GREENFIELD FIBRE OPERATORS AUSTRALIA

Submission

To the Panel of Review of the NBN - Cost Benefit Analysis and Review of Regulation

From the Members of the GFOA

• OPENetworks • Red Train Networks;• Service Elements;• Comverge Networks;• Pivit.

10 February 2014

A submission about how the activities of NBN Co should be constrained given its mandate to efficiently build, operate and maintain a wholesale-only access network.

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Cost-Benefit Analysis and Review of Regulation
Panel of Review of the National Broadband Network

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Submissions by Greenfield Fibre Operators Australia (GFOA) RE Cost Benefit Analysis and Review of Regulation NBN

The members of Greenfield Fibre Operators Australia (**GFOA**) are:

- OPENetworks;
- Red Train Networks;
- Service Elements;
- Comverge Networks;
- Pivit.

GFOA members are pleased to provide their submissions and supporting evidence being:

- Report by one of the leading independent telecommunications experts in Australia, Cliff Gibson of GQI Consulting. The report is entitled: "Should NBN Co provide Broadband services to greenfield developments?" ("**GQI Report**");
- GFOA submissions to the Productivity Commission, Competitive Neutrality Complaints Office ("**GFOA Submissions to CNCO**");
- Australian Government Competitive Neutrality Complaints Office 2011, NBN Co, Investigation No 14, Canberra, November ("**CNCO Report**").[1]

Terms of Reference of CBA & ROR

It is noted that your Terms of Reference[2] include the following question:

> *"How should the activities of NBN Co be constrained given its mandate to efficiently build, operate and maintain a wholesale-only access network?*
>
> - *This should include consideration of the issues associated with infrastructure based competition and the economic benefit of alternatives.*
> - *Recommendations should be made on the structure of the Australian wholesale broadband market, including regulatory arrangements."*

This document contains the submissions of GFOA (with supporting evidence from the GQI Report, CNCO Submissions and the CNCO Report) that addresses the above Terms of Reference.

The GFOA members would welcome any questions about our submissions or the GQI Report and are available to discuss any aspect at your convenience.

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[1] See www.pc.gov.au Productivity Commission

[2] http://www.minister.communications.gov.au/malcolm_turnbull/news/panel_of_experts_to_conduct_cost-benefit_analysis_of_broadband_and_review_nbn_regulation#.Ur0P2dLxvIV

GFOA Submissions

GFOA members support the Australian Government's approach to providing affordable fast broadband to all Australians, using a mix of technologies and at affordable prices and within a reasonable timeframe, because broadband is a necessity[3] ("**NBN Policy**").

Having regard to the financial scale and duration of the NBN project and the recent Mid-Year Economic and Fiscal Outlook[4] ("**MYEFO**"), the necessity to cost effectively deliver the NBN Policy goals giving due consideration of all sensible options that can deliver savings, is vitally important to Australia. We preface our submissions as to how to cost effectively achieve the NBN Policy and find sensible savings in the process, by stating that GFOA strongly supports:

- Market driven infrastructure based competition;
- Competitive Neutrality ("**CN**") Policy of Australia 1997[5]; and
- *NBN Access Act* which introduced Parts 7 and 8 into the *Telecommunications Act 1997*. These new Parts apply to fixed-line local access networks, or parts of such networks, that are built, upgraded, altered or extended after 1 January 2011 so that they are capable of providing a carriage service where the download transmission speed is normally more than 25 megabits per second to residential or small business owners. The Department of Communications says that the effect of the new Parts is that "***such networks must be wholesale-only and operators of such networks must offer a layer 2 bitstream service on a non-discriminatory basis***"[6]

[3] http://lpaweb-static.s3.amazonaws.com/Policies/NBN.pdf
[4] http://www.finance.gov.au/budget/budget-process/mid-year-economic-and-fiscal-outlook.html
[5] http://www.pc.gov.au/agcnco
[6] http://www.communications.gov.au/policy_and_legislation/nbn_legislative_framework

Greenfield Developments

1. For the purposes of these submissions, a "**Qualified Operators**" is a licence telecommunications carrier (other than NBN Co) that:

   (1) complies with the NBN Access Act which introduced Parts 7 and 8 into the Telecommunications Act;

   (2) has at all times, local bitstream network access agreements (lodged with the ACCC) between the carrier/operator and at least 3 access seeker retail service providers ("**RSPs**") of broadband, voice and other telecommunications services ("**Services**") that are not "**Related**" to the carrier/operator and those RSPs must be offering Services to End Users connected to the networks operated by the carrier/operator. An RSP is "**Related**" to the carrier/operator if through shareholding, trusts, ownership or beneficial control they are related to or associated in any way or if there are any common directors or controlling management officers acting either alone or jointly with one or more other persons.

   (3) Have relevant experience in the installation and operation of "**Superfast**" networks, network units, equipment or infrastructure supplying a Layer 2 bitstream service on an open-access and non-discriminatory basis;

   (4) Subject to clause 1(6), operators shall be wholesale only access providers supplying a Layer 2 bitstream service on an open-access and non-discriminatory basis; and

   (5) Are registered on a public register of "**Qualified Operators**" that shall be maintained by the ACCC or ACMA; provided that:

   (6) for those otherwise Qualified Operators of wholesale networks that are related or associated with one or more RSP, it is desirable to provide a transitional period of up to 2 years to enable them to determine and action whether they will be a Qualified Operator of wholesale networks or an RSP. This is to ensure that withi a short period all wholesale networks will be operated so as to ensure that all RSPs are provided with fair and non-discriminatory access to the End Users of those network. Accordingly, an operator will be deemed to be a "Qualified Operator" if the operator:

      i. otherwise satisfies all other requirements to be a Qualified Operator, save that it is not "wholesale only" by virtue of being related to associated with an RSP on those networks; and

      ii. has less than 40,000 End Users connected to their network, paying access fees for wholesale access service connections; and

      iii. is willing to supply a Layer 2 bitstream service on an open-access and non-discriminatory basis to all other RSPs, including prices that are no less favourable than that offered by NBN Co and terms no less favourable than those contained in the LBAS Final Access Determination registered with the ACCC.

2. The parties playing various roles in delivering Fibre to the Premises ("**FTTP**") broadband services and solutions to new developments of land and buildings ("**Greenfields**") are:

   (1) NBN Co;

   (2) Federal Government;

   (3) Developers of Greenfield developments ("**Developers**");

   (4) Owners, occupiers and builders of homes, apartments, commercial, industrial and other premises ("**End Users**");

   (5) Qualified Operators;

   (6) RSPs; and

   (7) Local Government & Utilities.

3. The role of NBN Co in Greenfields should be as follows:

   (1) NBN Co should be the "**Provider of Last Resort**" in remote and regional areas ("**Non-Metro Areas**") where satellite and wireless is required and more appropriate. This will help constrain NBN Co activities (and costs) to those areas where efficiencies cannot normally be provided through competition because of high cost for Qualified Operators to operate in those areas. However, in metropolitan, urban and non-regional areas ("**Metro Areas**") where multiple Qualified Operators will be available to build superfast broadband infrastructure, efficiencies in the build costs will be achieved through infrastructure competition.

   (2) in metropolitan, urban and non-regional areas ("**Metro Areas**"):

      a) where NBN Co has already signed contracts for delivery of FTTP networks to Greenfields, NBN Co should:

         - complete the executed contracts, to avoid breaching contractual obligations to developers and liability for costly compensation for foreseeable losses;

         - charge End Users for the provision and connection of the fibre cable between street pit and the premises, provision and activation of the Optical Network Unit ("**ONU**") in the premises after the premises End User (owner or builder) has also provided the conduit and customer termination cabinet ("**CTC**") being at market rates ("**Connection Fees**" which are currently in the order of $450 per lot). This would financially benefit NBN Co because it and other Qualified Operators can recover Connection Fees from End Users who, prior to 2011, were pay required to pay Connection Fees to Telstra. This charge will contribute significantly to the economic benefit of NBN Co (through savings and revenue which independent research in the GQI Report says is part of the savings worth **$2.3 billion** over the next 7 years[7]); and

- where possible, assign such contracts with the Developers to the Qualified Provider contracted by the relevant Developer to complete the network for future stages of the relevant Greenfield development. This action will further constrain NBN Co activities to areas where there is less infrastructure competition;

b) where NBN Co has not signed contracts for delivery of FTTP networks to Greenfields, **<u>NBN Co should have no further role</u>**. This will be a significant step in constraining NBN Co activities and produce savings benefit for NBN Co which independent research in the GQI Report says is part of the savings worth **$2.3 billion** over the next 7 years[8]. Qualified Operators will provide the relevant network solutions and may charge Developers for the network solution and End Users for Connection Fees at market rates) save and except where there are:

- 100 lots or more:
    - Qualified Operators should provide FTTP network solutions at market rates, or
    - if Qualified Operators will not provide FTTP networks (the onus of proof of which is on the Developer to establish), NBN Co (as provider of last resort) shall provide the FTTP network, but only at market prices and on commercial terms (but complying with CN) and must charge End Users for Connection Fees at market rates (which is currently $450 per lot); or
- less than 100 lots:
    - Qualified Operators should provide "**fibre ready**" network solutions with either FTTP, VDSL2 or other "superfast" (i.e. at least 25 Mbps), broadband, fixed line solutions (to standards determined by Communication Alliance not NBN Co) with download transmission speeds of at least 25Mbps and upload transmission speeds of at least 4Mbps at commercial market prices and on commercial terms; or
    - if Qualified Operators will not provide those networks (the onus of proof of which is on the Developer to establish), NBN Co (directly or under contract with Telstra) may provide "fibre ready" network solutions with either FTTP, VDSL2 or other "**superfast**",

[7] See Section 9.3 of the GQI Report.
[8] See Section 9.3 of the GQI Report.

broadband, fixed line solutions (to agreed standards determined by Communication Alliance not NBN Co) with download transmission speeds of at least 25Mbps and upload transmission speeds of at least 4Mbps at commercial market prices and on commercial terms; and

- End Users should pay Connection Fees at the market rate (which is currently about $450 per lot). Again these recommendations will significantly constrain NBN Co and allow it to focus its efficiencies in the building, operating and maintaining networks on areas of land development that do not have adequate infrastructure based competition from Qualified Operators.

c) NBN Co (either directly or through USO Co) should provide dark fibre, conduit and managed transmission network service access at uniform national flat rates or prices over NBN Co and Telstra networks acquired, leased or licensed by NBN Co for the purposes of providing that backhaul or transmission services for Qualified Operators to enable FTTP and other superfast networks in Greenfields. This recommendation will assist NBN Co to efficiently manage the overall NBN picture and focus NBN Co management on the big picture of delivering the superfast broadband at affordable prices to all Australians within a reasonable timeframe. It allows NBN Co to manage and, in some cases, operate and maintain the core backhaul and transmission services required to connect and sensibly manage the NBN in Greenfields and Brownfields.

4. Federal Government should:

(1) Provide a legislative framework that ensures:

a) NBN Co activities will only be as stated in Section 2 above;

b) NBN Co activities will always comply with CN Policy[9];

c) Qualified Operators must be "**wholesale only**" licenced carrier operating "superfast" networks on an open access, non-discriminatory basis. This enhances and protects NBN Co as a wholesale only access network and fosters true infrastructure competition between NBN Co and genuine Qualified Operators, without permitting RSPs to hold certain Greenfields hostage by operationally locking out or retarding true service competition from other RSPs in Greenfields; and

d) Communications shelters or centre are sufficiently dimensioned. What is now needed for FTTP network deployments is somewhat larger than that currently permitted under the Ministerial "**Low Impact Determination 1999**" and should be at least 7 metres long x 3 metres

[9] See CNCO Submissions by GFOA

wide X 2.8 metres high. There may be significant benefits in collocations and therefore maximum area restrictions should lifted where there are collocation possibilities. Furthermore these equipment shelters should be located in Greenfield Developments on Crown Land, or other public land (such as parks, road or other reserves and available for common use by multiple Qualified Operators to share access and the costs of construction. If there are to be area or height limitations then they should be consistent with the lot sizes for the surrounding residential lots and the height limits for normal residential dwellings, so as to blend into the streetscape of the neighbourhood or park.

(2) Ensure that NBN Co complies with CN Policy by not providing the Homes Past Networks (other than pits pipes and trenching) to Greenfield developments on uncommercial terms, including without charging commercial prices for the capital works, provisioning, activation and connection services.

Since the CN Report by the Productivity Commission was published in November 2011, the so called “targeted rate of return of NBN Co of seven per cent (7%)”, and the “expected timeframe for its recovery”, which were both promoted by the DBCDE and the then Labor Government, initially represented only “potential ex ante breaches of CN”. However, even at that time, the then Chairman of NBN Co, Harrison Young told the media that the Statement of Expectations of the responsible Ministers does not direct NBN Co to make any rate of return and no investment return timeframe is upon NBN Co. Of course, since the CN Report, NBN Co has upwardly revised its capital requirement to continue with its planned NBN to the extent that even the modest assumptions incorrectly made by the AGCNCO (that there is a targeted rate of return of 7%), is clearly further undermined. There are still no directives by the responsible Ministers for the NBN that require any rate of return to be achieved by NBN Co within any particular timeframe, much less a commercially realistic timeframe. As such, it is submitted that the breaches of CN by NBN Co are not merely ex ante, but are actual and continuing breaches of CN Policy. NBN Co must therefore immediately cease any arrangement in the Greenfields whereby Homes Past Networks are provided at no commercially reasonable cost to Greenfield Developers. Developers should not be given the benefit of free FTTP network infrastructure that improves the value of their land which the End Users buy at prices inflated by the value of the services available due to that FTTP infrastructure. Developers can and do recover the cost of all other service infrastructure (for roads, water, sewerages, gas and power) on the sale of their Greenfield estates. Broadband and telecommunications services should be treated the same way as other service infrastructure within the Greenfield estates. However, there should be government recognition of the need for NBN Co to plan, foster, promote, subsidize and share backhaul and IP transit services to Greenfields. This will enable NBN Co to focus on efficiently building the NBN in areas where the demand for broadband is not being met by other commercial Qualified Operators and will foster true infrastructure based competition within a framework of nationally flat rates or prices for backhaul and IP transit services.

(3) Fund and encourage the coordination by local government (through its planning

process) of efficient shared use of backhaul infrastructure and services and in relation to the location and sharing of telecommunications facilities such as communications shelters, centres and rooms in new developments even within a competitive marketplace. Whilst constraining NBN Co in Greenfields and thereby producing significant economic savings, this recommendation greatly assists the provision of a wholesale only, open access, superfast NBN;

(4) Avoid duplication of Backhaul connections and telecommunications facilities by encouraging the participation of Qualified Operators in local government planning processes. Again, whilst constraining NBN Co in Greenfields and thereby producing significant economic savings, this recommendation greatly assists the provision of a wholesale only, open access, superfast NBN and will enable NBN Co to efficiently operate within, manage and coordinate the NBN; and

(5) Subsidise NBN Co and Qualified Operators to rent, buy or, where needed, build backhaul and IP transit connections to Greenfield communities (as coordinated by local government planning) so that backhaul is available at national flat rate or prices (underwritten by government or NBN Co). This recommendation assists the provision of a wholesale only, open access, superfast NBN and will enable NBN Co to efficiently operate within, manage and coordinate the NBN;

(6) Provide the legislative framework for national backhaul services at uniform nationally capped flat rates per connection. This recommendation assists the provision of a wholesale only, open access, superfast NBN and will enable NBN Co to efficiently operate within, manage and coordinate the NBN;

(7) Require Developers to pay for FTTP distribution network or the "**homes past**" network (and recover their costs on the sale of the developed land or buildings) at market rates. This recommendation will enable Qualified Operator and NBN Co to efficiently build the NBN and contribute to benefits to NBN Co worth **$2.3 billion** over the next 7 years[10];

(8) Permit End Users to pay for Connection Fees at market rates (which are currently $450 per lot). This recommendation allows Qualified Operators and NBN Co to efficiently build the NBN and contribute to benefits for NBN Co worth **$2.3 billion** over the next 7 years[11];

(9) Require NBN Co to be only the provider of "last resort" in Non-Metro Areas and in Metro Area to not have any further role in Greenfield developments save as previously stated. This will be a significant step in constraining NBN Co activities so that if can focus on the efficient build, operation and maintenance of NBN in areas where there is little infrastructure based competition and so produce benefits for NBN Co which independent research in the GQI Report says is part of the savings worth **$2.3 billion** over the next 7 years[12].

5. Developers should pay for ("**the Home Past Network**") namely:

[10] See Section 9.3 of the GQI Report.
[11] See Section 9.3 of the GQI Report.
[12] See Section 9.3 of the GQI Report.

(1) Pits, Pipes and Trenching;

(2) Secure air-conditioned Communications Shelter, Room or Centre;

(3) FTTP Head End Equipment for minimum voice and data services that deliver at least 100Mbs and capable of 1Gbps speeds;

(4) Fibre past each premises or lots so as to be ready for lead in work;

(5) Power supply to FTTP Head End Equipment; and

(6) Any additional non voice or data services equipment required by the Developer for the development (e.g. Intercoms, MATV, FTA TV, Pay TV, Wifi, CCTV, Local & other Government Services, Controls for Gates, Fire, Security, Lift, Power and other utility, community and building services).

This is the principal means for delivering the NBN in Greenfields and producing benefits for NBN Co which independent research in the GQI Report says is part of the savings worth **$2.3 billion** over the next 7 years[13]. Developers are presently pocketing the benefits of the expenditure by NBN Co and increasing the value of Greenfield Lots for End Users to reflect the availability of NBN Co connections to the NBN. Hence the End Users are paying twice for the NBN to their homes, first as taxpayers contributing funds underpinning NBN Co in the Greenfields and then as the purchaser of land for which the price is inflated because broadband connections are presently provided by NBN Co without charge.

6. End Users should:

(1) Pay for provision and installation of lead in Conduits from street pit to the premises; and

(2) Pay for provision and installation of lead in Fibre Cables from street pit to the premises, including:

a) ONU in the Home (with or without optional Battery backup);

b) In-home Customer Termination Cabinets (**CTC**);

c) Activation of connected ONU to receive Retail Services from RSPs ("**Connection Fees**"); and

(3) be responsible for:

a) In home cabling; and

b) Customer equipment in the home.

If Developers pay for the Homes Past Network, NBN Co and government subsidize NBN Co and Qualified Operators to rent, buy or, where needed, build backhaul and IP transit connections to Greenfield communities (as coordinated by local government planning) so that backhaul is available at national flat rate, then it is fair

[13] See Section 9.3 of the GQI Report.

and reasonable for End Users to pay Connection Fees. This will further assist infrastructure based competition and delver significant economic benefits for NBN Co which independent research in the GQI Report says is part of the savings worth **$2.3 billion** over the next 7 years[14];

7. Qualified Operators must:

   (1) Subject to clause 1(6), be wholesale only operators and carriers that comply with the NBN Access Act which introduced Parts 7 and 8 into the *Telecommunications Act 1997* and operate superfast networks offering layer 2 bitstream services on a non-discriminatory basis;

   (2) Pay for and provide points of interconnection Head End Equipment for voice & data (unless Developer contributions defray the costs);

   (3) Manage interconnection services to access seeking RSPs;

   (4) Provide open access on non-discriminatory access terms for RSPs that comply with the LBAS requirements published by the ACCC;

   (5) Comply with service level assurances to RSPs, regulatory and legislative standards;

   (6) Comply with legislative requirements and ministerial determinations;

   (7) Comply with all interconnection, network construction and other minimum performance standards set by Communications Alliance (not set by NBN Co); and

   (8) Comply with coordinative authorities for the provision of backhaul services, central community communications shelters/ centres and rooms.

   This is to ensure that there is a level playing field for all Qualified Operators and thereby encourage real infrastructure based competition and ultimately benefit End Users.

8. Retail Service Providers seeking access shall:

   (1) Comply with the terms of access agreed with operators and failing agreement as determined by ACCC;

   (2) Adhere to all legislative requirements including Australian Consumer Laws; and

   (3) Contract with home owners on fair and reasonable terms and conditions for the supply of retail services, including voice and broadband at market rates.

9. Councils and Utilities shall:

   (1) Plan and coordinate telecommunications and other utilities in Greenfield developments with federal funding so as to create a process in relation to the efficient and effective rollout of national telecommunications networks. This will

[14] See Section 9.3 of the GQI Report.

assist the efficient rollout of the NBN;

(2) Consider imposing development conditions on new developments regarding:

   a) Ensuring FTTP Telecommunications (voice and data) services are provided to all lots;

   b) clear roof policies (where Council deems fit to restrict TV antennae and satellite dishes); and

   c) on-site Community Communications Shelters, Centres and Rooms being sufficiently sized to enable sharing of that infrastructure between Qualified Operators.

(3) Not tax or impose rates on the Community Communications Shelters, Centres and Rooms, Towers and other facilities in or on public land for telecommunications;

(4) Provide public land for centrally located community communications shelters, centres, towers and rooms (within the revised Ministerial “low impact determinations”); and

(5) Host a federally funded facilitation process to plan the sharing of telecommunications facilities (such as community communications shelters, Centres and rooms) and backhaul services

The measures are to assist and promote the efficient rollout of the NBN and to allow NBN Co to focus on their rollout of networks in other areas, particularly remote and regional areas or areas where demand for broadband is not being met by other Qualified Operators.

Transitional Arrangements for Greenfield Developments

10. Contracts for the deployment of FTTP networks between NBN Co and Developers will be in various stages of evolution and require different arrangements during a transitional period. Broadly, the contractual position will be either where:

    (1) Contracts executed but not performed;

    (2) Contracts executed but partially performed; or

    (3) Contracts not executed by NBN Co.

11. Where the Contract has been executed but not performed by NBN Co:

    (1) NBN Co will be prepared to novate or assign the Contract to a Qualified Operator to provide their own designed, built and operated FTTP network solution, so that NBN Co may concentrate on the efficient build of networks in other areas;

    (2) NBN Co (or its shareholder government departments) shall pay the Qualified Operator a price per connection for distribution network (excluding all backhaul infrastructure capital costs). This will enable NBN Co to control costs and work so that the NBN is constructed with all reasonable cost and work efficiencies;

    (3) Home owner/builder:

        a) Pays for provision and installation of lead in Conduits from street pit to the premises; and

        b) Pays for provision and installation of lead in Fibre Cables from street pit to the premises, including:

            - ONU in the Home (with or without optional Battery backup);
            - In-home Customer Termination Cabinets (CTC):
            - Activation of connected ONU to receive Retail Services from RSPs;

        ("**Connection Fees**") which will significantly contribute to the overall savings for NBN Co; and

        c) Is responsible for:

            - In home cabling; and
            - Customer equipment in the home.

    (4) NBN Co must provide all reasonable cooperation to assist Qualified Operator to provide the FTTP network solution including all pit and pipe designs, drawings, plans and specifications provided by Developer to NBN Co;

    (5) Backhaul rented, purchased or built to Greenfield communities shall be provided by NBN Co at national flat rate or prices per connected lot. This is to deliver a

truly national broadband network that enables all RSPs to be connected to End Users without any discrimination on access terms or access charges by the wholesalers and compete fairly with each other on price and service, regardless of the End User location.

This will further assist infrastructure based competition and delver significant economic benefits for NBN Co which independent research in the GQI Report says is part of the savings worth **$2.3 billion** over the next 7 years[15];

12. Where the Contract has been executed and partially performed by NBN Co:

(1) NBN Co shall license a Qualified Operator:

a) To use any existing telecommunications shelters, centres, rooms, cabinets and facilities and FTTP Head End Equipment for delivery of, at least, voice and data services that deliver 100Mbs but is capable of 1Gbps speeds;

b) To use and manage the “Home Past Network” to lots (ready for lead in connection and activation);

c) To use the Power supply to FTTP Head End Equipment at the cost of the relevant Qualified Operator;

d) To receive Backhaul Services from NBN Co or its contracted provider at national flat rates or prices per connected lot;

(2) NBN Co shall contract the Qualified Operator to provide the remaining lot or premises with an FTTP network solution designed, built and operated by the Qualified Operator. Again this allows NBN Co to focus on delivery of the NBN in other areas where the broadband demand of End Users is not being met by other commercial Qualified Operators.

13. Where a Greenfield Developer Contract has not been executed by NBN Co then:

(1) **NBN Co shall not execute the Developer Contract.** This will further assist infrastructure based competition and delver significant economic benefits for NBN Co which independent research in the GQI Report says is part of the savings worth **$2.3 billion** over the next 7 years[16]. Furthermore this measure will restrain NBN Co from continuing to act in breach of the Competitive Neutrality (CN) Policy of Australia[17]. In fact since the Report on the NBN by the Productivity Commission published in November 2011 identified that the targeted rate of return of NBN Co, which was **allegedly** seven per cent (7%), and the expected timeframe represented a potential ex ante breach of CN. It is important to recognise that the then Chairman of NBN Co, Harrison Young has since been quoted as pointing to the Statement of Expectations of the responsible Ministers which does not direct NBN Co to make any rate of return and, he says, no

[15] See Section 9.3 of the GQI Report.
[16] See Section 9.3 of the GQI Report.
[17] See GFOA submissions to the CNCO and the CNCO Report, in particular Findings 3.6 and 3.7 on pages 33 and 35.

investment return obligation is upon NBN Co. Of course, since the CN Report, NBN Co has upwardly revised its capital requirements to the extent that even the modest assumptions incorrectly made by the AGCNCO (that there is a targeted rate of return of 7%), is clearly further undermined. There are still no directives by the responsible Ministers for the NBN that require any rate of return to be achieved by NBN Co. As such it is submitted that the breaches of CN by NBN Co are not merely ex ante but actual and continuing breaches of CN Policy. As such NBN Co must immediately cease any arrangement in the Greenfields whereby Homes Past Networks are provided at no cost to Greenfield Developers.

(2) **Developer must contract with a Qualified Operator** to comply with the NBN requirements for FTTP to all new lots or stages and building developments;

(3) Developer to provide trenching pits and pipes;

(4) Home owner/builder:

a) Pays for provision and installation of lead in Conduits from street pit to the premises; and

b) Pays for provision and installation of lead in Fibre Cables from street pit to the premises, including:

- ONU in the Home (with or without optional Battery backup);
- In-home Customer Termination Cabinets (CTC):
- Activation of connected ONU to receive Retail Services from RSPs;

("**Connection Fees**"); and

d) Is responsible for:

- In home cabling; and
- Customer equipment in the home.

(5) A major constraint on the deployment of affordable superfast broadband networks in Australia within a reasonable timeframe is the absence of an affordable national flat rates or prices for backhaul or transmission of broadband;

(6) To achieve affordable national flat rates or prices for backhaul, the Federal Government should rent, buy and build backhaul services for that purpose through coordinated, funded programs, similar to the Regional Backbone Blackspot Program 2009, by attracting traffic and breaking out fibre cables near actual and potential traffic areas. This initiative will deliver a truly national broadband network that enables all RSPs to be connected to End Users without any discrimination on access terms or access charges by the wholesalers and compete fairly with each other on price and service, regardless of the End User location.

(6) Telstra's monopoly pricing for transmission in Non-Metro areas is not affordable and must be reduced to be more competitive and part of any national comprehensive solution;

(7) Co-funded opportunities with private investors Qualified Operators or local government should be explored and encouraged, including use of differential rating End User land/premises in for FTTP serviced areas to help fund the deployment of FTTP networks. This will further reduce the costs of the NBN for NBN Co by involving other levels of government, utilities and, potentially, other Qualified Operators in the funding of superfast networks

Brownfield Developments

GFOA recommendations for existing dwelling houses, apartments and other buildings ("**Brownfields**") are as follows:

14. The Australian government National Broadband Network Policy focuses on the broadband service requirements of End Users delivered at affordable prices over fast networks using a mixture of technologies deployed within a reasonable timeframe to all Australians. This is a sensible policy that allows NBN Co and other Qualified Operators to determine appropriate telecommunications technologies such as Active Ethernet or VDSL2 equipment (with or without vectoring, bonded or Gfast technology) over passive networks (comprising fibre, copper, microwave or other networks) to create Fibre to the Node ("**FTTN**"), Fibre to the Basement ('**FTTB'**), Fibre to the Riser ("**FTTR**") or, where suitable, Fibre to the Home ("**FTTH**") platforms within Brownfields.

15. Minimum transmission speed targets for networks operated by only Qualified Operators should be determined by the Minister for Communications.

16. Appropriate minimum service standards of operation by Qualified Operators should be determined by the Minister for Communications including designation of the minimum transmission speed to RSPs being 25 Mbps Downloading and 5 Mbps Uploading ("**Adequate Service for Broadband**");

17. Areas that are served by a wholesale only network which is operated by a Qualified Operator on an open access, non-discriminatory basis shall be deemed to have "**Adequate Service**" or be "**Adequately Served**" communities and not overbuilt by NBN Co, if these networks:

    (1) Deliver an "Adequate Service" for Broadband and are capable of faster speeds; and

    (2) Are registered in relation to those communities, areas or buildings that are "Adequately Served" by recording the as built location, network design, construction details and nature of the infrastructure and services available via the registered networks in a central public register maintained by Local Government (funded by Federal Government) open to be searched without charge and part of the planning and coordination function of local government.

    This measure will allow NBN Co to focus on the areas that do not have an Adequate Service and to know where those areas are so that proper planning for network deployments and capacity planning can be undertaken with a degree of confidence in the data.

18. Where FTTN or FTTP is required to be deployed in Brownfields that are adjacent to a Greenfield development in which FTTP networks are to be designed, built and operated by a Qualified Operator, then the Qualified Operator should be engaged by NBN Co or with Federal funding contracted to either:

    (1) extend the FTTP network into the Brownfield where it is cost efficient to do so; or

    (2) extend fibre from the Greenfield to nodes in the Brownfields and aggregate the

broadband traffic from the Brownfield on to the Backhaul provided to the Greenfield FTTP network by NBN Co.

