## Contents

List of abbreviations and acronyms ................................................................. 3
Glossary .............................................................................................................. 5

1. Introduction .................................................................................................. 7
   1.1. Scope of inquiry .................................................................................. 8
   1.2. Consultation ....................................................................................... 8
   1.3. Structure of this paper ...................................................................... 9

2. Background .................................................................................................. 10
   2.1. NBN services ..................................................................................... 10
       2.1.1. NBN Ethernet Product .............................................................. 10
       2.1.2. Take up of NBN services ......................................................... 11
   2.2. NBN supply chain .......................................................................... 13
       2.2.1. Wholesale services .................................................................. 13
       2.2.2. Retail services .......................................................................... 15

3. Regulatory framework ................................................................................. 16
   3.1. Telecommunications access regime .................................................. 16
       3.1.1. NBN Co declared services ....................................................... 16
       3.1.2. Part XIC hierarchy of access instruments ................................. 17
       3.1.3. NBN Wholesale Broadband Agreement .................................. 18
   3.2. ACCC access determinations and binding rules of conduct .............. 18
       3.2.1. Access determinations .............................................................. 18
       3.2.2. Interim access determinations and binding rules of conduct .... 18
   3.3. Criteria for making final access determinations and BROCs ............. 19

4. ACCC approach to examining NBN access pricing .................................... 20
   4.1. ACCC consideration of principles in the SAU .................................... 20
       4.1.1. Ensuring a smooth transition to the NBN ............................... 20
       4.1.2. Price anchoring ......................................................................... 21
       4.1.3. Balancing certainty with flexibility ......................................... 21
       4.1.4. Providing safeguards ............................................................... 22
       4.1.5. Opportunity for NBN Co to recover efficiently incurred costs .... 22
   4.2. NBN Co’s approach to developing product and pricing offers under the SAU .... 23
4.3. SAU variation assessment ................................................................. 24
4.4. ACCC future approach to assessing NBN access pricing .................. 25
5. NBN access pricing ........................................................................... 28
  5.1. Initial pricing approaches ............................................................... 28
  5.2. Focus on 50 ................................................................................ 28
  5.3. Bundles ..................................................................................... 28
  5.4. NBN Co’s pricing review second consultation paper offers ............. 30
  5.5. Service transfer and transfer reversal charges .............................. 30
6. Product and pricing developments in retail fixed-line broadband markets... 32
7. Considerations for potential regulated NBN access pricing ................ 36
  7.1. NBN access products for which to consider regulated prices ........... 36
  7.2. Pricing methodology .................................................................. 38
  7.3. Proposed approach to pricing a basic broadband access product...... 38
    7.3.1. Target retail product and price ............................................. 38
    7.3.2. Target monthly access cost ................................................ 40
    7.3.3. CVC requirements on commencement .................................. 40
    7.3.4. Adjusting CVC requirements to account for growth in traffic .... 42
    7.3.5. New product and pricing offer, or use of discount notices? ....... 44
    7.3.6. Implications for transformation costs and scale economies ......... 44
    7.3.7. Support for a limited and unlimited quota basic speed retail product .... 45
    7.3.8. Allowing access seekers to achieve a comparable access cost when supplying basic speed retail plans on the NBN ....................... 45
    7.3.9. Application to NBN Co’s wireless access networks ................. 46
    7.3.10. Implications for competing networks .................................... 46
    7.3.11. Implications for access revenues and costs .......................... 47
  7.4. Service transfer and transfer reversal charges .............................. 50
Annexure A – list of questions .................................................................. 51
Annexure B – Legislative framework ....................................................... 54
List of abbreviations and acronyms

