AEMC: see section 90B.

(4) The Commission shall state in writing its reasons for a determination made by it.

(5) Before making a determination in respect of an application for an authorization the Commission shall comply with the requirements of section 90A.

Note: Alternatively, the Commission may rely on consultations undertaken by the AEMC: see section 90B.

(5A) The Commission must not make a determination granting an authorisation under subsection 88(1A) in respect of a provision of a proposed contract, arrangement or understanding that would be, or might be, a cartel provision, unless the Commission is satisfied in all the circumstances:

(a) that the provision would result, or be likely to result, in a benefit to the public; and

(b) that the benefit would outweigh the detriment to the public constituted by any lessening of competition that would result, or be likely to result, if:

(i) the proposed contract or arrangement were made, or the proposed understanding were arrived at; and

(ii) the provision were given effect to.

(5B) The Commission must not make a determination granting an authorisation under subsection 88(1A) in respect of a provision of a contract, arrangement or understanding that is or may be a cartel provision, unless the Commission is satisfied in all the circumstances:

(a) that the provision has resulted, or is likely to result, in a benefit to the public; and

(b) that the benefit outweighs or would outweigh the detriment to the public constituted by any lessening of competition that has resulted, or is likely to result, from giving effect to the provision.

(6) The Commission shall not make a determination granting an authorization under subsection 88(1), (5) or (8) in respect of a provision (not being a provision that is or may be an exclusionary provision) of a proposed contract, arrangement or understanding, in respect of a proposed covenant, or in respect of proposed conduct (other than conduct to which subsection 47(6) or (7) applies), unless it is satisfied in all the circumstances that the provision of the proposed contract, arrangement or understanding, the proposed covenant, or the proposed conduct, as the case may be, would result, or be likely to result, in a benefit to

the public and that that benefit would outweigh the detriment to the public constituted by any lessening of competition that would result, or be likely to result, if:

(a) the proposed contract or arrangement were made, or the proposed understanding were arrived at, and the provision concerned were given effect to;

(b) the proposed covenant were given, and were complied with; or

(c) the proposed conduct were engaged in;

as the case may be.

(7) The Commission shall not make a determination granting an authorization under subsection 88(1) or (5) in respect of a provision (not being a provision that is or may be an exclusionary provision) of a contract, arrangement or understanding or, in respect of a covenant, unless it is satisfied in all the circumstances that the provision of the contract, arrangement or understanding, or the covenant, as the case may be, has resulted, or is likely to result, in a benefit to the public and that that benefit outweighs or would outweigh the detriment to the public constituted by any lessening of competition that has resulted, or is likely to result, from giving effect to the provision or complying with the covenant.

(8) The Commission shall not:

(a) make a determination granting:

(i) an authorization under subsection 88(1) in respect of a provision of a proposed contract, arrangement or understanding that is or may be an exclusionary provision; or

(ii) an authorization under subsection 88(7) or (7A) in respect of proposed conduct; or

(iii) an authorization under subsection 88(8) in respect of proposed conduct to which subsection 47(6) or (7) applies; or

(iv) an authorisation under subsection 88(8A) for proposed conduct to which section 48 applies;

unless it is satisfied in all the circumstances that the proposed provision or the proposed conduct would result, or be likely to result, in such a benefit to the public that the proposed contract or arrangement should be allowed to be made, the proposed understanding should be allowed to be arrived at, or the proposed conduct should be allowed to take place, as the case may be; or

(b) make a determination granting an authorization under subsection 88(1) in respect of a provision of a contract, arrangement or understanding that is or may be an exclusionary provision unless it is satisfied in all the circumstances that the provision has resulted, or is likely to result, in such a benefit to the public that the contract, arrangement or understanding should be allowed to be given effect to.

(9) The Commission shall not make a determination granting an authorization under subsection 88(9) in respect of a proposed acquisition of shares in the capital of a body corporate or of assets of a person or in respect of the acquisition of a controlling interest in a body corporate within the meaning of section 50A unless it is satisfied in all the circumstances that the proposed acquisition would result, or be likely to result, in such a benefit to the public that the acquisition should be allowed to take place.