19. Subject to clause 1(6), RSPs and any parties related to or associated with them (as those terms are generally defined by the *Corporations Act 2001*) or entities with any common directors or controlling management officers either alone or jointly with one or more other persons, must not install “superfast” networks, network units, equipment or infrastructure or extend “superfast” networks, network units, equipment or infrastructure in Brownfields, because they are not wholesale only access providers supplying a Layer 2 bitstream service on an open-access and non-discriminatory basis (i.e. Qualified Operators).

20. If an RSP, carrier or operator of a network wishes to simply extend backhaul, IP transit or other networks into buildings or simply install VDSL or other network equipment in the basements of the buildings and that would otherwise breach the *Telecommunications Legislation Amendment (National Broadband Network—Access Arrangements) Act 2011* (“**NBN Access Act**”)[18], then they should not do so unless, subject to clause 1(6), they are Qualified Operators.

21. The effect of the above clarification of arrangements under the NBN Access Act is that any new “superfast” networks (whether extended or otherwise) or “superfast” network infrastructure must be operated by wholesale-only operators supplying Layer 2 bitstream services on an open-access and non-discriminatory basis. Whilst this will stop some RSPs that may want to directly access high density apartments in Brownfield areas, it encourages true competition between RSPs accessing Brownfields via open access, wholesale only networks. Those wholesale only, open access networks provide fair market access to all RSPs, not just the first entrants or incumbent in the buildings that has a superfast network. To do otherwise and to allow RSPs, carriers or operators that are not Qualified Operators will mean that in many buildings and areas there will be no true competition on price, terms or services for the patronage of End Users as the first operator will be the only operator for a very long time until another operator is prepared to rick the capital cost of network deployment on the likelihood of churn from an incumbent operator.

22. Where a Qualified Operator has or is prepared to provide the Homes Past Network then the Australian Government should also pay $500 per lot (“**Connection Fees**”) to cover the cost of:

    (1) Provision and installation of lead in Conduits from street pit to the premises; and

    (2) Provision and installation of lead in Fibre Cables from street pit to the premises, including:

        a) ONU in the Home (with or without optional Battery backup);

        b) In-home Customer Termination Cabinets (CTC):

        c) Activation of connected ONU to receive Retail Services from RSPs.

[18] NBN Access Act commenced on 12 April 2011 and amends *Telecommunications Act 1997* by inserting new Parts 7 and 8

GQI Report

The GQI Report was specifically commissioned by the GFOA to assist the government's formulation of policy and potential legislation concerning the role and activities of NBN Co in Greenfield developments.

Some key findings of the independent GQI Report are:

(1) *Competition in greenfield developments would drive innovation and provide occupants of these developments with a potential rich range of innovative services over and above the standard broadband services as currently provided by NBN Co… at no significant increase in costs and without change to the Communications Alliance technical standards. (Part 5.2)*

(2) *The current government policy relating to the provision of broadband services to greenfield developments … is inconsistent with the customer pays principal which applies to all other services including electricity, water, sewerage, and roads etc which are provided in greenfield developments. ….. NBN Co effectively subsidizes the developers' cost of connection of FTTP networks in greenfields … which will mean that not only is NBN Co paying for the fibre network but so are the development customers. (Part 5.3)*

(3) *The Productivity Commission found that NBN Co is in breach of the Competitive Neutrality Policy (**CN**) of Australia in an established competitive Greenfield (FTT network) market place. … NBN Co is actively involved in anti-competitive behaviour in this market place. (Part 5.4).*

(4) *The logical application of these findings means that the continued use of NBN Co for the provision of broadband services will add about $1,606 to the cost of each premise. Therefore ……. continuation of the current Government policy in relation to the provision of FTTP in greenfield developments will cost the Australian Community approximately **$2.3 billion** more than what it should or could over the next 7 years. (Part 6.1)*

(5) *A change in Government policy to reintroduce competition in greenfield developments will bring lower price broadband and service innovation back into the greenfield market place. (Part 6.2)*

(6) *All that is required is for the Government to introduce a policy to require NBN Co to only be the FTTP or other network provider and operator of "last resort". (Part 6.3)*

(7) *Furthermore when NBN Co is chosen by a developer to provide a FTTP or other network it should be provided on normal commercial basis. This means that the provision of FTTP is not free to the developer. (Part 6.3)*

(8) *The cost of provision of the FTTP network should be borne by the developer in the first instance. (Part 7.2)*

(9) *Unbundling of backhaul will allow sharing of cost which will in many instances improve the viability of FTTP networks. (Part 8.1)*

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GFOA

Independent Expert Report

Should NBN Co provide Broadband services to greenfield developments?

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ABOUT THIS DOCUMENT

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AUTHORISED:	Cliff. Gibson.
ABSTRACT:	Expert report providing responses to a number of questions relating to the installation of fibre networks in greenfield Developments posed by the Greenfields Fibre Operators Australia (GFOA).

Document History

Rev	Date	Description	Author	Reviewed
Rev A	23/07/2013	Initial Version	CG	PH
Rev B	17/08/2013	Answers revised	CG	PH
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Rev E	2/09/2013	Marked Up Revision	MS	CG
Rev F	4/09/2013	Final adjusted to incorporated GFOA comments	CG	CG

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1. Introduction

Prior to about 2006 most residences in greenfield developments were connected to the Public Switched Telephone Network by copper cables. Telephony and broadband services were provided by these cables through the use of legacy and new communications equipment. Most of these copper cables were provided by Telstra (who became the owner and operator) at no cost to the development.

About 2003 some developers realised that they could add value to their development through the installation of broadband optical fibre cables which provided not only telephony but also broadband and other services to the premise[1]. Initially Ethernet Broadband services were provided over fibre to the node (FTTN) networks but by about 2006 full fibre networks to the premises were beginning to emerge. This type of communications network is known as Fibre to the Premise (FTTP).

The developers could source these FTTP networks on a competitive basis from not only Telstra but also a small but growing number of licensed carriers known as greenfield operators who provided and managed these networks in a competitive environment.

The standard practice for the provision of a FTTP in a greenfield development was for the developer to provide the pipes and pits, and pay the FTTP provider to install the fibre network and backhaul to a Point of Interconnect with the public network (POI). Once installed the greenfield operator would take over ownership of the network and provide open access to service providers who would use that network for the delivery of telephony, broadband and other services to customers[2] within the greenfield development.

In 2011 the "Telecommunications Legislation Amendment (Fibre Deployment) Act 2011" was passed which effectively made NBN Co the wholesale provider of last resort in new developments. This meant that as of the 1st January 2011 developers could either engage NBN Co or other suitable organisation to provide the FTTP network in their development.

The major difference was that NBN Co would roll out the FTTP network at no cost to the developer (the cost would be picked up by the taxpayer) compared with, if an alternative provider was used, the cost would be borne by the developer and ultimately potentially passed onto the greenfield development end user residents. The net effect of these changes was that

[1] Within this document I refer to the place that the optical fibre network or other connects to for the provision of broadband services to the end user as premises, home, customers premises, lot, etc. For the purpose of definition all of these shall be considered as one and the same.

[2] Within this document I refer to the consumer of the broadband services that the optical fibre network or other connects provides as customers, end users, occupants, property owners and residents etc. For the purpose of definition all of these shall be considered as one and the same.

the developers ceased using greenfield operators for the provision of FTTP networks in new developments.

The Greenfield Fibre Operators Australia (GFOA)[3] believe that this current arrangement where NBN Co has effectively taken over the provision of the vast majority of FTTP installation in greenfield developments is not in the best interest of either greenfield customers or the Australian public generally.

GFOA claims that the lack of competition for the provision of the FTTP in greenfield developments is driving the cost up and limiting the range of innovative services which could be delivered to new premises in greenfield developments[4].

GOFA has engaged me (Mr Cliff Gibson) to undertake a study of the current arrangements and provide an expert opinion on whether there are alternative arrangements that would provide better outcomes for both greenfield customers and the Australian public. In that context I have responded to 7 questions posed by the GFOA the answers to which are included in the following sections.

Disclaimer

The information and opinions provided in this report are for use by GFOA and may be provided to the Federal Government for its consideration. They are based on information provided by GFOA, public information and information available to me that can be disclosed.

I have assumed that the information provided to me relates to the matters referred to and I have not independently verified that information.

I have used my best endeavours, professional knowledge and experience to reach the conclusions set out in this report and I will not be liable for any reliance on this report.

Authors Biography

Cliff Gibson has worked as an ICT consultant for over 30 years. Prior to that he was employed by Telecom Australia as a Communications Engineer.

In the late 1980ies and Cliff Gibson and Dominic Quai co-founded Gibson Quai – AAS. Over the next 20 years Cliff was actively involved in building the company into the largest ICT consulting business in Australia and managing a significant number of major consulting projects throughout Australia, and surrounding countries. The business was subsequently sold and is no longer trading.

[3] GOFA is an alliance of carriers who operate fibre-to-the-premises (FTTP) networks in Australia.

[4] For example GOFA members bundle free to air TV and pay TV distribution via FTTH installations therefor reducing the cost to the greenfield customer of providing a TV antenna and improving the ascetic appearance of the development. Other services may include security, access gates, traffic, intercom, utility and building management controls, public WiFi and other community IP based services.

In 2012 Cliff Gibson and Dominic Quai establish GQI Consulting which is providing ICT consulting services from offices in Melbourne, Sydney and Brisbane.

Cliff's key expertise lies in the provision of strategic advice related to the application of ICT and similar technologies to business. He is often involved in managing teams who develop telecommunications strategies for major corporate and Government clients. He is also often involved in providing telecommunications regulatory advice and advice on the application of new and emerging communications technologies like cloud and mobility.

Cliff Gibson is professionally qualified with degrees in Communications Engineering and Science. He also has a Diploma in Electronic Engineering is a Fellow of the Institute of Engineers and a Board Member of GQI Consulting.

2. Question 1: What is the current regulatory and government policy position in relation to the provision of broadband services to greenfield sites in Australia?

2.1. Prior to June 2011

Prior to the release of the Government Policy update on 22nd June 2011[5] relating to optical fibre in new developments most greenfield property developers would provide communications services to their customers premises through one of two fundamental technologies. The older technology that was used was copper telephone cable and in more recent years optical fibre cable has been used. If the developers chose to install copper, generally they would collaborate with Telstra (the universal service provider) who would install the pipes and pits as well as the copper cables at its expense. As Telstra paid for and installed this infrastructure it would take on the ownership and management of this cable and use it to deliver services to the greenfield residences.

> To appreciate the value individuals place on FTTP, a small survey was undertaken by the Gungahlin Community Council in Canberra in August 2006 by Kevin Cox in association with Robin Eckermann which was captured within the NBN Fibre-to-the-premises in greenfield estates Consultation paper[1]. The survey asked respondents to indicate how they would react if a developer who had planned FTTP advised prospective buyers he had decided not to proceed with FTTP, but was willing to offer a discount on the house and land package. More than 60 per cent of respondents indicated no offer would be satisfactory; instead they would buy elsewhere. Of the remainder, 80 per cent indicated they would not proceed without compensation of at least $5000.

As optical fibre technology matured and attracted more attention because of its broadband capability many developers chose that technology over copper because they thought that optical fibre reticulation would improve the commercial attractiveness of their developments. Furthermore they realised that optical fibre networks that connected to the customer premises (FTTP) could be used to support other systems like free to air television, pay TV, CCTV, security remote meter reading etc.

During this period prior to June 2011 whenever a developer chose a FTTP network for its development generally it would install the pipes and pits and engage a greenfield operator (who was also a licenced carrier) to install the FTTP network and take over the ownership and operation of the network on completion. The commercial arrangements between the greenfield operator

5 Australian Government Department of Broadband, Communications and the Digital Economy “Fibre in new developments: policy update” 22 June 2011

and the developer varied from operator to operator but generally the developer paid all or most of the cost of the FTTP network.

The greenfield operator would also be responsible for backhaul arrangements to interconnect with the PSTN at a suitable point of interconnect (POI). The greenfield operator would provide open access to its FTTP network so that any service provider could deliver communications services to customers within the greenfield development.

In the period immediately prior to the Government Policy Update in June 2011 there were a number of FTTP greenfield operators which varied in size, operating model and the areas in which they operated. Known providers at that time included Arise, BES/E-Wire, Clubcom, OPENetworks, Opticomm, Pivit, Service Elements, Telstra and TransACT.

There may also have been developers like Vic-urban who were also setting themselves up as wholesale open access infrastructure service providers in greenfield estates.

By the end of 2010 there were about 11,000[6] premises connected to fibre in new developments which were under management by these greenfield operators.

2.2. Government policy update

The "Fibre in new developments: policy update" on 22nd June 2011[7] bought some clarity to the provision of FTTP in greenfield developments. It indicated that during the 10 year construction period of the National Broadband Network (NBN) it expected that an estimated 1.9 million new premises will be built and that these premises should be connected by fibre to provide occupants with ready access to next generation broadband services.
The policy stated that from 1 January 2011:[8]

- *NBN Co Limited would be the wholesale provider of last resort in new developments[9] within or adjacent to its long term fibre footprint and meet the cost of doing so*
- *Developers, and on their properties, property owners would be responsible for trenching and ducting*
- *Telstra would not have infrastructure responsibilities but would be retail provider of last resort*

[6] Telecommunications legislation amendment (fibre deployment) bill 2010 – explanatory memorandum – Section 1.
[7] Australian Government Department of Broadband, Communications and the Digital Economy "Fibre in new developments: policy update" 22 June 2011.
[8] Reproduced from the "Fibre in new developments: policy update" 22 June 2011.

[9] For the sake of clarity, references in this statement to new developments should be understood to refer to all types of developments and constructions, regardless of the number of lots, premises or units involved; whether they are broad acre greenfield or brownfield infill; and regardless of whether they are residential, commercial, industrial, government or of some other type. References to lots, units and premises should generally be taken to have the same meaning and be interchangeable.

- *developers could use any fibre provider they want, providing they met NBN specifications and open access requirements.*

These policy changes effectively meant that from 1st January 2011 all developers would have to provide pipe and pit and all installations of fibre and related pipe and pit must comply with NBN specifications. Furthermore the developers could either use NBN Co as the "provider of last resort" for the provision of the FTTP or they could use any other fibre provider that met the NBN technical requirements and offered access to the FTTP network to other access seekers on non-discriminatory terms as a wholesale only layer 2 open access network.

The immediate impact of this policy statement on developers was that the responsibility for the cost of the FTTP installation and the future operation was shifted from the developer to NBN Co. Of course the developer could still employ a greenfield operator to install the FTTP if it so chose but at a cost to the developer. The net result was that from January 2011 virtually all involvement by greenfield operators in new developments ceased.

2.3. Legislative amendments to the Telecommunications Act.

On 23rd March 2011 *the* "Telecommunications Legislation Amendment (Fibre Deployment) Bill 2011" was introduced into the legislative assembly and by the 26th July 2011 it had passed through both houses of parliament with some amendments. It became Australian law on 27th July 2011.

The "Telecommunications Legislation Amendment (Fibre Deployment) Act 2011" amended the Telecommunications Act 1997 by inserting a new Part 20A to:

1. enable the minister to specify new developments in which fixed lines which are installed need to be optical fibre;
2. require passive infrastructure such as pit and pipe that is installed to be fibre ready;
3. impose penalties on constitutional corporations such as developers that sell or lease specified new developments without fibre-ready passive infrastructure;
4. enable carriers to seek access to passive infrastructure that is owned by a non-carrier; and
5. enable the Australian Communications and Media Authority (ACMA) to make standards for customer equipment and cabling for use with the NBN and other superfast networks.

This legislation supports the rollout of optical fibre generally and the government's decision that NBN Co should be the ***fibre provider of last resort in new developments***.

These new legislative arrangements provided clarity around the roles played by various parties in relation to the provision of FTTP broadband networks.

These are summarised below.

2.3.1. NBN Co

From 1 January 2011, NBN Co became responsible for the installation of optical fibre at the development stage for all premises in NBN Co's fibre footprint[10] in:

1. new developments of 100 or more premises[11], whether broad acre or infill, which receive Stage 5 (civil works) planning approval after 1 January 2011;
2. developments, irrespective of size or type, in areas where NBN Co has already rolled out fibre and the fibre is ready and capable of connection; and
3. developments in areas where NBN Co has publicly identified the area as a rollout region, this is on the basis that rollout regions will be announced 12 months prior to the ready-for-service date.

NBN Co may also provide infrastructure in smaller developments where it is practical for it to do so.

NBN Co requires developers to provide it with three months' notice that the developer requires infrastructure for its development.
In developments for which it is responsible, NBN Co will install the fibre infrastructure in the development including backhaul to a POI.

2.3.2. Telstra

For developments of less than 100 premises, whether broad acre or infill, Telstra is responsible for delivering infrastructure and services, pending NBN Co being ready to provide a fibre service in that area that is capable of connection to the premises.

Telstra is responsible for delivering infrastructure and services in developments which received planning approval before 1 January 2011 other than developments which are 'landbanked', that is, developments that have been approved but which have not proceeded.

Telstra has agreed that it will generally provide copper infrastructure in these situations. However, Telstra can choose to provide optic fibre and in some limited circumstances for example, because of the short time frame between construction and the rollout of fibre, Telstra may provide high quality wireless

[10] All new developments will be assumed to be in NBN Co's long-term fibre footprint. However, NBN Co will promptly notify the government, developers and Telstra (as Universal Service Obligation provider outside the footprint) of new developments that are outside of the long-term fibre footprint.

[11] Developments of 100 or more premises are those approved for 100 or more premises over a three-year period at the time of development approval.

services as an interim solution. Telstra is required to determine which interim solution will be appropriate in specific circumstances.

Like other fibre providers, Telstra may also enter into commercial arrangements with NBN Co relating to fibre solutions.

Consistent with the 22 June 2011 announcement, Telstra is required to provide standard telephone services to end users in all new developments in which retail services are not offered by another service provider (retail provider of last resort).

2.3.3. Developers

From 1 January 2011, in all types of new developments, developers are required to ensure that pit and pipe, including trenching and ducting, design and third-party certification for development approval purposes, are installed and are fibre ready. Where the developer intends to use NBN Co to rollout the FTTP network it will be required to install the pipes and pits in accordance with NBN Co specifications.

In new developments of 100 premises or more, developers are required to meet the cost of installing fibre ready pit and pipe infrastructure and transfer ownership of such infrastructure to NBN Co in exchange for the provision of fibre within that pit and pipe.

In new developments of less than 100 premises, developers are required to meet the cost of installing pit and pipe infrastructure and transfer ownership of such infrastructure to Telstra in exchange for Telstra's provision of fixed-line infrastructure within that pit and pipe.

In the event that Telstra is paid by a developer to install the pit and pipe infrastructure into a new development where NBN Co has an agreement with the developer to provide fibre, Telstra is required to transfer the pit and pipe to NBN Co before NBN Co installs the fibre.

Any other provider whom a developer approaches to provide infrastructure will need to decide what arrangements it requires in relation to pit and pipe infrastructure.

2.3.4. Competing optical fibre providers[12]

It has been a consistent feature of the government's policy in new developments that there should be room for competing providers. This continues to be the case.

Developers can source FTTP networks from competing fibre providers if they wish. Providers can compete to provide infrastructure in new developments for example, by offering more tailored solutions to developers or more expeditious delivery. However the commercial arrangements will have to be negotiated between the developer and the fibre provider and in general will

[12] Also referred to as Greenfield Operators

require the developer to contribute to or meet the whole cost of the FTTP installation.

Where the installed infrastructure meets NBN Co specifications, NBN Co may seek to acquire the infrastructure, but this is a commercial decision for NBN Co.

Those competing fibre providers must, however, build the FTTP network to NBN specifications and offer a Layer 2 service on an open-access basis to Retail Service Providers (**RSP**). Provisions in the NBN Access Act recently passed by Parliament require this and is intended to ensure consumers in such developments have access to the same service outcomes that are available in new developments serviced by NBN Co. Providers who fail to do this will otherwise risk being overbuilt when NBN Co rolls out the network in their area.

3. Question 2: What are the current practices associated with the provision of broadband services to greenfield sites in Australia?

3.1. Introduction

The provision of communications services to greenfield sites has been in transition for many years driven by both changes in regulation and technologies. The *Telecommunications Act 1997* completed the deregulation process and enabled licensed carriers and service providers to compete for customers in Australia. Prior to about 2007 most of the premises in greenfield developments were connected by copper cable and broadband services were derived over the copper pairs through the use of "Digital Subscriber line" (DSL) broadband modulation equipment. Around 2006 some developers started rolling out optical fibre technologies through the use of greenfield operators as discussed above. This enabled developers to offer their customers high quality broadband services over optical fibre cables connected to the premises. Not only were these greenfield operators providing a network which would support voice and broadband services but in some cases they provided other services like free to air TV to greenfield customers.

The passage of the *National Broadband Network Companies Act 2011* (NBN Companies Act) and the *Telecommunications Legislation Amendment (National Broadband Network Measures—Access Arrangements) Act 2011* (NBN Access Act) had a significant impact on the provision of optical fibre in greenfield developments. From January 2011 most of the FTTP rollout in greenfield developments was undertaken by NBN Co however I have found that some developers like Vic-Urban have stepped into the business of providing optical fibre networks and related services to their developments. The following sections further develop the roles and practices which collectively describe the provision of broadband services to greenfield sites.

3.2. Definition of greenfield sites

The starting point for providing an answer to this and a number of following questions is to define the meaning of greenfield in the context of this expert report. For this I have relied on the Department of Broadband Communications and Digital Economy (DBCDE) which defines greenfield development as "any parcel of land where development of commercial, industrial or residential property occurs for the first time".

3.3. Greenfield Fibre Operators of Australia (GFOA)

GFOA is an alliance of carriers who operate open access FTTP networks in Australia.

Whilst the members of the GFOA are not the only independent providers of FTTP layer 2 open access networks in greenfield developments they are never the less representative of this group of Australian Carriers that could provide a cost effective and competitive alternative to NBN Co as a provider of FTTP services in greenfield developments.

GFOA members claim that they collectively operate FTTP, FTTN, VDSL and HFC networks that connect or pass over 400,000[13] Australian homes and businesses. They also deliver high-speed Internet access, Data, Voice, and Free to Air TV, Pay TV and many other digital services (including CCTV, security, power, water, traffic and other utility management services).

In addition to FTTP some GFOA members provide VDSL based services to customers in Multiple Dwelling Units (MDU) over the existing copper providing data speeds of up to 100Mbps downloading and 40Mbps uploading. This is seen as a cost effective means of providing broadband services in MDUs that may otherwise be very difficult and expensive to retrofit with FTTP.

> The GOFA has commissioned this independent expert report to highlight their areas of concern and to seek advice on improvements that might be made to the current practices of providing broadband services to greenfield customers in new developments.

During this period leading up to January 2011 it was typical for the developer to install the fibre ready pipes and pits and select a greenfields Operator through a competitive arrangement to roll out the FTTP network. The cost of the FTTP rollout would normally be borne by the developer and passed onto development customers.

Once the FTTP network was installed normally the greenfield operator would take over operation and maintenance of the network and provide backhaul to a suitable POI. The greenfield Operator would use the network to generate ongoing revenue by charging service providers for access to its network.

Given that GFOA members substantially built their networks prior to the development of the "National Broadband Network Technical Standards"[14] and at a time when customer services demands were relatively unknown the business models and network architectures employed by the members vary considerably from one member to the next. These networks generally deliver comparable performance to the NBN Co networks.

Since the 1st January 2011 GFOA members advise that few new greenfield estates have been cabled up with FTTP provided by GFOA members. Opticomm claims to have contracted with developers to connect 155,000 lots in new greenfield developments. Other GFOA members have continued to cable up existing estates under pre-existing contractual arrangements.

3.4. NBN Co

As indicated in section 2.3.1 above from 1 January 2011, NBN Co became the ***fibre provider of last resort***. This still meant that developers could still go to a

[13] Testimony of Greenfield Fibre Operators of Australia (GFOA) to the Joint Parliamentary Committee on the National Broadband Network.

[14] Developed by Communications Alliance Limited in 2010.

number of fibre providers for the provision of a broadband FTTP network however if they chose NBN Co to provide the FTTP including backhaul there would be no charge to the developer. In this case the pipes and pits provided by the developer must comply with the pipe and pit specifications provided by NBN Co[15].

Furthermore once installed NBN Co would take ownership and responsibility for the management of the network and provide access to any service provider who chose to use the broadband network to deliver services to the greenfield development customers. This provided the developers with the opportunity to get NBN Co provided FTTP at no cost to the developer which clearly proved to be attractive and hence currently NBN Co continues to be the major provider of FTTP in greenfield developments.

3.5. Telstra

As indicated in section 2.3.2 above from 1 January 2011, Telstra was made responsible for providing communications infrastructure to developments of less than 100 premises. Generally Telstra provides copper to these developments at Telstra's cost. Telstra continues to manage the networks until such time that NBN Co overbuilds the network with FTTP and takes over the operation and management of the network as part of its wider rollout of fibre in the area. This is that same arrangement that applies to older Brownfield developments that had been previously cabled up by Telstra using copper cables.

3.6. Cellular Mobile Carriers

For completeness some occupants of greenfield estates chose not to be connected to FTTP for their telephony and broadband access. It is possible to use the Cellular mobile networks for this although the available broadband bandwidth is very small compared with that which can normally be obtained from FTTP networks.

[15] Communications Alliance LTD Industry Guideline G645:2011 Fibre ready pit and pipe specifications for real estate development projects.

4. Question 3: What is the estimated size and nature of the current and future greenfield market for broadband services in Australia?

4.1. Size of the market

The current demand for broadband services from greenfield developments can be referenced against developer requests to NBN Co as of February 2013 for the provision of FTTP network connections. At that time NBN Co had 170,000 lots outstanding for Fibre implementation[16]. It should be noted that this demand was made up from spill over from 2012 and forecasted requirements out to 2014 and hence does not necessarily represent the actual annual demand coming from Australian greenfield premises in 2013 but does provide some reference point.

In April 2009 DBCDE, released its National Broadband policy[17] which estimated that **1.9 million** new premises will be built during the role out of the NBN, as originally planned i.e. approximately 10 years. This is consistent with an extrapolation of the 10 year average of actual greenfield market supply in Australia, around 155,000 new homes per year[18].

The DBCDE numbers as reported are also supported by the National Housing and Supply Council of Australia, Housing Supply and Affordability Report 2012 (Chapter 2 – Demand)[19], which attributes most of the demand to some 180,000 overseas migrants entering Australia every year. The table below, which has been extracted from the same report, predicts premises growth within Australia under low, medium and high household growth scenarios, from June 2011. When I compare the 10 year past average growth of 155,000 premises per year with the figures in the table below I find that the it is reasonably consistent with the medium growth scenario and therefore based on the above analysis I estimate that the size of the current and future greenfield market opportunity in Australia is about 155,000 premises per year.

To end June	Scenario		
	Low growth	Medium growth	High growth
2016	701,000	824,000	967,000
2021	1,392,000	1,644,000	1,938,000
2026	2,070,000	2,457,000	2,908,000
2031	2,731,000	3,259,000	3,874,000

Source: National Housing Supply Council projections based on McDonald and Temple low, medium and high household growth scenarios from June 2009. Figures are rounded to the nearest thousand.

[16] National Broadband Network for consumers— February 2013.
[17] Fibre in new developments: policy update – June 2011.
[18] Australia is booming, so why are we all so gloomy? [written for The Property Observer by Michael Matusik, Wednesday, 21 March 2012].
[19] Housing Supply and Affordability – Key Indicators, 2012.

4.2. Nature of the market

The greenfield market is split into Commercial/Industrial and Residential premises. Residential is further split into Multi Dwelling Units (MDU's) and Single Dwelling Units (SDU's) or Broad-acre lots as they are sometimes known. MDU's include flats, units or apartments, semi-detached, row or terrace houses or townhouses. SDU's or broad-acre premises are considered to be separated houses with no adjoining walls between living spaces.

According to the Australian Bureau of Statistics (ABS), "of the existing 8.4 million households living in private dwellings in 2009–10, 79% were living in separated houses (i.e. SDU's), 11% in flats, units or apartments, and 10% in semi-detached, row or terrace houses or townhouses (i.e. MDU's)"[20]. Following this theme, the current and future greenfield market opportunity for premises has been apportioned using similar percentages in the below summary.

The estimated percentage split of the current and future greenfield market is assumed as follows;

- **22%** is represented by **commercial/Industrial** - this is based on a total number of premises as at 2009 being 10.7 million according to the DBCDE McKenzie report[21], where in the same year the National Housing and Supply Council placed the number of residential premises at 8.4 million. Therefore the difference in the number of premises being 2.3 million (or 22%) is assumed to represent commercial/industrial premises.
- **78%** is represented by **residential** premises.
  - With MDU's at 21% of dwellings within the residential market, and
  - SDU's representing the majority at 79% of the residential market.

4.3. Summary

Based on the above analysis I have developed a table below which provides an estimated breakdown of the market size over the next five years across the various premise types that I expect to find in greenfield developments. This model assumes a starting date of 2014 with an average compounded annual growth of 2%. From this it can see that the total number of greenfield premises potentially requiring broadband services over the next 7 years is 1,412,514.

[20] http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by%20Subject/1301.0~2012~Main%20Features~Types%20of%20Dwellings~127
[21] Chapter-2-Establishing-a-mandate-for-NBN-Co-NBN-Implementation-Study-Report.

