

INTERNATIONAL TRADE LAW IMPLICATIONS OF AUSTRALIA'S NATIONAL BROADBAND NETWORK

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[Australia's National Broadband Network has come under intense domestic scrutiny and is also being closely monitored by international stakeholders. However, the focus on local political and legal issues obscures a broader potential problem: ensuring compliance with Australia's obligations under the World Trade Organization agreements and bilateral trade arrangements. In an attempt to reveal the nuances of international trade law and its relationship to the government's plans, this article highlights several areas of possible complication, including the creation of NBN Co as a government business enterprise, the identification of points of interconnection to NBN Co's network, and the policy goal of achieving uniform national wholesale pricing for NBN Co's services. International trade law deserves greater consideration and more transparent discussion in the implementation of Australia's National Broadband Network, which may also offer lessons for other countries pursuing analogous projects.]

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I INTRODUCTION

On 7 April 2009, Australia's federal government announced plans to establish a company to build and operate the National Broadband Network ('NBN') to deliver superfast broadband services to homes and businesses across Australia.¹ The government would be the majority shareholder of the company (investing up to A\$43 billion over eight years), joining with private investors, and ultimately selling down its interest five years after the NBN becomes operational.² The declared objectives of the NBN included increasing competition and investment, improving communication speed and quality for businesses and rural Australians in particular, and raising Australia's international ranking with respect to telecommunications indicators such as broadband take-up, accessibility of digital content, and competition in the Internet Service Provider ('ISP') sector.³ However, the truth and validity of these objectives has been queried from several quarters, particularly in view of the enormous expense involved,⁴ and even more

¹ Stephen Conroy, Minister for Broadband, Communications and the Digital Economy, 'New National Broadband Network' (Joint Media Release with the Prime Minister, Treasurer and Minister for Finance, 7 April 2009) <http://www.minister.dbcde.gov.au/media/media_releases/2009/022>.

² Ibid. The more recent funding requirement estimate is A\$40.9 billion (A\$27.5 billion of government equity and A\$13.4 billion of debt funding): NBN Co Ltd, *Corporate Plan 2011–2013* (17 December 2010) 23 <<http://www.nbnco.com.au/news-and-events/news/nbn-co-corporate-plan-released.html>>.

³ Department of Broadband, Communications and the Digital Economy (Cth), *21st Century Broadband* (2009) <http://www.dbcde.gov.au/broadband/national_broadband_network> 1–2.

⁴ See, eg, Kenneth Davidson, 'Wires Crossed in Quest for a New Broadband Network', *The Age* (Melbourne), 13 September 2010, 13; Paul Fletcher, 'Passage of NBN Bill Signals a Dark Day for Telecom Competition', *The Australian* (Sydney), 1 December 2010, 48. See also Malcolm Turnbull, Shadow Minister for Communications and Broadband, 'Labor's Budget Misleads on the NBN' (Media Release, 13 May 2011) <<http://www.malcolmtturnbull.com.au/media/labors-budget-misleads-on-the-nbn>>.

so following the devastating floods in Queensland in late 2010 that have imposed substantial recovery costs on the country.⁵

In announcing the NBN, then Prime Minister Kevin Rudd went so far as to describe Australia as a 'broadband backwater'⁶ on the basis of its allegedly low speeds and high costs compared to many other countries of the Organisation for Economic Co-Operation and Development ('OECD').⁷ Against this background, according to the Australian Competition and Consumer Commission ('ACCC'), the proposed NBN offered

the potential to start a new wave of infrastructure investment, technological change and product innovation in the telecommunications sector. Its announcement ushers in arguably the most important policy initiative in the telecommunications sector in both metropolitan and regional Australia since competition began in the industry more than a decade ago.⁸

But these characterisations of Australia's current telecommunications market and the potential of the NBN must be seen in their highly politicised context.⁹ Perhaps a more accurate indication of the government's purpose is found in its description of the NBN as 'a major nation-building project that will support 25 000 jobs every year, on average, over the life of the project.'¹⁰ In terms of fixed-line broadband speeds, prices and take-up, Australia is in the middle of the OECD pack according to the OECD's own statistics.¹¹ For mobile broadband (which to some extent 'can be regarded both as a complementary, as well as a substitute, technology for fixed broadband'),¹² Australia ranks equal third among

⁵ See, eg, Alexandra Kirk, 'PM Flags Levy to Pay for Flood Recovery', *ABC News* (online), 21 January 2011 <<http://www.abc.net.au/news/2011-01-21/pm-flags-levy-to-pay-for-flood-recovery/1913064>>.

⁶ Kevin Rudd, Prime Minister, 'Joint Press Conference with Prime Minister of Australia, Kevin Rudd, Treasurer Wayne Swan, Minister for Finance Lindsay Tanner and Minister for Broadband, Communications and the Digital Economy, Stephen Conroy' (Transcript, 7 April 2009) <http://www2.financeminister.gov.au/transcripts/2009/tr_20090407_joint_press_conference.html>. See also 'Australia Announces 30 Billion Dlr Broadband Plan', *The Sydney Morning Herald* (online), 7 April 2009 <<http://news.smh.com.au/breaking-news-technology/australia-announces-30-billion-dlr-broadband-plan-20090407-9zfk.html>>; Conroy, 'New National Broadband Network', above n 1.

⁷ See, eg, Department of Broadband, Communications and the Digital Economy (Cth), above n 3, 1–2; Explanatory Memorandum, Telecommunications Legislation Amendment (Competition and Consumer Safeguards) Bill 2010 (Cth) 24–5; Stephen Conroy, Minister for Broadband, Communications and the Digital Economy, 'Australians Pay Too Much for Broadband' (Media Release, 14 April 2011) <http://www.minister.dbcde.gov.au/media/media_releases/2011/157>.

⁸ ACCC, *2008–09 Annual Report* (2009) 8 <<http://www.accc.gov.au/content/index.phtml/itemId/898144>>.

⁹ See, eg, Mahesh Sharma, 'NBN a Pie in the Sky: Morgan — Independent Telco Consultant Slams NBN on Eve of Election', *Computerworld* (online), 20 August 2010 <http://www.computerworld.com.au/article/357748/nbn_pie_sky_morgan>.

¹⁰ Conroy, 'New National Broadband Network', above n 1.

¹¹ OECD, *OECD Economic Surveys: Australia* (2010) vol 2010/21, 93. See also OECD, *OECD Communications Outlook 2009* (2009) 108–9; OECD, *OECD Communications Outlook 2011 — Preliminary Version* (2011) 164.

¹² Directorate for Science, Technology and Industry, Committee for Information, Computer and Communications Policy, 'Working Party on Communication Infrastructures and Services Policy — Indicators of Broadband Coverage' (DSTI/ICCP/CISP(2009)3/FINAL, 10 December 2009) 8.

OECD countries in terms of 3G population coverage,¹³ and Telstra launched a 4G mobile broadband network on 27 September 2011.¹⁴ Although prices are relatively high on high usage mobile broadband plans,¹⁵ they are relatively low on lower usage plans,¹⁶ and as prices fall, speeds are increasing through technology upgrades.¹⁷ Indeed, a government-commissioned report by Greenhill Caliburn found 'competition from alternative technologies' a key risk in the business case for NBN Co Ltd ('NBN Co'), indicating that

[t]rends towards 'mobile centric' broadband networks could ... have significant long-term implications for NBN Co's fibre offerings, to the extent that some consumers may be willing to sacrifice higher speed fibre transmissions for the convenience of mobile platforms.¹⁸

In any case, NBN Co was incorporated on 9 April 2009,¹⁹ with a subsidiary, NBN Tasmania Ltd, established in August 2009 to roll out the NBN in Tasmania.²⁰ NBN Co is a wholly owned Commonwealth company that has been prescribed as a 'government business enterprise'.²¹

After unseating Kevin Rudd in June 2010, Australian Labor Party ('ALP') Prime Minister Julia Gillard went on to announce an expansion of the NBN proposal. Ninety-three per cent of Australian premises are to have access to NBN Co's fibre network, allowing speeds of 100 megabits per second, with the remaining 7 per cent accessing speeds of up to 12 megabits per second through next generation fixed wireless and satellite technology.²² This article focuses on

¹³ Ibid 30; OECD, *Statistics — 3G Population Coverage* (1 December 2011). See generally Australian Bureau of Statistics, *Internet Activity, Australia, June 2011* (28 September 2011) <<http://www.abs.gov.au/ausstats/abs@.nsf/mf/8153.0>>; Australian Communications and Media Authority, *Mobile Network Broadband* (2010) 16–18 <http://www.acma.gov.au/WEB/STANDARD/1001/pc=PC_312389>.

¹⁴ Telstra, 'A New Era of Telecommunications — Telstra Lights Up 4G Mobile Services in Australia' (Media Release, No 284/2011, 27 September 2011) <<http://www.telstra.com.au/abouttelstra/media-centre/announcements/telstra-lights-up-4g-mobile-services-in-australia.xml>>.

¹⁵ OECD, *OECD Communications Outlook 2009*, above n 11, 285–6; Directorate for Science, Technology and Industry, Committee for Information, Computer and Communications Policy, 'Working Party on Communication Infrastructures and Services Policy — Mobile Broadband: Pricing and Services' (DSTI/ICCP/CISP(2008)6/FINAL, 30 June 2009) 14.

¹⁶ Directorate for Science, Technology and Industry, 'Mobile Broadband: Pricing and Services', above n 15, 13, 18–19. Cf OECD, *OECD Communications Outlook 2011*, above n 11, 268–9.

¹⁷ Australian Communications and Media Authority, above n 13, 7–8, 12–13.

¹⁸ Greenhill Caliburn, *Review of NBN Co Limited's Corporate Plan* (2011) 4 <http://www.dbcde.gov.au/funding_and_programs/national_broadband_network>.

¹⁹ NBN Co, *Annual Report 2008–09* (2009) 2 <<http://www.nbnco.com.au/about-us/annual-reports.html>>; NBN Co, *Corporate Plan 2011–2013*, above n 2, 53.

²⁰ NBN Co, *Annual Report 2008–09*, above n 19, 2; NBN Tasmania, *Major Milestones* <<http://www.nbtasmania.com.au/index.php?Doo=PageView&id=255>>.

²¹ *Commonwealth Authorities and Companies Regulations 1997* (Cth) reg 4(2); *Commonwealth Authorities and Companies Act 1997* (Cth) s 5 (definition of 'government business enterprise'); NBN Co, *Corporate Plan 2011–2013*, above n 2, 53. For a discussion of government business enterprise, see below Part II.

²² Julia Gillard, Prime Minister, and Stephen Conroy, Minister for Broadband, Communications and the Digital Economy, 'NBN: Fibre for over 1,000 Australian Cities and Towns' (Media Release, 30 July 2010) <<http://parlinfo.aph.gov.au/parlInfo/search/display/display.w3p;query=Id%3A%22media%2Fpressrel%2FFJIX6%22>>. The initial proposal was for 90 per cent rather than 93 per cent fibre access: Conroy, 'New National Broadband Network', above n 1. The

NBN Co's fibre to the premises ('FTTP') network, applicable to 93 per cent of the country. With the return of Julia Gillard and the ALP government to power following the 2010 federal election, its plan for the NBN has been retained, albeit in a modified form pursuant to a deal with independents Tony Windsor and Rob Oakeshott that promises priority for regional areas and uniform national wholesale pricing.²³

The actual operation of the NBN will nevertheless depend on a number of contingencies,²⁴ including the passage and implementation of legislation,²⁵ relevant approvals by the ACCC²⁶ and implementation of definitive agreements between Telstra (the privatised incumbent) and NBN Co.²⁷ Telstra and NBN Co concluded a non-binding heads of agreement in June 2010.²⁸ Although progress in reaching a subsequent binding agreement was steady,²⁹ the initial plan of submitting a final agreement to shareholders for approval by the end of 2010 was

government has requested that the wireless technology be 'next-generation fixed wireless': Letter from Penny Wong, Minister for Finance and Deregulation, and Stephen Conroy, Minister for Broadband, Communications and the Digital Economy, to Harrison Young, NBN Co Chairman, 17 December 2010, 1, 3 <http://www.dbcde.gov.au/_data/assets/pdf_file/0003/132069/Statement_of_Expectations.pdf>.

²³ Julia Gillard, Prime Minister, and Wayne Swan, Treasurer, 'Joint Press Conference' (Transcript, 7 September 2010) <<http://www.alp.org.au/federal-government/news/transcript--julia-gillard--wayne-swan--joint-pre/>>; Nicola Berkovic and Mitchell Bingemann, 'Broadband Network Convinced Independents to Back Labor', *The Australian* (online), 8 September 2010 <<http://www.theaustralian.com.au/national-affairs/broadband-network-convinced-independents-to-back-labor/story-fn59niix-1225915567076>>. See also Kevin Morgan, 'Deal Turns NBN into a Shameless Pork Barrel', *The Australian* (Sydney), 10 September 2010, 14; Revised Explanatory Memorandum, National Broadband Network Companies Bill 2010 (Cth) and Telecommunications Legislation Amendment (National Broadband Network Measures — Access Arrangements) Bill 2011 (Cth) 49.

²⁴ See generally Greenhill Caliburn, above n 18, 2–3.

²⁵ At the time of writing, key relevant legislation has passed. For example, the Telecommunications Legislation Amendment (Competition and Consumer Safeguards) Bill 2010 (Cth) passed the House of Representatives on 16 November 2010 and the Senate on 26 November 2010 (royal assent 15 December 2010); the Telecommunications Legislation Amendment (National Broadband Network Measures — Access Arrangements) Bill 2011 (Cth) and the National Broadband Network Companies Bill 2011 (Cth) passed the House of Representatives on 1 March 2011, the Senate on 25 March 2011 (with amendments), and the House of Representatives again (as amended) on 28 March 2011 (royal assent 12 April 2011); the Telecommunications Legislation Amendment (Fibre Deployment) Bill 2011 (Cth) passed the House of Representatives on 5 July 2011 and the Senate on 13 September 2011 (royal assent 26 September 2011).

²⁶ See, eg, *Telecommunications Act 1997* (Cth) s 577BDC, as amended by *Telecommunications Legislation Amendment (Competition and Consumer Safeguards) Act 2010* (Cth) sch 1 pt 1.

²⁷ Letter from Carmel Mulhern, Company Secretary, Telstra, to the Manager, Company Announcements Office, Australian Securities Exchange, 30 September 2010, 28 (transcript from Telstra's Investor Day held on 29 September 2010).

²⁸ Letter from Carmel Mulhern, Company Secretary, Telstra, to the Manager, Company Announcements Office, Australian Securities Exchange, 21 June 2010, 28 (copy of Telstra Letter to Shareholders dated 21 June 2010); NBN Co, *Annual Report 2009–2010* (2010) 10, 23 <<http://www.nbnco.com.au/about-us/annual-reports.html>>.

²⁹ Telstra, 'Telstra Reports Encouraging Sales Momentum, Confirms Guidance, Maintains Dividend, Reaches NBN Milestone' (Media Release, No 42/2011, 10 February 2011) <<http://www.telstra.com.au/abouttelstra/media-centre/announcements/telstra-reports-encouraging-sales-momentum-confirms-guidance-maintains.xml>>.

revised to an end date of mid 2011³⁰ and then to some time later in 2011.³¹ Finally, on 23 June 2011, Telstra and NBN Co announced that they had signed definitive agreements.³² Over 99 per cent of Telstra shareholders approved the agreements on 18 October 2011.³³

As the various stakeholders work through the final remaining details, this article reflects on the implications of the NBN for international trade law. In particular, the article addresses several issues that may arise in assessing the consistency of the NBN with the *General Agreement on Trade in Services* ('GATS')³⁴ of the World Trade Organization ('WTO'), while also taking into account the telecommunications-specific obligations found in most of Australia's preferential trade agreements ('PTAs').³⁵ Given that the final details of NBN Co's role and operations have not been entirely determined at the time of writing, the article aims to raise areas of potential difficulty rather than to draw definitive conclusions about Australia's likely compliance with its obligations under international trade law. As one of the most ambitious schemes to date to bring high-speed broadband services to a nation through public investment,³⁶ the NBN

³⁰ Letter from Carmel Mulhern, Company Secretary, Telstra, to the Manager, Company Announcements Office, Australian Securities Exchange, 22 December 2010, 28 (copy of Telstra Letter to Shareholders dated 22 December 2010).

