

Annexure 3 to NBN Co submission to the ACCC: Applications for Authorisation of the HFC Subscriber Agreement between NBN Co Limited and SingTel Optus Pty Ltd and other Optus entities

1. As set out in paragraph 1 of NBN Co's submission, NBN Co previously applied for authorisation on 29 August 2010 of various provisions of the Optus HFC Agreement. As a result of NBN Co and Optus agreeing to amend the anti-disparagement provision of the Optus HFC Agreement, that previous application for authorisation was withdrawn and the application to which NBN Co's submission relates was made in respect of the Optus HFC Agreement including the anti-disparagement provision with the agreed amendments.
2. This annexure sets out further information and materials requested by the ACCC in relation to the previous application for authorisation made by NBN Co in relation to the Optus HFC Agreement. References to the anti-disparagement provision of the Optus HFC Agreement in the further information and materials set out in this annexure have been amended to refer to the anti-disparagement provision with the agreed amendments.

1.1 Effect of Optus HFC Agreement on 'wireless-only' premises

3. Page 49 of the Corporate Plan states:

The Plan assumes 13% of total residential occupied premises being wireless-only today, increasing to 16.3% by FY2025 and 16.4% by FY2040. In terms of total occupied premises (residential plus business), this implies 13% of total premises are wireless-only by FY2025.
4. The NBN Corporate Plan did not assume the existence of the Optus HFC Agreement.
5. The anti-disparagement clause is not relevant to the predicted number of wireless only homes or the extent to which Optus' wireless data services might compete with the fixed broadband services offered by the NBN. The prediction in the Corporate Plan assumed that the retail service providers (**RSPs**) offering wireless services continue to market those services as they are currently marketed. The anti-disparagement clause does not prevent Optus from marketing its wireless services legitimately within the provisions of the Australian Consumer Law, as set out in answer to question 10 below. In addition, the prediction applied to wireless voice and data services, the breakdown of which is set out in page 32 of the Corporate Plan (11% and 4% respectively). The anti-disparagement clause applies only to wireless data services only and only where the marketing of those services directly targets the HFC serving areas.

1.2 Statements or types of marketing campaigns that NBN Co considers would be likely to contravene the anti-disparagement provisions

6. NBN Co considers that any express statement in Optus advertising for its wireless data services in HFC serving areas which brings discredit upon, lowers the estimation of, denigrates or belittles the performance or functionality of the NBN and is misleading or deceptive or is likely to mislead or deceive in breach of section 18 of the ACL or is false or misleading in breach of section 29 of the ACL would be likely to contravene this provision. It is not possible for NBN Co to provide definitive examples of such statements or marketing campaigns, however, indicative examples would be:
 - (a) where Optus makes express statements in advertising for its wireless data services in HFC serving areas that, by reason of NBN Co being Government-owned, it could not be innovative or offer up to date services.
 - (b) Optus makes statements in advertising for its wireless data services in HFC serving areas expressly disparaging the reliability of the NBN as relatively new and untested (if in fact it is the case that the NBN has been tested).

1.3 Necessity of anti-disparagement provision

7. As provided for in paragraph C of the Background to the Optus HFC Agreement, the purpose of the Optus HFC Agreement is to reward Optus for migrating HFC Customers to the NBN. It is to NBN Co's commercial benefit, and is in the national benefit, to do so for the reason articulated in NBN Co's submission accompanying the section 88 application. Thus NBN Co wishes to encourage all current Optus HFC customers to migrate, and to migrate as early as possible for its benefit and for the national benefit.
8. Because the NBN-based services are new, NBN Co wishes to foster the demand to migrate customers from other fixed line networks, and thus increase the demand for the take up of NBN based services.
9. NBN Co considers that it is important to ensure that any Optus wireless data services marketing campaign running at the time migration is being encouraged by NBN Co and other RSPs does not, by denigrating the performance or functionality of the NBN in a way that is misleading or deceptive, is likely to mislead or deceive or includes a false or misleading representation, make migration less attractive. In essence, the anti-disparagement clause is a safeguard to ensure that the purpose for entering into the Optus HFC Agreement, and the benefit to the nation thereby resulting, is achieved to the greatest extent possible without being adversely affected by negative

sentiment derived from disparaging comments about the NBN which are misleading or deceptive, are likely to mislead or deceive or include a false or misleading representation in relation to the NBN. Having agreed to pay Optus for migration (which is in NBN Co's interests and the purpose of the Optus HFC Agreement), NBN Co does not wish to be deprived of the benefit of the Optus HFC Agreement, and nor should the full benefit to the nation be reduced, in part, by reason of a campaign by Optus that could thwart its objective by disparaging the performance of functionality of the NBN in a way that is misleading or deceptive, is likely to mislead or deceive or includes a false or misleading representation in relation to the NBN.