Premises Type	2014	2015	2016	2017	2018	2019	2020
Commercial/industrial (22% of the Greenfield market	41,800	42,636	43,489	44,358	45,246	46,151	47,074
Residentila (78% of Greenfield Market	148,200	151,164	154,187	157,271	160,416	163,625	166,897
MDU's (21% of Residential Greenfield market	31,122	31,744	32,379	33,027	33,687	34,361	35,048
SDU's or Broadacre (79% of Residential Greenfield market	117,078	119,420	121,808	124,244	126,729	129,264	131,849
Total Estimated Greenfield market opportunities per annum	190,000	193,800	197,676	201,630	205,662	209,775	213,971
Total Estimated Greenfield market opportunities from 2014 to 2020							1,412,514

Source: GQI consulting analysis based on data from several sources.

Some analysts may choose to exclude either MDU's and or commercial/industrial end users from the analysis however the fact is that the majority of them will require FTTP broadband access and I expect that if an organization was building a FTTP network in a new development it would connect to all end users as it rolled out the network. For that reason I have chosen to include all premises types in my analysis of greenfield customers.

The above analysis also indicates that the total demand for broadband services in greenfield developments between now and when NBN Co expects to complete its rollout in 2020 is about 1.4 million. This is roughly in line with the NBN Co analysis of 1.9 million over the 10 year planned rollout timeframe.

5. QUESTION 4: WHAT ARE THE PROBLEMS AND RISKS ASSOCIATED WITH THE CURRENT REGULATIONS, POLICIES AND PRACTICES IN RELATION TO THE PROVISION OF BROADBAND SERVICES TO GREENFIELD DEVELOPMENTS IN AUSTRALIA AND HOW MAY THESE BE RESOLVED?

5.1. Inefficiencies through lack of competition

The current regulations and policies clearly encourage developers to use NBN Co for FTTP network rollouts in greenfield developments because NBN Co will provide the networks at no cost to the development. Once greenfield customers are connected to NBN Co they get the standard no frills NBN Co service offering at whatever rates that connected RSPs agree with their customer end users. The following sections outline the problems with this arrangement.

5.1.1. Cost to provide FTTP in a competitive environment

In a competitive environment for the provision of FTTP as existed prior to 1st January 2011 it was standard practice for developers to seek competitive quotes from several greenfield operators for the provision of the FTTP network. I would expect that this competitive environment would have generally resulted in the efficient provision of FTTP networks in the greenfield developments.

I don't believe that the quasi monopoly environment as currently exists is effective in delivering FTTP networks as efficiently as would be the case if this competitive environment had continued.

To test this hypothesis I have made some observations about what it might cost to roll out an equivalent FTTP network in a competitive environment and compared that with what it costs NBN Co to roll out an equivalent FTTP network.

In forming a view on the cost per premise for FTTP in a competitive environment I have considered the explanatory memorandum[22] for the fibre deployment bill 2010, which provides an estimated cost per premises prior to January 2011. In particular this explanatory memorandum says:-

"*These estimates are informed by international benchmarks, consultations and expert input. The estimates are considered to be conservative. In particular, the cost of $2,500 for an FTTP connection is a midpoint figure amongst a number of available estimates ranging from $1,500 to $3,500*[23]*. They have been developed independently*

[22] Telecommunications Legislation Amendment (Fibre Deployment) Bill 2010 Explanatory Memorandum (June 2011).

[23] OECD, *Network Developments in Support of Innovation and End User Needs*, 9 December 2009, pp. 38-9. Assuming a USD/AUD exchange rate of 0.85 – 0.93, OECD data quotes an average cost of $1,952 - $2,135 in the UK, $1,505 – 1,647 in the US and $1,582 - $1,731 in the Netherlands.

of the NBN Implementation Study and as such they should not be construed as reflecting on the findings of that study."

I have also undertaken discussions with a number of greenfield operators who have practical experience with the competitive tendering and deployment of FTTP networks. The explanatory memorandum indicates a mid-point figure of approximately $2,500 per premises in 2011and a low point of $1500. The greenfield operators indicated that several years ago a per premise cost of $2,500 may have been reasonable however through competition and increased efficiencies the cost today for the deployment of FTTP would be in the range $1,000 - $1,500. Based on this above inputs I have concluded that a conservative cost for the provision of a FTTP network today in a competitive environment would be about $1,500 per premises.
This does not include the pipes and pits.

5.1.2. Cost for NBN Co to provide FTTP

Prior to NBN Co rolling out FTTP in a greenfield development it enters into a "Developer Agreement"[24] with the developer.
These "Developer Agreements" include a limitation of liability clause which refers to the limit of the liability for both parties. This is a gross financial amount set out at Item 10 of Part B – Schedule of the agreement.

It is apparent to me that NBN Co has calculated the average cost per premises for it to roll out a FTTP network in a greenfield development because it has to understand the extent of the liability of both NBN Co and the developer should some problem occur. Since this is a back to back liability it is important that the basis for the calculation of liability be sound and fair to both parties.

I have examined several of these "Developer Agreements" and have found that when I divide the gross amount entered into item 10 of Part B – Schedule of these agreements by the total number of premises covered by the agreement I find that in every case the average cost per premises is **$3106**.

I interpret this to be the cost which NBN Co has calculated on a sound basis as the average cost per premises for it to roll out a FTTP in greenfield developments.

It is interesting to note that the NBN Co cost to roll out FTTP is more than double the cost that I expect greenfield operators would charge for an equivalent network in a competitive environment.
This may be because NBN Co is operating in a competitive vacuum and with an overhead geared around the provision of more complex Brownfield FTTP rollouts.

5.2. Provision of innovative and diverse services

Prior to the legislative changes as discussed in section 2.3 the greenfield operators incorporated a number of innovative services in their FTTP networks.

[24] Developer Agreement (new developments – SDUs).

The most significant one was free to air TV which enabled the customer to obtain free to air television signals from the FTTP network at no additional cost. This in turn not only overcame the requirement for them to purchase a TV antenna for an estimated $500 per premises but also provided high quality signals which was important in some outlying areas.

Members of the GFOA advised me that other innovative community services were also offered to make the development more attractive to customers and create competitive differentiation from other operators.

By comparison NBN Co is focused on delivering a FTTP network that complies with Communications Alliance technical standards and provides a standard broadband service to all premises in Australia.

If there was competition in greenfield developments then based on what had occurred prior to January 2011 it is highly likely that this competition would drive innovation and provide occupants of these developments with a potential rich range of innovative services over and above the standard broadband service as currently provided by NBN Co. I expect that this would occur at no significant increase in costs and without changes to the Communications Alliance technical standards.

5.3. Policy is inconsistent with other utility services policies

The current government policy relating to the provision of broadband services to greenfield developments clearly encourages developers to go engage NBN Co to provide the FTTP network because as mentioned previously they are not required to contribute to the cost of the network. This means that greenfield developments become part of the NBN rollout cost and hence the capital cost of networks in greenfield areas is met by all tax payers through general revenue. This concept is inconsistent with the customer pays principal which applies to all other services including electricity, water, sewerage, and roads etc which are provided in greenfield developments.

Whilst customers of greenfield developments may appreciate the fact that the cost of their new premises is marginally less because of the market distortion created by the Government Telecommunications policy, the vast majority of Australians may see the policy as discriminatory because they are not only contributing through tax toward their own NBN connection, but are also contributing to the cost of future greenfield customers' FTTP connection.

NBN Co effectively subsidizes the developers' cost of connection of FTTP networks in greenfields. This should mean that the cost of the developed lot is reduced, which should flow onto the customers. However due to commercial pressures the developers may not pass this reduction on which will mean that not only is NBN Co paying for the fibre network but so are the development customers.

5.4. The government has not complied with its competitive neutrality policy

Prior to January 2011 a number of greenfield operators had established viable businesses in greenfield areas where they were actively involved in building FTTP networks and providing access to service providers so they could deliver services to their greenfield customers. As indicated above after January 2011 their business models were dramatically altered because of the change in Government policy which resulted in NBN Co effectively taking on the role of FTTP provider in most of these areas. The greenfield operators claim that this action by the Government is a breach of the Australian Government Competitive Neutrality (**CN**) Policy. This policy is reproduced below.

"Competitive neutrality[25] requires that governments should not use their legislative or fiscal powers to advantage their own businesses over the private sector. If governments do advantage their businesses in this way, it will distort the competitive process and reduce efficiency, the more so if the government businesses are technically less efficient than their private sector competitors. Private competitors also regard such advantages as simply inequitable, as is illustrated by the number of complaints about this issue made to the Independent Committee of Inquiry into National Competition Policy. This inequity is particularly marked where government businesses are not subject to tax and private businesses see their own tax payments as effectively subsidising their government business competitors."

In 2011, Members of the GFOA complained to the Australian Government Competitive Neutrality Complaints Office (**AGCNCO**), a division of the Productivity Commission, about the conduct of NBN Co being in breach of the Competitive Neutrality Policy (**CN**) of Australia in an established competitive Greenfields (FTTP network) market place. A summary of their complaint and findings are as follows:

1. *NBN Co is not acting as the provider of last resort, but as the <u>provider of first resort</u> by:*
    a. *actively encouraging all developers to prefer NBN Co over the existing commercial FTTP network providers;*
    b. *not just approaching and assisting those developers who could not afford to pay for the entire network (including backhaul, fibre and active network equipment), but approaching and soliciting those developers who can pay for the it;*
    c. *not charging Greenfield developers the same capital cost as the existing commercial market FTTP network providers were charging those developers;*
    d. *not providing equal funding to those existing commercial market FTTP network providers to enable them to provide FTTP network and give the same return to NBN Co (as it may give the Commonwealth) on the same, so called "commercial basis" of 7% RIO if and when those networks are sold or dealt with by the providers.*

2. *NBN Co is shifting the burden of funding capital cost of designing and constructing FTTP networks in Greenfields from developers to residents, after NBN Co holds those costs for long periods. Developers had not previously required that incentive and the other FTTP providers did not offer that incentive and cannot afford to do so. Certainly this means that NBN Co is not operating on a commercial basis in the existing market.*

[25] Commonwealth Government Competitive Neutrality Policy Statement June 1996.

3. *The fact admitted by the Department of Broadband Communications and Digital Economy (**DBCDE**) that only through the equity funded by the Commonwealth that NBN Co can provide that incentive for all developers.*

4. *DBCDE and NBN Co failed to recognise and embrace the concept of "**Provider of Last Resort**" in the explanatory Memorandum to the Telecommunications Legislation Amendment (Fibre Deployment) Act 2011 ("**Fibre Deployment Act"**) in defining the role of NBN Co in greenfields such that NBN Co could become "provider of first resort". Rather than "provider of last resort", NBN Co was giving incentives to all developers in Greenfields that is so compelling, but not otherwise commercial, for NBN Co to pay for the FTTP network (if the developer pays for trenching, pits and pipes). No other infrastructure in Greenfields, such a power, water, gas or roads enjoys the subsidy of taxpayer funded incentives provided by a government business. That is because there is no commercial basis to provide an incentive, particularly when the price of the developed product (ie house and land, apartments, land or lots only) can incorporate the cost and does not require that level of subsidy for the infrastructure. However, since it is NBN policy to provide a subsidy the issue is whether because of the government ownership of NBN Co and the level of equity funding, is the provision of the incentive by NBN Co a breach of CN. GFOA say it is a breach of CN because it is NBN Co that determines how to use the funded equity and how to interpret the mandate to be "provider of last resort" so as to make it irresistible for developers to ask NBN Co to provide the infrastructure and network services.*

5. *The Fibre Deployment Act allowed NBN Co to exercise its discretion and maintain the charade of being the "last resort provider", but the question remains, will this also get around CN. NBN Co's only obligation in this role is to decide which new developments it does not want to fibre and to tell the developers, government and Telstra that the development is outside their "long term fibre foot-print", wherever that might be, but certainly a boundary unknown to other network providers. This arises because the government has further eroded the effect of CN in its NBN policy, which states:*

> ***"All new developments will be assumed to be in NBN Co's long-term fibre footprint. However, NBN Co will promptly notify the government, developers and Telstra (as Universal Service Obligation provider outside the footprint) of new developments that are outside of the long-term fibre footprint."[26]***

6. *This does not allow competitors to know of those developments that are outside the NBN Co long term foot fibre footprint until NBN Co has rejected the development. It effectively preserves for NBN Co the right of first refusal to fibre every new development by not foreshadowing which developments could even be potentially targeted by the other FTTP network providers until NBN Co makes its determination.*

7. *It is absolute nonsense for NBN Co to not specifically identify exactly where is its so called "long term fibre footprint" and to hide behind the June 2011 policy of Government that says NBN Co is to simply assume all new developments are within its area until NBN Co decide otherwise, when the NBN and Business Plan of NBN Co both state that not all areas of Australia will*

[26] Page 2 of Fibre in New Developments – Policy Update 22 June 2011 by DBCDE

*be connected by fibre to the new national network. The information on the website of NBN Co that some areas will be connected by wireless or satellite[27], contradicts the statement that "**All new developments will be assumed to be in NBN Co's long-term fibre footprint.**" This prima facie misrepresentation by NBN Co maintains the anti-competitiveness of its enterprise and breach CN by ensuring that NBN Co is the provider of first and only resort for developers who are only aware that the long term fibre footprint covers their development unless NBN Co says otherwise and only then would those developers have reason to consider the alternative fibre network providers.*

8. *In addition, the fact that NBN Co only notifies "government, developers and Telstra" of that determination further prejudices the other FTTP network providers such as the GFOA. How can other providers know which Greenfield developers are likely to even consider their offer of FTTP deployment and networks services, when there is no known area or certainty about the long term fibre footprint of NBN Co.*

9. *The response of DBCDE to the complaints against NBN Co's breaches of CN policy commences with an overview of considerations justifying the NBN and the establishment of NBN Co which is in accordance with the NBN Co Corporate Plan 2011 -13 and the Statement of Expectations by the Government Ministers. It recites that "NBN addresses concerns about the lack of effective competition in the provision of retail broadband services, particularly as a result of Telstra's control of the copper customer access network and its vertical integration."[28] This response to our complaint about a breach of CN in relation to the conduct of NBN Co in the Greenfield market under the heading of "Policy Context" completely ignores that it is not a complaint about the NBN or NBN Co generally, but specifically about the conduct of NBN Co in the Greenfield market where there was strong, existing competition by commercial operators. Those operators in the Greenfield market included Telstra Velocity, Comverge, OPENetworks, Service Elements, TransACT, Pivit, BES, Opticomm and others. Both OPENetworks and Opticomm were and are precisely what the DBCDE described as the model for NBN, "a wholesale only, open access, non-discriminatory service provider, operating at a low level in the Open System Interconnection (OSI) model". Some of the others were simply not "wholesale only" because retail service providers were still assessing the FTTP market and developing products for it. However, the fact is, there was and still is competition in the Greenfield market between those providers, but the new entrant, NBN Co with funding from Government shareholders has been able to do what even Telstra Velocity was unable to do, namely fund the capital cost of building the FTTP networks in Greenfields. It is that conduct by NBN Co that is killing competition and making NBN Co the provider of first resort for new developments, in breach of CN.*

10. *The response of DBCDE to the CN complaints recognised other pillars of GFOA complaint[29] that:*
"NBN Co is competing unfairly because the company is not operating on a commercial basis, has access to capital at below the market rate from government and is not required to make a commercial return on investment". DBCDE then asserts that government established and expects NBN Co to operate as a commercial entity. Just because the government wishes it so

[27] See http://www.nbnco.com.au/our-network/index.html
[28] Page 2 of DBCDE Response 9 September 2011
[29] Page 3 of DBCDE Response 9 September 2011

and puts out a Statement of Expectation about NBN Co, does not make it so. There is no obligation or legislation forcing NBN Co to breach CN and interpret the vision of being "provider of last resort", as a mandate to become a monopoly or provider of first resort through the funding of the FTTP networks in all developments (other than those allegedly outside its long term fibre footprint).

*In fact, one would have thought that the better solution would be to fund the other providers in Greenfields to build the FTTP network required to satisfy the NBN. However, NBN Co threw out that idea when it abandoned the Greenfield tender under which it had invited the other experienced provider/carriers (such as OPENetworks) and, in May 2011, selected contractors, Fujitsu Australia Limited ("**Fujitsu**") with Service Stream Limited to undertake a $100m turnkey construction project for NBN Co in Greenfields. DBCDE does not address those issues in its response. NBN Co denies that it has done any wrong in that abandonment of the tender. However, neither DBCDE nor NBN Co explain why, after announcing that NBN Co would invite experienced providers in the Greenfield market to tender for the panel to build, operate and maintain the networks for NBN Co, that process was abandoned and why those other providers were left to wither in wake of NBN Co's free network offer to all new developments. DBCDE does not explain the subtle, but essential difference between conduct in compliance with CN and the conduct of NBN Co which breaches CN because it is in line with statements of the CEO, Mr Quigley when he announced[30]:*

> *"[NBN Co] will actively pursue deals with housing developers to deploy fibre in Greenfields estates from next year - not just deploy fibre in estates where the private sector is unwilling to invest. That will please developers, who will now have another option to meet the Federal Government's fibre mandate, due to take effect in the same timeframe. We have an obligation to provide a wholesale service in new estates if there's no one else who is willing to do that job. **Now, even if people do put their hands up and want to do it, we may [still] be going in and doing that [offering our services]. It's not a question of [NBN Co] only going into those places where [developers] say 'I can find no one else' [to deploy fibre].** We'll be actively going out promoting the national broadband network in Greenfield estates."*

Despite the obvious conflict between what the Minister had said was the role of NBN Co and what Mr Quigley says, NBN Co was never restrained to be a last resort provider, and it considered it entirely proper to promote NBN Co networks in Greenfield as fully funded deployments, even if other providers would provide networks and services, but they were unwilling or unable to invest the capital in the network deployments, because they had no government backing and to do without that funding was not commercially viable. In that sense NBN Co does more than offer developers a service. It offers to remove the burden of payment from the developer and by virtue of public funding of equity without commercial interest or dividend obligations that would beset the other providers the promotion to developers has been an outstanding success. Since it commenced in Greenfields registrations of new developments with NBN Co has resulted in almost all of the 150,000 new connections each year being with NBN Co. The FTTP commercial greenfield

[30] Reported by ITNews in June 2010 at http://www.itnews.com.au/News/218218,analysis-telstra-velocity-faces-uncertain-future.aspx.

market place has therefore collapsed and there are very few (if any) developers interested in contracting with other providers.

11. *The statement by DBCDE that "NBN Co's Corporate Plan provides for a rate of return of 7.04 per cent, and states that no specific rate of return has been stipulated by the shareholders for NBN Co"[31] demonstrates the naivety of the DBCDE in addressing the complaint that the operations of NBN Co are not on a commercial basis. Importantly, the Chairman of NBBN Co, Harrison Young has publicly announced that the responsible Ministers that hold all of the shares in NBN Co have not giving the Board of NBN Co any direction to make any return whatsoever in the Ministers Statement of Expectations. What other commercial organisation would or can operate without either the shareholders or financiers having specific expectations and obligations imposed to ensure predictable returns in the context of the commercial nature of each venture. Certainly all commercial organisations and publicly listed companies have forecast returns or yield rates on shares, fixed or formulae driven interest rates on debt funding and internal rates of return for management targets and shareholder or investor information. The ridiculously uncommercial nature of NBN Co is highlighted by the widely published date when the so-called "commercial return" is to be realised by government. Supposedly whenever the NBN Co rollout is finished or if NBN Co is sold, the government expects to get repayment of the government's investment.[32] Obviously, NBN Co does not need to repay the investment by government or provide a specific commercial ROI because that date may not eventuate. NBN Co is simply not a commercial business, albeit a substantial business of government.*

12. *The reliance of DBCDE on the Corporate Plan of NBN Co that predicts "taxpayers will get the investment back, with interest [at] a rate of return higher than the government bond rate" ignores the concern expressed by most commentators and ourselves. This is simply not a commercial arrangement because the rollout may never be completed, government may decide not to sell its interest in NBN Co or because the government's assurance to realise on the investment is entirely contingent on other events outside the control of NBN Co. The fact remains that expectations of returns from NBN Co are not a reality for the government and are illusory in a commercial sense, because it is not mandatory for NBN Co to achieve a return or pay dividends. The arrangements governing the return on investment in NBN Co are not determined by commercial terms or facilities (such as annual dividends on shares, repayment obligations in loans, finance or other equity backed facilities and securities). There are no consequences for the directors that equate to consequences for commercial boards, such as insolvency or other statutory sanctions if the assurances of government are not realised. If government has expectations of NBN Co, those expectations cannot be put as high as those of "commercial arrangements" expected by shareholders of public or private companies that are not owned and funded by government.*

13. *There is nothing intrinsically wrong with "government funding NBN Co even until it has sufficient cash flow to support private sector debt without explicit government support"[33], but the government expectation of a return on that*

[31] Paragraph 6 of Page 3 of the DBCDE Response dated 9 September 2011
[32] Paragraph 4 of Page 4 of the DBCDE Response dated 9 September 2011
[33] Paragraph 8 of Page 3 of the DBCDE Response dated 9 September 2011

equity neither follows as a matter of commercial reality nor does it explain a breach of CN by NBN Co in applying its wealth of government funding to undermine the other commercial providers in the Greenfield market by offering a free to developer network that shifts the repayment of capital to the resident users who come to occupy the homes serviced by the FTTP network some time, even many years after the developer has sold the last lot in the development. If this were a commercial offering, why did Telstra Velocity not make the same offer to get new developments? We contend that it was because Telstra has now done a separate deal with NBN Co that obliges Telstra to largely exit the FTTP greenfield market and even before that deal happened, it was simply not a commercial arrangement in the market.

14. *DBCDE says*[34]*:*

"NBN Co will install fibre in new developments at no charge to developers, consistent with government policy direction, and recover the cost from operations. This is a fairly common model for paying for large infrastructure installations, and is similar to the method used for its copper network."

This statement by DBCDE is misleading in that:

- *The government and in particular, the Minister gave the commitment that NBN Co would fund networks in new developments as "provider of last resort" and until now the DBCDE has not articulated that this means provider to any and every development that NBN Co wants, if and only if the developer does not want to pay more than trenching, pits and pipes; and*
- *Whilst the model of funding capital works out of operational revenue is common for some infrastructure projects (like ports, tunnels and bridges) that was not so for FTTP networks in Greenfield developments, because the developers were used to paying for FTTP network infrastructure (just as they had for roads, power, gas, water and other utilities).*
- *NBN Co started offering developers to fund the FTTP networks in 2011 because developers argued that it was inequitable for new developments to have to fund the networks and brownfields to get networks without charge. However, that did not mean that developers wanted to eliminate the existing other providers. They wanted government to fund the FTTP network build costs and would happily use existing providers if funding was available from government or NBN Co for those existing providers to do so.*
- *Telstra Velocity (which was a FTTP network provider for new developments) did not adopt that model;*
- *Telstra copper line services were discontinued before NBN Co entered the FTTP market; and*
- *Telstra received funding for connections of standard lines (whether copper or fibre) and some payphone under the USO and that has from time to time equated to almost $1,000 per connection.*

[34] Paragraph 3 of Page 5 of the DBCDE Response dated 9 September 2011

15. *In the final justification for the advent of a role for NBN Co in new developments (Greenfields) the DBCDE does not reasonably explain the conduct of NBN Co offering to fund FTTP networks in all developments. DBCDE says[35] that "from the time it announced the NBN in April 2009, the government consistently left open the question of what role NBN Co would play in new developments" and that "government has not suggested NBN Co would be excluded from new developments or be limited to the role of last resort."*

    Firstly, this statement is untrue. Until June 2010 the government had consistently maintained that NBN Co was not involved in Greenfields and that developers had to pay for the network infrastructure. In June 2010 the Minister for DBCDE back-flipped that policy and offered to fund the network infrastructure provided under the NBN in new developments. However, until December 2010 (when the Minister announced the last provider role of NBN Co in new developments), government was happy to let NBN Co do as it wanted in new developments and after that date, by silence from Government, NBN Co was at liberty to continue as it pleased, but had to do something in Greenfields if no other provider would provide an FTTP network (and if the developer paid for trenching, pits and pipes).

    The claim by DBCDE that NBN Co gave certainty for developers that someone would provide telecommunications services in new developments simply ignores the existing competitive market of commercial providers, the alternative funding option of using the USO Fund for new FTTP networks built by providers (including Telstra) and the role of Telstra historically.

16. *The government position on the matter was put in December 2010[36] as follows:*

    *"There is strong stakeholder support for NBN Co-operating as the wholesale provider of last resort in new developments **and** meeting the cost of providing fibre. The Government's policy reflects this. This approach will also support a consistent national approach into the future. If alternative providers want to compete with NBN Co they are welcome to do so, but it is on the understanding that they have the resources and ability to do so."*

    Nothing in this statement directs NBN Co to ignore CN nor does it suggest that the "last resort provider" would or should aggressively compete (using the effectively interest free, equity of government shareholders) with the existing other providers to eliminate those providers as they did not have the financial resources to defer capital network construction costs until operational revenues are achieved in sufficient sums to repay the capital. It seems that the Minister knew full well by his reference to the resources and ability of the other providers that NBN Co's financing of the capital build costs would make competition with NBN Co difficult, if not impossible. Certainly GFOA told the Minister and NBN Co of that situation in July 2010 and asked that they give GFOA some latitude to survive as competitors, but that was to no avail.

17. *Both DBCDE and NBN Co now interpret the "provider of last resort" role for NBN Co to simply mean that "NBN Co must respond to a request for infrastructure and wholesale services where the developer meets its terms and*

[35] Paragraph 7 of Page 5 of the DBCDE Response dated 9 September 2011
[36] Minister Conroy in a Statement about NBN Co on 9 December 2011, at page 5

conditions of supply"[37], but that does not justify the breach of CN by NBN Co in entering the new development or Greenfield market without regard for commercial arrangements and offering free FTTP networks to developers, deferring the repayment of capital for many years until operational revenues are sufficient and that only by virtue of government equity could any provider do so. Indeed no other FTTP network provider had done so in the past.

18. *There is even more concern that NBN Co might unleash further breaches of CN in new developments because of the sought of DBCDE statement that permits and encourages NBN Co to do as it likes. DBCDE says, "given that it needs to operate on a commercial basis, it follows that NBN Co may provide services more generally".[38] Surely by now the DBCDE should insist on compliance with CN Guidelines for Managers as published[39] to significant government businesses (like NBN Co) operating in commercial markets. Indeed, there has not been any documented direction to NBN Co from its government shareholders to require, much less insist on compliance with CN policy or to make any Competitive Neutrality Payments[40] to the other providers affected by the NBN Co breach of CN.*

19. *The concession by DBCDE that "government has consistently indicated that it considers there should be room for competing providers[41]", is a shameful, cynical, meaningless platitude that is designed to say something politically correct whilst achieving the opposite result. It is the government's endorsement of the NBN policy, which requires a monopoly provider to prevail if the NBN is to succeed, that has encouraged the CN breaches by NBN Co. Of course, if a monopoly eventuates for NBN Co then that would become "collateral damage", suffered for the good of the nation. This cynical government statement about competition from other providers may be at the core of the breaches of CN (because NBN Co is unbridled by design or because one of its shareholders is also responsible for CN and she lacks vigilance on CN matters), but at a time of global economic peril when the Australian government demands productivity and competitiveness for industry, one would think that CN would do more than figure in their bleating and be central to all decisions. This does not appear to be the case for the DBCDE or the government in this matter.*

20. *The DBCDE response identifies, but does not address the issue of NBN Co's access to capital being other than on a commercial basis, because the capital markets will not fund NBN Co until the national networks are substantially complete, NBN Co has cash flow to repay investment and a monopoly status is achieved. The DBCDE knows that this lack of commercial participation undermines the argument about NBN Co funding being on commercial terms and is a further weakness in its attempt to show there are*

[37] Paragraph 6 of Page 5 of the DBCDE Response dated 9 September 2011 (endorsed by NBN Co)
[38] DBCDE statement in Paragraph 2 of Page 6 of the DBCDE Response dated 9 September 2011
[39] *Australian Government Competitive Neutrality Guidelines for Managers 2004 No (9),* publisher by The Treasury, Department of Finance and Administration.
[40] Section 6 Competitive Neutrality Payments, page 45, *Australian Government Competitive Neutrality Guidelines for Managers 2004 No (9),* publisher by The Treasury, Department of Finance and Administration
[41] Paragraph 4 of Page 6 of the DBCDE Response dated 9 September 2011

no breaches of CN, but there can be no argument on the point, because it is self-evident from the statement of DBCDE:

> *That NBN Co can do this [install fibre at no charge to developers] reflects its equity funding by the Commonwealth on a national basis and over an extended time horizon.* [42]

Even DBCDE knows that no other commercial provider could make such offers to developers because those offers could only be made if the Commonwealth backed the provider with funding and hence the test for a breach CN policy, that the benefit enjoyed by NBN Co can only be undertake because of government ownership, has been satisfied.