(9A) In determining what amounts to a benefit to the public for the purposes of subsection (9):

(a) the Commission must regard the following as benefits to the public (in addition to any other benefits to the public that may exist apart from this paragraph):

(i) a significant increase in the real value of exports;

(ii) a significant substitution of domestic products for imported goods; and

(b) without limiting the matters that may be taken into account, the Commission must take into account all other relevant matters that relate to the international competitiveness of any Australian industry.

Variation in the language of the tests

There is some variation in the language in the Act, particularly between the tests in sections 90(6) and 90(8).

The Australian Competition Tribunal (the Tribunal) has found that the tests are not precisely the same. The Tribunal has stated that the test under section 90(6) is limited to a consideration of those detriments arising from a lessening of competition but the test under section 90(8) is not so limited.[176]

However, the Tribunal has previously stated that regarding the test under section 90(6):

> [the] fact that the only public detriment to be taken into account is lessening of competition does not mean that other detriments are not to be weighed in the balance when a judgment is being made. Something relied upon as a benefit may have a beneficial, and also a detrimental, effect on society. Such detrimental effect as it has must be considered in order to determine the extent of its beneficial effect.[177]

Consequently, when applying either test, the ACCC can take most, if not all, public detriments likely to result from the relevant conduct into account either by looking at the detriment side of the equation or when assessing the extent of the benefits.

Given the similarity in wording between sections 90(6) and 90(7), the ACCC considers the approach described above in relation to section 90(6) is also applicable to section 90(7). Further, as the wording in sections 90(5A) and 90(5B) is similar, this approach will also be applied in the test for conduct that may be a cartel provision.

Conditions

The Act allows the ACCC to grant authorisation subject to conditions.[178]

Future and other parties

Applications to make or give effect to contracts, arrangements or understandings that might substantially lessen competition or constitute exclusionary provisions may be expressed to extend to:

- persons who become party to the contract, arrangement or understanding at some time in the future[179]

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[176] *Australian Association of Pathology Practices Incorporated* [2004] ACompT 4; 7 April 2004. This view was supported in *VFF Chicken Meat Growers' Boycott Authorisation* [2006] AcompT9 at paragraph 67.

[177] *Re Association of Consulting Engineers, Australia* (1981) ATPR 40-2-2 at 42788. See also: *Media Council case* (1978) ATPR 40-058 at 17606; and *Application of Southern Cross Beverages Pty. Ltd., Cadbury Schweppes Pty Ltd and Amatil Ltd for review* (1981) ATPR 40-200 at 42,763, 42766.

[178] Section 91(3).

- persons named in the authorisation as being a party or a proposed party to the contract, arrangement or understanding.[180]

Six- month time limit

A six-month time limit applies to the ACCC's consideration of new applications for authorisation[181]. It does not apply to applications for revocation, revocation and substitution, or minor variation. The six-month period can be extended by up to a further six months in certain circumstances.

Minor variation

A person to whom an authorisation has been granted (or a person on their behalf) may apply to the ACCC for a minor variation to the authorisation.[182] The Act limits applications for minor variation to applications for:

> … a single variation that does not involve a material change in the effect of the authorisation.[183]

When assessing applications for minor variation, the ACCC must be satisfied that:

- the proposed variation satisfies the definition of a 'minor variation' and
- if the proposed variation is minor, the ACCC must assess whether it results in any reduction to the net benefit of the conduct.

Revocation; revocation and substitution

A person to whom an authorisation has been granted may request that the ACCC revoke the authorisation.[184] The ACCC may also review an authorisation with a view to revoking it in certain circumstances.[185]

The holder of an authorisation may apply to the ACCC to revoke the authorisation and substitute a new authorisation in its place.[186] The ACCC may also review an authorisation with a view to revoking it and substituting a new authorisation in its place in certain circumstances.[187]

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179 Section 88(10).
180 Section 88(6).
181 Section 90(10A)
182 Subsection 91A(1)
183 Subsection 87ZD(1).
184 Subsection 91B(1)
185 Subsection 91B(3)
186 Subsection 91C(1)
187 Subsection 91C(3)