Permissible marketing

10. While Optus does not currently promote its wireless services by express comparison with fixed line services, it is possible it could do so in the future. The clause does not prevent this from occurring, if Optus wished to do so at some point.
11. Should Optus wish to do so, it can make a fair comparison between the benefits of its wireless products based on objective facts (including its performance characteristics such as download speeds and network coverage) compared to fixed line services, including fixed line services using the NBN. If Optus wished to promote the benefits to customers of the mobility of its wireless broadband services using its cellular network compared to the fixed location of services over the NBN, that would be permissible (clause 5.2(e)). If Optus wished to make what is commonly regarded as a powerful form of comparative advertising, on price, provided it did so in an accurate like-for-like comparison, that would also be permissible.
12. Indeed, the clause allows promotion of wireless data services in any way Optus chooses without limitation:
 - (a) in any location nationally where there is no comparison made with fixed line services on the NBN;
 - (b) in any location nationally where there is a comparison with fixed line NBN-based services that is not expressly disparaging of the performance or functionality of the NBN;
 - (c) in any location nationally where there is a comparison with fixed line NBN based services that is expressly disparaging of the NBN other than on its performance of functionality (such as, for example, on the prices of services over the NBN);

- (d) outside Optus HFC Areas (which are in parts of Brisbane, Sydney and Melbourne) where there is a comparison with NBN based fixed line services that is expressly disparaging of the performance or functionality of the NBN;
 - (e) in any location nationally by comparison, which may be disparaging, with copper and HFC based fixed line services and wireless services.
13. The clause allows unfettered promotion of wireless voice services throughout Australia in any way Optus chooses, whether or not it is disparaging of the NBN.

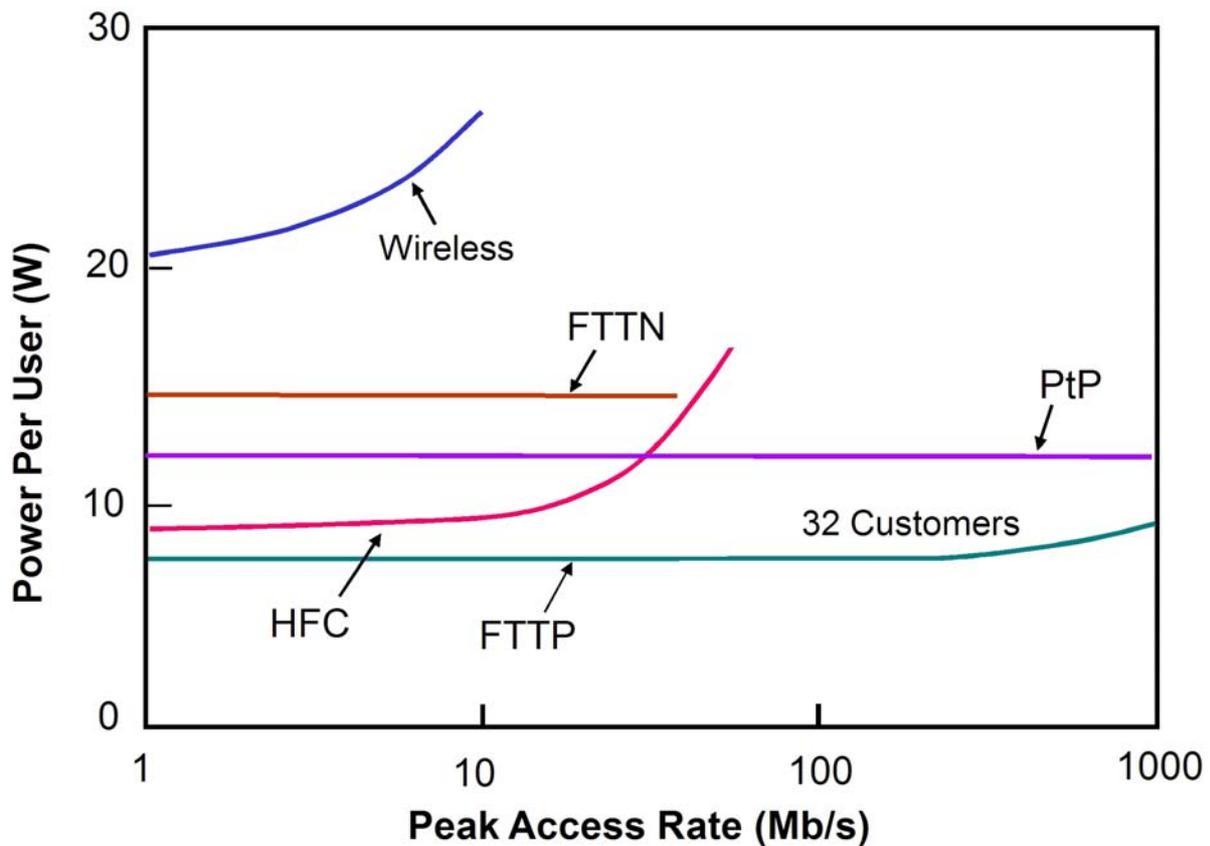
1.4 Evidence supporting environmental benefits of Optus HFC Agreement