21. *There is no complaint that NBN Co should refrain from attending developer industry events and forums, but it is our complaint and a breach of CN for NBN Co to do so if NBN Co advises developers that they <u>must</u> register for infrastructure and wholesale services by NBN Co or (if less than 100 lots) by Telstra. That was the precisely the scenario about which we have complained because NBN Co senior representatives at the Urban Development Institute of Australia Forum have told developers that after 1 January 2011 they must register their developments with NBN Co. The power point presentation and notes of the NBN Co presentation have not been distributed to us but our representative witnessed the NBN Co presentation and taped the proceedings and can attest to the matter.*

22. *Complaints about regulatory advantages that favour the NBN Co are generally recited by DBCDE[43]. However, DBCDE fails to say why there is not a breach of CN if NBN Co does not want to deploy an FTTP network to some development, and then provides an NBN Co Statement about that matter only to the developer, government and Telstra. The effect is to omit giving that Statement to other providers who might be able and willing to provide a network and wholesale service and that omission further damages the market for other providers. The other providers must therefore somehow try to discover what is obvious to the developer, NBN Co, Telstra and government. Industry providers must waste resources waiting for NBN Co to discard developments instead of knowing what is not in the long term fibre footprint of NBN Co (a matter that NBN Co could unveil now). NBN Co nevertheless is allowed by its government shareholders to avoid giving industry and other providers definitive information about where is its long term fibre footprint, because government and NBN Co may not want the scope of that commitment to be assessable or properly costed by anyone, especially the Productivity Commission or the opposition Members of Parliament. By virtue of this uncertainty, albeit permitted by government and the absence of obligation, NBN Co does not notify other providers of either its fibre footprint or of discarded developments. Hence, NBN Co is in breach of CN and by its government ownership has a further advantage over the other providers.*

[42] Paragraph 4 of Page 5 of the DBCDE Response dated 9 September 2011
[43] Paragraph 2 of Page 7 of the DBCDE Response dated 9 September 2011

23. *There are concerns that NBN Co specifications (which the DBCDE says have been provided to the Communications Alliance with a view to having these NBN Co specifications endorsed for general use by industry) threaten competition because the Minister has reserved powers under the Telecommunications Legislation Amendment (Fibre Deployment) Act 2011 to make those specifications compulsory standards for all developments. This is a significant benefit from government ownership of NBN Co. If NBN Co standards are either endorsed by the ACMA because NBN Co will not accept the Comms Alliance specifications or because Ministerial Determination makes NBN Co specifications compulsory, then NBN Co will have undermined competition in the market, without reasonable cause and thereby breach CN. Design standards and specifications of NBN Co are only suited to the NBN Co networks. The NBN Co specifications are not based on the functional requirements for all developments and FTTP networks. Design specifications that require supply of higher, additional or different services to that of NBN Co (basic voice and internet) should only require uniform basic measures of compliance not mandatory "one size fits all" specifications. The cost of compliance with unnecessary or inappropriate design specifications of NBN Co will make alternative FTTP networks much more expensive and those costs would be dissuasive for developers that might prefer to pay for the alternative FTTP networks of the other providers.*

24. *DBCDE knows that since the inception of a standards team at Communications Alliance, Comverge has been a member of that team working on industry standards and specifications for FTTP network interoperability and the design specifications and standards for FTTP pit and pipe networks in new developments. The suggestion of DBCDE for commercial operators to ask the Communications Alliance or ACMA to address our concerns is disingenuous and political double speak because DBCDE understands that this issue can ultimately be controlled by the Minister determining that NBN Co standards and specifications will apply, when there is no need for NBN Co standards and specifications to prevail in those matters. Yet by virtue of the government ownership, NBN Co has the scope and indeed has now proclaimed to industry that their standards are what will apply, even before the Communications Alliance standards and specifications can be ratified by the ACMA.*

25. *Neither DBCDE nor NBN Co says that NBN Co is not subject to CN.*

    NBN Co has asked AGCNCO whether CN applies to it in new developments. We urge that the answer is clearly in the affirmative. We have outlined in our earlier detailed submission why NBN Co is subject to CN.

    NBN Co are charging for services, in a market that has many existing private competitors (including ourselves), and the managers of NBN Co have a degree of independence in relation to the production or supply of the good or service and the price at which it is provided to developers. Indeed, NBN Co has complete scope to exclude any or all developments from their long term fibre footprint. It is trite and cynical to try to explain why CN does not apply to NBN Co on the basis that NBN Co, as "provider of last resort", will provide fibre where developers do not wish to use another provider,[44] because CN is not about whether developers may wish to use another provider and decline an NBN Co offer of a free network in their development.

[44] Paragraph 3 of Page 2 of the NBN Co Response dated 14 September 2011

> *It is whether by virtue of the government ownership, NBN Co enjoys a net competitive advantage over competitor providers.*
>
> *There can be no clearer example of when CN should apply than to NBN Co and its plan to monopolise the Greenfield market in which there are direct commercial operators who are existing competitors.*

26. *If the AGCNCO is not prepared to act in relation to the breaches of CN by NBN Co, then when will CN be relevant in Australia and in what circumstances will CN be observed by significant government businesses such as NNB Co.*

*The AGCNCO, Productivity Commission said in its Report[45] to the then Assistant Treasurer, The Hon Mr Bill Shorten MP that NBN Co would potentially breach the Government's Competitive Neutrality (**CN**) Policy if it were to achieve the 7% rate of return targeted by NBN Co and because the expected timeframe to achieve that commercial rate of return was not commercial.*

In concluding that NBN Co's breaches of CN policy were merely potential or prospective and not actual, the AGCNCO finding was based upon submissions of DBCDE adopted by NBN Co, that the initial NBN Co Business Case had assumed, namely, that there was to be a 7% return to the government shareholders from its investment in NBN Co. This assumption about there being 7% or indeed any rate of return target for NBN Co has subsequently been publically denied by NBN Co Chairman, Harrison Young as not being a directive or target set by NBN Co's government shareholders in their Statement of Expectations to NBN Co. For what appears to be political reasons the government ignored the findings of AGCNCO and the complaints generally about NBN Co breaching the CN policy and the denial by NBN Co that it has to make 7% or indeed any return on the government's investment.

I conclude from the above that the Productivity Commission found that NBN Co is in breach of the Competitive Neutrality Policy (**CN**) of Australia in an established competitive Greenfields (FTTP network) market place. Furthermore common sense leads me to believe that NBN Co is actively involved in anti-competitive behaviour in this market place.

[45] Report by AGCNCO (Productivity Commission) dated 24 November 2011

6. QUESTION 5: WHAT BENEFITS WOULD BE DELIVERED TO THE PEOPLE OF AUSTRALIA AND RESIDENTS OF GREENFIELD ESTATES IF THE REGULATORY AND POLICY ENVIRONMENT RELATING TO GREENFIELD DEVELOPMENTS WAS CHANGED AND WHAT IS THE NATURE OF THOSE CHANGES WHICH WILL DRIVE THESE BENEFITS?

6.1. Cost of the current regulatory environment

In section 4.3, I estimated that between now and 2020 which is the anticipated completion of the NBN Co FTTP rollout there would be approximately **1.4 million** new premises established through greenfield developments in Australia.

In section 5.1.1, I concluded that in a competitive environment today it would cost an efficient greenfield operator approximately **$1,500** per premises to build a performance compliant FTTP network.

In section 5.1.2, I found that NBN Co's estimated cost to build a FTTP network in a greenfield development was **$3,106** per premises.

The logical application of these findings means that the continued use of NBN Co for the provision of broadband services will add about $1,606 to the cost of each premise. Therefore I conclude that the continuation of the current Government policy in relation to the provision of FTTP in greenfield developments will cost the Australian Community approximately **$2.3 billion** more than what it should or could over the next 7 years.

6.2. Benefits to residents of greenfield developments

It is a well-known fact that market competition drives lower prices and encourages service competition and innovation This can be seen from the range of innovative services that were emerging in greenfield developments prior to January 2011. This effectively ceased when NBN Co commenced the provision of broadband services in these areas.

A change in Government policy to reintroduce competition in greenfield developments will bring lower price broadband and service innovation back into the greenfield market place. I expect that residents of greenfield developments will in the future benefit from FTTP networks which provide many additional features/services such as community video, Free to Air TV, security/water/sewage/other utility management systems, Pay TV and Cloud Computing capacity and capability.

6.3. The nature of the change to deliver benefits.

It is apparent from the above analysis that the current regulatory arrangements are driving up the cost of the provision of FTTP Networks in greenfield developments, they are limiting the range of innovative services that can be provided to greenfield residents and are creating a distortion of the user pays principal in so far as the provision of utility services to new greenfield premises are concerned.

Furthermore there is evidence that NBN Co is running well behind in its program to roll out broadband services to Australian premises and does not have the resources to meet its commitments to Brownfield premises let alone greenfield premises.

Furthermore members of GFOA maintain that they have been commercially disadvantaged because the Government has failed to adhere to its Competitive Neutrality policy **(CN)**.

All of the above problems can be resolved simply and rapidly through a change in government policy to reintroduce competition in the provision of broadband services in greenfield developments and make the developer responsible for meeting the cost of the FTTP network in these development.

This initiative will:

1. Introduce competition which will drive the cost of providing FTTP down in greenfield developments. This will lower the overall cost to the Australian community for the provision of broadband in these developments and encourage service innovation and quality.
2. Allow GFOA members and other suitably qualified competing greenfield operators to roll out the FTTP and build broadband layer 2 open access network businesses within the greenfield developments so that they can compete with NBN Co in these areas.
3. Reinstate the user pays principal in respect to the FTTP networks within the greenfield development. That will mean that the developer will pay for all new connections and the end user residents will pay for active services to their new premises once they buy and build homes in the greenfield estates.
4. Create an environment where new and innovative services may be provided by competing greenfield operators to enhance the environment for occupants in the greenfield developments.
5. Help NBN Co which is struggling to meet its current commitment to rollout broadband services across Australia. Competition within the greenfield areas will encourage new operators in these areas thereby reducing the pressure on NBN Co.

I am of the opinion that the current legislation and carrier licencing regulations are adequate to guarantee the quality and performance of the FTTP networks in greenfield developments. All that is required is for the Government to introduce a policy to require NBN Co to only be the FTTP or other network provider and operator of "last resort" and for the Minister of Telecommunications to make a Determination that sets the minimum standards for pit and pipe construction needed for FTTP networks to be that of Communications Alliance, not NBN Co standards. Furthermore when NBN Co is chosen by a developer to provide a FTTP or other network it should be provided on normal commercial basis. This means that the provision of FTTP is not free to the developer.

7. QUESTION 6: IF THERE IS A CHANGE IN POLICY WHICH RESULTS IN NBN CO EXITING THE PROVISION OF BROADBAND SERVICES TO GREENFIELD DEVELOPMENTS HOW WOULD FUTURE BROADBAND SERVICES BE PROVIDED AND WHAT IS THE CAPACITY OF PRIVATE OPERATORS TO TAKE OVER THIS ROLE?

7.1. Potential impact on NBN Co.

The change in policy as proposed in section 6.3 will introduce competition in the provision of FTTP networks to the greenfield areas and shift the cost burden to the developer and potentially the end user residents that purchase the land in the greenfield estates.

Given that NBN Co has geared up to roll out FTTP networks in the complex Brownfield areas its overheads and operating costs and considerably larger than those of the smaller focused greenfield operators. As such NBN Co should be directed by the government shareholders to build FTTP networks in greenfield developments only where no other open access wholesale only operator is willing and able to do so and therefor becoming the true operator and provider of last resort for FTTP networks in greenfields.

7.2. Provision of future greenfield FTTP networks

This matter is touched on in section 6.3 and further developed here. The first step is to undertake appropriate changes to government policy and any related legislation to introduce FTTP competition in greenfield developments. This may need to be accompanied by regulatory changes to assist licence greenfield operators and ensure that they comply with relevant standards relating to the quality, construction and operational performance of FTTP networks and provision of related services.

The cost of provision of the FTTP network should be borne by the developer in the first instance.

7.3. The capacity of private operators to provide greenfield networks.

Prior to January 2011 many of the FTTP networks in major developments were rolled out by Private operators and whilst the number of premises cabled up each year may have been less than what will be required in the future there is certainly examples where significant FTTP networks were constructed by existing operators.

I have been advised by a number of members of the GFOA that given a change in Government policy which will provide certainty around a viable business model they will invest in staff, training and infrastructure as may be required to deliver sufficient FTTP connections in greenfield developments to meet the forecast demand.

I therefore think that it is important that the regulatory arrangements associated with a change in policy be carefully designed so that sufficient licences are issued to operators to ensure that greenfield demand can be met and that the licence obligations don't impose a level of constraint that renders the greenfield operators business model unattractive.

8. Question 7: If NBN Co was to exit the provision of broadband services to greenfield developments, what could be done to encourage and assist private operators to undertake broadband deployment in greenfield sites in Australian?

8.1. Private operator assistance and support.

As indicated previously the major impediment to private operators who want to build businesses around the construction and operation of FTTP networks in greenfield developments is the current government policy and anti-competitive conduct of NBN Co in greenfields which effectively eliminates private operators from these areas.

The change in Government policy and legislation as discussed above is essential to reintroduce healthy competition in these areas.

I understand that many greenfield operators are prepared to invest in their business provided they can develop a viable business model. The viability of their business model will be influenced by:

1. certainty around the future requirement for developers to incorporate FTTP in new developments;
2. continued government policy support;
3. future demand. As estimated in section 4.1the market of about 1.4 million greenfield premises over the next 7 years suggests that the demand should be strong; and
4. the number of licenced operators who will be competing for the provision of FTTP networks in greenfield developments. The Government may use this lever to encourage investment made by greenfield operators in their business and maintain a health competitive environment in these areas.

The final area that may require some consideration relates to backhaul. I understand that backhaul can represent a significant cost to some FTTP networks especially if they are small in size and a long way from a suitable POI.
Unbundling of backhaul will allow sharing of cost which will in many instances improve the viability of FTTP networks.

In particular NBN Co may have brownfield or greenfield FTTP networks in the vicinity of another greenfield development and hence the unbundling of NBN Co back haul between Points of Interconnection (POIs) and Fibre Access Nodes (FANs) is common sense since it will share investment and deliver lower cost services to not only greenfield developments but also NBN Co.

9. Summary and Conclusions

9.1. Impact of Government policy change on greenfield FTTP networks

In the period immediately prior January 2011 there were a number of greenfield operators building and operating FTTP networks in new property developments.

By the end of 2010 there were about 11,000 premises connected to fibre in new developments in Australia which were under management by greenfield operators.

In 2011 the "*Telecommunications Legislation Amendment (Fibre Deployment) Act 2011*" was passed which effectively made NBN Co the wholesale provider of last resort and first resort in new developments. This meant that as of the 1st January 2011 developers could either engage NBN Co or a greenfield operator for the provision of the FTTP network. The primary difference between these two options is that NBN Co will roll out the network at no cost to the development (as that cost would ultimately be picked up by the taxpayer) compared with where a greenfield operator is engaged . In cases where a greenfield operator other than NBN Co is engaged by a developer, the operator will normally charge the developer who in turn may pass that cost onto the greenfield customers through the sale of the developed land. The net effect of these changes was that the developers ceased using private greenfield operators for FTTP networks in new developments after early 2011.

9.2. Dimensions of the greenfield market

In order to form a view about the potential size and nature of the greenfield market I have analysed data from a number of sources. As a result I have compiled the table below which provides a reasonable estimate of the dimensions of the greenfield market up to 2020, the current NBN Co rollout completion date.

Premises Type	2014	2015	2016	2017	2018	2019	2020
Commercial/industrial (22% of the Greenfield market	41,800	42,636	43,489	44,358	45,246	46,151	47,074
Residentila (78% of Greenfield Market	148,200	151,164	154,187	157,271	160,416	163,625	166,897
MDU's (21% of Residential Greenfield market	31,122	31,744	32,379	33,027	33,687	34,361	35,048
SDU's or Broadacre (79% of Residential Greenfield market	117,078	119,420	121,808	124,244	126,729	129,264	131,849
Total Estimated Greenfield market opportunities per annum	190,000	193,800	197,676	201,630	205,662	209,775	213,971
Total Estimated Greenfield market opportunities from 2014 to 2020							1,412,514

Source: GQI consulting analysis based on data from several sources.

9.3. Commercial implications

In forming a view on the cost per premise for FTTP in a competitive environment I have relied on the explanatory memorandum for the fibre deployment bill 2010, which provides an estimated cost per premises prior to January 2011 of between $3,500 and $1500.

I have also undertaken discussions with a number of greenfield operators who have practical experience with the competitive tendering and deployment of FTTP networks. The greenfield operators explained that several years ago a per premise cost of $2,500 may have been reasonable however through competition and improved efficiencies the cost today for the deployment of FTTP would be in the range $1,000 - $1,500. Based on this I have concluded that a conservative cost for the provision of a FTTP network today in a competitive environment would be about **$1,500** per premises.

NBN Co has calculated the average cost per premises for it to roll out a FTTP network in a greenfield development so that it can set liability limits between its self and the developer. Based on the analysis of several NBN Co “Developer Agreements” I find that in every case the average cost per premises is **$3106**.

I interpret this to be the cost which NBN Co has calculated on a sound basis as the average cost per premises for it to roll out a FTTP in greenfield developments.

Based on the above analysis I conclude that the continued use of NBN Co for the provision of broadband services will add about **$1,606** to the cost of each premise but paid for by NBN Co (taxpayer).

Given my estimate of approximately 1.4 million new greenfield premises over The next 7 years I conclude that the continuation of the current Government policy in relation to the provision of FTTP in greenfield developments will cost the Australian Community approximately **$2.3 billion** more than what it would otherwise cost if greenfield developments were subject to competitive provision of FTTP networks.

9.4. Other concerns with the current policy

In addition to the substantial cost burden as indicated above I am also concerned that if the current greenfield FTTP policy is not changed it will have a range of adverse impacts on both customers of greenfield developments and the broader Australian population. These concerns are summarised below:

9.4.1. Benefits to residents of greenfield developments

The pre January 2011 environment fostered competition amongst the greenfield operators which not only drove the prices down but resulted in the development of a range of innovative services. These services are not provided by NBN Co as part of its offering. A change in Government policy to reintroduce competition in greenfield developments will bring this price competition and service innovation back into the market place and I expect that residents of greenfield developments will in the future benefit from FTTP networks which provide many additional features/services such as community Wifi, Free to Air TV, traffic/security/water/sewage/other utility management systems, Pay TV and Cloud Computing capacity and capability.

9.4.2. Policy is inconsistent with other utility services policies

Given the fact that if a developer engages NBN Co to provide the FTTP network the capital cost will be paid for by NBN Co and become part of the NBN rollout cost. This concept is inconsistent with the customer pays principal which applies to all other community infrastructure services including electricity, water, sewerage, and roads etc.

Whilst customers of greenfield developments may appreciate the fact that the cost of their new premises is marginally less because of the market distortion created by the Government policy, the vast majority of other Australians may see the policy as discriminatory because they are not only contributing through tax toward their own NBN connection but are also contributing to the cost of greenfield customers NBN connections.

9.4.3. The government has not complied with its competitive neutrality policy

As a result of the change in Government policy in 2011 most greenfield operators suffered a severe business disruption because NBN Co effectively took over the role of FTTP provider in most greenfield developments. In my opinion this is a breach of the Australian Government Competitive Neutrality Policy because NBN Co, a Government owned business, used its fiscal power to gain an unfair advantage in the provision of FTTP networks in greenfield areas on non-commercial terms.

9.5. Recommended solution

In my opinion all of the above problems can be resolved simply and rapidly through a change in Government policy to reintroduce competition in the provision of broadband services in greenfield developments. This should also make the developer responsible for meeting the cost of the FTTP network in their development.

This initiative will:

- Re-introduce competition which will drive down the cost of providing FTTP networks in greenfield developments.
- Allow GFOA members and other suitably qualified competing greenfield operators to roll out the FTTP and build broadband layer 2 open access network based businesses within the greenfield developments so that they can compete with NBN Co in these areas.
- Reinstate the customer pays principal in respect to the FTTP networks within greenfield developments. That will mean that the developer will pay for the infrastructure that provides services to their land and end user, will pay for all services to their premises.

- Create an environment where new and innovative services may be provided by competing greenfield operators to enhance the environment for occupants of greenfield developments.
- Help NBN Co which is struggling to meet its current commitment to rollout broadband services across Australia. Competition within the greenfield areas will encourage new operators in these areas thereby reducing the pressure on NBN Co.

9.6. The impact of the proposed changes

The change in policy as proposed will introduce competition in the provision of FTTP networks to the greenfield areas and shift the cost burden to the developer and perhaps ultimately to the resident und users of the development.

I expect that commercial pressure on NBN Co, if not government policy, will cause NBN Co to exit most greenfield developments. This may take a little time as the greenfield operators ramp up to become commercially competitive across all areas of Australia.

9.6.1. Provision of future broadband services.

The change in government policy to introduce FTTP competition in greenfield developments will supplement existing regulation licenced greenfield operators that ensures that they comply with relevant standards relating to the quality and performance of FTTP networks and provision of related services. The relevant Minister for Telecommunications should also make a determination to prescribe the minimum standards for pit and pipe deployment are those of the Comms Alliance, not NBN Co.

9.6.2. The Capacity of Private operators to provide greenfield networks.

Given a change in Government policy which will provide certainty around a viable business model greenfield operators will invest in staff, training and infrastructure as may be required to deliver sufficient FTTP connections in greenfield developments to meet the forecast demand.

I think that sufficient licences should be issued to wholesale only open access carrier operators to ensure that greenfield demand can be met and that the licence obligations should not impose a level of constraint that renders the greenfield operators business model unattractive.

9.6.3. Incentives and assistance required by greenfield operators.

The change in Government policy as discussed above is essential to reintroduce healthy competition in these areas.

I understand that many greenfield operators are prepared to invest in their business provided they can develop a viable business model. Consideration should be given to the following matters when developing new policy so that their business models prove to be viable:

- certainty around the future requirement for developers to incorporate FTTP in new developments;
- continued government policy support;
- future demand estimates of about 1.4 million greenfield premises over the next 7 years suggests that the demand should be strong;
- the number of licenced operators who will be competing for the provision of FTTP networks in greenfield developments. The Government may use this lever to encourage investment made by

greenfield operators in their business and maintain a healthy competitive environment in these areas.

- Because backhaul can represent a significant cost to some greenfield FTTP networks especially if they are small in size or a long way from a suitable POI, Backhaul should be unbundled to allow sharing of cost between NBN Co and the greenfield operator. This will in many instances improve the viability of FTTP networks .and improve revenue for NBN Co.

14 October 2011

Dr Jared Greenville
Australian Government Competitive Neutrality Complaints Office
Productivity Commission
GPO Box 1428
Canberra City ACT 2601

And By Email to

Dear Jared,

COMPETITIVE NEUTRALITY COMPLAINT AGAINST NBN CO IN GREENFIELD ESTATES

I refer to the responses by Department of Broadband Communications and Digital Economy (**DBCDE**) dated 9 September 2011 and by NBN Co dated 14 September 2011 to our complaints to the Australian Government Competitive Neutrality Complaints Office ("**AGCNCO**") about breaches of the Australian Government Policy on Competitive Neutrality (**CN**).

It is noteworthy that DBCDE have taken the lead in addressing our complaints about the breaches of CN by NBN Co and that NBN Co has entirely adopted the DBCDE response and added a very brief refutation of limited aspects of complaint but has asked AGCNCO to advise NBN Co if there has been a breach. As our complaints are entirely focused on the conduct of NBN Co and they have left it to the government shareholder to defend the complaints (without questioning whether there are breaches of CN), we cannot but question whether this is a deliberate attempt by the Government to pressure AGCNCO (as an agency of government) to pre-emptively conclude that there are no breaches of CN by NBN Co.

The failure of DBCDE to recognise that there are breaches of CN by NBN Co may go some way to explain why NBN Co is unaware of its responsibilities concerning CN and why DBCDE has not previously raised CN when formulating the National Broadband Network ("**NBN**") policy that would see the new super monopoly that is NBN Co try to extinguish the existing Greenfield FTTP network providers, like us. Nevertheless, it is apparent that neither DBCDE nor NBN Co appropriately addresses the core issues of our complaint about breaches of CN in their respective responses.

There is a clear conflict between the relevant policies of the Federal Government namely, the NBN which intends to establish NBN Co as a super monopoly network provider and CN which requires that government business activities not enjoy a net competitive advantage over competitors by virtue of their public ownership. However, it is not this conflict which is at issue in this complaint. It is our contention that whilst the conflict between NBN and CN sets the stage for the breaches of CN by NBN Co, our complaint is about the conduct of NBN Co in the established market for FTTP networks in Greenfields and that this conduct is in breach of the CN policy.

The core of our complaint is therefore about the conduct of NBN Co in an established competitive Greenfields FTTP network market whereby:

1. NBN Co is not acting as the provider of last resort, but as the <u>provider of first resort</u> by:
    a. actively encouraging all developers to prefer NBN Co over the existing commercial FTTP network providers (such as Comverge, OPENetworks, Service Elements, TransACT, Pivit, BES, Opticomm and others);

www.openetworks.com.au
OPENetworks Pty Ltd
Level 6, 300 Queen Street
Brisbane
Qld 4000
ACN 118 525 821
GPO Box 2249
Brisbane
Qld 4001
info@openetworks.com.au
Tel: 61 7 3001 9277
Fax: 61 7 3001 9299

b. not just approaching and assisting those developers who could not afford to pay for the entire network (including backhaul, fibre and active network equipment), but approaching and soliciting those developers who can pay for the it;
c. not charging Greenfield developers the same capital cost as the existing commercial market FTTP network providers were charging those developers
d. not providing equal funding to those existing commercial market FTTP network providers to enable them to provide FTTP network and give the same return to NBN Co (as it may give the Commonwealth) on the same, so called "commercial basis" of 7% RIO if and when those networks are sold or dealt with by the providers.

2. NBN Co is shifting the burden of funding capital cost of designing and constructing FTTP networks in Greenfields from developers to residents, after NBN Co holds those costs for long periods. Developers had not previously required that incentive and the other FTTP providers did not offer that incentive and cannot afford to do so. Certainly this means that NBN Co is not operating on a commercial basis in the existing market.

3. The fact that only through the equity funded by the Commonwealth that NBN Co can provide that incentive for all developers, is admitted by the DBCDE and NBN Co (who adopted and reiterated the response of the DBCDE), when DBCDE says[1]:

> ***"That NBN Co does not charge upfront for the provision of fibre is consistent with its national mission to provide fibre. That NBN Co can do this reflects its equity funding by the Commonwealth on a national basis and over an extended time horizon. NBN Co's operations in new developments are consistent with NBN Co's commercial operation generally and its provision of a return as a national operation."***

4. DBCDE fails to recognise that inclusion of a hint as to the meaning of "**Provider of Last Resort**" in the explanatory Memorandum to the *Telecommunications Legislation Amendment (Fibre Deployment) Act 2011* ("**Fibre Deployment Act"**) was totally insufficient to define the role of NBN Co. That vague expression of the role of NBN Co opened the door for NBN Co to become "provider of first resort", rather than "provider of last resort", by giving an incentive to all developers in Greenfields that is so compelling, but not otherwise commercial, for NBN Co to pay for the FTTP network (if the developer pays for trenching, pits and pipes). No other infrastructure in Greenfields, such a power, water, gas or roads enjoys the subsidy of taxpayer funded incentives provided by a government business. That is because there is no commercial basis to provide an incentive, particularly when the price of the developed product (ie house and land, apartments, land or lots only) can incorporate the cost and does not require that level of subsidy for the infrastructure. However, since it is NBN policy to provide a subsidy the issue is whether because of the government ownership of NBN Co and the level of equity funding, is the provision of the incentive by NBN Co a breach of CN. We say it is a breach of CN because it is NBN Co that determines how to use the funded equity and how to interpret the mandate to be "provider of last resort" so as to make it irresistible for developers to ask NBN Co to provide the infrastructure and network services.

5. The Fibre Deployment Act allowed NBN Co to exercise its discretion and maintain the charade of being the "last resort provider", but the question remains, will this also get around CN. NBN Co's only obligation in this role is to decide which new developments it does not want to fibre and to tell the developers, government and Telstra that the development is outside their "long term fibre foot-print", wherever that might be, but certainly a boundary unknown to other network providers. This arises because the government has further eroded the effect of CN in its NBN policy, which states:

> ***"All new developments will be assumed to be in NBN Co's long-term fibre footprint. However, NBN Co will promptly notify the government, developers and Telstra (as Universal Service Obligation provider outside the footprint) of new developments that are outside of the long-term fibre footprint."***[2]

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[1] Page 5 of the Response of DBCDE dated 9 September 2011

[2] Page 2 of Fibre in New Developments – Policy Update 22 June 2011 by DBCDE

6. This does not allow competitors to know of those developments that are outside the NBN Co long term foot fibre footprint until NBN Co has rejected the development. It effectively preserves for NBN Co the right of first refusal to fibre every new development by not foreshadowing which developments could even be potentially targeted by the other FTTP network providers until NBN Co makes its determination.

7. It is absolute nonsense for NBN Co to not specifically identify exactly where is its so called "long term fibre footprint" and to hide behind the June 2011 policy of Government that says NBN Co is to simply assume all new developments are within its area until NBN Co decide otherwise, when the NBN and Business Plan of NBN Co both state that not all areas of Australia will be connected by fibre to the new national network. The information on the website of NBN Co that some areas will be connected by wireless or satellite[3], contradicts the statement that "***All new developments will be assumed to be in NBN Co's long-term fibre footprint.***" This prima facie misrepresentation by NBN Co maintains the anti-competitiveness of its enterprise and breach CN by ensuring that NBN Co is the provider of first and only resort for developers who are only aware that the long term fibre footprint covers their development unless NBN Co says otherwise and only then would those developers have reason to consider the alternative fibre network providers.

8. In addition, the fact that NBN Co only notifies "government, developers and Telstra" of that determination further prejudices the other FTTP network providers such as us. How can other providers know which Greenfield developers are likely to even consider their offer of FTTP deployment and networks services, when there is no known area or certainty about the long term fibre footprint of NBN Co.

