PUBLIC REGISTER VERSION

Confidential information response to the ACCC

In relation to the Application for Revocation and Substitution of Authorisation for the arrangements between NBN Co Limited and SingTel Optus PTY Ltd and other Optus entities (A91479-A91481)

29 May 2015

Section 1. Introduction

1.1 This document responds to the ACCC information request of 21 May 2015.

1.2 The ACCC has asked for details on how Optus evaluated its investment in the DOCSIS 3.0 upgrade several years ago. We understand that information is sought to assist the ACCC in understanding how Optus might approach a decision to invest in DOCSIS 3.1 technology. Whilst Optus has provided answers to the specific questions raised by the ACCC, Optus does not support any underlying hypothesis that Optus' investment decision in DOCSIS 3.0 is a particularly useful guide to a hypothetical future HFC upgrade investment decision.

1.3 There is an important threshold point. As indicated in Optus' submission of 12 February 2015 and elaborated in our information response dated 2 April 2015, in the absence of authorisation of the revised arrangements, Optus and NBN Co will work together to adapt as necessary the existing authorised agreement to the new multi-technology-mix environment.

1.4 Notwithstanding that important threshold point, it is in any case inappropriate to compare an investment in DOCSIS 3.0 with a prospective investment in DOCSIS 3.1 technology. The facts and circumstances surrounding such investments are materially different.

1.5 Firstly, the scope of the investment required for DOCSIS 3.1 is likely to be very different. Optus was able to deploy DOCSIS 3.0 technology as an upgrade within its core network. Little or no investment was made to any external plant in the HFC access network at that time. Whilst deployment of the DOCSIS 3.1 technology will be done at the core layer through upgrades to the CMTs, changes will also be required in the access network. For example, amplifiers will need to be replaced to utilise the full capacity of this technology (there are over [RESTRICTION OF PUBLICATION OF PART CLAIMED] of these in the network1). Further, as set out in Optus presentation to the ACCC in March 2015, nearly [RESTRICTION OF PUBLICATION OF PART CLAIMED] of Optus' existing HFC customers are still serviced by DOCSIS 1.1 or 2.0 modems all of which would need to be upgraded to benefit from any further network standard upgrade.

1.6 However, even such an upgrade within the core network will not address capacity constraints within the access network. Optus notes that NBN Co is planning to undertake a significant upgrade of capacity within the HFC access, which is likely to include;

(a) Network wide node splitting to significantly reduce the number of customers per node;

(b) Deployment of new electronics to operate remotely within the network; and

(c) Deployment of more fibre within the access network.

[1] The full capability of DOCSIS 3.1 requires wider bandwidths and different frequency configurations which dictate the need to change the external plant.

1.7 The costs of making these changes within the access layer are likely to be very substantial. Although Optus has not business cased or planned any such upgrade, it anticipates that costs would run into hundreds of millions of dollars.

1.8 Secondly, the market circumstances are very different. At the time Optus deployed DOCSIS 3.0 there was significant uncertainty about the NBN, both in terms of how it would be deployed, the time period for roll-out and the impact of NBN Co as a competitive force. Approval for the DOCSIS 3.0 investment was made in August 2009, which was fully six months before the NBN Implementation Study was released that outlined recommendations on how the Government could implement its proposed NBN policy. [RESTRICTION OF PUBLICATION OF PART CLAIMED]

1.9 The context of any hypothetical network investment decision today is materially different. In particular, the impact of the NBN is clear and present:

(a) The NBN roll-out has commenced, including within parts of the existing Optus HFC footprint and customers have been and continue to be migrated from the Optus HFC network to the NBN;

(b) The NBN roll-out will continue and at an increased pace as it has access to the existing Telstra infrastructure;

(c) NBN Co has the scale and funding to undertake a significant network upgrade and in all likelihood at an earlier time and a lower cost per service than Optus could ever hope to achieve. This means there are materially different demand side risks than existed in 2009; and

(d) The regulatory environment is also quite different. A relevant consideration in this respect is the recently demonstrated willingness of the Government to change the rules of engagement for alternate high speed broadband networks competing with NBN using 'fibre to the basement'.

1.10 A decision in 2009 to invest around $[RESTRICTION OF PUBLICATION OF PART CLAIMED] cannot be taken as a meaningful proxy for an investment in today's environment that might run into many hundreds of millions of dollars.

Section 2. Answers to specific questions

Please explain how Optus rolled out the upgrade to DOCSIS 3.0 in its HFC network, including:

a. The period over which the roll-out occurred (from commencement to completion).

b. Whether the upgrade was made on a whole-of-network basis or incrementally.

c. To the extent that the upgrade was incremental, what factors influenced where and when the upgrade occurred?

2.1 Optus undertook an upgrade of its HFC network to the DOCSIS 3.0 technology in July/August 2010, based on Board approval for this investment in August 2009.

2.2 As previously indicated to the ACCC in the meeting in March 2015 the upgrade was undertaken at the core layer within the network. This involved Optus upgrading the technology within the CMTS within the HFC network. No upgrade was made to the external plant within the HFC network.

2.3 The upgrade was undertaken in July/August 2010 across all of the CMTS. Deployment of this technology provided Optus with the capability to offer higher speeds, up to 100 Mps. It also increased the capacity available in the core network, by moving from single channel architecture to multi-channel bonding.

2.4 It is important to note that whilst the DOCSIS 3.0 technology can provide higher speed throughputs (up to 100 Mpbs), actual customer experience will be impacted by available capacity. The capacity available will be constrained by contention within the network.

2.5 Capacity can be augmented in two ways; through adding more channels within the core network and by the node splitting within the access network. Each of these activities and the costs associated with them would be separate to an investment in DOCSIS 3.1 technology. Optus has provided information on the current technical performance of the network and current plans to upgrade capacity in its response to the information request of 14 April 2015. In summary, [RESTRICTION OF PUBLICATION OF PART CLAIMED]

What types of investment criteria does Optus use when considering whether to undertake network upgrades (including on HFC, mobile and other relevant networks)? In particular, can you please outline:

a. Does the Optus Board consider payback period, and if so, what is an acceptable range for the payback period?
b. Does the Optus Board consider the period of time required to turn a profit on the investment, and if so, what is an acceptable range for this period?
c. Does the Optus Board consider internal rate of return (IRR), and if so, what IRR would be required for Optus to decide to go ahead with a particular network upgrade and over what timeframe would this be required?
d. Does the Optus Board make investment decisions on another basis? If so, please describe the criteria applied by the Board in deciding whether to invest?
e. Does the Optus Board often have to decide between multiple (mutually exclusive) options? If so, what criteria are applied in making these sorts of decisions?
f. Do these criteria vary by the investment amount? If so, please explain any differences.

2.6 [RESTRICTION OF PUBLICATION OF PART CLAIMED]

2.7 [RESTRICTION OF PUBLICATION OF PART CLAIMED]

2.8 [RESTRICTION OF PUBLICATION OF PART CLAIMED]

Please provide any business cases associated with Optus' decision to rollout DOCSIS 3.0 in HFC areas.

Please provide any documents considered by the Optus Board and the associated Minutes, as well as any strategic documents considered by senior management which relate to the investment in DOCSIS 3.0 in HFC areas.

2.9 Optus has provided copies of papers from 24 August 2009 and 30 March 2010 seeking approval on the investment in DOCSIS 3.0 technology. Optus has also provided copies of the minutes of the meetings at which these papers were considered. The documents have been redacted to remove material relating to other matters that were considered in those meetings which are not relevant to the ACCC's inquiry.