14. The statement contained in paragraph 199 of NBN Co's submission is based on published academic research regarding the relative energy consumption of alternative telecommunication access technology. In particular, a paper by Tucker, published in the Telecommunications Journal of Australia, titled *Broadband Facts, Fictions and Urban Myths* states:

For almost all bit rates, a FTTP network consumes around 7 watts per user. The alternative technologies all consume more power, with wireless access networks consuming between 20 and 30 watts per user, depending on the access rate. For an access rate of 10 Mb/s, wireless network would consume approximately four times more energy than a FTTP network. If we consider a national network with 5 million users, the 10-Mb/s wireless network would consume approximately 100 megawatts more than a 100-Mb/s FTTP network. Depending on what kind of power station is built to provide the extra power needed to run the wireless network, it would result in a greenhouse impact of up to 2 million tonnes of CO₂¹.

15. Tucker's paper contains the following figure illustrating that for all peak access rates up to 100 Mb/s FTTP networks user lower power per user than HFC networks:

¹ Rod Tucker (2010), "Broadband Facts, Fictions and Urban Myths" in *Telecommunications Journal of Australia*, vol 60, no 3, 2010, Monash University Press, pp 43.8-43.9.



16. NBN Co has attached a copy of Rod Tucker's paper, which was published in the *Telecommunications Journal of Australia* in 2010.
17. The efficiency differences between an HFC network and FTTP network arise because an HFC network has a distance related limit that ends up resulting in a greater number of power supplies being deployed than may otherwise be the case on an FTTP network. This is because the number of subscribers on an HFC network is not directly related to the power supply capacity, but is instead dependent upon a mixture of the radiofrequency loss (requiring a new line amplifier) and the direct current (DC) loss in the cable (which results in the supply voltage being too low to power the amplifier).
18. NBN Co understands that when Telstra considered re-powering its Melbourne HFC footprint (in support of its 100MB broadband offer), the average hub serving area required 2.5 power supplies, with each hub serving area servicing approximately 700 subscribers.
19. Assuming that each power supply was a 900VA unit that had a best case efficiency of 80% (and potentially as low as 50%), this equates to an alternating current (AC) mains demand of 1125VA.

20. Using these estimates as a rough guide, each HFC subscriber service required 4 watts (being $1125 \times 2.5 / 700$), in addition to the power required to run the NTD and the power required to aggregate / signal process and distribute the data to the hub.
21. Conversely, the NBN Co GPON product requires 1560Watts to support a maximum of 4096 subscribers. This equates to 0.38Watts per subscriber, in addition to the power required to run the NTD and the power required for the transit & aggregation equipment.
22. NBN Co also notes that Optus in its submission to the ACCC identifies environmental benefits arising from the Optus HFC Agreement. Specifically, the Optus submission states:

Another benefit of the HFC Agreement is that the decommissioning of the HFC network will lead to lower carbon dioxide emissions.