9. The response of DBCDE commences with an overview of considerations justifying the NBN and the establishment of NBN Co which is in accordance with the NBN Co Corporate Plan 2011 -13 and the Statement of Expectations by the Government Ministers. It recites that "*NBN addresses concerns about the lack of effective competition in the provision of retail broadband services, particularly as a result of Telstra's control of the copper customer access network and its vertical integration.*"[4] This response to our complaint about a breach of CN in relation to the conduct of NBN Co in the Greenfield market under the heading of "*Policy Context*" completely ignores that it is not a complaint about the NBN or NBN Co generally, but specifically about the conduct of NBN Co in the Greenfield market where there was strong, existing competition by commercial operators. Those operators in the Greenfield market included Telstra Velocity, Comverge, OPENetworks, Service Elements, TransACT, Pivit, BES, Opticomm and others. Both OPENetworks and Opticomm were and are precisely what the DBCDE described as the model for NBN, "*a wholesale only, open access, non-discriminatory service provider, operating at a low level in the Open System Interconnection (OSI) model".* Some of the others were simply not "wholesale only" because retail service providers were still assessing the FTTP market and developing products for it. However, the fact is, there was and still is competition in the Greenfield market between those providers, but the new entrant, NBN Co with funding from Government shareholders has been able to do what even Telstra Velocity was unable to do, namely fund the capital cost of building the FTTP networks in Greenfields. It is that conduct by NBN Co that is killing competition and making NBN Co the provider of first resort for new developments, in breach of CN.

10. The response of DBCDE recognised other pillars of our complaint[5] that:
"*NBN Co is competing unfairly because the company is not operating on a commercial basis, has access to capital at below the market rate from government and is not required to make a commercial return on investment*". DBCDE then asserts that government established and expects NBN Co to operate as a commercial entity. Just because the government wishes it so and puts out

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[3] See http://www.nbnco.com.au/our-network/index.html

[4] Page 2 of DBCDE Response 9 September 2011

[5] Page 3 of DBCDE Response 9 September 2011

a Statement of Expectation about NBN Co, does not make it so. There is no obligation or legislation forcing NBN Co to breach CN and interpret the vision of being "provider of last resort", as a mandate to become a monopoly or provider of first resort through the funding of the FTTP networks in all developments (other than those allegedly outside its long term fibre footprint).

In fact, one would have thought that the better solution would be to fund the other providers in Greenfields to build the FTTP network required to satisfy the NBN. However, NBN Co threw out that idea when it abandoned the Greenfield tender under which it had invited the other experienced provider/carriers (such as OPENetworks) and, in May 2011, selected contractors, Fujitsu Australia Limited ("**Fujitsu**") with Service Stream Limited to undertake a $100m turnkey construction project for NBN Co in Greenfields. DBCDE does not address those issues in its response. NBN Co denies that it has done any wrong in that abandonment of the tender. However, neither DBCDE nor NBN Co explain why, after announcing that NBN Co would invite experienced providers in the Greenfield market to tender for the panel to build, operate and maintain the networks for NBN Co, that process was abandoned and why those other providers were left to wither in wake of NBN Co's free network offer to all new developments. DBCDE does not explain the subtle, but essential difference between conduct in compliance with CN and the conduct of NBN Co which breaches CN because it is in line with statements of the CEO, Mr Quigley when he announced[6]:

> *"[NBN Co] will actively pursue deals with housing developers to deploy fibre in Greenfields estates from next year - not just deploy fibre in estates where the private sector is unwilling to invest. That will please developers, who will now have another option to meet the Federal Government's fibre mandate, due to take effect in the same timeframe. We have an obligation to provide a wholesale service in new estates if there's no one else who is willing to do that job.* ***Now, even if people do put their hands up and want to do it, we may [still] be going in and doing that [offering our services]. It's not a question of [NBN Co] only going into those places where [developers] say 'I can find no one else' [to deploy fibre].*** *We'll be actively going out promoting the national broadband network in Greenfield estates."*

Despite the obvious conflict between what the Minister had said was the role of NBN Co and what Mr Quigley says, NBN Co was never restrained to be a last resort provider, and it considered it entirely proper to promote NBN Co networks in Greenfield as fully funded deployments, even if other providers would provide networks and services, but they were unwilling or unable to invest the capital in the network deployments, because they had no government backing and to do without that funding was not commercially viable. In that sense NBN Co does more than offer developers a service. It offers to remove the burden of payment from the developer and by virtue of public funding of equity without commercial interest or dividend obligations that would beset the other providers the promotion to developers has been an outstanding success. Since it commenced in Greenfields registrations of new developments with NBN Co has resulted in almost all of the 150,000 new connections each year being with NBN Co. Our market has therefore collapsed and there are very few (if any) developers interested in contracting with other providers, such as OPENetworks.

11. The statement by DBCDE that "*NBN Co's Corporate Plan provides for a rate of return of 7.04 per cent, and states that no specific rate of return has been stipulated by the shareholders for NBN Co*"[7] demonstrates the naivety of the DBCDE in addressing our complaint that the operations of NBN Co are not on a commercial basis. What other commercial organisation would or does operate without either the shareholders or financiers having specific expectations and obligations imposed to ensure predictable returns in the context of the commercial nature of each venture. Certainly all commercial organisations and publicly listed companies have forecast returns or yield rates on shares, fixed or formulae driven interest rates on debt funding and internal rates of return for management targets and shareholder or investor information. The ridiculously uncommercial nature of NBN Co is

[6] Reported by ITNews in June 2010 at http://www.itnews.com.au/News/218218,analysis-telstra-velocity-faces-uncertain-future.aspx.

[7] Paragraph 6 of Page 3 of the DBCDE Response dated 9 September 2011

highlighted by the widely published date when the so-called "commercial return" is to be realised by government. Supposedly whenever the NBN Co rollout is finished or if NBN Co is sold, the government expects to get repayment of the government's investment.[8] Obviously, NBN Co does not need to repay the investment by government or provide a specific commercial ROI because that date may not eventuate. NBN Co is simply not a commercial business, albeit a substantial business of government.

12. The reliance of DBCDE on the Corporate Plan of NBN Co that predicts "*taxpayers will get the investment back, with interest [at] a rate of return higher than the government bond rate*" ignores the concern expressed by most commentators and ourselves. This is simply not a commercial arrangement because the rollout may never be completed, government may decide not to sell its interest in NBN Co or because the government's assurance to realise on the investment is entirely contingent on other events outside the control of NBN Co. The fact remains that expectations of returns from NBN Co are illusory in a commercial sense, because it is not mandatory for NBN Co to achieve a return or pay dividends. The arrangements governing the return on investment in NBN Co are not determined by commercial terms or facilities (such as annual dividends on shares, repayment obligations in loans, finance or other equity backed facilities and securities). There are no consequences for the directors that equate to consequences for commercial boards, such as insolvency or other statutory sanctions if the assurances of government are not realised. If government has expectations of NBN Co, those expectations cannot be put as high as those of "commercial arrangements" expected by shareholders of public or private companies that are not owned and funded by government.

13. There is nothing intrinsically wrong with "*government funding NBN Co even until it has sufficient cash flow to support private sector debt without explicit government support*"[9], but the government expectation of a return on that equity neither follows as a matter of commercial reality nor does it explain a breach of CN by NBN Co in applying its wealth of government funding to undermine the other commercial providers in the Greenfield market by offering a free to developer network that shifts the repayment of capital to the resident users who come to occupy the homes serviced by the FTTP network some time, even many years after the developer has sold the last lot in the development. If this were a commercial offering, why did Telstra Velocity not make the same offer to get new developments? We contend that it was because Telstra has now done a separate deal with NBN Co that obliges Telstra to largely exit the FTTP greenfield market and even before that deal happened, it was simply not a commercial arrangement in the market.

14. DBCDE says[10]:
"*NBN Co will install fibre in new developments at no charge to developers, consistent with government policy direction, and recover the cost from operations. This is a fairly common model for paying for large infrastructure installations, and is similar to the method used for its copper network.*"
This statement by DBCDE is misleading in that:
    - The government and in particular, the Minister gave the commitment that NBN Co would fund networks in new developments as "provider of last resort" and until now the DBCDE has not articulated that this means provider to any and every development that NBN Co wants, if and only if the developer does not want to pay more than trenching, pits and pipes; and
    - Whilst the model of funding capital works out of operational revenue is common for some infrastructure projects (like ports, tunnels and bridges) that was not so for FTTP networks in Greenfield developments, because the developers were used to paying

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[8] Paragraph 4 of Page 4 of the DBCDE Response dated 9 September 2011

[9] Paragraph 8 of Page 3 of the DBCDE Response dated 9 September 2011

[10] Paragraph 3 of Page 5 of the DBCDE Response dated 9 September 2011

for FTTP network infrastructure (just as they had for roads, power, gas, water and other utilities).

- NBN Co started offering developers to fund the FTTP networks in 2011 because developers argued that it was inequitable for new developments to have to fund the networks and brownfields to get networks without charge. However, that did not mean that developers wanted to eliminate the existing other providers. They wanted government to fund the FTTP network build costs and would happily use existing providers if funding was available from government or NBN Co for those existing providers to do so.
- Telstra Velocity (which was a FTTP network provider for new developments) did not adopt that model;
- Telstra copper line services were discontinued before NBN Co entered the FTTP market; and
- Telstra received funding for connections of standard lines (whether copper or fibre) and some payphone under the USO and that has from time to time equated to almost $1,000 per connection.

15. In the final justification for the advent of a role for NBN Co in new developments (Greenfields) the DBCDE does not reasonably explain the conduct of NBN Co offering to fund FTTP networks in all developments. DBCDE says[11] that "*from the time it announced the NBN in April 2009, the government consistently left open the question of what role NBN Co would play in new developments*" and that "*government has not suggested NBN Co would be excluded from new developments or be limited to the role of last resort.*"

    Firstly, this statement is untrue. Until June 2010 the government had consistently maintained that NBN Co was not involved in Greenfields and that developers had to pay for the network infrastructure. In June 2010 the Minister for DBCDE back-flipped that policy and offered to fund the network infrastructure provided under the NBN in new developments. However, until December 2010 (when the Minister announced the last provider role of NBN Co in new developments), government was happy to let NBN Co do as it wanted in new developments and after that date, by silence from Government, NBN Co was at liberty to continue as it pleased, but had to do something in Greenfields if no other provider would provide an FTTP network (and if the developer paid for trenching, pits and pipes).

    The claim by DBCDE that NBN Co gave certainty for developers that someone would provide telecommunications services in new developments simply ignores the existing competitive market of commercial providers, the alternative funding option of using the USO Fund for new FTTP networks built by providers (including Telstra) and the role of Telstra historically.

16. The government position on the matter was put in December 2010[12] as follows:

    "*There is strong stakeholder support for NBN Co-operating as the wholesale provider of last resort in new developments **and** meeting the cost of providing fibre. The Government's policy reflects this. This approach will also support a consistent national approach into the future. If alternative providers want to compete with NBN Co they are welcome to do so, but it is on the understanding that they have the resources and ability to do so*."

[11] Paragraph 7 of Page 5 of the DBCDE Response dated 9 September 2011

[12] Minister Conroy in a Statement about NBN Co on 9 December 2011, at page 5

Nothing in this statement directs NBN Co to ignore CN nor does it suggest that the "last resort provider" would or should aggressively compete (using the effectively interest free, equity of government shareholders) with the existing other providers to eliminate those providers as they did not have the financial resources to defer capital network construction costs until operational revenues are achieved in sufficient sums to repay the capital. It seems that the Minister knew full well by his reference to the resources and ability of the other providers that NBN Co's financing of the capital build costs would make competition with NBN Co difficult, if not impossible. Certainly we told the Minister and NBN Co of that situation in July 2010 and asked that they give us some latitude to survive as competitors, but that was to no avail.

17. Both DBCDE and NBN Co now interpret the "provider of last resort" role for NBN Co to simply mean that "*NBN Co must respond to a request for infrastructure and wholesale services where the developer meets its terms and conditions of supply*"[13], but that does not justify the breach of CN by NBN Co in entering the new development or Greenfield market without regard for commercial arrangements and offering free FTTP networks to developers, deferring the repayment of capital for many years until operational revenues are sufficient and that only by virtue of government equity could any provider do so. Indeed no other FTTP network provider had done so in the past.

18. There is even more concern for us that might unleash further breaches of CN by NBN Co in new developments because of the sought of DBCDE statement that permits and encourages NBN Co to do as it likes. DBCDE says, "*given that it needs to operate on a commercial basis, it follows that NBN Co may provide services more generally*".[14] Surely by now the DBCDE should insist on compliance with CN Guidelines for Managers as published[15] to significant government businesses (like NBN Co) operating in commercial markets. Indeed, there has not been any documented direction to NBN Co from its government shareholders to require, much less insist on compliance with CN policy or to make any Competitive Neutrality Payments[16] to the other providers affected by the NBN Co breach of CN.

19. The concession by DBCDE that "*government has consistently indicated that it considers there should be room for competing providers*[17]", is a shameful, cynical, meaningless platitude that is designed to say something politically correct whilst achieving the opposite result. It is the government's endorsement of the NBN policy, which requires a monopoly provider to prevail if the NBN is to succeed, that has encouraged the CN breaches by NBN Co. Of course, if a monopoly eventuates for NBN Co then that would become "collateral damage", suffered for the good of the nation. This cynical government statement about competition from other providers may be at the core of the breaches of CN (because NBN Co is unbridled by design or because one of its shareholders is also responsible for CN and she lacks vigilance on CN matters), but at a time of global economic peril when the Australian government demands productivity and competitiveness for industry, one would think that CN would do more than figure in their bleating and be central to all decisions. This does not appear to be the case for the DBCDE or the government in this matter.

20. The DBCDE response identifies, but does not address the issue of NBN Co's access to capital being other than on a commercial basis, because the capital markets will not fund NBN Co until the national networks are substantially complete, NBN Co has cash flow to repay investment and a

[13] Paragraph 6 of Page 5 of the DBCDE Response dated 9 September 2011 (endorsed by NBN Co)

[14] DBCDE statement in Paragraph 2 of Page 6 of the DBCDE Response dated 9 September 2011

[15] *Australian Government Competitive Neutrality Guidelines for Managers 2004 No (9),* publisher by The Treasury, Department of Finance and Administration.

[16] Section 6 Competitive Neutrality Payments, page 45, *Australian Government Competitive Neutrality Guidelines for Managers 2004 No (9),* publisher by The Treasury, Department of Finance and Administration

[17] Paragraph 4 of Page 6 of the DBCDE Response dated 9 September 2011

monopoly status is achieved. The DBCDE knows that this lack of commercial participation undermines the argument about NBN Co funding being on commercial terms and is a further weakness in its attempt to show there are no breaches of CN, but there can be no argument on the point, because it is self-evident from the statement of DBCDE:

> *That NBN Co can do this [install fibre at no charge to developers] reflects its equity funding by the Commonwealth on a national basis and over an extended time horizon*.[18]

Even DBCDE knows that no other commercial provider could make such offers to developers because those offers could only be made if the Commonwealth backed the provider with funding and hence the test for a breach CN policy, that the benefit enjoyed by NBN Co can only be undertake because of government ownership, has been satisfied.

21. There is no complaint that NBN Co should refrain from attending developer industry events and forums, but it is our complaint and a breach of CN for NBN Co to do so if NBN Co advises developers that they <u>must</u> register for infrastructure and wholesale services by NBN Co or (if less than 100 lots) by Telstra. That was the precisely the scenario about which we have complained because NBN Co senior representatives at the Urban Development Institute of Australia Forum have told developers that after 1 January 2011 they must register their developments with NBN Co. The power point presentation and notes of the NBN Co presentation have not been distributed to us but our representative witnessed the NBN Co presentation and taped the proceedings and can attest to the matter.

22. Our complaints about regulatory advantages that favour the NBN Co are generally recited by DBCDE[19]. However, DBCDE fails to say why there is not a breach of CN if NBN Co does not want to deploy an FTTP network to some development, and then provides an NBN Co Statement about that matter only to the developer, government and Telstra. The effect is to omit giving that Statement to other providers who might be able and willing to provide a network and wholesale service and that omission further damages the market for other providers. The other providers must therefore somehow try to discover what is obvious to the developer, NBN Co, Telstra and government. Industry providers must waste resources waiting for NBN Co to discard developments instead of knowing what is not in the long term fibre footprint of NBN Co (a matter that NBN Co could unveil now). NBN Co nevertheless is allowed by its government shareholders to avoid giving industry and other providers definitive information about where is its long term fibre footprint, because government and NBN Co may not want the scope of that commitment to be assessable or properly costed by anyone, especially the Productivity Commission or the opposition Members of Parliament. By virtue of this uncertainty, albeit permitted by government and the absence of obligation, NBN Co does not notify other providers of either its fibre footprint or of discarded developments. Hence, NBN Co is in breach of CN and by its government ownership has a further advantage over the other providers, such as OPENetworks.

23. Our concern about NBN Co specifications (which the DBCDE says have been provided to the Communications Alliance with a view to having these NBN Co specifications endorsed for general use by industry) is the threat that the Minister has reserved powers under the <u>*Telecommunications Legislation Amendment (Fibre Deployment) Act 2011*</u> to make those specifications compulsory standards for all developments. This is a significant benefit from government ownership of NBN Co. If NBN Co standards are either endorsed by the ACMA because NBN Co will not accept the Comms Alliance specifications or because Ministerial Determination makes NBN Co specifications compulsory, then NBN Co will have undermined competition in the market, without reasonable cause and thereby breach CN. Design standards and specifications of NBN Co are only suited to the NBN Co networks. The NBN Co specifications are not based on the functional requirements for all developments and FTTP networks. Design specifications that require supply of higher, additional or different services to that of NBN Co (basic voice and internet) should only require uniform basic

[18] Paragraph 4 of Page 5 of the DBCDE Response dated 9 September 2011

[19] Paragraph 2 of Page 7 of the DBCDE Response dated 9 September 2011

measures of compliance not mandatory "one size fits all" specifications. The cost of compliance with unnecessary or inappropriate design specifications of NBN Co will make alternative FTTP networks much more expensive and those costs would be dissuasive for developers that might prefer to pay for the alternative FTTP networks of the other providers.

24. DBCDE knows that since the inception of a standards team at Communications Alliance, Comverge has been a member of that team working on industry standards and specifications for FTTP network interoperability and the design specifications and standards for FTTP pit and pipe networks in new developments. The suggestion of DBCDE for us to ask the Communications Alliance or ACMA to address our concerns is disingenuous and political double speak because DBCDE understands that this issue can ultimately be controlled by the Minister determining that NBN Co standards and specifications will apply, when there is no need for NBN Co standards and specifications to prevail in those matters. Yet by virtue of the government ownership, NBN Co has the scope and indeed has now proclaimed to industry that their standards are what will apply, even before the Communications Alliance standards and specifications can be ratified by the ACMA.

25. Neither DBCDE nor NBN Co says that NBN Co is not subject to CN.

    NBN Co has asked AGCNCO whether CN applies to it in new developments. We urge that the answer is clearly in the affirmative. We have outlined in our earlier detailed submission why NBN Co is subject to CN.

    NBN Co are charging for services, in a market that has many existing private competitors (including ourselves), and the managers of NBN Co have a degree of independence in relation to the production or supply of the good or service <u>and</u> the price at which it is provided to developers. Indeed, NBN Co has complete scope to exclude any or all developments from their long term fibre footprint. It is trite and cynical to try to explain why CN does not apply to NBN Co on the basis that NBN Co, as "provider of last resort", will provide fibre *where developers do not wish to use another provider,*[20] because CN is not about whether developers may wish to use another provider and decline an NBN Co offer of a free network in their development. It is whether by virtue of the government ownership, NBN Co enjoys a net competitive advantage over competitor providers.

    We submit that there can be no clearer example of when CN should apply than to NBN Co and its plan to monopolise the Greenfield market in which we are direct competitors.

26. If the AGCNCO is not prepared to act in relation to the breaches of CN by NBN Co, then when will CN be relevant in Australia and in what circumstances will CN be observed by significant government businesses such as NNB Co.

In relation to the specific Questions from AGCNCO to DBCDE and the response of DBCDE; we say:

27. **<u>Ministerial Determinations</u>** - The Fibre Deployment Act has now been passed and the Minister may not have made a determination, but his Department (DBCDE) has admitted in the response to AGCNCO that despite the Comms Alliance developing their own specifications, NBN Co specifications have been provided to the Comms Alliance with a view to having these specifications endorsed for general use by industry as soon as possible.[21] As mentioned in our earlier submission, if the NBN Co specifications are adopted as the mandatory national standards then that would require our passive networks to be redesigned and unnecessarily add significant costs to the deployment of our networks to make them less appealing for developers to contract with us. There is no justification for this heavy handed blatant discrimination against private fibre providers (who will comply with the Comms Alliance specifications now ready for ACMA approval) as the NBN Co specifications do not benefit our networks, cost more without making them better performing and are a breach of CN. The concern that the Minister may exercise his discretion to force the adoption of

[20] Paragraph 3 of Page 2 of the NBN Co Response dated 14 September 2011

[21] Paragraph 1 of Page 13 of the DBCDE Response dated 9 September 2011

NBN Co specifications by other providers is merely a subtle threat that could be averted by NBN Co adopting the Comms Alliance specifications as minimum requirements.

28. **Purpose and Cover of Ministerial Determinations** – There is no reason that the Minister should have to use his reserve powers to make determinations if NBN Co accepts the industry recommended specifications set by Comms Alliance and ratified by the ACMA. The point is that NBN Co does not need to set its own specifications unless it wants to eliminate competition in the Greenfields and breach CN.

29. **Exemption form Determination** – There is no need for exemption of NBN Co if the NBN Co specifications are ultimately forced on the other providers (either by adoption by Comms Alliance and ACMA under a threat of the exercise of the Minister's reserve powers to make a determination).

30. **Assessment of potential impact on other operators** – There has never been any assessment of impacts on the other provider alternatives to NBN Co, in relation to any aspect of the NBN or the impact of NBN Co in Greenfields or in relation to the breaches of CN by NBN Co.

31. **Nature of the government's contribution** – It is a nonsense to argue there is or will be a return to government on the investment in NBN Co if that is only payable if and when NBN Co is sold or through some mysterious capital management plan (that has not been announced). Such returns without certainty in the timing for repayment are therefore illusory and only serve to put a thin veneer of commerciality on the true position that the government and NBN Co could not reasonably expect a commercial return on investment.

32. **Shareholder Loan** – Whilst it is an equity injection by government what agreement is there between the shareholders for certainty in repayment of that investment in terms of amount, time and guaranteed result? The DBCDE response says that there is no direction by the shareholder ministers for NBN Co to achieve 7 per cent return and this is merely what NBN Co thinks it may return in its Business Plan[22]. This is another uncommercial arrangement that enable NBN Co to enter the market without regard to the cost of capital.

33. **Rate of Return (7%)** – The return of 7 per cent may be based on NBN Co projections of revenue and expense, but this is not a commercial rate of return. The Independent Experts Report by Grant Samuel & Associates Pty Limited in relation to the Telstra deal with NBN Co and the Commonwealth[23] states:

"*General modelling assumptions adopted by Grant Samuel include:*

- *A discount rate of 9.0%. The discount rate represents an estimate of the overall weighed average cost of capital ("**WACC**") for Telstra. The basis for this discount rate is set out in Appendix 2. A cost of equity capital of 10% was calculated using the Capital Asset Pricing Model ("**CAPM**"). Combined with the cost of debt the resulting WACC was calculated to be 8.7%. The calculated WACC of 8.7% was rounded up to 9% reflecting:*
    - *The imprecision of any estimate of the cost of equity capital (see Appendix 2); and*
    - *Grant Samuel's view that there is significant anecdotal evidence that investors have repriced risk upwards since the global financial crisis in a manner not adequately captured by models such as CAPM. Alternative models for determining the cost of equity capital would also support higher rates. For Example, the perpetuity formula can be restated such that:*
      Cost of equity = Dividend Yield plus Long Terms Dividend Growth Rate

[22] Paragraph 6 of Page 11 of the DBCDE Response dated 9 September 2011

[23] Annexure 1 to the Explanatory Memorandum for the resolution under item 2 at the AGM of Telstra on 18 October 2011 provides on page 36 in section 5..3.2

> *Telstra is currently trading at a dividend yield of approximately 9%. If the cost of equity using CAPM of 10% is correct, the market must be assuming long term nominal dividend growth of 1%. Higher dividend growth rates would imply a WACC greater than 9%.*

If Telstra's independent experts are saying that the weighted average cost of capital ("**WACC**") for NBN Co is 7% because the WACC for non-incumbent European telecoms is around 7 per cent – 8 per cent[24] then one of these numbers is incorrect. We consider that Grant Samuel and Telstra have correctly assessed the WACC to be at least 9%. There is little if any difference between Telstra and NBN Co in relation to the assessment of WACC and therefor the NBN Co WACC of 7% is not a commercial rate.

34. **AGCNCO asked for the NBN Co Full Business Plan** – The refusal to provide AGCNCO with the full Business Plan undermines the rational value and veracity of information provided by NBN Co and DBCDE in response to the complaints against NBN Co.

35. **The feasibility of the NBN Co model to achieve 7% return on investment** -

The report by Greenhill Caliburn (of which an executive summary was released in 12 February 2011) purports to assess the reasonableness of the Corporate Plan (including the return of 7% to the government) and relies on various assumptions, including the network design, regulatory considerations and completion of agreements with third parties. Before commenting on the assumptions, it is noteworthy to observe that comment on the report is much more difficult because only an executive summary was released to the public and AGCNCO. The full detail report that underpinned the entire NBN and NBN Co's Corporate Plan is unfairly hidden from investigation and scrutiny.

As outlined in the Corporate Plan, successful implementation of the NBN and the achievement of NBN Co's financial forecast are subject to a number of risks, contingencies and external factors. In particular, long-term revenue forecasts for NBN Co contain inherent uncertainties and are subject to shifting technologies and consumer preferences. Changes to underlying revenue assumptions have the potential to materially affect the return profile for NBN Co. Although changes in capital or operating expense forecasts could also have a material impact, those forecasts mostly relate to nearer-term events and have a lower risk profile given NBN Co's ability to manage the NBN roll-out.[25]

Greenhill Caliburn has analysed the key revenue drivers, cost elements and other risk factors of NBN Co's business model. … In assessing the Revenue Drivers, the report says, *NBN targets wide scale usage. A fundamental component for its success is the number of premises connected to it through fibre, fixed wireless or satellite. NBN Co is forecasting up take of 56.0% of homes passed by 2015 and 63.4% by the end of 2020, and ARPU increasing over time driven by increasing usage per customer. Key risks to NBN Co's up take assumptions relate to competition from alternative technologies, and the potential for adverse consumer reactions in one or more markets to service offerings from RSPs to be delivered over the NBN or RSP pricing options. Trends towards "mobile centric" broadband networks could also 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.*[26]

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[24] Paragraph 7 of Page 11 of the DBCDE Response dated 9 September 2011

[25] Paragraph 2 of Page 2 of Executive Summary of NBN Co Limited's Corporate Plan by Greenhill Caliburn Feb 2011

[26] Page 3 and 4 of Executive Summary of NBN Co Limited's Corporate Plan by Greenhill Caliburn Feb 2011

Since the start of the network rollout by NBN Co delays in that rollout and the poor take up has meant that premises passed or connected to the national network have not met the published expectations of NBN Co[27]. The NBN Co published target for FTTP Greenfield (BOT) Premises Passed by June 2011 was 45,000. There was no Premises Passed by NBN Co under either the BOT in Greenfields[28] or by NBN Co under some other arrangement. The NBN Co published target for Satellite First Release sites by June 2011 was 165,000 and yet no premise was covered by Satellite. The net result in June 2011 was that the projection of 223,000 premises passed or covered by the NBN Co network was 100% wrong and during the same period the growth of mobile broadband has exceeded fixed line services in Australia. Yet the NBN Co Corporate Plan has not been modified by NBN Co to reflect a commercial rate of return to government. Indeed since the further decline in 2011 in the financial markets no adjustment has been made to the NBN Co Corporate Plan or WACC to reflect the new commercial circumstances.

Corporate Plan assumes Average Revenue Per User (**ARPU**) will rise over time as usage per customer increases. The report says, *the Corporate Plan assumes that on a per unit basis, the real price of service will decrease over time. This loss is assumed to be more than offset by the increase in consumer spending on broadband services as they purchase higher quality services, measured in usage and potentially targeted or committed speed levels.*[29]

There is simply no evidence in the market of consumer spending more on broadband because they purchase higher quality services when they are available, but the contrary is true, that Users have no appetite for paying more for more broadband speed. In fact consumers expect that both prices will decrease and broadband speeds will increase. When the consumers' wages and salaries are at risk in downward economic circumstances that are now prevailing throughout Australia, it is even less likely that they will or can afford to pay more for broadband. Obviously the authors of the report were aware of this risk, but the report does not address them in any meaningful or detailed way. The report states,

Key risks of ARPU assumptions include potential consumer pushback on the usage-based pricing model, the potential need for lower prices to overcome initial low up take, a faster than expected erosion of RSP margins on base-level products (which may affect consumer willingness to buy materially higher priced products) and potentially lower-than-expected growth in attractive internet-based content and "over-the-top" services requiring higher speeds and usage rates[30]*.*

These are indeed some of the risks that are materialising in the network project and yet NBN Co has not responded by adjusting downward the expected return to government.

36. **Sensitivity Analyses on the government return -** The response by DBCDE to the question about a sensitivity analyses on the return to the government provides a simple table extracted from the NBN C Corporate Plan and does not offer any independent evidence or analyses by Greenhill Caliburn or anyone else. It is not independent or a serious attempt at a professional sensitivity analyses. Without that professional level of independent sensitivity analyses being undertaken, and without periodic review of the risks and Corporate Plan (that were recommended by Greenhill Caliburn) which could mean adjustment of the expected return to government, then there can be no real confidence in saying that the return to government is a commercial return.