³¹ 'Telstra NBN Build Vote to be Delayed', *The Sydney Morning Herald* (online), 18 March 2011 <<http://www.smh.com.au/business/telstra-nbn-build-vote-to-be-delayed-20110318-1bzyh.html>>; Philip Wen, 'Setback for NBN as Delays Hit Telstra Deal', *BusinessDay, The Age* (Melbourne), 19 March 2011, 3.

³² Letter from Carmel Mulhern, Company Secretary, Telstra, to the Manager, Company Announcements Office, Australian Securities Exchange, 23 June 2011, 28 (copy of Telstra Letter to Shareholders dated 23 June 2011); NBN Co, 'NBN Co and Telstra Sign Binding Definitive Agreements' (Media Release, 23 June 2011) 1.

³³ Letter from Carmel Mulhern, Company Secretary, Telstra, to the Manager, Company Announcements Office, Australian Securities Exchange, 18 October 2011 (Results of Telstra Annual General Meeting, 18 October 2011). See also Lucy Battersby, 'Telstra Shareholders Approve NBN Co Deal', *The Sydney Morning Herald* (online), 19 October 2011 <<http://www.smh.com.au/business/telstra-shareholders-approve-nbn-co-deal-20111018-1lypp.html>>.

³⁴ *Marrakesh Agreement Establishing the World Trade Organization*, opened for signature 15 April 1994, 1867 UNTS 3 (entered into force 1 January 1995) annex 1B ('*General Agreement on Trade in Services*').

³⁵ See, eg, *Singapore–Australia Free Trade Agreement*, signed 17 February 2003, 2257 UNTS 103 (entered into force 28 July 2003) ch 10 ('*SAFTA*'); *Australia–United States Free Trade Agreement*, signed 18 May 2004, [2005] ATS 1 (entered into force 1 January 2005) ch 12 ('*AUSFTA*'); *Thailand–Australia Free Trade Agreement*, signed 5 July 2004, [2005] ATS 2 (entered into force 1 January 2005) art 807 ('*TAFTA*'); *Australia–Chile Free Trade Agreement*, signed 30 July 2008, [2009] ATS 6 (entered into force 6 March 2009) ch 11 ('*ACFTA*'); *Agreement Establishing the ASEAN–Australia–New Zealand Free Trade Area*, signed 27 February 2009, [2010] ATS 1 (entered into force 1 January 2010) ch 8 Annex on Telecommunications ('*AANZFTA*'). No telecommunications-specific obligations appear in the *Protocol on Trade in Services to the Australia New Zealand Closer Economic Relations — Trade Agreement*, signed 18 August 1988, [1988] ATS 20 (entered into force 1 January 1989) or the *Protocol on Investment to the Australia–New Zealand Closer Economic Relations Trade Agreement*, signed 16 February 2011, [2011] ATNIF 6 (not yet in force). See also Tania Voon and Andrew D Mitchell, 'Achieving a Common Market for Telecommunications Services in Australia and New Zealand' (2007) 26 *Australian Year Book of International Law* 149.

³⁶ Tim Kelly et al, World Bank, 'What Role Should Governments Play in Broadband Development?' (Paper presented at the OECD Workshop on Policy Coherence in the Application of Information and Communication Technologies for Development, Paris, 10–11 September 2009) 8.

may provide lessons for countries around the world in reconciling regulatory approaches to telecommunications services with international trade law. The article thus briefly considers related challenges currently being faced in New Zealand and the United States.

On 21 October 2010, in response to a government request, the ACCC released a discussion paper on the points at which access seekers will be able to interconnect with the NBN,³⁷ to which was attached a public position paper by NBN Co on the same issue.³⁸ In this context, the ACCC highlighted the balance required between minimising barriers to entry for retail service providers and enabling facilities-based competition at higher levels. These issues of domestic competition have parallels in international trade law. However, the ACCC, NBN Co and the Australian government (and its relevant departments) do not appear to have commented publicly at all on the relationship between the NBN and international trade law, despite Telstra raising this issue in relation to interconnection.³⁹

Australia has incorporated into its *GATS* Schedule the *Reference Paper*, a document containing additional obligations regarding telecommunications services⁴⁰ that a number of WTO Members have incorporated into their *GATS* Schedules since 1998.⁴¹ Australia has therefore accepted WTO obligations to provide 'national treatment' and 'market access' in respect of telecommunications services. The relevant mode of supply of these services for the purposes of this article is 'mode 3' (that is, services supplied in Australia through the commercial presence of telecommunications service suppliers of other WTO Members). Australia's obligations under mode 3 are significant; the limitations that Australia has included in its Schedule on its national treatment and market access commitments for telecommunications services under mode 3 are of purely historical relevance.⁴²

Telecommunications service suppliers of other Members that operate in Australia and that could be affected by, and complain to their own governments about, Australia's NBN scheme include: Singtel Optus Pty Ltd ('Optus') (owned by Singapore Telecommunications, of Singapore); AAPT Ltd ('AAPT') (owned

³⁷ ACCC, 'National Broadband Network Points of Interconnect: An ACCC Discussion Paper on Points of Interconnect to the National Broadband Network (Discussion Paper, October 2010).

³⁸ NBN Co, 'Proposed NBN Co Points of Interconnect (POIs)' (NBN Co Public Position Paper, 2010), attachment A to *ibid*.

³⁹ Telstra, 'Response to NBN Co Consultation Paper: Proposed Wholesale Fibre Bitstream Products' (Consultation Paper, 12 February 2010) 8 [18]–[21], 11 [31]; Telstra, 'Response to the ACCC Discussion Paper on Points of Interconnect to the National Broadband Network' (November 2010) 7–8. See also Michael S Cox, Submission to ACCC, *Discussion Paper on National Broadband Network Points of Interconnect*, November 2010, 8, 15 <<http://www.accc.gov.au/content/index.phtml/itemId/961575>>.

⁴⁰ Negotiating Group on Basic Telecommunications, *Telecommunications Services — Reference Paper* (24 April 1996) <http://www.wto.org/english/tratop_e/serv_e/telecom_e/tel23_e.htm> ('Reference Paper'). The *Reference Paper* was reproduced at *Australia — Schedule of Specific Commitments (Supplement 3)*, GATS/SC/6/Suppl.3 (11 April 1997) 5–7.

⁴¹ WTO, *Telecommunications Services: List of Commitments and Exemptions* <http://www.wto.org/english/tratop_e/serv_e/telecom_e/telecom_commit_exempt_list_e.htm>. See also *GATS* art XVIII; *Fourth Protocol to the General Agreement on Trade in Services*, S/L/20 (30 April 1996).

⁴² *Australia — Schedule of Specific Commitments (Supplement 3)*, GATS/SC/6/Suppl.3 (11 April 1997) 3–4.

by Telecom Corporation, of New Zealand); and Primus Telecommunications (Australia) Pty Ltd ('Primus') (owned by Primus Telecom, of the United States).

In Part II of this article, we address NBN Co's status as a government business enterprise, concluding that economic and political concerns expressed about this status are not necessarily supported by any violation of international trade law. In Part III, we determine that the type and level of service to be provided by NBN Co does not in itself pose international trade law problems either. The issue of the degree and manner of interconnection to NBN Co's network by other suppliers, which we address in Part IV, is more complex. Modifications to NBN Co's initial proposal on interconnection, undertaken at the behest of the ACCC, have certainly improved the plan from the perspective of competition, thereby reducing the likelihood of a breach of Australia's international trade law obligations. However, the ability of NBN Co to veto changes proposed by the ACCC to the established list of points of interconnection raises the likelihood of such a breach. Australia will need to tread carefully in implementing and maintaining the legislative provisions on interconnection. Part V of the article highlights terminological difficulties created by the advent of broadband, including how to classify broadband services within the telecommunications lexicon and whether to include broadband in the universal service obligation imposed by a government on a telecommunications provider or providers (that is, obliging providers to guarantee nationwide access to broadband services). Although Australia has chosen so far not to do so, it does have the objective of ensuring universal access to superfast broadband across the country. This objective has led it to impose uniform national wholesale pricing on NBN Co's services, along with provisions to level the playing field in which NBN Co competes. We address these two features of the NBN in Part VI, concluding that the former poses minimal risk of an international trade law violation, while the latter does create potential conflicts with international trade law. In sum, the NBN presents numerous issues worthy of careful examination under the laws of the WTO and Australia's PTAs; some of these issues could found a valid complaint by Australia's trading partners. Part VII identifies exceptions under *GATS* that could justify a *GATS* violation, but it concludes that none of these exceptions is specifically relevant to the NBN.

II NBN CO AS A GOVERNMENT BUSINESS ENTERPRISE

A recent report by the Berkman Center for Internet and Society at Harvard University — commissioned by the United States Federal Communications Commission ('FCC') — described Australia as falling 'at one end of the spectrum' in choosing a government-funded NBN to address the

shared core understanding ... that the transition to next generation infrastructures re-emphasizes the high upfront costs involved in, or natural monopoly, characteristics of, telecommunications networks, and requires some form of

shared infrastructure if competition is to be maintained in the teeth of such economies of scale.⁴³

Alternative models include functional separation of a private supplier and 'voluntary shared infrastructure investment'.⁴⁴ Australia's chosen approach is emblematic of a 'considerable shift in the thrust of public policy' in a number of countries,⁴⁵ which had previously been moving away from a monopoly environment in telecommunications services and towards an increasingly open market based on private sector investment.⁴⁶

A return to a public monopoly may raise some concerns from the perspectives of economics and competition. For instance, James stated that 'the public sector does not have a good record when it comes to operating and maintaining highly technical infrastructure.'⁴⁷ Similarly, Kelly et al stated:

The most common form of market failure is the persistence of monopoly-type structures in the provision of broadband infrastructure, even when no legal monopoly exists. In many countries, the dominance of incumbent public telecommunications operators arising from their historical monopoly position has been one of the key obstacles to the development of effective competition in the broadband market.⁴⁸

The Economist Intelligence Unit recently ranked Australia ninth in its inaugural government broadband index, which assesses which countries have

the most ambitious speed, coverage and rollout targets, the most appropriate regulations for realising targets and fostering a competitive broadband market, and where public-funding commitments are putting the least amount of pressure on public-sector finances.⁴⁹

South Korea tops the list, with proposed speeds 10 times higher than those proposed for Australia's NBN, at a cost to taxpayers of one twenty-fourth of that expected in Australia.⁵⁰ The high up-front cost of the NBN to the Australian government is also different from what would be expected were a commercial operator to roll out its own FTTP network. In that instance, the process would

⁴³ Berkman Center for Internet and Society, 'Next Generation Connectivity: A Review of Broadband Internet Transitions and Policy from around the World (Final Report, Harvard University, February 2010) 14. See also Economist Intelligence Unit, 'Full Speed Ahead: The Government Broadband Index Q1 2011' (Research Report, January 2011) 4.

⁴⁴ Berkman Center for Internet and Society, above n 43, 14.

⁴⁵ Johannes M Bauer, 'Regulation, Public Policy, and Investment in Communications Infrastructure' (2010) 34 *Telecommunications Policy* 65, 66.

⁴⁶ *Ibid* 72; Jock Given, 'Culture and Information' in Jane Kelsey (ed), *No Ordinary Deal: Unmasking the Trans-Pacific Partnership Free Trade Agreement* (Allen & Unwin, 2010) 176, 187.

⁴⁷ David James, 'Does Government Have a Role in Next-Generation Access?' (Research Paper, Ovum, 16 September 2009) 3.

⁴⁸ Kelly et al, above n 36, 4. See also Directorate for Science, Technology and Industry, Committee for Information, Computer and Communications Policy, 'Working Party on Telecommunication and Information Services Policies — Universal Service Obligations and Broadband' (DSTI/ICCP/TISP(2002)4/FINAL, 22 January 2003) 27.

⁴⁹ Economist Intelligence Unit, above n 43, 9.

⁵⁰ *Ibid* 5–9; Clancy Yeates, '\$36bn Price for NBN Slammed', *The Age* (Melbourne), 10 February 2011, 4.

generally be more piecemeal, allowing the operator to assess progress and adjust plans along the way rather than immediately commencing a countrywide project.⁵¹

Is the status of NBN Co as a wholly state-owned enterprise a problem for Australia's WTO obligations? The *GATS* excludes from its scope 'services supplied in the exercise of governmental authority',⁵² meaning services that are 'supplied neither on a commercial basis nor in competition with one or more service suppliers.'⁵³ As discussed further below, at least initially, NBN Co will not compete with other suppliers in providing wholesale high-speed broadband services over an FTTP network.⁵⁴ However, NBN Co could be competing with broadband services currently provided by Telstra until Telstra's copper network and cable broadband service are decommissioned. Telstra has agreed to do this as part of its A\$11 billion deal with NBN Co, which grants Telstra access to the fibre network and provides for the progressive migration of Telstra's voice and data traffic to NBN Co.⁵⁵ NBN Co could also be competing with broadband services currently provided by Optus,⁵⁶ again until Optus decommissions its hybrid fibre coaxial ('HFC') cable network, as it has agreed with NBN Co to do.⁵⁷ On a broader market definition, NBN Co's fixed wholesale broadband offering would be competing with the wholesale broadband offerings of wireless providers. Moreover, NBN Co will arguably be supplying services on a commercial basis, given its stated⁵⁸ goal of generating a return on investment above the

⁵¹ See Directorate for Science, Technology and Industry, 'Universal Service Obligations and Broadband', above n 48, 15.

⁵² *GATS* art I:3(b).

⁵³ *Ibid* art I:3(c). For discussion on the meaning of *GATS* art I:3, see Rudolf Adlung and Aaditya Mattoo, 'The *GATS*' in Aaditya Mattoo, Robert M Stern and Gianni Zanini (eds), *A Handbook of International Trade in Services* (Oxford University Press, 2008) 48, 52.

⁵⁴ On one view, as a matter of logic or economics, the market must first be defined in order to determine whether a service is supplied in competition with other suppliers. However, commentators in a number of jurisdictions have questioned whether market definition is necessary in all circumstances in which it has traditionally been used pursuant to domestic competition law: see, eg, Louis Kaplow, 'Why (Ever) Define Markets?' (2010) 124 *Harvard Law Review* 438; Caron Beaton-Wells, 'Mergers without Markets? Unilateral Effects Analysis in the United States and Its Prospects in Australia' (2006) 34 *Australian Business Law Review* 186. In any case, below we discuss the definition of the 'relevant market', a term absent from *GATS* art I:3(c), but used explicitly in *GATS* art XXVIII(h) (defining 'monopoly supplier of a service') and in the *Reference Paper* s 2.2 (defining 'major supplier'): see below Part IV(E)(2), and n 70 and accompanying text. Many of the relevant considerations are the same, whether framed in terms of market definition or assessment of the existence of competition.

⁵⁵ See above n 28 and accompanying text.

⁵⁶ See ACCC, 'ACCC Advice to Government: National Broadband Network Points of Interconnect — Public Version' (November 2010) 23; NBN Co, *Corporate Plan 2011–2013*, above n 2, 42–3.

⁵⁷ NBN Co, 'NBN Co and Optus Sign Binding Agreement' (Media Release, 23 June 2011) <<http://www.nbnco.com.au/news-and-events/news/nbn-co--optus-sign-binding-agreement.html>>; Wayne Swan, Treasurer, and Stephen Conroy, Minister for Broadband, Communications and the Digital Economy, 'NBN Rollout to Benefit from Agreement with Optus' (Joint Media Release, 23 June 2011) <http://www.minister.dbcde.gov.au/media/media_releases/2011/205>. See also Dominic White, 'Optus Connects to NBN', *The Australian Financial Review* (Sydney), 6 October 2010, 1.

⁵⁸ Markus Krajewski, 'Public Services and Trade Liberalization: Mapping the Legal Framework' (2003) 6 *Journal of International Economic Law* 341, 353, 358. Cf Eric H Leroux, 'What is a "Service Supplied in the Exercise of Governmental Authority" under Article I:3(b) and (c) of the

government bond rate over the life of the asset.⁵⁹ This factor removes wholesale services supplied by NBN Co to other telecommunications providers from the description of services supplied in the exercise of governmental authority; it also removes services supplied by NBN Co to the Australian government from the description of government procurement, which is also excluded from the primary *GATS* obligations.⁶⁰

Accordingly, we consider it likely that NBN Co, once fully operational, will be supplying services that are not excluded a priori from the *GATS*. This leads to the question of what Australia's *GATS* obligations are in connection with NBN Co as a government business enterprise. The *Reference Paper* itself does not explicitly prohibit monopolies or state-owned operators; indeed, when the '*Reference Paper*' was conceived, most basic telecommunications services were provided by legal monopolies or state-owned operators.⁶¹

At first glance, a *GATS* national treatment problem might nevertheless be perceived to arise from the status of NBN Co as a government business enterprise. That is, Australia might be regarded as failing to treat telecommunications service suppliers of other Members no less favourably than it treats Australian telecommunications service suppliers in accordance with *GATS* art XVII:1, because a wholly state-owned business enterprise is necessarily domestic. The WTO Panel in *China — Measures Affecting Trading Rights and Distribution Services for Certain Publications and Audiovisual Entertainment Products* ('*China — Publications and Audiovisual Products*') found that China violated its national treatment commitments under *GATS* art XVII by prohibiting foreign-invested enterprises from wholesaling imported reading materials.⁶² The only entities authorised to wholesale certain of these materials were state-owned,⁶³

General Agreement on Trade in Services? (2006) 40 *Journal of World Trade* 345, 349–54, 360; Rudolf Adlung, 'Public Services and the *GATS*' (2006) 9 *Journal of International Economic Law* 455, 462–3.