Optus notes that 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 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....

1.5 Optus HFC Agreement supports development of a vibrant wholesale market

23. As noted in the Statement of Expectations, the Government has committed to structural reform of the telecommunications industry to ensure that the NBN facilitates a competitive and vibrant telecommunications sector. By "vibrant wholesale market", NBN Co means that the services offered by NBN Co will enable vigorous downstream competition.
24. As noted by DBCDE in the Explanatory Memorandum to the *Telecommunications Legislation Amendment (Competition and Consumer Safeguards) Bill 2010*:

The Government's plan will dramatically improve the availability of superfast broadband across Australia and fundamentally change the competitive dynamics of the Australian telecommunications sector. This new network will be wholesale-only and open access to maximise competition, and ensure improved consumer outcomes. (p 9)

25. The ACCC's Advice to Government National Broadband Network Points of Interconnect dated November 2010 stated:

The network design for the NBN may impact the way in which markets for the provision of wholesale services develop during the transition from the copper network to the fibre network. Even though NBN Co will be a provider of wholesale services, these services are expected to be at a sufficiently low enough layer in the supply chain to allow other service providers to offer 'value-added' wholesale services to RSPs. These wholesale services could include the supply of services for use or resale by those RSPs which could range from a small addition to the service which is provided by NBN to a complete product which is readily able to be resold with minimal intervention by the RSP.

26. The Advice also stated "The ACCC believes that vibrant wholesale markets are an important input for ensuring vigorous competition in the downstream retail markets " and "A healthy wholesale market is expected to be required following the roll-out of the NBN in order to support vibrant competition and innovation at the retail level."

1.6 Summary of Public Benefits and Detriments

27. As set out in NBN Co's submission, the objective of the Optus HFC Agreement is to set out the terms on which NBN Co will reward Optus for HFC subscribers who migrate to network services provided on the NBN.
28. Table 1 below identifies each of the provisions of the Optus HFC Agreement for which Authorisation is being sought. These provisions are described in more detail in section 4.2 of NBN Co's submission.
29. Each of the provisions for which Authorisation is being sought is integral to the Optus HFC Agreement as a whole and supports the progressive migration of HFC subscribers to the NBN. If authorisation of the relevant provisions is not granted, the significant operative provisions will not come into force and the Optus HFC Agreement will terminate.
30. The public benefits that will arise as a result of the operation of these provisions will therefore arise as a result of the operation of the Optus HFC Agreement as a whole. Each of the provisions for which Authorisation is being sought is integral to the capacity for these overall public benefits to arise.

Table 1: Public benefits and detriments arising from the relevant provisions

Provision for which Authorisation is being sought	Public detriments	Public benefits
Clause 4.3(a): Conduct of HFC Service business by Optus	NBN Co does not consider that any detriments to the public will result from the Optus HFC Agreement.	Section 7 of NBN Co's submission identifies the public benefits arising from the Optus HFC Agreement (to which each of the provisions for which Authorisation is being sought is integral).
Clause 5.2(a): Fixed line network preference in favour of the NBN	Section 8 of NBN Co's submission addresses public criticism of aspects of the Optus HFC Agreement, as well as	
Clause 5.2(c): Anti-disparagement provision	criticism of aspects of the Definitive Agreements between NBN Co and Telstra that could	
Clause 9.2: Migration of eligible Optus subscribers	also potentially be levelled against similar aspects of the Optus HFC Agreement.	
Clauses 10.1, 10.2, 10.3: Deactivation in HFC Serving Areas, decommission of HFC Network and limitations on deactivation and decommission		
Clauses 10.2(b); (c); (d): No further extension or use of HFC Network after deactivation.		
Clause 10.4: Limitations on the disposal of the HFC Network.		
Clause 11.1(a): Payment of migration fee by NBN Co to Optus.		

1.7 Public benefits arising from anti-disparagement provisions

31. In addition to the public benefits of the Optus HFC Agreement as a whole (as identified in NBN Co's submission) and the benefits arising from the anti-disparagement clause set out above, the public benefits set out below will arise specifically from the anti-disparagement provision.