37. **The feasibility post Tasmania and trial site uptake** – The DBCDE assessment of why a feasibility study was not done following the poor uptake by Tasmanian consumers is that the Corporate Plan

[27] See the Table of Premises Passed or Covered 2011 published by NBN Co

[28] Meaning the Build Operate Transfer arrangements that was abandoned in favour of the network build contract awarded to Fujitsu Australia Limited in May 2011.

[29] Page 4 of Executive Summary of NBN Co Limited's Corporate Plan by Greenhill Caliburn Feb 2011

[30] Page 4 of Executive Summary of NBN Co Limited's Corporate Plan by Greenhill Caliburn Feb 2011

projections were based on the migration of the Telstra fixed line customers to NBN Co under the deal with Telstra. As that has not happened, DBCDE assumes that the feasibility would be pre-mature. However, another view is that the evidence from Tasmania demonstrates that consumers will not pay nor switch to NBN Co even when there is a prospect of greater broadband speeds unless there also is a compelling financial inducement, such as lower prices. The Tasmanian results and trial site evidence demonstrates that consumers want more broadband for lower prices, not higher prices. Greenhill Caliburn identified that this key risk could fundamentally alters the Corporate Plan of NBN Co and the return to government. Accordingly the Tasmanian and trial site results must and can be studied and the impact on the so called sensitivity analyses (about the return to government) must be adjusted accordingly.

If and when the Telstra deal with NBN Co does happen and after whatever many years the Telstra customer migration happens, that should not prevent a serious sensitivity analyses on the return to government and feasibility studies on this expensive publicly funded national project by NBN Co. For the DBCDE to deny this proposition or argue for a delay in revision of the sensitivity analyses, as they have, is political obfuscation.

38. **NBN Co Pricing structure, methodology, long term constraints on revenue and other fey financial information** – The refusal by DBCDE to provide information requested by AGCNCO does not exonerate NBN Co from the obligation to provide the information. As a good corporate citizen NBN Co should assist the bone fide enquiry of a government agency, such as AGCNCO. The fact that DBCDE says it has no further confidential information that would add to their response is disingenuous because the business case for NBN Co would be in its possession or control and that document should be open to enquiry by AGCNCO (even on a confidential basis). NBN Co endorsed this response of DBCDE and therefore fails to meet its public commitments to abide by the lawful enquiries of government.

In relation to the Request for Proposal ("**RFP**") process mentioned in the NBN Co response, we say:

39. The RFP process lacked probity, was flawed and was never seriously considered by NBN Co as a way forward or to allow for existing providers to have a role in the NBN. We say that the RFP process was disingenuous, lacked probity and was flawed.

The reasons given to us and other providers for elimination from the RFP process and ultimately for abandonment of the initial BOT model (involving existing providers to build, operate and transfer networks) in favour of a turnkey construction only solution by Fujitsu, was "lack of financial strength and ability to scale to meet the NBN Co requirements in Greenfields". This was neither the stated aim nor the stated requirements of the RFP. The stated aim of the RFP process was to select a panel of experienced providers who could undertake certain FTTP network deployments, operation, and maintenance and ultimately transfer of the networks to NBN Co.

NBN Co had our financial information and that of the other tenderers at the very beginning of the RFP process. Hence there is no reason for NBN Co to have continued to probe for our technical information on solutions, pricing and operational procedures over the following months and after varying the requirements and business model on several occasions. The RFP process was poorly managed by NBN Co and the technical requirements were inconsistent, which led to significant variations in assumptions and many requests for technical clarifications that were never answered by NBN Co.

We did what the RFP required and establish our FTTP network design, construction and operation credentials and technical ability to justify selection on the NBN Co panel, but as there was no adverse comment by NBN Co about either our track record, credentials or technical ability to undertake the work which was specified in the tender, the only conclusion is that the process was flawed and that NBN Co was disingenuous.

The RFP Evaluation Criteria did NOT request or seek to assess our capacity to meet rollout time frames. No information about our affiliations or collaborations that address scalability or financing required to meet NBN Co planned targets was called for by the RFP process. We were only told that all the details needed for OPENetworks to meet an NBN Co planned targets and actual financing information for each development would be provided if we were selected onto the panel of experienced providers.

Only Fujitsu is on the NBN Co "panel of experienced providers" and as they were not previously a carrier / operator of FTTP networks in Australia, but merely a sub-contracted network manager to OPENetworks, the FTP process was disingenuous.

Given the outcomes we can only conclude that OPENetworks and the other providers who tendered in the RFP process participated in a flawed process of NBN Co. NBN Co must not be allowed to avoid normal probity requirements for tenders because of their government ownership. We strongly disagree with claims in the NBN Co response in relation to these matters.

General Matters

We also wish to note that the DBCDE advice to its Minister that existing privately operated Greenfield FTTP network providers did not have the capacity to meet the requirements for FTTP to all new estates over 100 homes is incorrect. No effort was made to investigate and consult with existing companies such as ourselves, who build and operate FTTP networks about our capacity or how the legislative changes would affect us.

Furthermore, the Fibre in Greenfields Stakeholder Reference Group was advised by industry stakeholders that backhaul availability to new developments was the most significant factor limiting FTTP rollout in Australia, not industry expertise or incapacity. The decision to nationalise Greenfield construction at the expense of private sector companies without consideration or consultation has led to an uncompetitive situation. No matter how often DBCDE restates that NBN Co is a last resort provider the facts are that the existing private providers are now last resort providers without access to equivalent government funding for FTTP networks and having to compete with NBN Co acting contrary to CN in new developments.

In the majority of all new Greenfield developments developers bears the cost of infrastructure and utilities. Recent trends will see developers paying larger costs for utility and social infrastructure outside the development boundary like roads, public transport and schools. The decision by NBN Co to fully fund networks in new developments has set a precedence which is inconsistent with national infrastructure practices and CN.

The policy impact of government funding NBN Co exclusively enables NBN Co to act at the expense of the private FTTP providers in breach of CN in new developments and removes competition and innovation from the market.

This case presents an opportunity for AGCNCO to demonstrate that it is independent of other government agencies and Ministerial pressure whilst relevantly encouraging competition in the market.

Should you have any questions or require further information, please do not hesitate to contact the undersigned

Yours faithfully

Michael Sparksman
Managing Director

20th May 2011

Mr Gary Banks, AO
Chairman of the Productivity Commission
Australian Government Competitive Neutrality Complaints Office
GPO Box 1428
Canberra City ACT 2601

Dear Mr Banks,

COMPLAINT – NATIONAL BROADBAND NETWORK (NBN) CO LIMITED

Service Elements wishes to complain about a serious breach of the Australian Government Competitive Neutrality Policy by the government business enterprise (**GBE**), NBN Co Limited (**NBN Co).**

We provide the following background information with regard to our complaint for investigation by the Australian Government Competitive Neutrality Complaints Office.

Please also find attached to this letter the Competitive Neutrality Complaint Form as required by your office.

Legislative Framework

The formation of NBN Co was announced by the Minister for Broadband, Communications and the Digital Economy (**the Minister**) on 7 April 2009.

NBN Co is obliged to meet requirements as set out under the *Commonwealth Authorities and Companies Act 1997* (**CAC Act**). Section 5 of the CAC Act defines a GBE or government business enterprise to mean 'a Commonwealth authority or Commonwealth company that is prescribed by the regulations for the purpose of the definition'. NBN Co is so prescribed in the *Commonwealth Authorities and Companies Regulations 1997.*

As you are no doubt aware there are several consequences for NBN Co of being prescribed as a GBE. Most importantly, for the purposes of this complaint, a GBE is deemed by the Government to be conducting 'significant business' where they have been specifically structured to operate along commercial lines. Since competitive neutrality requirements are applied to significant government business activities, the policy of competitive neutrality must then apply to NBN Co. In our opinion, the fact that it has not yet been listed in Section A, Table 1 in the Appendix for the *Commonwealth Competitive Neutrality Policy Statement* is a reflection of the lack of consideration that this Government has given to the issue of, what, if any, neutrality arrangements should apply to the NBN Co to ensure there is fairness in the relevant market place.

Background

NBN Co is carrying on a business as a "wholesale only, open access" telecommunications provider of fibre-to-the-premises (**FTTP**) network services in new (**Greenfield**) residential developments as well as existing (**Brownfield**) residential estates.

There are a number of commercial enterprises including Service Elements who have been competing with one another in Greenfield developments for over 10 years prior to NBN Co entering this market sector. Before the formation of NBN Co, developers could choose between Telstra copper network infrastructure, for which Telstra could claim under USO funding (up to $145m pa), or FTTP networks from commercial carriers (including Telstra's Velocity business) fully funded by developers. This healthy competition saw the cost per lot to developers reduced significantly in the period since full de-regulation of the telecommunications market in 1997.

There are a number of major obstacles to FTTP networks in new developments arising from the cost of capital as well as the general lack of funding for items such as communications backhaul links. NBN Co does not address any of these issues rather its business model seeks to eliminate all competition in Greenfield developments to establish itself as a monopoly provider.

We contend that NBN Co are in breach of Competitive Neutrality Guidelines as outlined in the Competitive Neutrality Guidelines Policy in relation to their business activities in Greenfield developments, by virtue of NBN Co's public ownership, funding and regulatory advantages as set out below.

The significance of the advantages enjoyed by NBN Co are:

1. *NBN Co is able to act as "provider of first resort "by virtue of its exclusive and substantial Federal Government funding, being from shareholders who do not realistically expect a commercial rate of return on investment from year to year, instead of acting as a "the provider of last resort" in the provision of FTTP services to Greenfield developments.*

When NBN Co initially became involved in providing FTTP networks for developers in Greenfield developments it was clearly stated by the government that NBN Co would do so on the basis that it would be "the provider of last resort"[1]. In other words, where no other alternative commercial provider was willing or able to provide the FTTP network, NBN Co would step in to ensure a FTTP network was made available to developers.

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[1] http://www.itnews.com.au/News/219164,conroy-intervenes-in-greenfield-stoush.aspx
http://bcove.me/yamdr3sq

Rather than taking a reactive stance to providing services in its supposedly “last resort” capacity, NBN Co has also established its own Greenfield's sales and marketing teams to market to and pro-actively facilitate commercial contracts with property developers who may well be able to acquire services from existing operators of FttP networks. However, as NBN Co offers to delay repayment of capital for network construction until operational revenues are available from completed greenfield networks, developers are more inclined to contract with NBN Co to avoid capital outlays on FttP networks.

What NBN Co is able to do that other commercial operators cannot do is use its enormous government shareholder funding without commercially realistic repayment terms, to shift the cost of recovery from the developer, who would otherwise have included the network construction cost in the price of land sold, to the connected end users (ie residents and businesses) who pay higher operational costs.

It has transpired that even where there are competitors willing and able to provide the FTTP networks on commercial terms ***NBN Co is still offering to deploy the FTTP network and connect premises without charge to the property developer.*** This is clearly a competitive advantage to NBN Co, which is not available to commercial businesses who must recoup their costs from developers. This is clearly in breach of the Competitive Neutrality Policy.

2. *By not charging developers NBN Co has destroyed the commercial business model previously in existence, thus moving the industry towards a monopoly by NBN Co.*

NBN Co plans to pass on the costs of building the NBN in Greenfield development over a number of years to the Retail Service Providers (**RSP's**) which is not the established industry practice. We can only assume they intend to do this as a monopoly ensuring RSPs have no alternative but pay these inflated wholesale charges for access to the NBNC o networks.

Without competition in the industry NBN Co will have no real constraints on charges to RSPs and ultimately the consumer. There will be no incentive to innovate or maximize efficiencies, much less to cut costs for access charged to the RSPs..

3. *Weighted Average Cost of Capital (WACC) of NBN Co is insufficient for a commercial enterprise.*

NBN Co has stated it will earn a 7% rate of return (ROR) on investment. We contend that as a GBE, subject to Competitive Neutrality policy, this is inadequate return, particularly considering the business risk associated NBN Co business venture. An entirely new technology platform deployed throughout Australia under a never before implemented business model in this industry is what NBN Co is undertaking. High risks are usually attributed to any business plan in large scale complex projects. Risks of budget over runs, time delays, and unfamiliar market circumstances, all conspire to require high rates of return for working capital and construction works capital to be deployed in such ventures. Commercial development businesses assuming a risk profile of this magnitude would normally require rates of return in excess of 25% per annum on investment. It would also be one that is not dependent on the mere possibility of a sale of the NBN Co shares as is now the stated policy of Government. There is no certainty of a sale of shares or the business of NBN Co after the NBN is deemed by Government to be complete. As such the assurance of any ROR is illusory and a sham designed to avoid scrutiny by Australian voters by describing the funding by Government as a loan. If it is a loan then it should be on commercial terms and that is not the case. Indeed, there is no commercial loan funds available to any other network operator to build FTTP networks in an environment where the NBN Co is a direct competitor.

Furthermore, we urge an immediate assessment of the current ROR of NBN Co. as we believe there is significant doubt as to its ability to meet those returns. Without any significant revenues at present it seems unlikely that NBN Co is meeting any acceptable short to medium term ROR. It appears that by the Government funding the capital cost (not being passed onto the developers) and effectively propping up NBN Co's financial viability, they are undermining competition in the Greenfield market and breaching the Competitive Neutrality Policy.

4. *NBN Co has limitless funds, regulatory relief and significant control over standards and specifications within the industry.*

As stated above, access to Government funding without any apparent delivery of an acceptable WACC rate has provided NBN Co with an unassailable advantage in the industry. As well, the government continues to legislate in order to advantage NBN Co.

In addition to current legislation preventing "cherry-picking" in the Greenfield developments, the Government has tabled the "*Telecommunications Act (Fibre Deployment) Bill 2011*". We contend this Bill will enable the minister to determine the standards and specifications for FTTP networks that will only suit NBN Co network design and business, thus effectively eliminating all competition by private providers.

At the same time NBN Co can simply exempt itself from the scope of the legislation by providing a written statement that it does not intend to comply in some particular area. No other carrier or operator of FTTP networks has the advantage of deciding when it wants to comply and when it does not want to comply with legislation.

5. *NBN Co has been able to use their position as a GBE to obtain significant intellectual property and pricing information from commercial operators such as Service Elements.*

Under the guise of working in collaboration with the commercial providers, NBN Co and the Government have had commercial operators participate as unpaid advisers through the provision of proposals to NBN Co to build operator and transfer to NBN Co the FTTP networks in Greenfield developments (including network designs, specifications, operational information and pricing which was confidential market sensitive information) over the next few years, when NBN Co says it will not have the capacity to do so. That market sensitive confidential information can now be shared with Telstra (through its dealings with NBN Co) or commercial competitors including NBN Co. NBN Co have recently decided to exclude the expert panel of providers (including Service Elements) from all involvement in supporting NBN Co building the FTTP network during the period of incapacity, and appointed a single contractor (Fujitsu) to a role different to that specified in its original request for proposals, by only requiring Fujitsu to build and operate the FTTP networks in Greenfields under contract to NBN Co.

Service Elements along with other providers have been left with nothing to show for their submitted business proposals but the loss of confidential commercially sensitive information to a competitor GBE. NBN Co is now free to use our business information, which would not otherwise have been made available to them without the written encouragement of the Minister for us to provide that information to NBN Co, who can now further exploit their competitive advantage by virtue of Government ownership. The Minister encouraged Service Elements and other Greenfield fibre operator companies to participate in the process that delivered our commercially sensitive information to NBN Co by a letter to the Greenfield Fibre Operators of Australia in December 2010.

The effects of those advantages on your business and/or private competitors more generally

1) *Significant loss of staff to NBN CO due to uncertainty of the business's future*

Although our business is not large when compared to NBN Co, we have already experienced staff losses directly and indirectly to NBN Co. In addition to these staff losses, a significant number of our subcontractor arrangements have been undermined by NBN Co actions within the market.

2) *There have been no network supply, deployment or operation contracts signed by Service Elements since June 2010 when the Minister advised that NBN Co would be a provider of FTTP networks in Greenfield developments.*

Prior to June 2010, Service Elements had provided FTTP network facilities to a number of developers over 3 years. Service Elements business was growing and investing in technology, capital and staff.

Given the uncertainty created by NBN Co offering developers FTTP networks without charge to the develpers, no additional work has been contracted since June 2010, when Minister Conroy announced that NBN Co would be covering the cost of installing fibre infrastructure in Greenfield estates. Expressions of interest and enquiries have virtually ceased. Preliminary works contracts have now been either been cancelled or challenged by developers wanting to get out of contracts with Service Elements so that they con contract with NBN Co. From our discussions with other operators in the Greenfield's market they are suffering the same fate with the exception of NBN Co., which has reported that it has or expects to contract developments with about 170,000 building lots by the end of 2011.

In short, we no longer have a future FTTP Greenfield's development business. The effects of NBN Co's breaches of Competitive Neutrality Policy is to jeopardise the ongoing sustainability of our business and that of other businesses operating in the Greenfield market. This is arguably the outcome the Government and NBN Co are working towards.

3) *Service Elements is unable to recoup significant Capital Costs already invested in FTTP infrastructure*

Service Elements has invested in infrastructure and committed to long-term contracts to support its operations based on modest growth expectations. Many of our existing contracts have been built around a financial model that required the full build-out of a development estate before they provide adequate profitability.

Any other avenues you have pursued in relation to your complaint (eg consultation with the government activity)

Service Elements is a member of Greenfield Fibre Operators of Australia (**GFOA**) . Recently, a number of our directors representing GFOA made a submission to the Joint Parliamentary Committee on the National Broadband Network (see attachments).

We have also been asked by the Joint parliamentary Committee to prepare a number of pricing models to reflect the impact on wholesale prices to RSP's of NBN Co business plan in both Metro and Regional areas.

We also plan to lodge a complaint with the ACCC against NBN Co and the Minister for Broadband, Communications and the Digital Economy for misleading and deceptive conduct in the course of trade and commerce in relation to the solicitation of information in the course of requesting proposals for the building, operation and transfer of FTTP networks in Greenfields and the formation of a proposed "Expert Panel" to do that work.

Any other reviews or investigations in train which could have a bearing on the complaint

Please refer above.

Desired Outcome

Service Elements respectfully request the following from AGCNCO:

I. a determination on whether NBN Co breached the Competitive Neutrality Policy; and,
II. some guidance on what measures the NBN Co should put in place to ensure compliance with the Competitive Neutrality Policy in the future.

We look forward to hearing from you regarding this matter. If you have any questions or require further information to support our Complaint please contact me on 02 97190900

Yours faithfully

Steven Appleby
Managing Director
Service Elements

Attachments:
Competitive Neutrality Complaint form
A Submission to the Joint Parliamentary Committee on the National Broadband Network by GFOA.

Australian Government
Productivity Commission

NBN Co

Australian Government
Competitive Neutrality
Complaints Office

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The Australian Government Competitive Neutrality Complaints Office

The Australian Government Competitive Neutrality Complaints Office is an autonomous unit within the Productivity Commission. It was established under the Productivity Commission Act 1998 to receive complaints, undertake complaint investigations and advise the Treasurer on the application of competitive neutrality to Australian Government business activities.

Further information on the Productivity Commission can be obtained from the Commission's website (www.pc.gov.au) or by contacting Media and Publications on (03) 9653 2244 or email: maps@pc.gov.au

Australian Government
Productivity Commission

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24 November 2011

The Hon. Bill Shorten MP
Assistant Treasurer
Parliament House
Canberra ACT 2600

Dear Assistant Treasurer

In accordance with section 21 of the *Productivity Commission Act 1998* and the Commonwealth Competitive Neutrality Policy Statement, I have pleasure in submitting the results of the Australian Government Competitive Neutrality Complaints Office's investigation of NBN Co.

Yours sincerely

Mike Woods
Commissioner
Competitive Neutrality Complaints

Competitive neutrality policy

Competitive neutrality is a policy which aims to promote efficient competition between public and private businesses. The Australian Government's approach is set out in its *Competitive Neutrality Policy Statement* (Australian Government 1996):

> Competitive neutrality requires that government business activities should not enjoy net competitive advantages over their private sector competitors simply by virtue of public sector ownership. (p. 4)

In particular, competitive neutrality policy:

> … requires that governments should not use their legislative or fiscal powers to advantage their own businesses over the private sector. (p. 5)

While the policy recognises that there are a number of advantages and disadvantages of government ownership, it does not seek to ameliorate all of these. Instead, it focuses specifically on those competitive advantages enjoyed by government businesses that are widespread and relatively easy to observe and correct (Australian Government 1996, p. 6), including:

- exemptions from various taxes (taxation neutrality)
- access to borrowings at concessional interest rates (debt neutrality)
- exemptions from complying with regulatory arrangements imposed on private sector competitors (regulatory neutrality)
- other benefits associated with not having to achieve a commercial rate of return on assets (commercial rate of return requirements).

The policy is applied to significant government businesses where the benefits from doing so outweigh the costs. For the purpose of competitive neutrality policy, a business activity is defined as one where:

- there is user charging
- there is an actual or potential competitor (that is, users are not restricted by law or policy from choosing alternative sources of supply)
- managers of the activity have a degree of independence in relation to the production or supply of the good or service and the price at which it is provided.

Competitive neutrality policy deems the following organisations as significant as they have been specifically structured to operate along commercial lines:

- all government business enterprises (listed under the *Commonwealth Authorities and Companies Act 1997*) and their subsidiaries
- other share-limited trading companies
- all designated business units.

Other activities which operate in accordance with the definition of a business and generate in excess of $10 million in revenue from commercial activities are also considered to be significant.

Contents

1 The complaints

1.1 The nature of the complaints

The Australian Government Competitive Neutrality Complaints Office (AGCNCO) received complaints from three businesses alleging the operations of NBN Co breached the Australian Government's *Competitive Neutrality Policy*. The complainants are existing operators in the wholesale market for broadband infrastructure — OPENetworks Pty Ltd (complaint received 13 April 2011), Comverge Networks (complaint received 15 April 2011) and Service Elements Pty Ltd (complaint received 2 June 2011).

The complainants allege that NBN Co is not complying with competitive neutrality policy and has gained a market advantage due to government ownership. The complainants also claim that policy developments have granted NBN Co commercial advantages.

Specifically, the OPENetworks complaint details the following concerns.

- NBN Co was announced as a provider of last resort to greenfield developments (where no commercial operator would operate), but has actively sought business in commercially viable developments.
- NBN Co's pricing of infrastructure in greenfield developments is contrary to competitive neutrality principles. The claim is that NBN Co is providing infrastructure (fibre and active equipment) and connections in new developments at no charge to developers, noting that private providers must charge developers for the capital costs (which are passed on to land buyers) as they are unable to recoup those costs from retail service providers.
- If NBN Co is not charging developers for infrastructure and connections in new developments, then the announced rate of return of 7 per cent (allowing for the cost of commercially raising debt) is not possible.
- There may be competitive neutrality breaches relating to Ministerial determinations of technical specifications. Currently, providers operate under industry codes of practice. It is claimed that Ministerial determinations will favour NBN Co by increasing the cost of private production and thereby make provision by private infrastructure operators an unviable option for developers.

Comverge Networks similarly claimed that:

- NBN Co is using its position as a government business enterprise to promote itself to the development industry as the only option for the provision of fibre to the home networks in new greenfield developments.
- NBN Co did not follow a fair and transparent tender process when seeking contractors to build networks in new developments, which resulted in a 'capture of intellectual property from their competitors'.
- NBN Co negotiations with Telstra for the transfer of existing and new networks is putting smaller players at a significant disadvantage.
- Operational standards of NBN Co are presented as new industry standards to which other operators must adhere.

Service Elements claimed that:

- NBN Co is able to act as a provider of 'first resort' instead of a provider of 'last resort' due to financial backing by the Australian Government.
- NBN Co's pricing of infrastructure in greenfield developments is contrary to current industry practice of charging capital costs to developers (which they pass on to land buyers) rather than to retail service providers.
- NBN Co's 7 per cent target rate of return does not represent a commercial rate of return as required under competitive neutrality policy.
- NBN Co is afforded regulatory advantages as a consequence of Ministerial determinations and through its role in defining what constitutes the footprint for the national broadband network.
- NBN Co did not follow a fair and transparent tender process when seeking contractors to build networks in new developments. Service Elements claim that this enabled NBN Co to 'capture intellectual property' from its competitors.

1.2 About NBN Co

NBN Co was established and incorporated on 9 April 2009 under the *Corporations Act 2001* and was prescribed as a Government Business Enterprise under the *Commonwealth Authorities and Companies Act 1997* on 9 August 2009. The company is wholly owned by the Commonwealth of Australia and the Commonwealth's shareholding is represented jointly by the Minister for Broadband, Communications and the Digital Economy and the Minister for Finance and Deregulation.

The purpose of NBN Co is to design, build and operate a wholesale-only national broadband network across Australia (Wong and Conroy 2010, p. 1). As stated by the Department of Broadband, Communications and the Digital Economy (DBCDE) in its response to the complaints, the network will address a number of perceived failures in the existing telecommunications market, including:

- an industry failure to invest in high-speed broadband, particularly on a ubiquitous basis;
- a lack of effective competition in the provision of retail broadband services, particularly as a result of Telstra's control of the copper customer access network and its vertical integration; and
- a lack of uniform national wholesale pricing in the supply of broadband.

NBN Co is expected to operate in accordance with a Statement of Expectations from the Government to the company (Wong and Conroy 2010). This document states, in part, that:

> The Government's vision for NBN Co is that it operates as a commercial entity. (p. 2)

Consistent with this statement, NBN Co has a Corporate Plan (NBN Co 2010a) and an independent board and management team. The Government 'expects NBN Co's approach to pricing will recognise the importance of maintaining affordability to drive take-up rates' and 'notes and supports the NBN Co product, pricing and service offerings developed to date' (Wong and Conroy 2010, p. 10), but does not set the prices NBN Co can charge.

1.3 The role of the AGCNCO in investigating complaints

The *Productivity Commission Act 1998* empowers the AGCNCO to investigate complaints that:

> … a particular Commonwealth Government business or business activity, or a business or business activity competing with a Commonwealth Government business or business activity, is not conducted in accordance with competitive neutrality arrangements that apply to it … (s. 21(1)(a))

or that such a business or business activity:

> … should be required to be conducted in accordance with competitive neutrality arrangements. (s. 21(1)(b))

The Act defines competitive neutrality arrangements that apply to a government business as:

> … the arrangements referred to by that name in the *Commonwealth Government Competitive Neutrality Statement* of June 1996 … (s. 21(5))

In accordance with the Productivity Commission Act and *Commonwealth Government Competitive Neutrality Statement* of June 1996, NBN Co is the type of Commonwealth Government Business to which competitive neutrality arrangements were intended to apply.

In deciding to investigate these complaints, the Office is satisfied, in accordance with the *Productivity Commission Act 1998* (part 4, division 2) and the *Competitive Neutrality Policy Statement* (Australian Government 1996), that the complaints:

- are not better handled by another body
- do not relate to competitive neutrality policies that are being finalised or are currently the subject of review by government
- are not vexatious
- raise issues of substance and with non-trivial resource allocation effects.

The primary role of the AGCNCO in this instance is to assess whether NBN Co is being, or is likely to be, conducted in accordance with competitive neutrality arrangements. This involves assessing NBN Co's actual or intended compliance with the taxation, debt, regulatory neutrality and commercial rate of return requirements of the policy.

Unlike other AGCNCO investigations, this investigation is of a government business activity which is in its infancy. As yet, the business model has not been sufficiently implemented to yield data on what would be viewed as 'normal' costs and revenues. NBN Co's infancy has resulted in the AGCNCO examining, in some respects, whether NBN Co is potentially in *ex ante* breach of competitive neutrality policy. In effect, it is examining whether NBN Co is operating in line with the principles set out in the Australian Government's *Competitive Neutrality Policy* more so than whether the commercial results achieved to date are consistent with this policy.

In conducting the investigation, the AGCNCO held discussions with the three complainants — OPENetworks, Comverge Networks and Service Elements — and with the Department of Broadband, Communications and the Digital Economy (DBCDE), NBN Co, the Department of Finance and Deregulation and the Australian Government Treasury. Written submissions were received from the DBCDE on 9 September 2011 and from NBN Co on 14 September 2011. A draft of this report was provided to DBCDE and NBN Co on 21 October 2011 for their comment on any matters of fact. Responses were received on 4 November 2011 and 7 November 2011 from DBCDE and NBN Co respectively.

2 Background

On 7 April 2009 the Australian Government announced the establishment of a new company to build and operate a national 'super fast National Broadband Network' (Conroy 2009). The National Broadband Network is intended to connect around 93 per cent of all Australian homes, schools and workplaces via fibre-to-the-premise (FTTP)[1], and deliver broadband speeds up to 100 megabits per second. The remaining premises are to be provided with access to fixed wireless and satellite technologies with broadband speeds of at least 12 megabits per second.

The decision to establish a new company, NBN Co, followed an earlier commitment from the Government to provide up to $4.7 billion in funding to private-sector proponents to roll-out a new open access, high speed, fibre-based broadband network across Australia. The open Request for Proposal process (DBCDE 2008), conducted by the Australian Government to evaluate private-sector proposals for the network, was terminated when an independent panel of experts advised that none of the national proposals offered value for money (Conroy 2009). As stated by the Department of Broadband, Communications and the Digital Economy (DBCDE) in its response to the complaints:

> Faced with a significant failure in the telecommunications marketplace with significant long term structural implications for its operation and the wider economy, the lack of an acceptable private sector alternative and private sector difficulty in raising capital because of the 2008-09 global financial crisis, the government decided that it would need to take the leading role in providing a solution.