⁵⁹ NBN Co, *Annual Report 2008–09*, above n 19, 6–9; NBN Co, *FAQs* (2010) <<http://www.nbnco.com.au/wps/wcm/connect/main/site-base/resources/about-nbn-co/faqs>>. See also NBN Co, 'NBN Co Forecasts 7 Per Cent Internal Rate of Return' (Media Release, 20 December 2010) <<http://www.nbnco.com.au/assets/media-releases/2010/nbn-corporate-plan-press-release-final-20-dec-10.pdf>>; NBN Co, *Corporate Plan 2011–2013*, above n 2, 23, 25. The expected rate of return of 7.04 per cent is 'well in excess of the current five year government bond rate of 5.38 per cent': Senate Environment and Communications Legislation Committee, Parliament of Australia, *National Broadband Network Companies Bill 2010 [Provisions] and Telecommunications Legislation Amendment (National Broadband Network Measures — Access Arrangements) Bill 2010 [Provisions]* (2011) 2 [1.7].

⁶⁰ *GATS* art XIII:1 states: 'Articles II, XVI and XVII shall not apply to laws, regulations or requirements governing the procurement by governmental agencies of services purchased for governmental purposes and not with a view to commercial resale or with a view to use in the supply of services for commercial sale' (emphasis added). See also Adlung, above n 58, 474.

⁶¹ InfoDev and International Telecommunication Union, *ICT Regulation Toolkit Module 6 — Role of the World Trade Organization* (16 June 2011) <<http://www.ictregulationtoolkit.org/en/section.1651.html>>.

⁶² Panel Report, *China — Publications and Audiovisual Products*, WTO Doc WT/DS363/R (12 August 2009) [7.981], [7.997]–[7.999], [7.1428]–[7.1429], [8.2.3(a)(i)]–[8.2.3(a)(ii)]. This finding was not appealed: Appellate Body Report, *China — Publications and Audiovisual Products*, WTO Doc WT/DS363/AB/R (21 December 2009) [8].

⁶³ Panel Report, *China — Publications and Audiovisual Products*, WTO Doc WT/DS363/R, [7.962].

but the Panel appeared to equate state-owned enterprises with Chinese enterprises in concluding that the prohibited foreign-invested wholesalers were 'like' the authorised domestic wholesalers.⁶⁴ The difference in the Australian situation with respect to NBN Co is that no formal prohibition prevents other suppliers from establishing their own fibre network: other suppliers are just extremely unlikely to do so in practice,⁶⁵ given the high costs of infrastructure as well as the anti-cherry-picking legislative provisions, which are discussed further below.⁶⁶ Nevertheless, the potential for a national treatment violation means Australia will need to take care in the way it treats NBN Co in comparison to other existing and potential telecommunications service suppliers. Whether a violation occurs in any given circumstance will depend on an analysis of the scope of services to which Australia has made specific commitments (in particular, national treatment and market access commitments,⁶⁷ as discussed further below).

Assuming that the mere status of NBN Co as a government business enterprise is consistent with Australia's national treatment obligations under the *GATS*, this status might nevertheless create difficulties for Australia in relation to other *GATS* provisions. *GATS* art VIII:4 requires Australia to notify the Council for Trade in Services if it 'grants monopoly rights regarding the supply of a service covered by its specific commitments',⁶⁸ potentially leading to an obligation to make compensatory adjustments on a most-favoured nation basis if other WTO Members' benefits are thereby affected.⁶⁹ Australia could argue that it is not granting monopoly rights to NBN Co because other suppliers are free to build their own FTTP network should they so choose. However, a counterargument exists that NBN Co is a 'monopoly supplier of a service' within the meaning of *GATS* art XXVIII(h) because the government has 'in the relevant market ... authorized or established [NBN Co] formally or *in effect* ... as the sole supplier of' the wholesale services discussed below.⁷⁰ Reading art VIII:4 in the context of arts VIII:1, VIII:5 and XXVIII(h) may suggest that Australia has in fact granted monopoly rights to NBN Co.⁷¹ Similarly, in endorsing NBN Co as the sole supplier (in practice) of certain wholesale telecommunications services, Australia might be regarded as having limited the number of suppliers of these services

⁶⁴ Ibid [7.976]–[7.992].

⁶⁵ See Michael Cosgrave, 'FTTH and the National Broadband Network — Opportunity and Challenges for Competition Regulation' (Paper presented at the FTTH Council Asia Pacific Annual Conference and Exhibition, Melbourne, 19 May 2009) 4.

⁶⁶ See below Part VI(B).

⁶⁷ *GATS* pt III.

⁶⁸ The services to be supplied by NBN Co are covered by Australia's specific commitments, as discussed further below in Part IV(E).

⁶⁹ *GATS* art XXI:2(b).

⁷⁰ Emphasis added. See also Adlung, above n 58, 473.

⁷¹ *GATS* art VIII:1 requires each WTO Member to 'ensure that any monopoly supplier of a service in its territory does not ... act in a manner inconsistent with that Member's obligations'. *GATS* art VIII:5 provides for *GATS* art VIII to apply 'to cases of exclusive service suppliers, where a Member, formally or in effect, (a) authorizes or establishes a small number of service suppliers and (b) substantially prevents competition among those suppliers in its territory.' As regards the significance of 'context', see below n 174 and accompanying text.

contrary to its market access obligations.⁷² In its *GATS* Schedule, Australia did include limitations on its mode 3 market access commitments with respect to the government ownership of Telstra, which were applicable at that time.⁷³ However, those limitations cannot be automatically transposed to NBN Co. To modify its *GATS* Schedule by inserting limitations regarding NBN Co, Australia would have to compensate other Members pursuant to *GATS* art XXI.

Whether NBN Co is effectively the sole supplier of any particular service is ultimately likely to depend on the implementation of the relevant legislation and of the definitive agreements reached with Telstra, Optus and other providers, and factual elements concerning the degree of competition that NBN Co faces in the services it ends up supplying (which would affect the proper determination of the ‘relevant market’, as discussed further below).⁷⁴

The government funding of NBN Co raises a number of other issues concerning its relationship with existing and potential suppliers of telecommunications services in Australia. In particular: what services should NBN Co provide? How should other suppliers connect to the NBN Co network? And how should the government achieve its objective of universal telecommunications services? We address each of these questions in turn in the following Parts, within the context of assessing the compatibility of the NBN proposal with Australia’s international trade obligations.

III THE NBN OFFERING: WHOLESALE LAYER 2 BITSTREAM SERVICES

Around the world, debate continues on how best to ensure competition in the delivery of telecommunications services in order to lower prices, encourage innovation and improve service quality.⁷⁵ Simply put, infrastructure-based competition (also called network-based or facilities-based competition) occurs when providers ‘build their own network infrastructure to compete either as wholesalers or as integrated retailers or as both’.⁷⁶ However, investing in telecommunications infrastructure (especially for next generation networks such as the NBN) is extremely expensive, and the potential for recouping that cost is uncertain, depending on factors such as consumer demand and regulation.⁷⁷ Thus, investment in infrastructure of the kind underlying the NBN ‘involves very substantial risks greater than those faced with other kinds of large-scale infra-

⁷² *GATS* art XVI:2(a). See J Anthony VanDuzer, ‘Health, Education and Social Services in Canada: The Impact of the *GATS*’ in John Curtis and Dan Ciuriak (eds), *Trade Policy Research 2004* (Department of Foreign Affairs (Canada), 2004) 287, 479–80.

⁷³ *Australia — Schedule of Specific Commitments (Supplement 3)*, *GATS/SC/6/Suppl.3* (11 April 1997) 3–4.

⁷⁴ See below Part IV(E)(2) and above n 54.

⁷⁵ See Jörg Kittl, Martin Lundborg and Ernst-Olav Rühle, ‘Infrastructure-Based versus Service-Based Competition in Telecommunications’ (2006) 64(4) *Communications & Strategies* 67, 67–9.

⁷⁶ Productivity Commission, ‘Telecommunications Competition Regulation’ (Inquiry Report No 16, 20 September 2001) 100.

⁷⁷ Martyn Taylor, ‘Regulation vs Investment: Striking an Appropriate Balance — The Theory’ (2008) 36 *Australian Business Law Review* 384, 385–7.

structure projects.⁷⁸ An alternative to infrastructure-based competition is service-based competition, which occurs when providers either lease the necessary facilities in order to provide services at the wholesale or retail level, or resell the services of wholesalers.⁷⁹

The degree of mandated access to telecommunications networks is crucial in ensuring appropriate levels of infrastructure-based and service-based competition, both of which have generally been seen as desirable.⁸⁰ On the one hand, open access policies (requiring network-based providers to allow competitors access to their telecommunications infrastructure) may encourage service-based competition by lowering barriers to entry. On the other hand, 'forcing incumbents to lease their network to competitors will undermine that industry's incentives to invest in higher capacity networks to begin with',⁸¹ decreasing infrastructure-based competition. The United States has responded to this problem by abandoning open access regulation, promoting greater infrastructure-based competition.⁸² In contrast, a number of European countries have focused more on service-based competition, often associated with the 'ladder of investment' theory,⁸³ which posits that 'providing access opportunities for competitors which are appropriately calibrated over time ... [will] encourage competitors to "climb the ladder" of infrastructure investment, by installing progressively less replicable assets.'⁸⁴ A more recent theory articulated by the Berkman Center states that

open access and unbundling is not necessarily a pathway to the development of completely redundant facilities, but might be channelled towards complementary investments around a shared common set of slow-moving, extremely high cost elements: the passive infrastructure. ... In principle there is nothing about the physical limitations of a trench, or a fiber optic cable that makes duplication of this infrastructure a pre-condition for competition. Rather, it is the concern that regulation will fail to detect anticompetitive behaviour by the owner and operator of the shared infrastructure that the duplication insures against. Whether that insurance is worth the enormous social cost of redundant infrastructure, or the long term cost of reducing entry only to those actors able to fully duplicate facilities, is far from clear.⁸⁵

⁷⁸ Ibid 387.

⁷⁹ Productivity Commission, above n 76, 100–1.

⁸⁰ Kittl, Lundborg and Ruhle, above n 75, 83; Peter F Cowhey and Jonathan D Aronson, 'Trade in Services Telecommunications' in Aaditya Mattoo, Robert M Stern and Gianni Zanini (eds), *A Handbook of International Trade in Services* (Oxford University Press, 2008) 389, 398. See also *Competition and Consumer Act 2010* (Cth) s 44AA.

⁸¹ Berkman Center for Internet and Society, above n 43, 14. See also Taylor, above n 77, 393.

⁸² Paolo Siciliani, 'Access Regulation on NGA — A Financial, Market-Led Solution to Bridge the Gap between US and European Diverging Regulatory Approaches' (2010) 34 *Telecommunications Policy* 287, 288–90; Taylor, above n 77, 389. See also George S Ford, Thomas M Koutsky and Lawrence J Spiwak, 'Competition after Unbundling: Entry, Industry Structure, and Convergence' (2007) 59 *Federal Communications Law Journal* 331, 367.

⁸³ See Martin Cave, 'Encouraging Infrastructure Competition via the Ladder of Investment' (2006) 30 *Telecommunications Policy* 223, 235–6.

⁸⁴ Ibid 236.

⁸⁵ Berkman Center for Internet and Society, above n 43, 93–4.

This theory may go some way towards explaining the Australian government's thinking in relation to the NBN, given Australia's past experience with competition in fixed-line telecommunications services. According to Stephen Conroy, Australia's Minister for Broadband, Communications and the Digital Economy, 'infrastructure competition has failed' in the telecommunications sector in this country.⁸⁶ According to Michael Cosgrave, Group General Manager of the ACCC's Communications Group, 'the bottleneck characteristics of Telstra's customer access network are quite impervious to challenge from other fixed line technology.'⁸⁷ According to NBN Co estimates, Telstra's revenue market share of the retail and wholesale telecommunications market is 57 per cent, followed by Optus at 25 per cent, Vodafone Hutchison Australia at 12 per cent and AAPT at 2 per cent.⁸⁸ Competition is nevertheless robust in Australia's mobile telecommunications sector.⁸⁹

Under the Open Systems Interconnection Model, developed to facilitate interoperability,⁹⁰ seven layers exist in the 'vertical technology stack'⁹¹ making up communications across a telecommunications network. At the bottom is Layer 1, the 'physical or passive layer'. Above that, Layer 2 is known as the link or active layer.⁹² The lower layers provide the services through which the applications at Layer 7 operate.⁹³ The lower the layer at which services are provided on a competitive basis, the closer the industry is to infrastructure-based competition.

In its initial consultation paper of December 2009, NBN Co explained that it is to be a wholesale-only open access provider, offering a 'wholesale Layer 2 bitstream product' in order to 'occupy as small a footprint as possible in the overall value chain, leaving retail service providers [(RSPs)] with significant ability to innovate and develop new services in the higher levels of the value chain.'⁹⁴ In its response to industry submissions in March 2010, NBN Co confirmed its view that this approach 'most closely aligns with NBN Co's stated objectives and is most likely to facilitate the achievement of optimum competi-

⁸⁶ Julia Gillard, Prime Minister, and Stephen Conroy, Minister for Broadband, Communications and the Digital Economy, 'Joint Press Conference' (Transcript, 20 October 2010) <[<http://www.alp.org.au/federal-government/news/transcript--prime-minister-julia-gillard,-tran-\(1\)>](http://www.alp.org.au/federal-government/news/transcript--prime-minister-julia-gillard,-tran-(1))>.

⁸⁷ Cosgrave, above n 65, 4. See also ACCC, 'National Broadband Network Points of Interconnect — Public Version', above n 56, 23.

⁸⁸ NBN Co, *Corporate Plan 2011–2013*, above n 2, 31–2. See also David Kennedy, 'Australia (Country Regulation Overview)' (Research Paper, Ovum, 3 February 2010) 2–4.

⁸⁹ See Graeme Samuel, ACCC Chairman, 'Fair Call: The ACCC's Report Card for the Telecommunications Sector' (Paper presented at the Australian Telecommunications Users Group Annual Conference, Sydney, 12 March 2010) 1–4.

⁹⁰ International Organization for Standardization and International Electrotechnical Commission, 'Information Technology — Open Systems Interconnection — Basic Reference Model: The Basic Model' (Report No 7498–1, 15 June 1996).

⁹¹ NBN Co, 'Proposed Wholesale Fibre Bitstream Products' (Consultation Paper, December 2009) 9.

⁹² *Ibid.*

⁹³ International Organization for Standardization and International Electrotechnical Commission, above n 90, 28 [6.1.4]. See also James Harry Green, *The Irwin Handbook of Telecommunications* (McGraw-Hill, 5th ed, 2006) 94–7.

⁹⁴ NBN Co, 'Proposed Wholesale Fibre Bitstream Products', above n 91, 4. See also ACCC, 'Layer 2 Bitstream Service Description' (Draft Final Report, 24 November 2011).

tive outcomes over the short-to-medium term',⁹⁵ noting that industry submissions contained no requests for NBN Co to offer Layer 1 services⁹⁶ and expressed little support for NBN Co offering Layer 3 services.⁹⁷ Indeed, some stakeholders such as Internode, Telstra and Optus have proposed an explicit prohibition on NBN Co providing services above Layer 2, in order to prevent 'scope creep'.⁹⁸ Despite the continued focus of NBN Co on wholesale service supply, the relevant legislation does provide limited exceptions, allowing NBN Co to provide certain telecommunications services to some utilities, such as transport authorities, bodies supplying electricity, gas, water or sewerage services, storm water drainage services bodies, and state or territory road authorities.⁹⁹ Entities such as Telstra and Optus opposed the exemption for utilities as overly broad,¹⁰⁰ and late amendments now prevent the utilities from resupplying telecommunications services obtained from NBN Co.¹⁰¹

The government-commissioned NBN implementation study by McKinsey & Co and KPMG recommended that NBN Co be eventually required to unbundle Layer 1 services,¹⁰² allowing other suppliers access to the fibre network. However, according to the ACCC, '[u]nbundling does not appear to be feasible under NBN Co's preferred option for [point of interconnect] location if it does not maintain opportunities for alternative service providers to access the fibre exchange in the future.'¹⁰³ Accordingly, Australia's approach to interconnection (discussed below)¹⁰⁴ may preclude ultimate infrastructure-based competition with respect to the NBN.