The anti-disparagement provision will protect consumers

32. Most consumers seek to maximise their value for money from their telecommunications spend by purchasing a bundle of wireless and fixed services that provide a combination of service characteristics, including, but not limited to, service quality, speed, download limits, mobility and device functionality.
33. The anti-disparagement provision will help ensure that Optus markets fixed and wireless products based on their relative service characteristics, functionality and value for money. This will enable consumers to make informed decisions regarding voice and broadband services and to maximise their value for money. This outcome is also consistent with the Government's policy objective of maximising the availability of affordable high-speed broadband services.

The anti-disparagement provision will not restrict the ability of Optus to compete in relevant markets for voice and broadband services

34. Paragraphs 7 to 13 explain why the anti-disparagement clause will not fetter Optus' ability to market wireless services.
35. The anti-disparagement provision will not prevent or restrict Optus from undertaking legitimate marketing practices within the provisions of the Australian Consumer Law, nor from aggressively competing in the markets for wireless broadband services and broadband services more generally, including by:
- (a) competing vigorously for wireless customers;
 - (b) marketing wireless voice services;
 - (c) marketing wireless broadband services with reference to their functionality and value proposition;
 - (d) offering wireless voice and broadband services to customers; and

- (e) investing in its mobile network or undertaking product development. This is confirmed by Optus' recent announcement to rollout a 4G, Long Term Evolution (LTE) network².
36. NBN Co understands that Optus considers that the anti-disparagement clause will not restrict Optus from engaging in marketing activities for wireless services.
37. In addition to the responses to the potential criticisms of the anti-disparagement provision set out in section 8 of NBN Co's submission, NBN Co further submits:
- (a) The anti-disparagement provision aligns with Optus' commercial incentives; and
 - (b) The anti-disparagement provision will not lessen competition in any relevant markets; and
 - (c) The anti-disparagement provision ensures fair competition and informed consumers.

Alignment with Optus' commercial incentives

38. As a profit maximising business, Optus has strong commercial incentives to generate margins from the supply of both fixed line services and wireless services. For example, an integrated telecommunications provider has the opportunity to earn margins from both the retail supply of fixed line services in addition to earning a margin from the supply of wireless services. If, however, Optus was to become a wireless-only provider of services it would not only forego retail margins from the supply of fixed services but it would also most likely earn lower margins from its wireless services.
39. Wireless voice and broadband services are generally more expensive than fixed line services because wireless services attract a "mobility premium". If, however, Optus were to seek to compete directly with the NBN this premium would likely be competed away.
40. These factors suggest that it is commercially rational for Optus to supply both fixed and wireless voice and broadband services. In this regard, the anti-disparagement provision is consistent with the commercial incentives faced by Optus.

² Optus, Optus announces a more interactive mobile future with 4G rollout, Media Release date 15 September 2011, see <http://www.optus.com.au/aboutoptus/About+Optus/Media+Centre/Media+Releases/2011/Optus+announces+a+more+interactive+mobile+future+with+4G+rollout>.

No lessening of competition

41. As noted above, the anti-disparagement clause will not prevent Optus from competing in relevant markets. It follows that the anti-disparagement clause is not likely to have the effect of substantially lessening competition in relevant markets.
42. The criticisms of the anti-disparagement clause assume that it operates to prevent Optus from marketing wireless services as a substitute for fixed. The clause does not operate in that way, as set out in NBN Co's answer to question 10 above.
43. However, even if the clause operated in that way:
 - (a) NBN Co does not consider that wireless data services (to which the clause applies) are an effective substitute for fixed broadband services.
 - (b) NBN Co considers that the anti-disparagement provision ensures fair competition and informed consumers.

Anti-disparagement provision ensures fair competition and informed consumers

44. It is clear from the ACCC's consideration of the extent of substitutability between wireless and fixed services that there is significant uncertainty as to whether, and to what extent, those services could be said to be substitutes.
45. Given the lack of clarity as to the extent to which wireless and fixed services might be substitutable for lower speed broadband services (the anti-disparagement provision does not apply to voice), if the anti-disparagement clause were to operate to prevent a marketing campaign that inaccurately represented the extent of substitutability, the anti-disparagement clause will help ensure that Optus markets fixed and wireless products based on their relative service characteristics, functionality and value for money and avoid the risk of consumer detriment that would arise from an inaccurate marketing campaign.