2.1 Some background on NBN Co

NBN Co's funding arrangements

The Government expects that NBN Co 'will be funded with Government equity until NBN Co has sufficient cash flows to support private sector debt without explicit Government support' (Wong and Conroy 2010, p. 11). The Australian

[1] FTTP is interpreted by DBCDE to mean infrastructure that provides for the connection of single dwellings or individual premises within multi-dwelling units with fibre optic cabling from the optical fibre distribution centre to an optical network terminator (ONT) located at the customers' premises or similar equipment in multi-dwelling units (DBCDE 2009).

Government plans to invest $27.5 billion over the period 2010-11 to 2020-21 so that NBN Co can design, build and operate the National Broadband Network (Treasury 2011). These funds will be sourced collectively from:

- the Building Australia Fund
- the contingency reserve account
- a proposed future issuance of Aussie Infrastructure Bonds to households and institutional investors (through the issue of Australian Government securities as part of the Government's overall debt issuance program) (Dalzell 2010).

A further $13.4 billion in debt financing (including interest earned on invested funds) is expected to be raised from the private sector over the period 2014-15 to 2020-21, bringing the total expected funding for NBN Co to $40.9 billion (NBN Co 2010a). Around $37.3 billion of these funds are expected to be used for capital expenditure (of which $10.4 billion will be for fibre connections), with the remainder covering net operating expenses.

The Government announced its intention to sell down its interest in the company within five years after the network is built and fully operational, subject to market conditions and national and identity security considerations (Conroy 2009). In this context DBCDE, in its response to the complaints, said:

> In the longer term, the government expects NBN Co to be entirely self-funding and able to provide returns to the government.
>
> Following completion of the rollout, the government will consider the optimum capital structure for the company following which private sector debt should be applied to repaying the government's investment, consistent with that structure.[2]

NBN Co's pricing

The Government's objectives in establishing NBN Co include 'affordable access' to broadband in both metropolitan and regional Australia through the provision of a 'common entry level broadband price structure for all Australian premises across all technologies used in the rollout' (Wong and Conroy 2010, p. 4). To support this objective, NBN Co is required to uniformly charge those seeking access for the entry level product across all platforms (fibre, wireless and satellite). Also, where new technologies become available, NBN Co is to seek to maintain this principle (NBN Co 2010d).

2 DBCDE define an optimal capital structure to be one that 'in light of economic, industry and firm specific factors, would provide for an investment grade credit rating, whilst at the same time imposing a discipline on the GBE to optimise efficiency' (DBCDE 2011c).

NBN Co will provide, and therefore charge for, one of the two cost components faced by *retail service providers* in supplying services to customers over the national broadband network (retail service providers will also have a number of other input costs associated with their business operations). NBN Co will charge for access to the network (fibre, wireless or satellite) to the point of interconnection. Retail service providers will then need to transport their data from the point of interconnection to their point of presence — a link known as backhaul.

As such, even with uniform wholesale network access charges, end user prices may vary because of different costs of providing the backhaul link. On backhaul routes where this would have the greatest impact on retail prices, NBN Co is required to provide a 'transit backhaul' service (such as a link to connect rural and remote areas of the FTTP network to the main competitive backhaul network) (DBCDE 2009; NBN Co 2010a).

The NBN Co Implementation Study stated that:

> NBN Co will have significant influence over the retail prices that end users pay through the prices it charges service providers for its wholesale access and transit services … By setting its wholesale prices at a level that encourages take-up across the country … the NBN initiative will help ensure that affordable wholesale prices translate through to affordable retail prices. (KPMG-McKinsey 2010, p. 109)

It also stated that:

> … investment in backhaul assets within the fibre footprint is not expected to provide a commercial return and should be seen as a government investment to provide future telecommunication services to regions at an affordable price. (KPMG-McKinsey 2010, p. 340)

NBN Co is preparing a 'special access undertaking' to be approved by the ACCC under the *Competition and Consumer Act 2010*, in order to finalise pricing for its part of the National Broadband Network (NBN Co 2011b). The special access undertaking will contain key commitments in relation to prices of NBN Co fibre, wireless and satellite services and a framework for the regulation of these services for a 30 year period.

Regulatory, policy and contractual arrangements

The regulatory framework for NBN Co and the National Broadband Network is established through the *National Broadband Network Companies Act 2011*; the *Telecommunications Act 1997* and its supplement *Telecommunications Legislation Amendment (National Broadband Network Measures – Access Arrangements) Act 2011*; and the *Competition and Consumer Act 2010*. The *National Broadband*

Network Companies Act 2011 and the *Telecommunications Legislation Amendment (National Broadband Network Measures – Access Arrangements) Act 2011* came into effect on 12 April 2011. They amend and add to the existing generic telecommunications regulatory framework.

The *National Broadband Network Companies Act 2011* sets out key obligations that, amongst other things:

- limit NBN Co to wholesale-only telecommunications in terms of the goods and services it supplies and the investments it makes
- establish powers for the functional separation of NBN Co, for Australian Government full ownership of the company until completion of the NBN rollout and for the Government to require NBN Co to transfer or divest assets
- provide for exemptions from state and territory stamp duty for transactions associated with the agreements between Telstra and NBN Co (DBCDE 2011b).

The *Telecommunications Legislation Amendment (National Broadband Network Measures – Access Arrangements) Act 2011* amends (see DBCDE 2011b) the *Competition and Consumer Act 2010*, the *Telecommunications Act 1997* and the *Freedom of Information Act 1982* such that:

- the ACCC will have powers to make access determinations and binding rules of conduct in relation to the services supplied by NBN Co and the company has the option of providing to the ACCC a Special Access Undertaking in relation to its services
- certain conduct (such as refusing to permit interconnection outside listed points of interconnection, bundling of services and cross-subsidising within its charging regime) is allowed by NBN Co where this is necessary to achieve uniform national wholesale pricing
- 'level playing field' requirements (set to commence 12 April 2012) apply to fixed-line local access networks or parts of such networks that are built, upgraded, altered or extended from 1 January 2011, requiring such networks to be whole-sale only with the operator of such networks supplying a 'layer 2'[3] service on a non-discriminatory basis.

[3] The Open Systems Interconnection Model sub-divides a communication system into seven smaller parts or layers. 'Layer 1' is the physical network (for example, provision of light across optical fibre) which provides services to 'layer 2', the 'data link layer' (for example, encoding and decoding of light into bits). The remaining five layers refer to switching and routing, connections, security, applications and service quality. Provision of these five layers in Australia's NBN will be left to retail service providers.

To ensure that new developments have access to fibre technology as they are being built, the Government announced that from 1 January 2011:

- NBN Co Limited would be the wholesale provider of last resort in new developments within or adjacent to its long term fibre footprint and would meet the cost of doing so
- developers — and on their properties, property owners — would be responsible for ensuring that pit and pipe (including trenching and ducting, design and third-party certification for development approval purposes) are installed and fibre-ready
- Telstra would have limited infrastructure responsibilities where NBN Co does not provide fibre and would be the retail provider of last resort
- developers may use any fibre provider they choose, provided they meet NBN specifications and open access requirements (DBCDE 2011a).

Some of these requirements were formalised in the Government's 'Fibre in New Developments Policy' announced on 9 December 2010 and, to some extent, were incorporated in further amendments to the *Telecommunications Act 1997* through the *Telecommunications Legislation Amendment (Fibre Deployment) Act 2011*. In particular, this Act which came into effect on 27 September 2011:

- enables the Minister to specify that new developments in which fixed lines are to be installed need to use optical fibre
- requires passive infrastructure such as pit and pipe to be fibre-ready
- imposes penalties on developers that sell property without fibre-ready passive infrastructure
- enables carriers to seek access to passive infrastructure that is owned by a non-carrier
- enables the Australian Communications and Media Authority to make standards for customer equipment and cabling for use with the national broadband network and other superfast networks.

Although policy details are yet to be finalised, if an area is already adequately served with fibre, the Government has indicated that it can declare it 'adequately served', thus exempting NBN Co from its provider of last resort responsibilities (Quigley 2011).

To facilitate the development of the National Broadband Network and its adoption across Australia, NBN Co has entered into commercial arrangements with Telstra and Optus to provide access to fibre facilities and infrastructure and migrate customers to the new network respectively. Under the Telstra agreement (announced on 23 June 2011 and approved by Telstra shareholders on 18 October 2011), Telstra will be paid $9 billion (in net present value terms) to provide much of the infrastructure required to build the fibre network including:

- lead-in conduits through which fibre will be connected to each premise
- underground ducts and pits through which fibre will run
- dark fibre
- rack spaces in Telstra exchanges.

Telstra has also agreed to progressively decommission its copper and hybrid fibre coaxial (HFC) customers (other than HFC pay-TV customers) to enable its customers to be moved to the national broadband network. NBN Co will be Telstra's preferred fixed-line network for wholesale fixed line services. The agreement includes a minimum lease of Telstra's infrastructure for 35 years (to 2047).

Optus will similarly be paid ($800 million in net present value terms) to begin transferring its customers from hybrid fibre coaxial cable to the national broadband network from 2014 (AAP 2011). Optus will also decommission parts of its network.

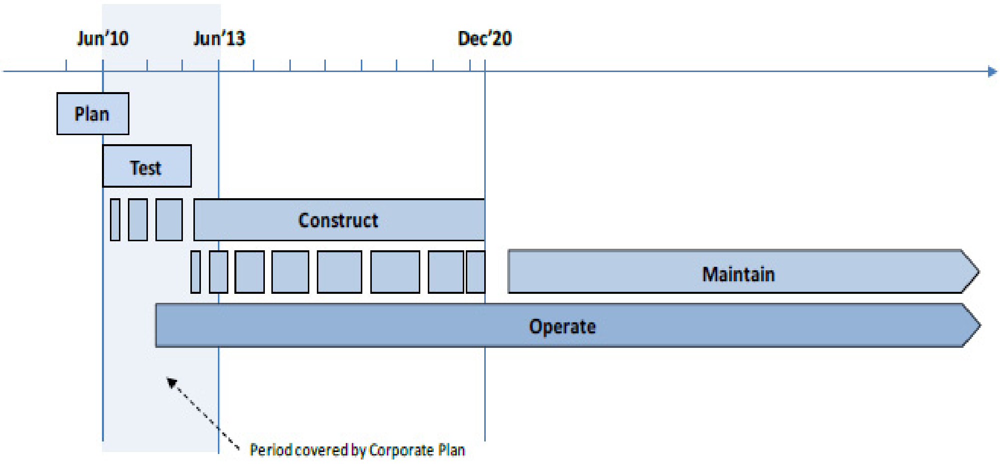
NBN Co's roll-out

Rollout of the fibre network for the National Broadband Network across Australia is a multi-stage process, with the construction phase of the network expected to continue until 2020 (figure 2.1).

As part of the initial rollout (between 2009 and 2011), the Government invested up to $250 million to address 'backbone blackspots' throughout regional Australia (DBCDE 2011d). The backbone infrastructure consists of almost 6000 kilometres of fibre optic transmission links to selected regional centres. Nextgen Networks was awarded the Government's tender to build, operate and maintain each of the backbone links for a five year operational period following completed construction. To date, four of the five links have been completed.

Rollout of the FTTP network was trialed by NBN Co in selected sites — firstly in Tasmania and then in five mainland locations. For the rollout in Tasmania, the Government established NBN Tasmania Limited as a subsidiary of NBN Co, to build and operate the National Broadband Network in that state. Also trialling in Tasmania is a fibre network extension. This is an extension of the fibre footprint to premises which would otherwise not be included in the planned 93 per cent coverage, but are willing to pay for fibre access. These additional premises will pay the difference between what it would cost to provide them with fibre to their premises and the cost of fixed wireless or satellite (Quigley 2011).

Figure 2.1 **Announced timeline for the NBN**



Source: NBN Co (2010a).

Although the trials are not yet complete in the mainland sites, locations for later stages of the rollout around Australia have been progressively announced by NBN Co. NBN Co has developed a fibre footprint to illustrate the proposed location of the NBN coverage across Australia (NBN Co 2010b). As at mid-July 2011, there were 2500 active services on the network across Tasmania and mainland first release sites (NBN Co 2011d). NBN Co plans for around 250 000 premises in greenfield developments to have an active FTTP service by June 2013 (NBN Co 2010a). A further 70 000 greenfield premises will be passed or covered (but not yet connected) by that date. In October 2011, NBN Co was building fibre infrastructure in over 90 new developments spread across 65 locations nationally (NBN Co 2011f).

NBN Co has experienced a number of delays in implementing its planned rollout. Some of these have been attributed to issues with contractor tendering processes and negotiations with Telstra for the use of its existing infrastructure (Lee and Hepworth 2011; Lee 2011; Yeates 2010).

2.2 NBN Co and new developments

The Government considers that new developments across Australia should have access to fibre technology as they are being built (Wong and Conroy 2010). As noted by Conroy (2010):

> While the NBN is being constructed, an estimated 1.9 million new premises will be built. Connecting these premises to fibre will provide occupants with ready access to next generation broadband and reduce rollout costs by avoiding costly retrofitting.

The private sector is installing FTTP networks in greenfield developments across Australia. There are more than 10 operators installing FTTP in greenfield estates and a number of service providers are using FTTP infrastructure to offer services at the retail level (DBCDE 2009). These existing providers vary in terms of the extent to which they offer wholesale services on an open access basis (KPMG-McKinsey 2010). They range from providers who operate wholesale only, open access networks, to others who provide access only to their own or an affiliated retail provider (for example, the largest FTTP provider, Telstra, does not offer wholesale access to competitors).

As at May 2009, FTTP was deployed in around 120 greenfield estates. There were an estimated 7500 homes connected at that time, with these deployments expected to eventually connect around 150 000 homes (DBCDE 2009). The Aurora estate in Victoria, the Fernbrooke estate in Queensland, the Marina Hindmarsh Island estate in South Australia and the suburb of Forde in the ACT are examples of new developments with FTTP networks (DBCDE 2009).

Following extensive consultation and consideration of the NBN Implementation Study, the Government announced that NBN Co would play the role of infrastructure provider of last resort in new developments. The roles and responsibilities of NBN Co and other market participants in new developments are described in a Government policy statement released on 22 June 2011 (DBCDE 2011a) which further develops earlier policy announcements made by the Government (DBCDE 2010a; 2010b; 2011a).

Developer obligations

The *Telecommunications Legislation Amendment (Fibre Deployment) Act 2011* and Government policy statements specify that in all types of new developments, developers are required to install and ensure that pit and pipe — including trenching and ducting, design and third-party certification for development approval purposes — are fibre-ready to NBN Co's specifications. Developers are expected to meet the costs of these requirements. The Government has advised that 'in the absence of the developer meeting the cost of providing pit and pipe, NBN Co is not required to provide services to these developments' (Conroy 2010, p. 4).

Developers can source infrastructure from any provider. Where a developer chooses a provider other than NBN Co, pending the development of industry specifications, these providers can apply their own fibre-ready specifications, but they must be national broadband network consistent (NBN Co 2011c). These specifications apply until fibre-ready specifications are otherwise agreed by industry through a Communications Alliance process or determined by the Australian Communications and Media Authority (these were released for public consultation in September 2011).

Where a developer seeks active infrastructure from NBN Co (or from Telstra as a provider of last resort), then the pit and pipe infrastructure must meet NBN Co's requirements (or in the case of Telstra, NBN Co's specifications pending the development of industry specifications) (Conroy 2010). In these instances, NBN Co (and Telstra) requires ownership of pit and pipe infrastructure to be transferred to it as a commercial condition of providing active infrastructure. Where private fibre providers are used, NBN Co may seek to acquire both the active and pit and pipe infrastructure, if it meets NBN Co specifications and acquisition is in NBN Co's commercial interests (Conroy 2010). Providers who fail to meet the NBN Co specifications risk being overbuilt when NBN Co rolls out the network in their area (DBCDE 2011a).

In the event that developers are unable or unwilling to source fibre infrastructure from a private provider, NBN Co or Telstra (depending on the size and location of development)[4] are required to act as providers of last resort for the development (DBCDE 2011a). NBN Co does not charge developers for its provision of fibre infrastructure in premises that are located within the NBN Co fibre footprint (NBN Co 2011c). In contrast, other providers of FTTP typically seek to recover a greater proportion of installation costs up-front from developers (DBCDE 2009).

However, while developers are free to choose between private sector infrastructure providers and NBN Co, many have sought NBN Co to provide infrastructure in their developments. NBN Co reported to the National General Assembly of Local Government in June that since 1 January 2011, the company has received over 200 applications from developers of greenfield estates (Bremner 2011).

Scope of NBN Co's responsibilities in fibre installation

The scope of NBN Co's responsibilities as provider of last resort for the installation of fibre in new developments have been detailed by the Government

4 In small developments and those which applied to Telstra for services prior to 1 January 2011, the developer is expected to meet the cost of installing pit and pipe infrastructure and transfer ownership of such infrastructure to Telstra in exchange for Telstra's provision of fixed-line infrastructure within that pit and pipe. Historically, Telstra has recovered the costs of providing of its copper-based network through its connection/installation and ongoing service charges.

(DBCDE 2011a) to cover new developments for all premises within the NBN Co's fibre footprint and explicitly include:

- new developments of 100 or more premises (houses or units released over a three year period), whether broadacre or infill, which have received Stage 5 (relating to civil works) planning approval after 1 January 2011 and for which three months' notice has been given (by the developer to NBN Co)
- developments, irrespective of size or type, in areas where NBN Co has already rolled out fibre and the fibre is ready and capable of connection
- developments in areas where NBN Co has publicly identified the area as a rollout region — this is on the basis that rollout regions will be announced 12 months prior to the ready-for-service date (DBCDE 2011a).

NBN Co may also provide infrastructure in smaller developments where it is practical for it to do so.

In developments for which it is responsible, NBN Co will install the fibre infrastructure in the development, including a link to a point of interconnect. NBN Co may use whatever operational arrangements it chooses to service new developments, including sub-contracting and build-operate-transfer arrangements (Conroy 2010).

For developments of less than 100 premises, whether broadacre or infill, Telstra will be responsible for delivering infrastructure and services, pending NBN Co being ready to provide a fibre service in that area that is capable of connection to the premises.[5]

[5] In the event that Telstra is paid by a developer to install the pit and pipe infrastructure into a new development where NBN Co is to provide fibre, Telstra will transfer ownership of the pit and pipe to NBN Co.

3 Assessment of issues

This investigation is about a government business activity which is in its infancy and has yet to produce 'business as usual' costs and revenues. Indeed, much of NBN Co's pricing model is still being investigated by the Australian Competition and Consumer Commission's (ACCC) in relation to the approval of its special access undertaking (NBN Co 2010a).

As such, the AGCNCO has examined whether NBN Co is, *ex ante*, pursuing a business model which could place it in breach of competitive neutrality policy. The AGCNCO has placed greater emphasis on whether NBN Co has been established and operated in line with the principles set out in the Australian Government's *Competitive Neutrality Policy*, rather than on whether the current commercial results are consistent with this policy. The AGCNCO has drawn on a range of evidence, including:

- the three complaints
- the responses to the complaints from NBN Co and the Department of Broadband, Communications and the Digital Economy (DBCDE)
- publicly available information, including the NBN Co Corporate Plan (NBN Co 2010a), NBN Co's Business Case Summary (NBN Co 2010b) and Statement of Corporate Intent 2011-2013 (NBN Co 2011e)
- the Australian Government's Statement of Expectations (Wong and Conroy 2010)
- evidence presented during consultations by DBCDE, Department of Finance and Deregulation and the Australian Government Treasury.

Some of the issues raised by the complainants fall outside competitive neutrality policy and are outside the purview of the AGCNCO. These issues are discussed in section 3.1. Substantive alleged breaches are discussed in section 3.2.

3.1 Issues which fall outside competitive neutrality policy

Issues raised by OPENetworks, Comverge Networks and Service Elements that do not fall within competitive neutrality policy include NBN Co's:

- status as the provider of last resort in greenfield developments and the use of its profile to promote its business
- long term contracts with Telstra
- tender process to establish a panel of infrastructure providers.

Provider of last resort and associated marketing strategy

The complainants allege that NBN Co has acted contrary to the statements made by the Minister for Broadband, Communications and the Digital Economy that NBN Co would be a provider of last resort in new developments. On 9 December 2010, the Minister, Senator the Hon Stephen Conroy, stated that:

> … NBN Co would be the wholesale provider of last resort in new developments within or adjacent to its long term fibre footprint and meet the costs of doing so … (2010, p. 1)

The complainants allege that, rather than only providing wholesale infrastructure in instances where no other supplier will do so at a commercial price, NBN Co has actively sought business in commercially viable developments.

OPENetworks stated that at a recent Urban Development Institute of Australia (UDIA) conference in Sydney, NBN Co represented their position as a provider in greenfield developments rather than as one limited to the provider of last resort:

> … NBN Co and Telstra presented their new mandates from Government to the UDIA who represent all of the national developers of Greenfields in Australia. NBN Co announced that in relation to developments with 100 lots of more, NBN Co was the sole provider and for under 100 lots Telstra was the sole provider. They said that developers had to register with them for connection of telecommunications. It was only when one of the members of the Greenfield Fibre Operators of Australia stood up and pointed out that there are other providers did they concede that there are private providers with whom developers may contract for FTTP networks.

As put by OPENetworks:

> There is no issue with NBN Co acting as 'provider of last resort' in greenfield developments. That is where no alternative builder/provider/operators will deploy FTTP networks and, in that case, also providing the fibre and active equipment needed to operate the networks. However, where that is not the case and other builder/provider/operators will deploy FTTP networks on commercial terms NBN Co is still offering to deploy the fibre and active equipment and connect premises without charge to the developer. Clearly this undermines the market in greenfields and breaches the Competitive Neutrality Policy of government.

In its 17 December 2010 Statement of Expectations, the Government advised NBN Co of its view of what is meant by 'provider of last resort' (Wong and Conroy 2010):

> The Government has now finalised the following expectations regarding NBN Co's role as wholesaler provider of last resort within its fibre footprint:
>
> - NBN Co will provide fibre in all new 'broadacre' developments;
> - NBN Co will provide fibre in all infill developments in which 100 or more premises are built within a 36 month period in areas where NBN Co has not yet rolled out its network; …
> - NBN Co may use whatever operational arrangements it chooses to service new developments, including sub-contracting and build-operate-transfer arrangements; …
>
> These arrangements will not prevent developers from using other companies to roll out fibre networks in new developments if they wish … (p. 6)

An ordinary understanding of the term 'provider of last resort' would suggest that NBN Co is limited to being the provider only in instances where no commercial alternative is available to a developer. However, the DBCDE in its response claims that the Government did not state that NBN Co's role was limited to being a provider of last resort:

> From the time it announced the NBN in April 2009, the government consistently left open the question of what role NBN Co would play in new developments. The government has not suggested NBN Co would be excluded from new developments or be limited to the role of provider of last resort.

Decisions by government businesses as to where and with whom they conduct their business arrangements must accord with commercial law, but do not constitute a breach of competitive neutrality policy if they do not rely on a competitive advantage by virtue of their government ownership. Competitive neutrality policy states:

> Competitive neutrality does not imply that government businesses cannot be successful in competition with private businesses. Government businesses can achieve success as a result of their own merits and intrinsic strengths, but not as a consequence of unfair advantages flowing from government ownership. (Australian Government 1996, p. 5)

FINDING 3.1

NBN Co's decision to be an alternative provider of fibre in greenfield developments (rather than only the provider of last resort) is not dependent on a competitive advantage by virtue of its government ownership and is not a breach of competitive neutrality policy.

The complainants also argue that NBN Co's profile, due to the size of the government's commitment and media attention, places it at a competitive advantage over private suppliers. Comverge Networks, for instance, alleges that NBN Co is using its market position to promote itself to the property development industry as the only option for new fibre to the premises (FTTP) infrastructure:

> NBN Co is using its market position under the umbrella of the Department of Broadband, Communications and the Digital Economy (DBCDE) to engage the industry as the only option for FTTP in new Greenfield developments.

Competitive neutrality policy does not make specific reference to advantages conferred by such factors as market position. The policy is directed at those advantages of government ownership that are widespread and relatively easy to observe and correct. As stated in the *Competitive Neutrality Policy Statement* (Australian Government 1996):

> Some of the competitive advantages enjoyed by government businesses are widespread and relatively easy to observe and correct. The Commonwealth's competitive neutrality arrangements will directly address: exemptions from various taxes, access to borrowings at concessional interest rates, exemptions from complying with regulatory arrangements imposed on private sector competitors and other benefits associated with not having to achieve a commercial rate of return on assets. (p. 6)

Other advantages are not specifically addressed in the policy. The policy statement leaves these to be subject to the continuing development of commercialisation policies (including corporatisation):

> Other advantages (and disadvantages) tend to vary across government businesses, and are more difficult to identify and correct. These distortions will be reviewed through the continuing development of the Commonwealth's commercialisation policies which, among other things, address the need to establish appropriate organisational structures for government business activities. (p. 6)

Some business characteristics can confer advantage in the marketplace, but are not the direct consequence of government ownership. Matters relating to business type, size, location and market position can be exploited by all businesses. This is explicitly recognised in the *Competitive Neutrality Guidelines for Managers* (Treasury and DFA 2004):

> … CN [competitive neutrality] policy does not consider (nor is it concerned with) efficiency issues which are inherent with all competitors — such as size, skills, equipment, managerial competence or culture. (p. 4)

FINDING 3.2

NBN Co's use of its profile to promote itself to the development industry as a provider of fibre to the home in greenfield developments is an operational decision, and is not a breach of competitive neutrality policy.

NBN Co's long term contracts with Telstra

The complainants raised concerns that NBN Co's contractual relations with Telstra give NBN Co a competitive advantage over smaller telecommunications infrastructure providers. As Comverge Networks said:

> NBN Co is engaging in commercial negotiations with Telstra for the ongoing transfer of all existing and new FTTP Greenfield sites, which is putting the other smaller players at a significant disadvantage.

NBN Co has begun to finalise the process of entering into a number of long term contracts with Telstra (Conroy 2011b). These contracts, although not yet executed, will assist NBN Co to build the national broadband network. They are also a means of pursuing the Government's policy objective of structural separation between infrastructure ownership and retail service provision in the telecommunications industry. As put by the DBCDE in its response to the complaints:

> The NBN addresses concerns about the lack of effective competition in the provision of retail broadband services, particularly as a result of Telstra's control of the copper customer access network and its vertical integration. It does this because it has been established as a wholesale-only, open access, non-discriminatory service provider, operating at a low level in the Open System Interconnection (OSI) model. These key principles are enshrined in law in the National Broadband Network Companies Act 2011 and the Statement of Expectations.
>
> Through the migration of operations from existing integrated networks like those of Telstra and Optus as a result of agreements with NBN Co, a structurally separated telecommunications industry will be established in Australia.

As stated in the DBCDE response to the complaints, the use of government equity funding for NBN Co is intended, at least in part, '… to enable it to enter into long term contracts to deliver the government's policy objectives'.

NBN Co's long term contracts with Telstra are a deliberate decision by the Government to establish a company of sufficient size and balance sheet strength to achieve the scale of reform required to create a structurally separated telecommunications industry in Australia. From a competitive neutrality viewpoint, the advantage is one of size, which other large businesses could also possess, rather than of government ownership as such.

FINDING 3.3

NBN Co's long term contracts with Telstra are enabled by the size of the corporation and are not a breach of competitive neutrality policy.

Tender process for greenfield network providers

The complainants expressed concerns about the tender process used to establish a '… panel of appropriately qualified and experienced providers who can build and install fibre on its behalf' (Conroy 2010, p. 3). As put by Service Elements in its complaint:

> Under the guise of working in collaboration with the commercial providers, NBN Co and the Government have had commercial operators participate as unpaid advisers through the provision of proposals to NBN Co to build operate and transfer to NBN Co the FTTP networks in Greenfield developments (including network designs, specifications, operational information and pricing which was confidential market sensitive information) over the next few years, when NBN Co says it will not have the capacity to do so. …
>
> Service Elements along with other providers have been left with nothing to show for their submitted business proposals but the loss of confidential commercially sensitive information to a competitor GBE. NBN Co is now free to use our business information, which would not otherwise have been made available to them without the written encouragement of the Minister for us to provide that information to NBN Co, who can now further exploit their competitive advantage by virtue of Government ownership.

Similar concerns were expressed by the other complainants.

Again, competitive neutrality policy does not directly address the issue raised by the complainants. Rather, with regard to tendering processes it prescribes that:

> All agencies conducting a tendering process must include a requirement for public sector bidders to declare their tenders are compliant with CN [competitive neutrality] principles. (Treasury and DFA 2004, p. 43)

The policy also covers the market testing of activities to ensure that no advantage is available to public sector bids or in-house provision (with compliance to be achieved through baseline costing exercises). In this respect, the policy seeks to ensure that when government businesses submit tenders, their pricing reflects a commercial return to a cost base that has been determined in line with competitive neutrality policy. Similarly, for activities which were previously conducted in-house (which was not the case in the tender process in question conducted by NBN Co), the policy seeks to ensure that the baseline costing used to evaluate bids (and the decision to take on external suppliers) is determined in accordance with competitive neutrality policy.

On the issue raised by the complainants, NBN Co advised the AGCNCO that the tender was conducted in accordance with its terms and the Government's requirements:

> Contrary to the assertions made by the complainants, the Request for Proposal process conducted between December 2010 and March 2010 by NBN Co to invite proposals for FTTP solutions in new developments was conducted properly and in accordance with its terms and the Government's requirements. All information received during the course of that process has been handled in accordance with the confidentiality restrictions imposed on it.

FINDING 3.4

NBN Co's tender process for establishing a panel of appropriately qualified and experienced providers who can build and install fibre on its behalf is not a breach of competitive neutrality policy.

3.2 Issues relevant to competitive neutrality policy

Three issues raised by the complainants are relevant to competitive neutrality policy:

- the pricing of infrastructure in greenfield developments
- the expected rate of return and related issues
- NBN Co gaining advantages through Ministerial determinations.