Although Australia's *GATS* obligations do not mandate the provision of services or access to a telecommunications network at any particular layer, they do include certain requirements concerning interconnection, to which we now turn. These interconnection obligations are enhanced by Australia's extensive market access and national treatment commitments with respect to mode 3 telecommunications services, including '[p]acket-switched data transmission services',

⁹⁵ NBN Co, 'Response to Industry Submissions — Proposed Wholesale Fibre Bitstream Products' (Paper, March 2010) 10.

⁹⁶ *Ibid* 12.

⁹⁷ *Ibid* 11.

⁹⁸ Senate Environment and Communications Legislation Committee, above n 59, 17 [2.37].

⁹⁹ *National Broadband Network Companies Act 2011* (Cth) ss 10–16.

¹⁰⁰ Senate Environment and Communications Legislation Committee, above n 59, 16 [2.30].

¹⁰¹ Senate, Parliament of Australia, 'National Broadband Network Companies Bill 2010 (Cth) — Schedule of the Amendments Made by the Senate' (25 March 2011) items 2–4, 6, 8, 10, 12, 14, 16.

¹⁰² McKinsey & Co and KPMG, *National Broadband Network Implementation Study* (2010) 474 <http://www.dbcde.gov.au/broadband/national_broadband_network/national_broadband_network_implementation_study>.

¹⁰³ ACCC, 'Discussion Paper on Points of Interconnect to the National Broadband Network', above n 37, 21. See also ACCC, 'National Broadband Network Points of Interconnect — Public Version', above n 56, 79–80.

¹⁰⁴ See below Part IV.

which would encompass the Layer 2 bitstream services to be provided by NBN Co.¹⁰⁵

IV INTERCONNECTION TO THE NBN

A Policy Debate and NBN Co's Original Proposal

As noted in the introduction above, in late 2010 the ACCC engaged in consultation concerning the points at which other telecommunications service providers will be able to connect to NBN Co's FTTP network.¹⁰⁶ As telecommunications is a network industry, 'the value of the network to each user increases with every addition of other users to the network',¹⁰⁷ and

[w]ithout a right of interconnection, a new entrant could not offer its customers effective service capable of reaching all the people customers wished to call unless it first built a new ubiquitous physical network whose geographic scope rivalled that of the dominant network.¹⁰⁸

The dominant network in this case would be NBN Co. The question of how much access to the physical network of a telecommunications service provider should be mandated by the government with respect to other telecommunications service providers and at what points interconnection should be granted is 'a special case of a more general economic problem of infrastructure access', which arises when 'one or more firms each control upstream facilities that provide a good or service that is needed for further downstream production', in circumstances of 'inadequate competition at the upstream production stage'.¹⁰⁹

The location at which traffic is transferred on to NBN Co's network before continuing to the end user's location (or vice versa) is called a 'point of interconnect' or 'point of interconnection' ('PoI'). In more general terms, the ACCC has defined a PoI as 'the inter-network location where traffic is exchanged between one network and another.'¹¹⁰ The greater the number of PoIs, and the closer to the end user they are located, the greater the likely amount of innovation and

¹⁰⁵ *Australia — Schedule of Specific Commitments (Supplement 3)*, GATS/SC/6/Suppl.3 (11 April 1997) 3. Australia's Schedule defines 'telecommunications services' as covering specified sub-sectors from *Services Sectoral Classification List: Note by the Secretariat*, MTN.GNS/W/120 (10 July 1991), as well as related numbers from the United Nations' Central Product Classification ('CPC'), namely CPC numbers 7521, 7522, 7523 and 7529. The CPC is a detailed list for categorising goods and services for customs and similar purposes. The relevant CPC 7523 includes 'data network services', meaning '[n]etwork services necessary to transmit data between equipment using the same or different protocols', which would include packet-switched data transmission services: United Nations Statistics Division, *Detailed Structure and Explanatory Notes* (2011) <<http://unstats.un.org/unsd/cr/registry/regcs.asp?Cl=9&Lg=1&Co=752>>.

¹⁰⁶ ACCC, 'Discussion Paper on Points of Interconnect to the National Broadband Network', above n 37.

¹⁰⁷ Hudson Janisch, 'Freer Markets, More Rules: Confronting the Paradox of Telecommunications "Deregulation"' (Working Paper, The LINK Centre, 15 March 2006) 3 (emphasis altered) <<http://link.wits.ac.za/papers/janisch-200603-Freer-Markets.pdf>>.

¹⁰⁸ Hudson Janisch, 'Regulation and the Challenge of Broadband Telecommunications: Back to the Future?' (Speech delivered at the University of Alberta, 26 October 2010) 3–4.

¹⁰⁹ Joshua S Gans and Stephen P King, 'Regulating Interconnection Pricing' in Alasdair Grant (ed), *Australian Telecommunications Regulation* (UNSW Press, 3rd ed, 2004) 55, 55.

¹¹⁰ ACCC, 'National Broadband Network Points of Interconnect — Public Version', above n 56, 12.

investment in telecommunications infrastructure (known as ‘backhaul’ or ‘transmission’) leading to those points. The fewer the number of PoIs, and the further away from the end user they are located, the easier it will be for service providers to compete in providing retail services to end users without the need to invest in their own backhaul or purchase backhaul from other providers.¹¹¹ The PoIs chosen are significant because the general telecommunications access regime under pt XIC of the *Competition and Consumer Act 2010* (Cth) will apply to NBN Co only in respect of designated PoIs.¹¹²

In its December 2009 consultation paper, NBN Co explained that its goal in locating PoIs to its network is

to strike a balance between encouraging innovation and efficient investment in backhaul infrastructure without embedding or increasing barriers to entry for smaller RSPs in less densely populated areas due to limited competition in the backhaul segment.¹¹³

Originally, choosing between local, district, regional and state/national PoI locations (in order from the closest to the furthest away from the end user), NBN Co decided to establish, ‘[f]or more densely populated areas, such as urban and regional centres, a “local” ... PoI ... for each Fibre Serving Area [(‘FSA’)], [and] for less densely populated areas, a “district” PoI (which aggregates two or more FSAs together)’.¹¹⁴ Under this proposal, if ‘contestable backhaul’¹¹⁵ was available in a given area, then a local PoI would be provided and RSPs could use their own backhaul to that point or purchase backhaul from another provider. However, in the absence of contestable backhaul in a particular area, only a district PoI would be provided and RSPs would need to use NBN Co’s network from that point to the end user.¹¹⁶ The rationale for this approach was to ‘promote a level playing field ... [by] [e]nsuring that all RSPs are able to acquire the same service and compete equally in a given area’.¹¹⁷ Put differently, this approach was designed to prevent any RSP from being *advantaged* by the fact that it already had backhaul in place. According to NBN Co’s Business Case Summary released by the Australian government in late 2010, NBN Co’s business model was based on establishing only 14 PoIs, and NBN Co predicted that mandating more PoIs would reduce its internal rate of return by 50 to 80 basis points.¹¹⁸

The difficulty with this framework for locating PoIs, as emphasised by Telstra in its response to NBN Co’s consultation paper, is that

¹¹¹ See *ibid* 14–15; ACCC, ‘Discussion Paper on Points of Interconnect to the National Broadband Network’, above n 37, 9, 17.

¹¹² See below nn 162–164 and accompanying text.

¹¹³ NBN Co, ‘Proposed Wholesale Fibre Bitstream Products’, above n 91, 15.

¹¹⁴ *Ibid* 4.

¹¹⁵ *Ibid*. Contestable backhaul essentially refers to the situation where two or more providers do or could compete in a given area because they both have telecommunications infrastructure serving that area.

¹¹⁶ *Ibid* 19.

¹¹⁷ *Ibid*.

¹¹⁸ NBN Co, ‘Business Case Summary’ (Paper, 24 November 2010) 20.

it has potential to *strand* infrastructure already deployed in regional areas, to limit choice, and to discourage further investments that may be commercially viable. ... Telstra is concerned that NBN Co's proposal to aggregate regional FSAs into one PoI, and to then also exclude competition from NBN Co's offerings through the compulsory bundling of backhaul with the bitstream access service, will ... *disadvantage* parties who have already made investments in those areas.¹¹⁹

Telstra also queried the consistency with Australia's WTO obligations of NBN Co's proposal for locating PoIs,¹²⁰ as discussed further below. According to Telstra, no technical or commercial reason exists to preclude NBN Co from offering a local PoI to RSPs that have their own backhaul or that have purchased backhaul from another provider, as well as a district PoI to RSPs that choose to purchase backhaul from NBN Co.¹²¹ Telstra's concern about the bundling of backhaul and access services seems to be reflected in Recommendation 52(2) of the McKinsey/KPMG implementation study, which proposed that '[t]he transit backhaul bitstream product ... be specified as a separate product from the access bitstream product, allowing service providers to select their preferred combination of backhaul capacity and access services'.¹²²

B *NBN Co's Revised Proposal and Its Reception*

NBN Co was already aware of the risk of stranding existing infrastructure,¹²³ but in its March 2010 response to submissions by Telstra and other industry players it reaffirmed its decision not to offer a local PoI to Telstra or other providers in areas of non-contested backhaul:

Telstra's concern ... seems to [involve] ... Telstra not being able to utilise its backhaul assets for both self supply and wholesale provision to RSPs. While this is understandable from Telstra's perspective, NBN Co already outlined that its decision on this matter would ensure no RSP was disadvantaged relative to other RSPs. ... [Otherwise], Telstra would have the ability and the incentive to favour its retail arm over other RSPs.¹²⁴

Nevertheless, NBN Co's position on the PoI question then shifted somewhat, perhaps as a result of discussions with Telstra, leading to the heads of agreement between NBN Co and Telstra.¹²⁵ NBN Co's October 2010 public position paper compared the four options of:

¹¹⁹ Telstra, 'Response to NBN Co Consultation Paper', above n 39, 11 [30], 11 [32] (emphasis added). See also Stephen Bartholomeusz, 'The NBN's Vital Connections', *Business Spectator* (online), 23 October 2010 <<http://www.businessspectator.com.au/bs.nsf/Article/ACCC-NBN-Co-broadband-government-regulation-invest-pd20101022-AG5GW>>.

¹²⁰ Telstra, 'Response to NBN Co Consultation Paper', above n 39, 8 [18]–[21], 11 [31].

¹²¹ *Ibid* 11 [31].

¹²² McKinsey & Co and KPMG, above n 102, 336.

¹²³ NBN Co, 'Proposed Wholesale Fibre Bitstream Products', above n 91, 16.

¹²⁴ NBN Co, 'Response to Industry Submissions — Proposed Wholesale Fibre Bitstream Products', above n 95, 21.

¹²⁵ See above n 28 and accompanying text.

- 1 no consolidation (950 local PoIs);
- 2 low consolidation (an indeterminate number of local/district PoIs 'partially distributed, at the edge of where contested backhaul currently exists'),¹²⁶
- 3 high consolidation (14 PoIs aggregated in five capital cities); and
- 4 a composite model entailing 14 central PoIs in five capital cities plus the option of interconnection at an additional 195 PoIs.

NBN Co preferred the composite model,¹²⁷ which appeared to offer a greater number of PoIs than the 100–200 originally anticipated.¹²⁸ However, interconnection at the additional 195 PoIs was to be provided only 'upon request and subject to timing and business rules', with the 14 aggregated PoIs being the 'default locations for interconnection'.¹²⁹ This compared to the approximately 550 PoIs available to service providers seeking access to Telstra's copper network.¹³⁰

In its October 2010 discussion paper on PoIs, the ACCC suggested that '[i]t is likely that a very low number of consolidated POIs risks stranding existing infrastructure assets, and foreclosing the potential for further backhaul entry',¹³¹ which 'would risk foreclosing dynamic development in this sector.'¹³² It highlighted its previous recommendations concerning PoIs in other contexts, including that: (i) 'a fibre-to-the-node (FTTN) network upgrade or similar fibre access network roll-out ... should include POIs which are as close to the end-user as is appropriate and efficient';¹³³ and (ii) in the context of the government's 2008 request for proposals for an NBN (which was later abandoned), 'interconnection as close as possible to existing backhaul/transmission investments is likely to facilitate a smooth migration to the NBN'.¹³⁴ The ACCC also queried NBN Co's assertion that its ability to achieve uniform national wholesale pricing would be determined by the number and location of points of interconnect.¹³⁵

In its response to the ACCC discussion paper, Telstra emphasised that the NBN Co's revised proposal would risk stranding infrastructure of existing service suppliers. It also maintained that the proposal 'breaches WTO and [free trade agreement] commitments (and carrier licence requirements)'.¹³⁶ According to

¹²⁶ NBN Co, 'Proposed NBN Co Points of Interconnect', above n 38, 12.

¹²⁷ *Ibid* 13.

¹²⁸ Telstra, 'Response to NBN Co Consultation Paper', above n 39, 9 [23].

¹²⁹ NBN Co, 'Proposed NBN Co Points of Interconnect', above n 38, 12.

¹³⁰ ACCC, 'Discussion Paper on Points of Interconnect to the National Broadband Network', above n 37, 8; ACCC, 'National Broadband Network Points of Interconnect — Public Version', above n 56, 13.

¹³¹ ACCC, 'Discussion Paper on Points of Interconnect to the National Broadband Network', above n 37, 17. See also ACCC, 'National Broadband Network Points of Interconnect — Public Version', above n 56, 33–4.

¹³² ACCC, 'Discussion Paper on Points of Interconnect to the National Broadband Network', above n 37, 18.

¹³³ *Ibid* 11.

¹³⁴ *Ibid* 12.

¹³⁵ *Ibid* 21–2.

¹³⁶ Telstra, 'Response to the ACCC Discussion Paper on Points of Interconnect', above n 39, 16.

Telstra, NBN Co must act consistently with Australia's obligations under the *Reference Paper* because of a 1997 Ministerial declaration that makes the WTO agreements binding on carriers.¹³⁷ Telecommunications suppliers such as Optus and AAPT also complained about NBN Co's composite model on the basis that it would strand existing assets, which could lead to domestic compensation claims.¹³⁸

C Potential for a Domestic Claim on Interconnection

Telstra's argument regarding the 1997 Ministerial declaration is significant. If followed by a court, it would mean that operating inconsistently with WTO rules could expose NBN Co to claims — from both Australian and foreign telecommunications suppliers, in an Australian court and under Australian law — of failing to comply with its carrier licence.¹³⁹ A domestic claim on this basis would provide an additional avenue for foreign providers — and perhaps the only litigation-based avenue for Telstra and other Australian providers — in seeking redress for a WTO violation in connection with the NBN. The possibility of domestic court litigation being initiated by any provider is likely to pose a more immediate and credible threat to NBN Co and the government's plans than the possibility of a foreign provider succeeding in convincing their own government to challenge Australia in the WTO dispute settlement system. This is because domestic litigation may result in an interim injunction against the continuing operations of NBN Co, or a court order requiring the regulator to consider enforcement action, whereas a WTO dispute could lead to successive proceedings taking several years and an ultimate remedy that is only prospective. The threat of domestic litigation may have been one factor in persuading NBN Co to revise its list of PoIs further.¹⁴⁰

¹³⁷ Ibid 7 n 7, citing *Telecommunications Act 1997* (Cth) s 366(2); Richard Alston, Minister for Communications and the Arts (Cth), 'Telecommunications (Compliance with International Conventions) Declaration No 1 of 1997' in Commonwealth, *Gazette: General*, 2 July 1997, 1811.

¹³⁸ See also Michael S Cox, Submission to ACCC, *Discussion Paper on National Broadband Network Points of Interconnect*, November 2010, 8, 15 <<http://www.accc.gov.au/content/index.phtml/itemId/961575>>; Optus, Submission to ACCC, *Discussion Paper on National Broadband Network Points of Interconnect*, November 2010, 12–13 <<http://www.accc.gov.au/content/index.phtml/itemId/961575>>; AAPT, Submission to ACCC, *Discussion Paper on National Broadband Network Points of Interconnect*, October 2010, 16–19 <<http://www.accc.gov.au/content/index.phtml/itemId/961575>>. See also Petroc Wilton, 'NBN's 14 POI Proposal Criticised by Telstra, Optus; Supported by Smaller Access Seekers', *Communications Day Australasia* (online), 10 November 2010, 1–2 <<http://www.commsday.com/commsday/category/commsday-australasia>>; Tracy Lee and Mitchell Bingemann, 'ISPs, Telcos Consider Filing Compo Claims', *The Australian* (Sydney), 8 December 2010, 6.

¹³⁹ Such a claim might need to be indirect, as only the Australian Communications and Media Authority ('ACMA'), the Minister and the ACCC are able to take action in relation to a contravention of a carrier licence condition. A carrier could make a formal complaint to ACMA under s 509 of the *Telecommunications Act 1997* (Cth) sufficient to trigger obligations under Australian domestic law. A legitimate expectation may arise that ACMA will take enforcement action where a carrier places the Australian government in breach of treaty obligations. In performing its functions, ACMA is required under s 580 of the Act to have regard to Australia's obligations under the *Reference Paper*.

¹⁴⁰ As regards the process of revising the list of PoIs, see below Part IV(D).

A broadly analogous situation arose in 1998, when the High Court of Australia held that the making of a particular standard by the Australian Broadcasting Authority ('ABA') was unlawful¹⁴¹ because the standard imposed minimum local content requirements on Australian television,¹⁴² discriminating against New Zealand programs (along with other foreign programs) contrary to Australia's PTA with New Zealand.¹⁴³ The ABA had power to make broadcasting standards under s 122 of the *Broadcasting Services Act 1992* (Cth). However, that power had to be exercised in accordance with s 160(d) of the same Act,¹⁴⁴ which required the ABA to 'perform its functions in a manner consistent with Australia's obligations under any convention to which Australia is a party or any agreement between Australia and a foreign country'.¹⁴⁵ The implications of the High Court's decision continue today,¹⁴⁶ as New Zealand programs are treated equally with Australian programs for the purpose of compliance with the current broadcasting television standards.¹⁴⁷

D ACCC Recommendation and NBN Co's Final Proposal

In late 2010, the ACCC provided its advice on the PoI issue to the government, and that advice was subsequently made public. The ACCC considered the initial number and location of PoIs that would best meet the 'long-term interests of end-users',¹⁴⁸ defined according to the objectives of: promoting competition in the relevant service markets;¹⁴⁹ achieving 'any-to-any connectivity'; and 'encouraging the economically efficient use of ... and ... investment in ... infrastructure'¹⁵⁰ (and thus taking account of both service-based and infrastructure-based competition). On that basis, the ACCC recommended a low consolidation

¹⁴¹ *Project Blue Sky v Australian Broadcasting Authority* (1998) 194 CLR 355, 393 [101] (McHugh, Gummow, Kirby and Hayne JJ) ('*Project Blue Sky*'). Cf Brennan CJ, who held the relevant part of the standard to be invalid rather than merely unlawfully made: at 375 [42].

¹⁴² *Australian Content Standard 1995* (Cth) s 9. See also *Broadcasting Services (Australian Content) Standard 2005* (Cth) s 9.

¹⁴³ *Protocol on Trade in Services to the Australia New Zealand Closer Economic Relations — Trade Agreement*, signed 18 August 1988, [1988] ATS 20 (entered into force 1 January 1989) arts 4, 5(1).

¹⁴⁴ *Project Blue Sky* (1998) 194 CLR 355, 385 [81] (McHugh, Gummow, Kirby and Hayne JJ), 371 [31] (Brennan CJ). See also Donald R Rothwell, 'Australia' in David Sloss (ed), *The Role of Domestic Courts in Treaty Enforcement: A Comparative Study* (Cambridge University Press, 2009) 120, 141–5 and the references cited therein.

¹⁴⁵ Cf today's *Australian Communications and Media Authority Act 2005* (Cth) s 16.

¹⁴⁶ On the immediate impact of the *Project Blue Sky* decision on Australian content standards, see Anna Feros, 'Effect of International Agreements and Convergence of Technologies on Australian Television Content' (2000) 5 *Media and Arts Law Review* 87, 90–1. On the relationship between Australian culture and minimum local content requirements, see Simon Fitzpatrick, 'Protecting Australian Culture in the 21st Century: Television Content Regulation in a Globalising World' (2000) 5 *Media and Arts Law Review* 223. More generally, on the relationship between international trade laws and 'cultural products' such as television, see Tania Voon, *Cultural Products and the World Trade Organization* (Cambridge University Press, 2007).

¹⁴⁷ *Broadcasting Services (Australian Content) Standard 2005* (Cth) s 5(3).

¹⁴⁸ *Competition and Consumer Act 2010* (Cth) s 152AB(2). This is a standard determinant for much of the ACCC's telecommunications activity.

¹⁴⁹ ACCC, 'National Broadband Network Points of Interconnect — Public Version', above n 56, 15.

¹⁵⁰ *Ibid* 16.

approach to PoI location (which it described as a ‘semi-distributed’ approach).¹⁵¹ Under the ACCC’s recommended approach, PoIs would be ‘established in all locations where transmission services are *workably competitive* and it is *technically and operationally feasible*’ to do so.¹⁵² The presence of two suppliers of wholesale transmission services with optical fibres near a given location would suggest that competitive backhaul exists or is likely to develop at that location, but other evidence would be needed to confirm this assessment.¹⁵³ The ACCC pointed out that its recommended semi-distributed approach to PoI location would ‘allow for future Layer 1 unbundled access’.¹⁵⁴

Pursuant to the ACCC’s recommendation and with further guidance from the ACCC, NBN Co developed planning rules for establishing PoIs and a list of 120 initial PoIs,¹⁵⁵ which was subsequently revised to 121 initial PoIs.¹⁵⁶ The ACCC indicated that it was satisfied that the revised list complied with the relevant competition criteria and planning rules,¹⁵⁷ later notifying a slightly revised list, still entailing 121 initial PoIs.¹⁵⁸ Although 121 PoIs represents a substantial increase on the 14 default PoIs in NBN Co’s previous proposal, it is still significantly lower than the 550 PoIs in Telstra’s copper network.¹⁵⁹ This approach could still therefore raise concerns about stranding existing assets. However, the ACCC has emphasised that:

- 1 a move from a copper network to an FTTP will necessarily involve some bypassing of existing infrastructure;
- 2 ‘under a two provider approach to defining competition [in accordance with the ACCC recommendation] the only transmission operator whose assets would potentially be subject to stranding or impairment would be Telstra’;¹⁶⁰ and
- 3 Telstra would be likely to be able to use these assets for other purposes and to limit the impairment through its agreement with NBN Co.¹⁶¹

Pursuant to the *Telecommunications Legislation Amendment (National Broadband Network Measures — Access Arrangements) Act 2011* (Cth), the ACCC must publish a list of initial PoIs (which is expected to be based on the 121 PoIs

¹⁵¹ Ibid 1. On the ‘semi-distributed’ approach, see also at 41–6.

¹⁵² Ibid 41–2 (emphasis added).

¹⁵³ Ibid 58–9.

¹⁵⁴ Ibid 79.

¹⁵⁵ NBN Co, *List of Initial POIs to the NBN* (December 2010) ACCC <<http://www.accc.gov.au/content/index.phtml/itemId/952292>>.

¹⁵⁶ NBN Co, *List of Revised Initial POIs to the NBN* (February 2011) ACCC <<http://www.accc.gov.au/content/index.phtml/itemId/952292>>.

¹⁵⁷ ACCC, *NBN Points of Interconnect: Confirmation Process — February 2011* (2011) <<http://www.accc.gov.au/content/index.phtml/itemId/952292>>.

¹⁵⁸ NBN Co, *List of Revised Initial POIs to the NBN* (3 May 2011) ACCC <<http://www.accc.gov.au/content/index.phtml/itemId/952292>>.

¹⁵⁹ See above nn 129–130 and accompanying text.

¹⁶⁰ ACCC, ‘National Broadband Network Points of Interconnect — Public Version’, above n 56, 31.

¹⁶¹ Ibid 32. On the potential for asset stranding or impairment (including under a centralised and semi-distributed approach), see generally at 30–4.

it has already identified).¹⁶² The NBN has no statutory obligation to allow access seekers to interconnect with its facilities at PoIs not included in the list published by the ACCC.¹⁶³ In other words, as noted above, the pt XIC access regime does not apply to unlisted PoIs.¹⁶⁴

E *Australia's Interconnection Obligations Regarding NBN Co*

What, then, are the international trade law implications for this controversial issue of PoI location? The *Reference Paper*, which Australia has incorporated into its *GATS* Schedule,¹⁶⁵ includes a number of key obligations with respect to interconnection,¹⁶⁶ with roots in United States law.¹⁶⁷ These include ss 2.1 and 2.2 of the *Reference Paper*, which we now examine in turn.

1 Reference Paper s 2.1: *Applicability of the Interconnection Obligations*

Section 2.1 reads as follows:

2 Interconnection

2.1 This section applies to linking with suppliers providing *public telecommunications transport networks or services* in order to allow the users of one supplier to communicate with users of another supplier and to access services provided by another supplier, where *specific commitments* are undertaken.¹⁶⁸

We begin with the two primary conditions in s 2.1 for applicability of the interconnection obligations in s 2 of the *Reference Paper*: that the Member in question has undertaken relevant specific commitments, and that the suppliers in question are providing public telecommunications transport networks or services.

As identified in pt III of the *GATS*, 'specific commitments' are market access, national treatment and additional commitments. In *Mexico — Measures Affecting Telecommunications Services* ('*Mexico — Telecoms*') (which primarily concerned mode 1 service supply), the Panel interpreted s 2.1 to mean that 'the right to interconnect accorded by s 2.2 should apply where, *with respect to a particular subsector and mode of supply*, a Member's market access and national

¹⁶² *Telecommunications Legislation Amendment (National Broadband Network Measures — Access Arrangements) Act 2011* (Cth) sch 1 pt 1, inserting *Competition and Consumer Act 2010* (Cth) s 151DB.

¹⁶³ *Telecommunications Legislation Amendment (National Broadband Network Measures — Access Arrangements) Act 2011* (Cth) sch 1 pt 1, inserting *Competition and Consumer Act 2010* (Cth) s 152AXB(4A).

¹⁶⁴ See above n 112 and accompanying text.

¹⁶⁵ *Australia — Schedule of Specific Commitments (Supplement 3)*, GATS/SC/6/Suppl.3 (11 April 1997) 3, 5–7.

¹⁶⁶ Laura B Sherman, "'Wildly Enthusiastic' about the First Multilateral Agreement on Trade in Telecommunications Services' (1998) 51 *Federal Communications Law Journal* 61, 79.

¹⁶⁷ Paula Barnes Sours, 'The Impact of US Regulatory Activity on Prospects for Implementation of the *WTO Agreement on Basic Telecommunications*' (1998) 23 *North Carolina Journal of International Law and Commercial Regulation* 645, 662.

¹⁶⁸ *Australia — Schedule of Specific Commitments (Supplement 3)*, GATS/SC/6/Suppl.3 (11 April 1997) 5 (emphasis added).

treatment commitments specifically [accord] the right to supply that service.¹⁶⁹ As noted above, Australia has made extensive market access, national treatment and additional commitments under *GATS* in mode 3 with respect to the service that NBN Co will offer.¹⁷⁰ The condition in s 2.1 regarding specific commitments therefore appears to be satisfied.

The term ‘public telecommunications transport networks or services’ in s 2.1 is not defined in the *Reference Paper*. However, in interpreting Mexico’s interconnection obligations under the *Reference Paper*, the Panel in *Mexico — Telecoms* relied on the definitions of these terms in the *GATS Annex on Telecommunications*.¹⁷¹ The Panel did not explicitly justify this interpretative approach, despite the fact that the *GATS Annex on Telecommunications* by its terms provides definitions only ‘[f]or the purposes of this Annex’.¹⁷² Nevertheless, the extension of these definitions to the *Reference Paper* may be warranted by the fact that a Member’s *GATS* Schedule (including the *Reference Paper*, to the extent that it is incorporated therein) forms part of the *GATS*¹⁷³ and the WTO treaty as a whole, and the *Reference Paper* was drafted subsequent to the Annex. The definitions in the Annex of ‘public telecommunications transport network’ and ‘public telecommunications transport service’ are therefore at least relevant ‘context’¹⁷⁴ in interpreting these terms in the *Reference Paper*.

The *GATS Annex on Telecommunications* defines ‘public telecommunications transport service’ as ‘any telecommunications transport service required, explicitly or in effect, by a Member to be offered to the public generally.’¹⁷⁵ Australia will not require NBN Co to offer any services to the public generally, in the sense that NBN Co will offer only wholesale and not retail services.¹⁷⁶ Accordingly, NBN Co does not appear to be providing public telecommunications transport services. The definition of ‘public telecommunications service’ in the *Australia–United States Free Trade Agreement* is similarly restricted to services required to be offered to the public generally,¹⁷⁷ such that the interconnection obligations in that agreement¹⁷⁸ will not apply to NBN Co. The *GATS Annex on Telecommunications* defines ‘[p]ublic telecommunications transport network’ as ‘the public telecommunications infrastructure which permits telecommunications between and among defined network termination points.’¹⁷⁹ NBN Co’s FTTP network does seem to fall within this definition.

¹⁶⁹ Panel Report, *Mexico — Telecoms*, WTO Doc WT/DS204/R (2 April 2004) [7.94] (emphasis in original).

¹⁷⁰ See above n 105 and accompanying text.

¹⁷¹ Panel Report, *Mexico — Telecoms*, WTO Doc WT/DS204/R (2 April 2004) [7.103]–[7.105].

¹⁷² *GATS Annex on Telecommunications* art 3.

¹⁷³ *GATS* art XX:3.

¹⁷⁴ *Vienna Convention on the Law of Treaties*, opened for signature 23 May 1969, 1155 UNTS 331 (entered into force 27 January 1980) art 31(1) (‘*VCLT*’).

¹⁷⁵ *GATS Annex on Telecommunications* art 3(b).

¹⁷⁶ See above n 94 and accompanying text.

¹⁷⁷ *AUSFTA* art 12.25.13.

¹⁷⁸ *Ibid* arts 12.3, 12.7(b), 12.10, 12.11.

¹⁷⁹ *GATS Annex on Telecommunications* art 3(c).

In *Mexico — Telecoms*, the Panel appeared to conflate the definition of ‘public telecommunications transport *service*’ with the definition of ‘public telecommunications transport *network*’ in reasoning that the interconnection obligations in s 2 of the *Reference Paper* entail “linking” ... with suppliers of basic telecommunications services that are required to be offered to the public generally.¹⁸⁰ On that interpretation (which could be characterised as obiter dicta), NBN Co will provide neither a public telecommunications transport service nor a public telecommunications transport network. However, this conclusion seems contrary to the principle of effectiveness and the ordinary meaning of the two definitions, which do not both refer to services required to be offered to the public generally. The Panel’s conclusion also appears contrary to the aims of the *Reference Paper* in that their conclusion could prevent application of the *Reference Paper* to a wholesale-only supplier even where, as is the case with NBN Co, the supplier’s infrastructure is ultimately used to supply services to the general public, and the entities to whom the supplier may offer services is not restricted to a closed user group of the kind typically associated with a ‘private’ network.

Accordingly, in our view, NBN Co is properly regarded as providing a public telecommunications transport network even though it will not provide a public telecommunications transport service. Therefore, Australia’s interconnection obligations in s 2.2 incorporate the linking of a service supplier of another WTO Member (the access seeker) with NBN Co’s network in order to allow users of the access seeker to communicate with users of another supplier. The definitions of ‘public telecommunications service’¹⁸¹ and ‘public telecommunications network’¹⁸² in three of Australia’s PTAs are similarly ambiguous but would arguably justify an interpretation that Australia’s interconnection obligations under those agreements also extend to NBN Co.