Pricing in greenfield developments

Competitive neutrality policy requires government businesses to set their prices such that they earn a commercial rate of return from their overall business activities. As stated in the *Competitive Neutrality Guidelines for Managers* (Treasury and DFA 2004):

> CN [competitive neutrality policy] requires that significant government businesses price their goods and services on a comparable basis to private sector organisations. This involves:
>
> - identifying costs attributable to the business activity; and

- setting prices that take into account all relevant costs (including allowances for a commercial RoR [rate of return]) that would apply to private sector competitors. (p. 4)

It is not the price of any specific product or service that is at issue, but rather whether a commercial rate of return is achieved from the overall activities of a business. This provides the same flexibility for government businesses in setting prices for individual products as applies to private sector businesses. A pricing model that has adverse impacts on competition in particular market segments, therefore, would not represent a breach of competitive neutrality policy (though it would be subject to general competition law).

For greenfield developments, the complainants observed that NBN Co will be supplying the fibre and active equipment at no cost to the developer, with developers obligations being limited to meeting the costs of 'pit and pipe' construction. NBN Co's cost of fibre and active equipment is to be recovered from retail service providers. DBCDE advised that the reason for this approach is so that pricing between existing 'brownfield' and greenfield markets will be consistent:

> NBN Co will install fibre in new developments at no charge to developers, consistent with the government's policy direction, and recover the cost from operations. This is a fairly common model for paying for large infrastructure installations, and is similar to the method Telstra has used for its copper network.
>
> That NBN Co does not charge upfront for the provision of fibre is consistent with its national mission to provide fibre. That NBN Co can do this reflects its equity funding by the Commonwealth on a national basis and over an extended time horizon. NBN Co's operations in new developments are consistent with NBN Co's commercial operation generally and its provision of a return as a national operation.

NBN Co's pricing model is different to that adopted by private providers. Private providers charge developers so as to recover the capital costs, and then provide access for retail service providers on a basis which is competitive with other telecommunications mediums (such as copper, coaxial and wireless). As put by OPENetworks:

> A commercial alternative builder/provider/operators can only deploy FTTP networks by charging the developer for that capital cost because the retail service providers that access the FTTP networks will not pay more than the operating costs.

Similar sentiments were expressed by Service Elements:

> It has transpired that even where there are competitors willing and able to provide the FTTP networks on commercial terms NBN Co is still offering to deploy the FTTP network and connect premises without charge to the property developer. This is clearly a competitive advantage to NBN Co, which is not available to commercial businesses who must recoup their costs from developers.

The differences in the approaches to pricing in greenfield developments between NBN Co and private providers will clearly have an effect on competition in that market segment. If NBN Co actively seeks business in these markets (rather than limit its operation to being a supplier of fibre as the provider of last resort), then developers have a clear incentive to use NBN Co to reduce their costs. The complainants argue that they would not be able to follow a similar pricing model given the need for greater financial backing and the risks of not being able to attract retail service providers to their networks if they were to recover full infrastructure costs from those providers when competing (and cheaper) mediums for service delivery are available (copper, coaxial and wireless).

The AGCNCO notes that the charging of developers for the capital costs of other economic infrastructure, such as water, sewerage, drainage, electricity, gas and roads is not unusual. Indeed, as the Productivity Commission noted in its report on first home ownership (PC 2004), developer contributions for these infrastructure items have increased over the past 20 years:

> For at least 20 years … the trend has been to install infrastructure [economic and social] from the outset, with more of the initial funding burden shifted onto developers through upfront charges. Developers have in turn sought to pass the charges on in higher prices for serviced lots and house and land packages. (p. 156)

In the home ownership study, the Commission said that such upfront charging was an efficient way to fund such service provision. The level of upfront charges would need to be determined in a manner that takes into account the mix of local and shared (more diffuse and community wide) benefits (PC 2004). But even in instances of shared infrastructure (such as network infrastructure), upfront charging was efficient:

> … the Commission sees considerable merit in the use of upfront charging to finance major infrastructure where the incremental costs can be well established and, in particular, where such increments are likely to vary across developments (because of location and terrain). (p. 169)

The principles set out in the Commission's 2004 report suggest that while there is a measure of developer contribution (in the form of pit and pipe costs), efficiency improvements, viewed from an economy-wide perspective, could arise from NBN Co varying its pricing strategy in greenfield developments.

That said, the DBCDE, in its response to the complaints, advised the AGCNCO that the pricing model reflected the Government's objective of achieving a common entry level broadband price structure for all Australian premises across all technologies used in the rollout:

> The return being sought from NBN Co is determined on a national product basis which is consistent with its mission of developing a ubiquitous national network providing superfast broadband services to all premises.

Consistent with achieving this objective, the DBCDE noted that the developer charging strategy reflected:

> … concern that end-users in new developments could face costs in being connected to fibre that would not be charged in established areas and the need to maximise access to nationally consistent outcomes, including service performance and uniform national wholesale pricing. (p. 4)

As noted earlier, in relation to competitive neutrality policy, at issue is whether the business earns a commercial rate of return overall (discussed in the following section). Consideration of the impacts on competition of different pricing for particular market segments is not a matter for competitive neutrality policy.

FINDING 3.5

NBN Co's pricing model for individual goods or services in particular market segments, in itself, is not a breach of competitive neutrality policy.

The expected rate of return on assets and related issues

The complainants allege that NBN Co's targeted (internal) rate of return of 7 per cent (referred to in some documents as a rate of return of 7.04 per cent), and the timeframe over which it is expected to be achieved, represents a breach of competitive neutrality policy. Specifically, they claim that it is:

- not achievable under the planned pricing structure
- not a commercial rate of return
- not achievable within a reasonable timeframe
- not representative of the cost of meeting NBN Co's shareholder loans.

An internal rate of return represents the rate at which the net present value of costs and revenues is equal to zero. It does not account for the opportunity cost of capital employed. Although not stated in the publicly available information about NBN Co's internal rate of return, the DBCDE informed the AGCNCO that the published 7 per cent internal rate of return is net of estimated tax payments made after 2028, and on a pre-tax basis could be closer to 8 per cent.

From a commercial planning perspective, an internal rate of return is a useful metric as projects that yield rates of return greater than the weighted average cost of capital

(WACC) are wealth creating. It is a separate question as to whether alternative investments could produce greater returns on the assets that are employed. Thus, at issue is whether the return from the project that NBN Co has undertaken to complete (building the national broadband network) will deliver a commercial return commensurate with its WACC. As the building of the national broadband network constitutes NBN Co's entire operations, this return will also approximate the company's expected commercial rate of return from all activities.

As noted earlier, competitive neutrality policy requires government businesses to account for all costs and to charge prices such that they earn a commercial rate of return over a reasonable timeframe. The *Competitive Neutrality Policy Statement* (Australian Government 1996) establishes the relevant criteria:

> GBEs [government business enterprises] are specifically required to achieve, over time, as a minimum benchmark, economic rates of return on assets for their commercial operations equivalent to the long-term bond rate plus an appropriate margin for risk. (p. 18)

Is the targeted rate of return achievable under the pricing model?

Unlike other investigations relating to rates of return (such as the investigation into the Australian Valuation Office, Investigation Report no. 11 (AGCNCO 2004)), these is no data on NBN Co's financial performance to date to verify the achievement or otherwise of a commercial rate of return. Given that NBN Co is in its infancy, the AGCNCO has examined the processes used by NBN Co to determine its forecast revenues and costs. In this *ex ante* context, important considerations in relation to the pricing model are:

- the presence of sound processes for setting cost estimates and pricing
- the presence of appropriate sensitivity testing around the assumptions that underpin the business case
- recognition that NBN Co has adopted a 'cross-subsidy' pricing model in order to achieve the Government's stated objective of offering a common entry level broadband price structure.

NBN Co's summary business case (NBN Co 2010b) and corporate plan (NBN Co 2010a) state that the company expects to achieve an internal rate of return of 7 per cent. This is based on a 30 year planning model which sets out assumptions of demand, revenues and costs. In recognition of significant uncertainties, NBN Co has undertaken to update its corporate plan annually (NBN Co 2010b):

> The assumptions made by the Company, which underpin the Plan, together with the business strategies and development of capabilities of the business, how the Company

> will measure its achievement of the financial and operational objectives, and the risk management and its mitigation strategies, will be reviewed on a regular basis to take into account the latest major developments; it is anticipated that the Plan will be updated at least once a year. (p. 14)

DBCDE, in its response, referred to an independent report which assessed NBN Co's Corporate Plan:

> An independent report on NBN Co's Corporate Plan by Greenhill Caliburn (executive summary released in April 2011) considered key assumptions underlying revenue and cost projections in the Corporate Plan appear to be in line with a range of available domestic and international benchmarks, and are consistent with the stated policy objectives of the government with respect to the NBN.

NBN Co has conducted a number of sensitivity tests to clarify, in part, the impact of these uncertainties. The tests centre around the two major influences on the expected rate of return — the demand for services and construction costs (table 3.1).

Table 3.1 **Sensitivity of the internal rate of return**

Scenarios	*High construction costs*	*Mid construction costs*	*Low construction costs*
	%	%	%
Mid demand with high average revenue per user	7.6	8.3	8.8
Mid demand with mid average revenue per user	6.3	7.0	7.6
Low demand with low average revenue per user	5.3	6.1	6.7

Source: NBN Co (2010a, p. 25).

The planning approach, updates and sensitivity testing represent efforts by NBN Co to help identify its cost base and therefore set prices that can achieve its targeted rate of return.

NBN Co's pricing model is also subject to further scrutiny, by the ACCC, in order to gain approval for its a special access undertaking (SAU). As NBN Co states in its Corporate Plan (NBN Co 2010a):

> It is proposed that NBN Co's SAU will cover key price and product aspects of access to NBN Co's fibre, wireless and satellite networks, as well as a limited range of non-price terms and conditions. ….
>
> … When the SAU is lodged with the ACCC, the ACCC is required to assess the SAU against a series of statutory criteria (known as the 'reasonableness' criteria). These criteria include the promotion of competition, encouraging economically efficient investment in and use of infrastructure, the legitimate business interests of access providers, the interests of access seekers and direct costs. (pp. 106-7)

Such scrutiny will test NBN Co assumptions and provide greater clarity on whether the proposed pricing model is likely to achieve NBN Co's targeted rate of return.

The AGCNCO notes that the assumptions used by NBN Co to develop its corporate plan, business case and pricing have been subject to scrutiny and sensitivity testing. NBN Co is taking steps to be satisfied that its targeted rate of return is achievable under its pricing model.

Does the targeted rate of return represent a commercial return?

Competitive neutrality policy allows for commercial rates of return to be determined in a number of ways. One way is for the rate of return to be agreed to by the government (through its shareholder ministers). The *Competitive Neutrality Guidelines for Managers* (Treasury and DFA 2004) state:

> GBEs [government business enterprises] already have specific arrangements in place to determine their RoR [rate of return]. These are agreed by the Minister for Finance and Administration and the responsible portfolio Minister. The Treasurer is also consulted. (p. 30)

As discussed in chapter 1, in the case of NBN Co, the Government's Statement of Expectations (Wong and Conroy 2010) states that:

> The Government's vision for NBN Co is that it operates as a commercial entity. (p. 2)

The DBCDE in its response to the complaints also advised that:

> In pursuing the objectives set by the government, NBN Co has been established to operate on a commercial basis.
>
> That the government expects NBN Co, subject to GBE requirements, to operate as a commercial entity is reiterated in the Statement of Expectations.

The DBCDE noted that no specific rate of return has been stipulated by the shareholders. As set out in NBN Co's Corporate Plan, the direction regarding the rate of return is that:

> The expected rate of return should, at a minimum, be in excess of current public debt rates. (NBN Co 2010a, p. 12)

A rate of return that exceeds the long term bond rate is a necessary condition to ensure compliance with competitive neutrality principles. However, it is not, of itself, sufficient, in that the policy also requires a return which includes an appropriate margin for risk.

The DBCDE is silent on what may constitute an appropriate risk margin for NBN Co as a commercial business:

> The Corporate Plan provides for taxpayers to get their investment back, with interest; the NBN is forecast to generate a rate of return higher than the government bond rate.
>
> NBN Co's expected rate of return is 7.04 per cent, which compares favourably with the average 10 year bond rate (July 2009 to November 2010) of 5.39 per cent …

The Minister for Broadband, Communications and the Digital Economy has stated that (Inside Business 2010):

> … we have never taken the approach that we need to make the rate of return that the telco sector is used to. This is a project which returns all of the government's money and interest costs, and makes a modest return of six to seven per cent.

The NBN is seen by the Government as the platform for delivering a number of its telecommunications industry reforms. As put by DBCDE:

> By investing in the NBN, the government is putting in place the essential underlying infrastructure which is the platform for Australia's improved participation in the digital economy. The government considers the structural reform it is pursuing provides a once-in-a-generation opportunity to create a level playing field and enable retail competition and investment to flourish for the benefit of consumers.

The presence of non-commercial benefits from NBN Co's business activities (examined later) does not over-ride the commercial discipline that underlies competitive neutrality policy, including the requirement to earn a rate of return that justifies the long term retention of assets in those activities.

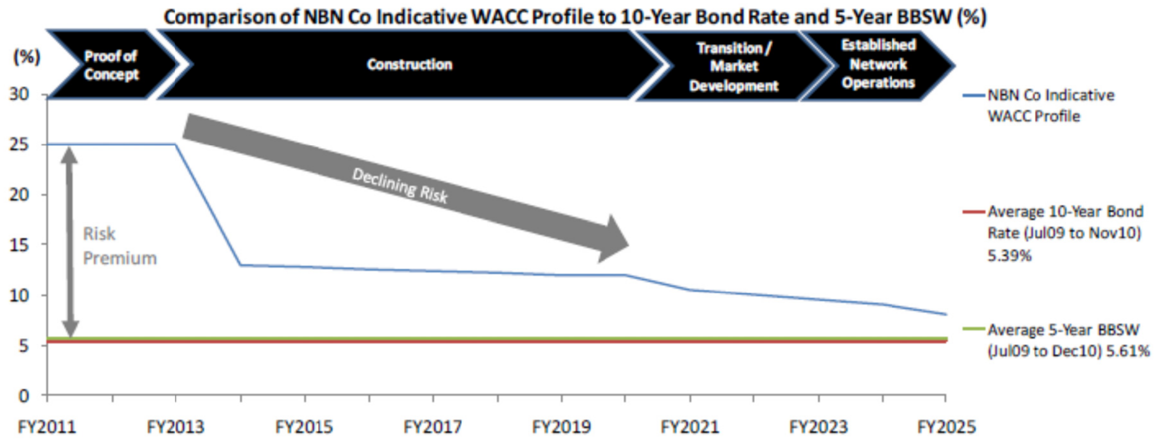
The weighted average cost of capital

The *Competitive Neutrality Guidelines for Managers* (2004) provides guidance on how to determine a commercial rate of return when a benchmark rate has not been set by government. A number of approaches are discussed, including determining the WACC.

The WACC is the average of the minimum rates of return owners and creditors require to be paid, reflecting the risk profile of the business. As put by NBN Co, WACC estimates describe the '… return that has to be generated, in expectation, to attract capital investment from equity and debt investors' (NBN Co 2010a, p. 143). Once this has been determined, it becomes the benchmark rate against which a rate of return can be compared.

NBN Co's corporate plan provides estimates of the company's WACC over the next 30 years. These estimates vary across the phases of the roll out, reflecting the different levels of expected risk for each of the phases. When risk is greatest, during the proof of concept phase, estimates of the WACC are close to 25 per cent. Once established, WACC estimates fall to between 8 and 9 per cent (figure 3.1). The average WACC over the first 25 years, based on the expected amount of invested capital, was estimated to be between 10 and 11 per cent. (Comparisons made by NBN Co to other telecoms indicates that the cost of capital for non-incumbent European telecoms are in the order of 7 to 8 per cent and for regulated utilities/infrastructure of around 6.5 to 7.5 per cent (NBN Co 2010a, p. 144).)

Figure 3.1 **WACC estimates over NBN Co roll out**
2011-2025



Data source: NBN Co (2010a, p. 143).

The *Competitive Neutrality Guidelines for Managers* (Treasury and DFA 2004) advise that the WACC approach may only be workable for a business which could benchmark its cost of equity (and debt) against other businesses:

> The WACC approach is likely to be appropriate for businesses that have a mix of equity types and undertake activities that are reasonably well established in the private sector (where benchmark data on the cost of equity is available). (p. 32)

For industry sectors where a comparable WACC is not easily determined, and managers are only able to approximate the business' market risk, the guidelines suggest risk broad-banding. This approach applies a benchmark base cost of capital (the Australian Government's nominal long term bond rate) and adds a risk premium (for more detail see CCNCO 1998). The suggested risk premiums for low, medium and high risk activities are 3, 5 and 7 per cent respectively. Using such an approach to determine a commercial rate of return would be consistent with the shareholder direction given to NBN Co in relation to the returns sought.

Using NBN Co's estimates of the average long term (10 year) Australian Government bond rates (5.4 per cent) for consistency, the indicative risk broad-banding commercial rates of return range from 8.4 per cent for low risk activities to 12.4 per cent for high risk (table 3.2).

Table 3.2 **Risk broad-banding estimates**

Risk assessment	*Base rate*	*Risk premium*	*Required pre-tax rate of return*
	%	%	%
Low	5.4	3.0	8.4
Medium	5.4	5.0	10.4
High	5.4	7.0	12.4

Sources: Treasury and DFA (2004); NBN Co (2010a).

NBN Co's expected (after tax) internal rate of return of 7 per cent from building the national broadband network will deliver a return to NBN Co that is below all risk broad-banding estimates of commercial rates of return.[1] NBN Co's own estimates of risk (used to determine their average WACC of between 10 and 11 per cent or higher over the next 25 years) also suggest it views itself as operating in at least a medium risk environment for the foreseeable future. On this basis, the targeted 7 per cent return after tax does not represent a commercial rate of return.

DBCDE's response to the complaints confirms that the government has internalised the cost of risks that a commercial entity would need to bear:

> The project is being financed by the government because it is best able to mobilise the capital required and manage the risks involved, rather than the private sector which would require an additional risk premium for risks controlled by government.

Under competitive neutrality policy, government businesses should adjust their cost base to offset advantages they receive by virtue of government ownership. This applies to the cost of debt, including any explicit or implicit government guarantees, but as discussed later, NBN Co has no debt exposure in the foreseeable future.

Non-commercial benefits

Where governments direct their businesses to undertake (or offer to private businesses) non-commercial activities, the business can retain its commercial focus and operation by being fully (and transparently) funded for the non-commercial activity through a 'community service obligation' (CSO) payment. Australian governments have generally based their definitions of CSOs on the formulation proposed by the Steering Committee on National Performance Monitoring of GTEs:

> A Community Service Obligation arises when a government specifically requires a public enterprise to carry out activities relating to outputs or inputs which it would not

1 Taking into account tax payments, the expected internal rate of return is likely to be close to the required pre-tax rate of return for a low risk business. However, as NBN Co does not consider itself low risk, and would not be considered such in the first 30 years of its operations, a return of close 8 per cent would not be considered a commercial rate.

> elect to do on a commercial basis, and which the government does not require other businesses in the public or private sectors to generally undertake, or which it would only do commercially at higher prices. (SCNPMGTE 1994, p. xi)

DBCDE and NBN Co argue that NBN Co's 'commercial' rate of return should be viewed in the context that the company has been established to deliver both commercial and social benefits. As put by DBCDE:

> The government has created NBN Co to build and operate a new fibre network (supplemented by next generation wireless and satellite technology) to address a number of failures in the telecommunications market …

NBN Co, in its Statement of Corporate Intent 2011-2013 (NBN Co 2011e), states:

> As a commercial company, NBN Co has been established with the aim of providing an acceptable return to our shareholders.
>
> However, the NBN is a Government initiative that has more than just a commercial return as its objective – it has a broader set of social and economic objectives, which NBN Co must balance with commercial objectives. …
>
> It will have benefits for education, health, environment and transport management, entertainment delivery and business productivity. It is not part of NBN Co's role to determine the nature, magnitude or prioritisation of these additional benefits, but they are expected to be above and beyond the financial returns to be made by the Government's investment. (p. 11)

NBN Co is not funded through an explicit CSO for the delivery of non-commercial benefits that the Government requires it to provide. Further, the AGCNCO has not been provided with any quantification of the non-commercial benefits that are expected to be generated by the business activities of NBN Co.

In the absence of such quantification the AGCNCO is unable, at this point, to determine whether the difference between a commercial rate of return for NBN Co (reflecting its risk profile), as required by competitive neutrality policy, and NBN Co's expected rate of return of 7 per cent, is adequately explained by the non-funded community service obligations required of NBN Co by the Government. There is a potential *ex ante* breach of competitive neutrality policy.

FINDING 3.6

In the absence of a quantification of the non-commercial benefits to be delivered by NBN Co, the targeted rate of return of NBN Co represents a potential ex ante breach of competitive neutrality policy.

RECOMMENDATION 3.1

The Australian Government should arrange for an analysis of the nature and magnitude of the non-commercial benefits required to be delivered by NBN Co On receipt of the analysis, the Australian Government should put in place accountable and transparent community service obligation funding.

RECOMMENDATION 3.2

To comply with competitive neutrality policy, NBN Co would need to adjust its pricing model by taking into account funding by the Australian Government for its community service obligations and would need to demonstrate that the adjusted pricing model is expected to achieve a commercial rate of return that reflects its risk profile.

Is a commercial rate of return achievable in a reasonable timeframe?

NBN Co's business case and corporate plan are based on a 30 year model, with positive cash flows (after capital and debt costs) accruing from 2022. The complainants allege that this timeframe is unreasonable when viewed from a commercial perspective and that it represents a breach of competitive neutrality policy.

As stated by OPENetworks:

> The further question is what commercial returns should NBN Co be providing its shareholders now or even within a reasonable timeframe, given that no other competitor or commercial network builder/provider/operators, such OPENetworks can delay producing profits for their shareholders if they are to carry on a sustainable business. It is not an answer for NBN Co to expend billions of taxpayer funds to eliminate other competitive network builder/provider/operators from the market over what may even be a period of say 3 to 5 years, and then try to justify that delay in profits by only then declaring a commercial dividend on profits because of anti-competitive processes. That is not what the government through the competition reforms that produced the Competitive Neutrality Policy had in mind for a government owned business of significance operating in the commercial marketplace.

Competitive neutrality policy and guidelines provide limited guidance as to what is considered to be a reasonable timeframe in which to earn a commercial rate of return. The *Competitive Neutrality Policy Statement* (Australian Government 1996) states that returns should be such to justify the retention of assets in the business in the long-term:

> All Commonwealth organisations identified as engaging in significant business activities will be required to earn commercial returns at least sufficient to justify the

long-term retention of assets in the business, and to pay commercial dividends (ie, equivalent to the average for their industry) to the Budget from those returns. (p. 17)

A number of previous AGCNCO investigations have examined issues relating to the timeframes under which commercial returns should be achieved — CCNCO 2000 and 2001, for example. The Office has previously stated that:

> … the commercial rate of return requirement is not a single year target, but rather is an average that should be achieved over a reasonable period. Failure to earn a commercial rate of return in any particular year, or even over several years during the establishment phase of a business, may not necessarily constitute a breach of competitive neutrality. (CCNCO 2001, p. 11)

Consistent with this advice, a delay in NBN Co earning profits and commercial rates of return over their start-up phase is not necessarily a breach of competitive neutrality policy. Indeed, for major infrastructure projects, it can be the norm.

In question, however, is the reasonableness of the length of the start-up phase. NBN Co's business case suggests that positive cash flows (after capital and debt costs) will be realised after 12 years (NBN Co 2010a, p. 133).

The DBCDE argue that within the first 15 years, where commercial returns will be negative or low, NBN Co will be the mechanism by which the Government delivers its telecommunications industry reforms and that the delay in achieving commercial returns is justified by the achievement of the Government's policy objectives:

> NBN Co will be funded with government equity until NBN Co has sufficient cash flows to support private sector debt without explicit government support. The provision of equity is intended to enable NBN Co to implement the government's policy.

Should there be payments by the Government to NBN Co for the delivery of non-commercial benefits, the period prior to the achievement of commercial returns would be reduced.

FINDING 3.7

In the absence of a quantification of NBN Co's community service obligations, the expected timeframe for achieving a commercial rate of return represents a potential ex ante breach of competitive neutrality policy.

Does the rate of return meet the cost of NBN Co's shareholder loans?

The complainants put forward that the Government's commitment of funds to NBN Co represent a shareholder loan. On this basis, the funds should be viewed as debt when assessing compliance with competitive neutrality policy. As suggested by Service Elements:

> There is no certainty of a sale of shares or the business of NBN Co after the NBN is deemed by Government to be complete. As such the assurance of any ROR is illusory and a sham designed to avoid scrutiny by Australian voters by describing the funding by Government as a loan. If it is a loan then it should be on commercial terms and that is not the case.

NBN Co has received significant public funds through an equity investment by the Government. Government equity injections are expected to total over $27 billion over the next 30 years (NBN Co 2010b). Payments in the form of equity are substantiated by NBN Co's financial report (NBN Co 2010e).

Competitive neutrality policy only requires debt neutrality provisions to be applied when monies are borrowed from the Australian Government or raised in the market. As stated in the Guidelines for Managers (Treasury and DFA 2004):

> Managers must adjust their cost base, and therefore prices, where they borrow money at a rate that reflects the credit risk of the Australian Government as a whole rather than a rate reflecting the credit risk of that type of business activity. (p. 21)

In such circumstances, government businesses are required to make adjustments to their cost base so that debt is costed at commercial rates, reflecting the risk of the business on a stand-alone basis.

FINDING 3.8

The Australian Government's equity funding of NBN Co is not subject to the debt neutrality provisions of competitive neutrality policy.

Advantages received through Ministerial determinations

Issues of regulatory neutrality arise when government businesses are exempted from complying with regulations that are faced by their actual or potential competitors. Examples include exemptions from planning and environmental regulation and licensing requirements. Competitive neutrality policy requires that where issues of regulatory neutrality arise, government businesses are required to either operate under that regulation or alternatively account for the cost of any advantage by making payments to the official public account.

> Managers must adjust their cost base, and therefore prices, by an amount equivalent to any advantage they accrue by not being subject to similar regulatory arrangements and obligations as their competitors. (Treasury and DFA 2004, p. 27)

OPENetworks puts forward that there is:

> … a serious regulatory benefit that may be bestowed on NBN Co if the Ministerial Instrument that is to set conditions for the FTTP network design and deployment determines that NBN Co standards and specifications shall apply, rather than those of say, Comms Alliance or in a Code approved by the ACMA for FTTP greenfield developments or as currently adopted by the various greenfield builder/provider/operators of FTTP networks (not just NBN co).

While a Ministerial determination that adopts NBN Co's current practice may provide a benefit if, in order to comply, other operators must change the products they supply, it does not exempt NBN Co from regulations that apply to other competitors. Thus, such determinations would not be a breach of the regulatory neutrality provisions within competitive neutrality policy.

Further, under the power to make Ministerial determinations contained in the *Telecommunications Legislation Amendment (Fibre Deployment) Act 2011)* no relevant determinations have been made.

FINDING 3.9

As no relevant Ministerial determinations have been made to date, there has been no breach of competitive neutrality policy. Further, if such determinations do not exempt NBN Co from regulations that apply to other competitors they would not be a breach of the regulatory neutrality provisions within competitive neutrality policy.

3.3 Summary of findings and recommendations

In relation to the issues raised in the complaints that fall within competitive neutrality policy, the AGCNCO found that:

- NBN Co's decision to be an alternative provider of fibre in greenfield developments (rather than only the provider of last resort) is not dependent on a competitive advantage by virtue of its government ownership, and is not a breach of competitive neutrality policy.
- NBN Co's use of its profile to promote itself to the development industry as a provider of fibre to the home in greenfield developments is an operational decision, and is not a breach of competitive neutrality policy.
- NBN Co's long term contracts with Telstra are enabled by the size of the corporation, and are not a breach of competitive neutrality policy.

- NBN Co's tender process for establishing a panel of appropriately qualified and experienced providers who can build and install fibre on its behalf is not a breach of competitive neutrality policy.
- NBN Co's pricing model for individual goods or services in particular market segments, in itself, is not a breach of competitive neutrality policy.
- In the absence of a quantification of the non-commercial benefits to be delivered by NBN Co, the targeted rate of return of NBN Co represents a potential *ex ante* breach of competitive neutrality policy.
- In the absence of a quantification of NBN Co's community service obligations, the expected timeframe for achieving a commercial rate of return represents a potential *ex ante* breach of competitive neutrality policy.
- The Australian Government's equity funding of NBN Co is not subject to the debt neutrality provisions of competitive neutrality policy.
- As no relevant Ministerial determinations have been made to date, there has been no breach of competitive neutrality policy. Further, if such determinations do not exempt NBN Co from regulations that apply to other competitors they would not be a breach of the regulatory neutrality provisions within competitive neutrality policy.

The AGCNCO has found that NBN Co is in potential *ex ante* breach of competitive neutrality requirements. The AGCNCO recommends that to comply with the Australian Government's competitive neutrality policy:

- The Australian Government should arrange for an analysis of the nature and magnitude of the non-commercial benefits required to be delivered by NBN Co. On receipt of the analysis, the Australian Government should put in place accountable and transparent community service obligation funding.
- To comply with competitive neutrality policy, NBN Co would need to adjust its pricing model by taking into account funding by the Australian Government for its community service obligations and would need to demonstrate that the adjusted pricing model is expected to achieve a commercial rate of return that reflects its risk profile.

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