2 Reference Paper s 2.2: *Ensuring Interconnection*

Section 2.2 of the *Reference Paper* reads:

Interconnection to be ensured

Interconnection with a *major supplier* will be ensured at any *technically feasible* point in the network. Such interconnection is provided

- (a) under non-discriminatory terms, conditions (including technical standards and specifications) and rates and of a quality no less favourable than that provided for its own like services or for like services of non-affiliated service suppliers or for its subsidiaries or other affiliates;
- (b) in a timely fashion, on terms, conditions (including technical standards and specifications) and cost-oriented rates that are transparent, reasonable, having regard to *economic feasibility*, and *sufficiently unbundled* so that the supplier need not pay for network components or facilities that it does not require for the service to be provided; and

¹⁸⁰ Panel Report, *Mexico — Telecoms*, WTO Doc WT/DS204/R (2 April 2004) [7.105].

¹⁸¹ *SAFTA* ch 10 art 1.2(h); *ACFTA* ch 11 art 11.1(m); *AANZFTA* Annex on Telecommunications art 2(j).

¹⁸² *SAFTA* ch 10 art 1.2(i); *ACFTA* ch 11 art 11.1(l); *AANZFTA* Annex on Telecommunications art 2(i).

- (c) upon request, at points in addition to the network termination points offered to the majority of users, subject to charges that reflect the cost of construction of *necessary additional facilities*.¹⁸³

Similar interconnection obligations apply to major suppliers and more generally in Australia pursuant to the *Singapore–Australia Free Trade Agreement* ('SAFTA'),¹⁸⁴ the *Australia–Chile Free Trade Agreement* ('ACFTA'),¹⁸⁵ and the *Agreement Establishing the ASEAN–Australia–New Zealand Free Trade Area* ('AANZFTA').¹⁸⁶ The first question that arises in applying s 2.2 of the *Reference Paper* to NBN Co is whether NBN Co is a 'major supplier'. A 'major supplier' is defined in the *Reference Paper* as a supplier that:

has the ability to materially affect the terms of participation (having regard to price and supply) in the relevant market for basic telecommunications services as a result of:

- (a) control over essential facilities; or
(b) use of its position in the market.¹⁸⁷

The reference to 'basic telecommunications services' ('BTS') in the definition of 'major supplier' mirrors the fact that the *Reference Paper* as a whole is restricted to BTS.¹⁸⁸ BTS may be defined as services that 'involve end-to-end transmission of customer-supplied information between two or more points without any change being added to the information', in contrast to value-added telecommunications services ('VATS'), which may be defined as 'services that employ computer processing applications to enhance the form or content of a customer's information or provide for its storage and retrieval.'¹⁸⁹ The distinction between BTS and VATS has become problematic as technology develops and the classification of telecommunications services becomes more complicated, as discussed further below. However, traditionally, for example, voice and data transmission services would be BTS whereas internet content services would be VATS.¹⁹⁰

¹⁸³ *Australia — Schedule of Specific Commitments (Supplement 3)*, GATS/SC/6/Suppl.3 (11 April 1997) 6 (emphasis added) (citations omitted).

¹⁸⁴ *SAFTA* ch 10 arts 8, 9.3, 9.7.

¹⁸⁵ *ACFTA* arts 11.4, 11.10, 11.12.

¹⁸⁶ *AANZTA* ch 8 Annex on Telecommunications art 6.

¹⁸⁷ *Australia — Schedule of Specific Commitments (Supplement 3)*, GATS/SC/6/Suppl.3 (11 April 1997) 5.

¹⁸⁸ The *Reference Paper* begins with the sentence, under the heading 'Scope', '[t]he following are definitions and principles on the regulatory framework for the basic telecommunications services': *ibid.*

¹⁸⁹ Philip Raworth, *Trade in Services: Global Regulation and the Impact on Key Service Sectors* (Oceana Publications, 2005) 300.

¹⁹⁰ For discussion of the distinction between BTS and VATS and the historical background to this distinction, see Marco Bronckers and Pierre Larouche, 'Telecommunications Services' in Patrick F J Macrory, Arthur E Appleton and Michael G Plummer (eds), *The World Trade Organization: Legal, Economic and Political Analysis* (Springer, 2005) vol 1, 989, 994–5; Marco Bronckers and Pierre Larouche, 'A Review of the WTO Regime for Telecommunications Services' in Kern Alexander and Mads Andenas (eds), *The World Trade Organization and Trade in Services* (Martinus Nijhoff Publishers, 2008) 319, 323–5.

Defining the 'relevant market' for BTS in relation to NBN Co is a difficult task that would depend on detailed empirical and economic evidence concerning NBN Co's role and the services it provides, taking into account the regulatory and contractual frameworks for its operations, which have not yet been finalised and implemented. This process of defining the relevant market would be rendered more difficult by the lack of precision in the *Reference Paper* definition of major supplier.¹⁹¹ However, on a broad conceptual level, the relevant market might be described as the Australian wholesale market for high-speed broadband services for voice and data transmission, which could include services provided over a wireless, cable, satellite or other network, to the extent that these services are competitive with and substitutable for services provided over NBN Co's FTTP network.¹⁹² In due course, NBN Co would reasonably be expected to have 'the ability to materially affect the terms of participation (having regard to price and supply)' in that wholesale market either because of 'use of its position in the market' or because of its control over 'essential facilities',¹⁹³ which are defined in the *Reference Paper* as

facilities of a public telecommunications transport network or service that:

- (a) are exclusively or predominantly provided by a single or limited number of suppliers; and
- (b) cannot feasibly be economically or technically substituted in order to provide a service.¹⁹⁴

Although NBN Co is unlikely to be a 'major supplier' at the beginning of its rollout, as the NBN project is progressively implemented NBN Co will in most cases be the exclusive supplier of the relevant optical fibre to the home. End users' usage of this fibre will be bundled within bitstream services, and substitution possibilities for most end users will remain limited, notwithstanding potential inter-modal competition from other technological platforms such as HFC cable, mobile and wireless broadband services. The likelihood of NBN Co becoming a major supplier in the wholesale broadband market is also enhanced by its definitive agreements with Telstra and Optus,¹⁹⁵ which would limit inter-

¹⁹¹ Chantal Blouin, 'The WTO Agreement on Basic Telecommunications: A Re-Evaluation' (2000) 24 *Telecommunications Policy* 135, 140; Marco C E J Bronckers and Pierre Larouche, 'Telecommunications Services and the World Trade Organization' (1997) 31(3) *Journal of World Trade* 5, 23–5; Boutheina Guermazi, 'Exploring the *Reference Paper* on Regulatory Principles', (Working Paper, Center for the Study of Regulated Industries, McGill University) 2–3; Rohan Kariyawasam, *International Economic Law and the Digital Divide: A New Silk Road?* (Edward Elgar Publishing, 2007) 83–4; Markus Fredebeul-Krein and Andreas Freytag, 'The Case for a More Binding WTO Agreement on Regulatory Principles in Telecommunication Markets' (1999) 23 *Telecommunications Policy* 625, 628.

¹⁹² See Panel Report, *Mexico — Telecoms*, WTO Doc WT/DS204/R (2 April 2004) [7.152].

¹⁹³ See generally OECD, *The Policy Roundtable — The Essential Facilities Concept* (1996); Andrea Renda, 'Competition–Regulation Interface in Telecommunications: What's Left of the Essential Facility Doctrine' (2010) 34 *Telecommunications Policy* 23. See also Taunya L McLarty, 'Liberalized Telecommunications Trade in the WTO: Implications for Universal Service Policy' (1998) 51 *Federal Communications Law Journal* 1, 51.

¹⁹⁴ *Australia — Schedule of Specific Commitments (Supplement 3)*, GATS/SC/6/Suppl.3 (11 April 1997) 5.

¹⁹⁵ See above nn 33, 57 and accompanying text.

modal competition by (as the OECD cautions) ‘eliminat[ing] competition between the new fibre optic network and the existing technological platforms, the copper network and the country’s main cable network’.¹⁹⁶

Another relevant BTS market might be the Australian retail market for voice and data services, with NBN Co acting as a major supplier not through direct activity in that market but by exerting power from an upstream wholesale market.¹⁹⁷ In addition to wholesale and retail services markets such as those identified here, the ACCC has referred to the relevance of the PoI question for the ‘transmission capability’ market (that is, the market for backhaul services).¹⁹⁸ NBN Co would also likely be competing in the transmission market; whether it was a major supplier in that market would depend in part on the number and location of PoIs and the degree of competition on the various routes.

If NBN Co becomes a major supplier in any one of these markets as expected, then Australia must ensure that other telecommunications service suppliers are able to connect with NBN Co’s network at ‘any technically feasible point in the network’¹⁹⁹ (given the local circumstances), in accordance with s 2.2 of the *Reference Paper*. Section 2.2(b) of the *Reference Paper* suggests that ‘economic feasibility’ is relevant in determining the terms and conditions of interconnection, so that NBN Co might decline to provide additional PoIs that might be in theory technically feasible but in reality not economically rational or viable.²⁰⁰ At the same time, s 2.2(b) requires interconnection to be ‘sufficiently unbundled’, emphasising that a supplier should not have to ‘pay for network components or facilities that it does not require’.²⁰¹ This reference to unbundling could indicate that enough PoIs must be provided to avoid stranding any existing infrastructure of other suppliers.

However, s 2.2(b) must be read in conjunction with s 2.2(c), which contemplates the provision to individual suppliers of additional PoIs that are not ‘offered to the majority of users, subject to charges that reflect the cost of construction of necessary additional facilities.’²⁰² Read in this context, s 2.2(b) may indicate that interconnection must be sufficiently unbundled to ensure that no supplier has to pay the major supplier for facilities that the ‘majority of users’ do not require in obtaining the relevant service. The question then arises whether a supplier such as an RSP ‘does not require’²⁰³ particular facilities from the major supplier only

¹⁹⁶ OECD, *Economic Surveys: Australia*, above n 11, 107.

¹⁹⁷ Bronckers and Larouche, above n 191, 24–5.

¹⁹⁸ ACCC, ‘Discussion Paper on Points of Interconnect to the National Broadband Network’, above n 37, 16–17; ACCC, ‘National Broadband Network Points of Interconnect — Public Version’, above n 56, 17–20.

¹⁹⁹ *Australia — Schedule of Specific Commitments (Supplement 3)*, GATS/SC/6/Suppl.3 (11 April 1997) 6. See also Damien Geradin and Michel Kerf, ‘Levelling the Playing Field: Is the WTO Adequately Equipped to Prevent Anti-Competitive Practices in Telecommunications?’ in Damien Geradin and David Luff (eds), *The WTO and Global Convergence in Telecommunications and Audio-Visual Services* (Cambridge University Press, 2004) 130, 151.

²⁰⁰ *Australia — Schedule of Specific Commitments (Supplement 3)*, GATS/SC/6/Suppl.3 (11 April 1997) 6.

²⁰¹ *Ibid.*

²⁰² *Ibid.*

²⁰³ *Ibid.*

where the RSP itself *owns* those facilities, or also where the RSP could *lease* them from a third party supplier. The latter interpretation would promote greater competition, ensuring that the number and location of PoIs could not be chosen so as to prevent third party suppliers from competing with the major supplier.

The final details concerning the establishment of PoIs are likely to affect Australia's compliance with its interconnection obligations in relation to the NBN. Australia may risk non-compliance if a service supplier of another WTO Member is forced to purchase backhaul that it does not need in order to connect to the NBN, either because it owns the relevant backhaul infrastructure or (according to the more pro-competitive interpretation) because it could lease that infrastructure from a third party supplier such as Telstra. Under that latest list of PoIs notified by the ACCC,²⁰⁴ the limitation of PoIs to what is technically and operationally feasible is more consistent with the requirements in s 2.2 of the *Reference Paper* than NBN Co's earlier proposals, and suppliers other than Telstra are unlikely to face stranding or impairment of existing assets (based on the ACCC's prediction).²⁰⁵ AAPT, Optus, Primus and other telecommunications service suppliers of other WTO Members may therefore have less reason to lobby their own governments to bring a WTO complaint against Australia. Thus, the refinement of NBN Co's PoI proposal to satisfy the ACCC recommendations and hence ensure compatibility with competition law principles in Australian domestic law may have simultaneously mitigated potential problems with the NBN in connection with Australia's WTO and PTA obligations. A possible difficulty nevertheless remains under s 2.2(b) in that some Telstra backhaul is likely to be stranded and Telstra as well as other suppliers will be forced to use NBN Co's infrastructure instead.

The Panel in *Mexico — Telecoms* found that the *GATS* Annex on Telecommunications imposes obligations on a WTO Member to grant telecommunications service suppliers of other Members with access to and use of public telecommunications transport networks and services where the relevant telecommunications service is included in the Member's *GATS* Schedule. Thus, the obligation to grant access to telecommunications networks and services does not apply only with respect to Members' suppliers of *non-telecommunications* services.²⁰⁶ Accordingly, if Australia fails to ensure interconnection with NBN Co as required by s 2.2 of the *Reference Paper*, it might also be charged with failing to ensure that telecommunications service suppliers of other WTO Members are 'accorded access to and use of public telecommunications transport networks and services on *reasonable* and non-discriminatory terms and conditions, for the supply of a service included in its Schedule.'²⁰⁷ Pursuant to that obligation, Australia must ensure that telecommunications service suppliers of other WTO Members are permitted 'to interconnect private leased or owned circuits with

²⁰⁴ NBN Co, *List of Revised Initial POIs to the NBN* (3 May 2011) ACCC <<http://www.accc.gov.au/content/index.phtml/itemId/952292>>.

²⁰⁵ See above n 161 and accompanying text.

²⁰⁶ Panel Report, *Mexico — Telecoms*, WTO Doc WT/DS204/R (2 April 2004) [7.288].

²⁰⁷ *GATS* Annex on Telecommunications art 5(a) (emphasis added). See also *TAFTA* art 807(2).

public telecommunications transport networks and services or with circuits leased or owned by another service supplier.²⁰⁸ Similar obligations exist in most of Australia's PTAs,²⁰⁹ in addition to the more specific interconnection obligations for telecommunications service suppliers.²¹⁰

3 *Modifications to the PoI List, the New Zealand Experience and Reference Paper s 5*

NBN Co has significant power in relation to the number and location of future PoIs. Until the Communications Minister declares the NBN 'built and fully operational', the ACCC may vary the PoI list *only with the agreement of an NBN corporation*.²¹¹ If NBN Co withholds agreement on a given modification to the PoI list, this could increase the risk of Australia violating s 2.2 of the *Reference Paper* (including for declining to provide an additional PoI upon request and subject to payment by the relevant supplier, under s 2.2(c)).²¹² Moreover, merely granting NBN Co the right to withhold agreement (that is, giving NBN Co a veto over ACCC decision-making with respect to PoIs) could raise concerns under s 5 of the *Reference Paper*, which states that

[t]he regulatory body is separate from, and not accountable to, any supplier of basic telecommunications services. The decisions of and the procedures used by regulators shall be impartial with respect to all market participants.²¹³

Comparable obligations to establish an independent and impartial regulator exist in a number of Australia's PTAs.²¹⁴ NBN Co, the ACCC and the Australian government will need to ensure ongoing compliance with ss 2.2 and 5 of the *Reference Paper* in determining the PoI list. These issues should be canvassed upon review of the operation of this part of the legislation.²¹⁵

Concerns about the absence or impartiality of a telecommunications regulator generally arise from more obvious instances of regulatory forbearance. In New Zealand, s 5 of the *Reference Paper* was raised in complaints about the government's proposal to provide a 10-year 'regulatory holiday' (that is, suspension of regulation) for its Ultra-Fast Broadband ('UFB') network.²¹⁶ On one view, this plan breached New Zealand's WTO obligation to have an independent regulator

²⁰⁸ GATS Annex on Telecommunications art 5(b)(ii).

²⁰⁹ SAFTA ch 10 art 3; AUSFTA art 12.2; TAFTA art 807.2; ACFTA art 11.3.

²¹⁰ See above nn 188–190 and accompanying text.

²¹¹ *Telecommunications Legislation Amendment (National Broadband Network Measures — Access Arrangements) Act 2011* (Cth) sch 1 pt 1, inserting *Competition and Consumer Act 2010* (Cth) ss 151DB(1), (2A)–(2B).

²¹² See above Part IV(E)(2).

²¹³ *Australia — Schedule of Specific Commitments (Supplement 3)*, GATS/SC/6/Suppl.3 (11 April 1997) 7.

²¹⁴ SAFTA ch 10 art 5; AUSFTA art 12.17; ACFTA art 11.17; AANZFTA ch 8 Annex on Telecommunications art 11.

²¹⁵ Review is contemplated under *Telecommunications Legislation Amendment (National Broadband Network Measures — Access Arrangements) Act 2011* (Cth) sch 1 pt 1, inserting *Competition and Consumer Act 2010* (Cth) ss 151DC–151DD.

²¹⁶ See *Telecommunications (TSO, Broadband, and Other Matters) Amendment Bill 2010* (NZ).

operating in the telecommunications sector²¹⁷ because it would prevent the New Zealand Commerce Commission from reviewing the terms of access to UFB services, which would be provided by a selected telecommunications service provider. Instead, prices would likely be set by negotiation between entities owned by the government and the selected provider. Evidently, Australia is not the only country that needs to pay close attention to *GATS* obligations concerning telecommunications as the world adopts broadband on a greater scale. In the end, based on significant industry concerns, New Zealand removed the regulatory holiday from the relevant proposed legislation,²¹⁸ which has now been enacted.²¹⁹

V DEFINING UNIVERSAL SERVICE AND CLASSIFYING BROADBAND

A Reference Paper s 3: *Right to Maintain Universal Service Obligation*

Pursuant to s 3 of the *Reference Paper*:

Any Member has the right to define the kind of universal service obligation it wishes to maintain. Such obligations will not be regarded as anti-competitive per se, provided they are administered in a transparent, non-discriminatory and competitively neutral manner and are not more burdensome than necessary for the kind of universal service defined by the Member.²²⁰

This provision (which appears in comparable form in several Australian PTAs)²²¹ recognises Members' right and frequent desire to ensure that people, schools, hospitals, businesses and other entities within their territories have reasonable access to adequate telecommunications services. It also recognises that the pursuit of such 'universal' telecommunications services may create potential conflicts with competition:²²² 'some goals of universal service, such as providing basic telephone services to rural or low-income areas, would not be met in a fully-competitive environment'.²²³ That is, servicing rural (often sparsely populated) or low income areas may be inefficient or non-profit-

²¹⁷ See, eg, Bill Bennett, 'Curran Joins Spat over WTO Impacts of Fibre Regulation', *Communications Day Australasia* (online), 2 November 2010, 5 <<http://www.commsday.com/commsday/category/commsday-australasia>>; Letter of Advice from Wigley & Co to InternetNZ, 'UFB: The Proposed 10 Year Regulatory Forbearance Period and WTO/APEC Requirements', 29 October 2010, 2-3 <<http://internetnz.net.nz/news/media-releases/2010/wto-requires-adjustment-ufb-regulatory-framework>>.

²¹⁸ Steven Joyce, Minister for Communications and Information Technology (NZ), 'Regulatory Forbearance to Be Replaced' (Media Statement, 18 May 2011).

²¹⁹ *Telecommunications (TSO, Broadband, and Other Matters) Amendment Act 2011* (NZ) (royal assent on 30 June 2011).

²²⁰ *Australia — Schedule of Specific Commitments (Supplement 3)*, GATS/SC/6/Suppl.3 (11 April 1997) 7.

²²¹ *AUSFTA* art 12.18; *ACFTA* art 11.19; *AANZFTA* ch 8 Annex on Telecommunications art 12.

²²² Shin-Yi Peng, 'Universal Telecommunications Service in China: Trade Liberalization, Subsidy, and Technology in the Making of Information Equality in the Broadband Era' (2003) 4 *Asian-Pacific Law and Policy Journal* 21, 31; Directorate for Science, Technology and Industry, 'Universal Service Obligations and Broadband', above n 48, 16.

²²³ McLarty, above n 193, 55.

maximising when viewed from a purely commercial perspective.²²⁴ Section 3 of the *Reference Paper* therefore provides scope for Members to ‘pursue social, regional and other non-economic policy objectives’²²⁵ even where the implementation of those objectives may have a limited negative impact on competition in the telecommunications service market.

At present, the universal service obligation in Australia is designed to ensure that, inter alia, ‘standard telephone services are reasonably accessible to all people in Australia on an equitable basis, wherever they reside or carry on business’.²²⁶ Australia imposes obligations primarily on Telstra to supply basic telephone equipment and services in different regions, with the revenue shortfall covered by levies on licensed telecommunications carriers according to their revenue.²²⁷ The equipment and services that Telstra must supply include the option of untimed local calls,²²⁸ payphones,²²⁹ handsets,²³⁰ provision for hearing impaired customers,²³¹ and emergency call handling.²³² The government has reached agreement with Telstra to continue to fulfil universal service requirements from 1 July 2012 within the new NBN framework, overseen by a proposed new government statutory agency, the Telecommunications Universal Service Management Agency.²³³

In the following sections, we first consider the scope of universal service as encompassed by s 3 of the *Reference Paper*, and whether the provision extends to broadband. Next, we consider whether the Australian government’s decision to impose a uniform national wholesale price for services supplied by NBN Co in order to ensure reasonable access to superfast broadband nationwide is consistent with international trade law. Finally, we examine potential international trade law difficulties with legislative provisions designed to level the playing field for NBN Co.

²²⁴ See Directorate for Science, Technology and Industry, ‘Universal Service Obligations and Broadband’, above n 48, 12–14.

²²⁵ Fredebeul-Krein and Freytag, above n 191, 631.

²²⁶ *Telecommunications (Consumer Protection and Service Standards) Act 1999* (Cth) s 9(1)(a).

²²⁷ See *Telecommunications (Universal Service Levy) Act 1997* (Cth).

²²⁸ *Telecommunications (Consumer Protection and Service Standards) Act 1999* (Cth) s 104.

²²⁹ *Ibid* s 9C.

²³⁰ *Ibid* s 9E.

²³¹ *Ibid* pt 3.

²³² *Ibid* pt 8.

²³³ Julia Gillard, Prime Minister, Stephen Conroy, Minister for Broadband, Communications and the Digital Economy, and Penny Wong, Minister for Finance and Deregulation, ‘Government and Telstra Agree on Package of Consumer Measures’ (Joint Media Release, 23 June 2011) <http://www.minister.dbcde.gov.au/media/media_releases/2011/204>; Department of Broadband, Communications and the Digital Economy (Cth), ‘Universal Service Policy in the National Broadband Network Environment’ (Policy Statement, June 2011) 3 <http://www.dbcde.gov.au/broadband/national_broadband_network/universal_service_policy>; Department of Broadband, Communications and the Digital Economy (Cth), ‘Universal Service Obligation Legislative Reform for Transition to the National Broadband Network’ (Discussion Paper, 23 June 2011). Cf Department of Broadband, Communications and the Digital Economy (Cth), ‘Implementation of Universal Service Policy for the Transition to the National Broadband Network Environment’ (Discussion Paper, October 2010) 3. See also Telecommunications Universal Service Management Agency Bill 2011 (Cth).

B *Scope of Universal Service and Related Classification Difficulties*

The term 'universal service obligation' in s 3 of the *Reference Paper* is not defined, arguably increasing Members' freedom to determine the meaning of this term. Traditionally, universal services were intended to cover only basic voice telephone services, raising the question whether data communications, including those supplied via broadband, can also be included in current universal service obligations.²³⁴ This question forms part of the broader difficulty of classifying telecommunications services for the purpose of international trade today, as identified above.²³⁵ In the case of the NBN, the relevant legislation does not broaden the concept of universal service to cover broadband at this stage, but that option remains open for the future.²³⁶ The government's decision to exclude certain features of its NBN plan (such as uniform national wholesale pricing, as discussed further below)²³⁷ from the formal universal service scheme arguably means that Australia cannot rely directly on the 'right' provided in s 3 of the *Reference Paper* with respect to universal service to justify those features. Section 3 might nevertheless provide relevant 'context'²³⁸ in interpreting other obligations in the *Reference Paper* and in applying those obligations to the facts of the NBN.

In our view, the development of telecommunications technology means that Members may reasonably choose to extend the meaning of universal service to additional services and technologies. Although voice communications might once have been regarded as the minimum service necessary for all individuals and entities in a given country, many governments today may see this level of service as inadequate, with data transmissions (including high-speed internet access) forming part of minimum basic requirements. Moreover, the fact that NBN Co will be supplying services over an FTTP network whereas Telstra and other suppliers have been supplying services over copper or cable should not change the characterisation of the services supplied. Assuming that the current universal service obligation in Australia falls within the scope of s 3 of the *Reference Paper*, so too should any revised universal service obligation associated with the implementation of the NBN in this country.

Our conclusion departs from an OECD report in 2003, which found that

at present levels of market penetration, and present levels of service development, broadband access should not be considered as coming within the scope of universal service obligation definitions. However broadband access in the home is expected by most analysts to become essential to participate in society.²³⁹

²³⁴ Peng, above n 222, 42.

²³⁵ See above nn 188–190 and accompanying text.

²³⁶ Explanatory Memorandum, Telecommunications Legislation Amendment (Competition and Consumer Safeguards) Bill 2010 (Cth) 65–80.

²³⁷ See below Part VI(A).

²³⁸ *VCLT* arts 31(1)–(2).

²³⁹ Directorate for Science, Technology and Industry, 'Universal Service Obligations and Broadband', above n 48, 11. See also Patrick Xavier, Directorate for Science, Technology and Industry, Committee for Information, Computer and Communications Policy, 'Working Party on Tele-

In particular, broadband is likely to become essential for the purposes of accessing education, health and government services.²⁴⁰ As a result of developments in the eight years since that report was written, we conclude that WTO Members may properly choose to characterise broadband as essential and therefore a part of their goal of achieving universal service in the telecommunications sector. Mandating nationwide broadband access as part of a universal service obligation would go beyond merely subsidising broadband access for remote communities, which many governments including Australia have done for years with varying degrees of success.²⁴¹

C *The United States Experience: Characterising Broadband*

The problem of classifying broadband, including for the purposes of a universal service obligation, is demonstrated by recent upheavals in telecommunications regulation in the United States.²⁴² Based on a historical distinction between ‘basic’ and ‘enhanced’ telecommunications services,²⁴³ the *Telecommunications Act of 1996* (‘the 1996 Act’)²⁴⁴ revised United States telecommunications law to distinguish between ‘telecommunications service’ (analogous to BTS) and ‘information service’ (analogous to VATS).²⁴⁵ The Federal Communications Commission (‘FCC’) has authority to fully regulate telecommunications services pursuant to tit II of the *Communications Act of 1934* (‘*Communications Act*’), whereas it has only limited authority in regulating information services pursuant to tit I of the *Communications Act*.²⁴⁶ Only telecommunications services fall within the current definition of universal service in the United States,²⁴⁷ although the FCC proposes to reform its universal service mechanism to encompass broadband.²⁴⁸

communication and Information Services Policies — Rethinking Universal Service for a Next Generation Network Environment’ (DSTI/ICCP/TISP(2005)5/FINAL, 18 April 2006) 37–43.

²⁴⁰ Directorate for Science, Technology and Industry, ‘Universal Service Obligations and Broadband’, above n 48, 11.

²⁴¹ For the Australian context, see Ellie Rennie, *Internet on the Outstation* (9 May 2011) Inside Story <<http://inside.org.au/internet-on-the-outstation>>. For the United States context, see Federal Communications Commission and United States Department of Agriculture, ‘Report Places Emphasis on Need for Broadband in Rural America’ (Media Release, 22 June 2011) <<http://www.fcc.gov/document/report-places-emphasis-need-broadband-rural-america>>; Julius Genachowski, Chairman, Federal Communications Commission, ‘Bringing Broadband to Rural America: Update to Report on a Rural Broadband Strategy’ (GN Docket No 11-16, 17 June 2011).

²⁴² See generally Note, ‘How *Chevron* Step One Limits Permissible Agency Interpretations: *Brand X* and the FCC’s Broadband Reclassification’ (2011) 124 *Harvard Law Review* 1016.

²⁴³ *Re Amendment of Section 64.702 of the Commission’s Rules and Regulations (Second Computer Inquiry)*, 77 FCC 2d 384, 417–27 (1980).

²⁴⁴ 47 USC §§ 151–614 (1996).

²⁴⁵ *Ibid* §§ 153(20), (46). Regarding the BTS/VATS distinction, see above nn 188–190 and accompanying text.

²⁴⁶ *Ibid* §§ 154(i), 201.

²⁴⁷ *Ibid* § 254(c)(1).

²⁴⁸ Federal Communications Commission, *Connecting America: The National Broadband Plan* (2010) 140–51.

From 2002, the FCC classified broadband internet access services as information rather than telecommunications services.²⁴⁹ The United States Supreme Court affirmed the FCC's decision to classify broadband services in this way (and thus effectively deregulate them) in 2005,²⁵⁰ pursuant to the *Chevron* doctrine. Under this doctrine, where a statute is 'silent or ambiguous' on a given point, a court will defer to an agency's interpretation of the statute provided that it 'is based on a permissible construction of the statute.'²⁵¹ More recently, in 2007, the FCC purported to regulate Comcast, an ISP (and cable television provider), pursuant to tit I of the *Communications Act*. Giving effect to its policy of pursuing network neutrality,²⁵² the FCC wanted to prevent Comcast from 'discriminating' against certain users and uses of its network (specifically, Comcast was managing network capacity by interfering with peer-to-peer network applications such as BitTorrent).²⁵³ Comcast agreed to change its network management practices, and the FCC ordered it to disclose details of the changes.²⁵⁴ In a subsequent challenge by Comcast, the United States Court of Appeals decided in 2010 that the FCC had failed to demonstrate that this order fell within the FCC's ancillary authority under tit I; the court therefore vacated the order.²⁵⁵

This decision leaves the FCC with the option of reclassifying broadband as a telecommunications service rather than an information service, or pursuing

[a] 'third way' under which the Commission would reaffirm that Internet content and applications remain generally unregulated under Title I of the *Communications Act*; identify the Internet connectivity service that is offered as part of wired broadband Internet service as a telecommunications service; and forbear under Section 10 of the Act from applying all provisions of Title II other than the small number that are needed to implement fundamental universal service, competition and market entry, and consumer protection policies.²⁵⁶

²⁴⁹ *Re Inquiry concerning High-Speed Access to the Internet over Cable and Other Facilities*, 17 FCCR 4798 (2002).

²⁵⁰ *National Cable and Telecommunications Association v Brand X Internet Services*, 545 US 967 (2005).

²⁵¹ *Chevron USA Inc v Natural Resources Defense Council Inc*, 467 US 837, 843 (Stevens J for the Court) (1984).

²⁵² Federal Communications Commission, 'Policy Statement' (No 05-151, 5 August 2005) 3. See also Tim Wu, 'Network Neutrality, Broadband Discrimination' (2003) 2 *Journal on Telecommunications and High Technology Law* 141.

²⁵³ *Comcast Corporation v Federal Communications Commission*, 600 F 3d 642, 644-5 (Tatel J for Sentelle, Tatel and Randolph JJ) (DC Cir, 2010).

²⁵⁴ *Re Formal Complaint of Free Press and Public Knowledge against Comcast Corporation for Secretly Degrading Peer-To-Peer Applications Order*, 23 FCCR 13028 (2003).

²⁵⁵ *Comcast Corporation v Federal Communications Commission*, 600 F 3d 642, 644, 661 (Tatel J for Sentelle, Tatel and Randolph JJ) (DC Cir, 2010).

²⁵⁶ Federal Communications Commission, 'FCC to Seek Best Legal Framework for Broadband Internet Access' (Media Release, 17 June 2010) <http://transition.fcc.gov/Daily_Releases/Daily_Business/2010/db0617/DOC-298861A1.pdf>. See also Julius Genachowski, Chairman, Federal Communications Commission, *The Third Way: A Narrowly Tailored Broadband Framework* (6 May 2010) FCC National Broadband Plan <<http://www.broadband.gov/the-third-way-narrowly-tailored-broadband-framework-chairman-julius-genachowski.html>>; Austin Schlick, General Counsel, Federal Communications Commission, *A Third-Way Legal Framework for Addressing the Comcast Dilemma* (6 May 2010) Federal Communications Commission National

Either of these options may be subject to challenge on the basis of law or policy, for example because these reinterpretations of the relevant legislation fall outside the discretion granted to the FCC by the *Chevron* doctrine,²⁵⁷ or raise the risk of over-regulation by the FCC and corresponding under-investment.²⁵⁸ Nevertheless, the FCC continues to make rules concerning network neutrality and an open internet,²⁵⁹ now relying on other legal bases such as § 706 of the 1996 Act²⁶⁰ and the need to ensure reasonable charges and practices in connection with telecommunications services under tit II of the *Communications Act*.²⁶¹

These United States developments provide an example of ongoing difficulties arising not only in Australia but throughout the world in classifying broadband and, more generally, classifying telecommunications services as BTS or VATS.²⁶² This issue is likely to need eventual resolution or at least clarification at the multilateral level.

VI ACHIEVING A NATIONWIDE NETWORK THROUGH NBN

Although Australia has not yet redefined its universal service obligation to encompass broadband,²⁶³ two other significant aspects of the legislated NBN framework are based on the government's desire to achieve an FTTP network that is reasonably accessible countrywide. In the following sections we examine, first, the policy of uniform national wholesale pricing and, second, the provisions designed to level the playing field in which NBN Co will compete. Both these features of Australia's NBN have the potential to clash with international trade law obligations.

A Uniform National Wholesale Pricing

As noted above, the Australian government has adopted a policy of uniform national wholesale pricing ('UNWP') for services supplied by NBN Co in order to ensure that NBN Co's services are equally accessible across the country, even though costs may be higher for the supply of rural or remote areas.²⁶⁴ This

Broadband Plan <<http://www.broadband.gov/third-way-legal-framework-for-addressing-the-comcast-dilemma.html>>; Federal Communications Commission, *Connecting America*, above n 248, 337.

²⁵⁷ See Note, above n 242.

²⁵⁸ See generally George S Ford, Lawrence J Spiwak and Michael L Stern, 'The Broadband Credibility Gap' (2010) 19 *CommLaw Conspectus* 75.

²⁵⁹ See *Re Preserving the Open Internet Broadband Industry Practices*, 25 FCCR 17905, 17966–86 (2010); Federal Communications Commission, 'FCC Acts to Preserve Internet Freedom and Openness' (Media Release, 21 December 2010) <http://transition.fcc.gov/Daily_Releases/Daily_Business/2010/db1221/DOC-303745A1.pdf>.

²⁶⁰ 47 USC § 1302.

²⁶¹ 47 USC § 201(b).

²⁶² See above nn 188–190 and accompanying text.

²⁶³ See above n 236 and accompanying text.

²⁶⁴ See above n 23 and accompanying text; Revised Explanatory Memorandum, National Broadband Network Companies Bill 2010 (Cth) and Telecommunications Legislation Amendment (National Broadband Network Measures — Access Arrangements) Bill 2011 (Cth) 48; *Telecommunications Legislation Amendment (National Broadband Network Measures —*

uniform pricing policy raises two potential issues under *GATS*. First, s 1 of the *Reference Paper* (similarly to several Australian PTAs)²⁶⁵ requires Members to maintain appropriate measures to prevent major suppliers from 'engaging in or continuing anti-competitive practices', including 'engaging in anti-competitive cross-subsidization'.²⁶⁶ Second, s 2.2(b) of the *Reference Paper* requires Members to ensure that interconnection with a major supplier is provided

on terms, conditions ... and cost-oriented rates that are transparent, reasonable ... having regard to economic feasibility, and sufficiently unbundled so that the supplier need not pay for network components or facilities that it does not require for the service to be provided.²⁶⁷

On both points, the Panel Report in *Mexico — Telecoms*²⁶⁸ provides some guidance. As regards s 1 of the *Reference Paper*, the Panel found that 'anti-competitive practices' are 'actions that lessen rivalry or competition in the market.'²⁶⁹ UNWP could reduce competition by preventing NBN Co from pricing lower in highly populated centres, when lower pricing by NBN Co could increase rivalry between services supplied over NBN Co's FTTP network and services supplied over other networks. UNWP will effectively entail a cross-subsidy from these cities to regional areas where costs and therefore prices would otherwise be higher. UNWP may also reduce competition in these regional areas because the artificially low prices will preclude other entrants. According to the Panel's reasoning, the fact that NBN Co would be required by law to engage in UNWP would not prevent UNWP from amounting to an anti-competitive practice, and by legally requiring such a practice, Australia would not be maintaining appropriate measures to prevent this practice.²⁷⁰ This interpretation seems necessary to avoid WTO Members circumventing their obligations by simply requiring anti-competitive behaviour instead of taking measures to prevent it.²⁷¹ However, the Panel's findings in *Mexico — Telecoms* were carefully circumscribed to the Mexican measures before it, which required the major supplier Telmex to fix certain telecommunications prices by negotiation with other suppliers.²⁷² NBN Co, in contrast, would not be fixing prices together with other suppliers; rather, it would be maintaining a uniform price on its own services supplied across the country. Arguably, this would not lessen competition to the same degree and would not violate s 1 of the *Reference Paper*.

Access Arrangements Act 2011 (Cth) sch 1 pt 1, inserting *Competition and Consumer Act 2010* (Cth) s 151DA(1)(b).

²⁶⁵ *SAFTA* ch 10 arts 7, 9.2; *AUSFTA* art 12.8; *ACFTA* art 11.8; *AANZFTA* ch 8 Annex on Telecommunications art 4.

²⁶⁶ *Australia — Schedule of Specific Commitments (Supplement 3)*, GATS/SC/6/Suppl.3 (11 April 1997) 5.

²⁶⁷ *Ibid* 6 (citations omitted).

²⁶⁸ Panel Report, *Mexico — Telecoms*, WTO Doc WT/DS204/R (2 April 2004).

²⁶⁹ *Ibid* [7.230].

²⁷⁰ *Ibid* [7.245], [7.266].

²⁷¹ *Ibid* [7.244]; Damien J Neven and Petros C Mavroidis, 'El Mess in TELMEX: A Comment on Mexico — Measures Affecting Telecommunications Services' (2006) 5 *World Trade Review* 271, 294.

²⁷² Panel Report, *Mexico — Telecoms*, WTO Doc WT/DS204/R (2 April 2004) [7.267].

As regards s 2.2(b) of the *Reference Paper*, the Panel in *Mexico — Telecoms* found that ‘cost-oriented’ rates do ‘not need to equate exactly to cost, but should be founded on cost’,²⁷³ being the cost incurred in providing the relevant service.²⁷⁴ The Panel also found that the term ‘cost-oriented rates’²⁷⁵ is a technical term with a special meaning,²⁷⁶ pursuant to art 31(4) of the *Vienna Convention on the Law of Treaties*.²⁷⁷ UNWP could be properly founded on cost, if the relevant market is seen as the Australian market as a whole and the costs of servicing the entire country are taken into account in determining prices. Although a geographically segmented approach to telecommunications regulation (deregulating in areas of high competition but not in areas of low competition) may allow a more accurate targeting of specific competitive circumstances, the OECD has indicated that this kind of approach will typically lead to more complex regulation, with an uncertain impact on competition.²⁷⁸ Thus, a reasonable argument exists for treating the relevant geographic market for NBN Co’s services as a national market and therefore for adopting UNWP. Indeed, ‘[r]egulatory authorities in most OECD countries ... have traditionally adopted a national geographic area focus when framing the geographic scope of telecommunications markets’,²⁷⁹ and ‘uniform pricing ... has been an important feature of universal service policy in many countries.’²⁸⁰

B *Levelling the Playing Field, or Preventing Cherrypicking*

As NBN Co is required to deploy a nationwide network and adopt UNWP, a ‘major risk’ to the viability of the NBN is ‘cherrypicking’ by competing suppliers.²⁸¹ Specifically, if another entity built an FTTP network it could focus solely on areas of high revenue and low cost (typically, populous centres) and undercut NBN Co in those areas. Although such an approach would represent facilities-based competition and could benefit consumers through cheaper services, some contend that these competitive benefits are outweighed by the detriment to NBN Co and, in turn, to the government’s goal of providing universal access to an FTTP network at reasonable cost.²⁸²

In addressing this perceived problem, the Australian government identified six policy objectives of the NBN:

²⁷³ Ibid [7.168].

²⁷⁴ Ibid [7.174].

²⁷⁵ Ibid [7.166].

²⁷⁶ Ibid [7.169].

²⁷⁷ Opened for signature 23 May 1969, 1155 UNTS 331 (entered into force 27 January 1980).

²⁷⁸ Directorate for Science, Technology and Industry, Committee for Information, Computer and Communications Policy, ‘Working Party on Communication Infrastructures and Services Policy — Geographically Segmented Regulation for Telecommunications’ (DSTI/ICCP/CISP (2009)6/FINAL, 22 June 2010) 67.

²⁷⁹ Ibid 8.

²⁸⁰ Ibid 71.

²⁸¹ See, eg, McKinsey & Co and KPMG, above n 102, 439.

²⁸² Ibid.

- 1 to provide customers with 'high-quality superfast broadband services', preferably via an FTTP network;
- 2 to provide for nationwide availability of those services (the 'coverage' objective);
- 3 to ensure UNWP;
- 4 to ensure competition in the wholesale supply of broadband infrastructure and services to support a 'vibrant and competitive' retail market (the 'competition' objective);
- 5 to provide equitable access to the services as far as possible (the 'equity' objective); and
- 6 to ensure that NBN Co 'can operate on a commercially sustainable basis' (the 'sustainability' objective).²⁸³

The government explained that legislative provisions were required to level the playing field for the supply of superfast broadband services because of the impact of cherrypicking on these interrelated objectives:

if the pricing objective is to be delivered through NBN Co being required to implement an internal cross-subsidy, other fibre providers could select to roll-out fibre in low-cost, high-revenue markets and offer potentially cheaper wholesale prices — effectively cherry-picking NBN Co's revenue streams. While such an outcome would be consistent with the Government's competition objective, it would impact on NBN Co's ability to deliver the coverage, equity and sustainability objectives.²⁸⁴

The legislation as enacted addresses this problem by requiring entities installing infrastructure to supply superfast telecommunications services to the public to meet the same or similar technical specifications as NBN Co. In addition, these entities will be required to offer wholesale-only services.²⁸⁵ This response to cherrypicking is preferable, from the perspective of competition (and international trade law), to the levy that the government considered and left in reserve.²⁸⁶ However, the relevant provisions still risk reducing competition and consumer benefits, by limiting suppliers' freedom in choosing relevant technologies and having to accept standards built on technical specifications of NBN Co.²⁸⁷ In implementing these provisions, Australia will need to comply with its obligation under *GATS* art VI:5(a) not to 'apply licensing and qualification requirements and technical standards' that are 'more burdensome than necessary to ensure the quality of the service'.

²⁸³ Revised Explanatory Memorandum, National Broadband Network Companies Bill 2010 (Cth) and Telecommunications Legislation Amendment (National Broadband Network Measures — Access Arrangements) Bill 2011 (Cth) 48.

²⁸⁴ *Ibid.*

²⁸⁵ *Telecommunications Legislation Amendment (National Broadband Network Measures — Access Arrangements) Act 2011* (Cth) sch 1 pt 3, inserting *Telecommunications Act 1997* (Cth) pt 8.

²⁸⁶ Revised Explanatory Memorandum, National Broadband Network Companies Bill 2010 (Cth) and Telecommunications Legislation Amendment (National Broadband Network Measures — Access Arrangements) Bill 2011 (Cth) 58, 60–1.

²⁸⁷ *Ibid.* 56.

Further difficulties with the level playing field provisions arise from the differential treatment of NBN Co and its potential facilities-based competitors. Under these provisions, NBN Co's competitors have exemptions from the wholesale-only requirement to enable them to supply services directly to utilities,²⁸⁸ just as NBN Co does.²⁸⁹ However, the legislation also provides NBN Co with several significant exemptions from domestic competition laws,²⁹⁰ while no corresponding exemptions are granted to NBN Co's competitors. These exemptions from competition laws implicitly acknowledge the likely anti-competitive effects of several of the practices identified in this article as potentially problematic under international trade law, namely: (i) refusing to permit interconnection at a point not already established and listed; (ii) bundling of telecommunications services; and (iii) cross-subsidisation in connection with UNWP.

Granting to NBN Co an exemption from certain competition law disciplines while refusing an equivalent exemption to would-be competitors of NBN Co could violate Australia's obligation under s 5 of the *Reference Paper* to ensure that its telecommunications regulators act impartially, in their decisions and procedures, with respect to all market participants. This differential regulatory treatment might also breach Australia's national treatment obligations under *GATS* art XVII, in that Australia is according 'to services and service suppliers of any other Member' (including foreign suppliers contemplating establishing a superfast broadband network in Australia) 'treatment ... less favourable than that it accords to its own like services and service suppliers',²⁹¹ NBN Co in particular.

VII EXCEPTIONS TO *GATS* OBLIGATIONS

The *GATS* contains a number of exceptions to the obligations it imposes, and these exceptions would apply to the obligations incorporated in Australia's *GATS* Schedule by virtue of the *Reference Paper*, because Members' *GATS* Schedules 'form an integral part'²⁹² of the *GATS*. Of potential relevance to telecommunications regulations are the *GATS* exceptions for measures 'necessary to protect public morals or to maintain public order',²⁹³ 'necessary to protect human ... life or health',²⁹⁴ or 'necessary to secure compliance with laws or regulations which are not inconsistent with the provisions of this Agreement including those relating to ... fraudulent practices[,] ... privacy [and] safety'.²⁹⁵ However, to the

²⁸⁸ *Telecommunications Legislation Amendment (National Broadband Network Measures — Access Arrangements) Act 2011* (Cth) sch 1 pt 3, inserting *Telecommunications Act 1997* (Cth) ss 143–51.

²⁸⁹ See above nn 99–101 and accompanying text.

²⁹⁰ *Telecommunications Legislation Amendment (National Broadband Network Measures — Access Arrangements) Act 2011* (Cth) sch 1 pt 1, inserting *Competition and Consumer Act 2010* (Cth) s 151DA.

²⁹¹ *GATS* art XVII(1). See also above nn 62–65 and accompanying text.

²⁹² *GATS* art XX:3.

²⁹³ *Ibid* art XIV(a).

²⁹⁴ *Ibid* art XIV(b).

²⁹⁵ *Ibid* art XIV(c).

extent that the operations or regulation of NBN Co may violate Australia's *GATS* obligations, these exceptions are unlikely to assist. For example, even though the NBN may lead to educational or health benefits, and issues may arise concerning private or obscene material transmitted via its network, these factors would not justify restricting the number of PoIs or otherwise shielding NBN Co from competition.

Similarly, although *GATS* provides an exception for national security, the NBN would fall outside the terms of that exception. Under *GATS* art XIVbis(b), for instance, a Member may take 'any action which it considers necessary for the protection of its essential security interests', but this is subject to the qualification that the matter relates to 'the supply of services ... for the purpose of provisioning a military establishment'²⁹⁶ or 'fissionable and fusionable materials'²⁹⁷ or is 'taken in time of war or other emergency in international relations'.²⁹⁸ The NBN may be seen as enhancing national security, but as a whole it cannot be seen as necessary for the protection of Australia's essential security interests within the narrow meaning of *GATS* art XIVbis.

VIII CONCLUSION

The Australian government is clearly aware of the need for the NBN to comply with international trade law: its 2008 request for proposals to operate an NBN (later abandoned) specified that proposals would be assessed against Australia's international obligations including under the *GATS*, bilateral trade agreements, investment agreements and customary international law.²⁹⁹ The Australian government (and NBN Co itself) must indeed consider this relationship, given that, around the world, interested service providers and their governments will be monitoring Australia's compliance with its international trade obligations as it implements the NBN.³⁰⁰ This article has demonstrated the nuances, complexities and resulting uncertainties of applying international trade law to the NBN. On the one hand, Australia may regard this uncertainty as a shield, reducing the likelihood of WTO complaints by foreign services suppliers against the NBN. On the other hand, the potential for reasonable arguments to be made on both sides of the law (and, in particular, the reasonable claim that the approach to determining and reviewing PoIs and the level playing field provisions violate WTO law and corresponding provisions in Australian PTAs) makes transparency in the creation and implementation of the NBN even more crucial. Putting aside both politics and economics, from a purely legal perspective NBN Co and the

²⁹⁶ Ibid art XIVbis(1)(b)(i).

²⁹⁷ Ibid art XIVbis(1)(b)(ii).

²⁹⁸ Ibid art XIVbis(1)(b)(iii).

²⁹⁹ Department of Broadband, Communications and the Digital Economy (Cth), 'Request for Proposals to Roll-Out and Operate a National Broadband Network for Australia' (DCON/08/18, 11 April 2008) 12–13 <http://www.archive.dbcde.gov.au/2009/april/national_broadband_network/request_for_proposal>.

³⁰⁰ See, eg, Office of the United States Trade Representative, *National Trade Estimate Report on Foreign Trade Barriers* (2010) 26–7; Office of the United States Trade Representative, 'Results of the 2010 Section 1377 Review of Telecommunications Trade Agreements' (2010) 8.

Australian government must take their international trade law obligations seriously and undertake detailed, publicly-accessible analysis of these obligations to ensure Australia's compliance.