ACCC – Australian Competition and Consumer Commission
ACMA – Australian Communications and Media Authority
AD – Access determination
ADSL – Asymmetric digital subscriber line
AER – Australian Energy Regulator
AVC – Access virtual circuit
BROC – Binding rule of conduct
CCA – Competition and Consumer Act 2010 (Cth)
CPI – Consumer Price Index
CSA – Connectivity Serving Area
CSP – Carriage service provider
CVC – Connectivity virtual circuit
DBDR – Dimension-Based Discount by RSP
DSL – Digital subscriber line
DSLAM – Digital Subscriber Line Access Multiplexer
EBITDA – Earnings before interest, tax, depreciation and amortization
ELB – Entry Level Bundle
FAD – Final Access Determination
Fo50 – Focus on 50
FTTB – Fibre to the building or Fibre to the basement
FTTC – Fibre to the curb
FTTN – Fibre to the node
FTTP – Fibre to the premises
FY – Financial year
GST – Goods and services tax
HFC – Hybrid fibre coaxial
IAD – Interim Access Determination
LTIE – Long-term interests of end-users
MBA – Measuring Broadband Australia
MRP – Maximum Regulated Price
MTM – Multi-technology mix
NBN – National Broadband Network
NBN Co – National Broadband Network Company
NNI – Network-network interface
PIR – Peak Information Rate
POI – Point of interconnection
RSP – Retail Service Provider
SAO – Standard access obligation
SAU – Special access undertaking
SFAA – Standard form access agreement
TC – Traffic class
UFB – Ultra Fast Broadband
ULLS – Unconditioned local loop service
UNI – User network interface
WAN – Wide area network
WBA – Wholesale Broadband Agreement
WBA 3 – Wholesale Broadband Agreement 3
Glossary

**Access agreements** – an agreement between a carrier (access provider) and an access seeker for the supply of declared services. The requirements for a legally valid Access Agreement are set out in section 152BE of the *Competition and Consumer Act 2010*.

**Access determinations** – written determinations made by the ACCC relating to terms and conditions for access to a declared service.

**Access seeker** – a content service provider or carriage service provider that makes, or proposes to make, a request to NBN Co for access to its services, as defined in section 152AG of the *Competition and Consumer Act 2010*.

**ADSL (Asymmetric digital subscriber line)** – A technology for transmitting digital information at high data rates on existing copper phone lines. It is called asymmetric because the download and upload speeds are not symmetrical (that is, download is faster than upload).

**AVC (access virtual circuit)** – an Ethernet-based Layer 2 virtual connection that carries traffic to and from an end-user on NBN Co’s fibre, FTTB, FTTN, FTTC, HFC, wireless, or satellite networks.

**Basic speed access product** – an NBN access product that allows the supply of a retail carriage service that is functionally equivalent to an ADSL/ADSL2+ and line rental bundle.

**Binding rules of conduct** – written rules made by the ACCC specifying any or all terms and conditions for compliance with Standard Access Obligations or requiring compliance with any or all applicable Standard Access Obligations in a manner specified in the rules. These rules are made when there is an urgent need to do so.

**Carriage service** – defined in section 7 of the *Telecommunications Act 1997* as a service for carrying communications by means of guided and/or unguided electromagnetic energy.

**CVC (connectivity virtual circuit)** – NBN Co defines this as an Ethernet-based Layer 2 virtual capacity for the transport of customer traffic from multiple end-users within a Connectivity Serving Area on an aggregated basis and presented at the Network-Network Interface at the point of interconnect associated with that Connectivity Serving Area.

**Entry Level Bundle** – an NBN access product that bundles an AVC with a 12/1 Mbps speed tier and a bandwidth inclusion of 0.15 Mbps of CVC per AVC, as specified in NBN Co’s Discounts, Credits and Rebates List.

**Entry Level Retail Plan** – the least cost broadband plan that an RSP offers on the NBN

**Final Access Determination** – a determination that can only be made after a public inquiry has been undertaken under *Part 25 of the Telecommunications Act 1997*. Amongst other things it may specify terms and conditions of access to a declared service, impose other requirements on an access provider such as NBN Co and specify the terms and conditions on which a it must comply with the requirements and deal with any other matter relating to access to the declared service.

**Initial Access Determination** – a determination that may be made on an interim basis in circumstances where the ACCC has not previously made an access determination, typically where a final access determination is unlikely to be finalised in the next 6 months.

**Listed carriage service** – a carriage service of the type listed in section 16 of the *Telecommunications Act 1997*, that is, a carriage service between two points where at least one point is in Australia.
**NBN access service** – NBN Co describes this as a Layer 2 service supplied on the NBN Co network between and including: a User Network Interface on a Network Termination Device; and the Network-Network Interface at the point of interconnect associated with the relevant Network Termination Device, for the purpose of enabling an access seeker or another service provider that is a customer of an access seeker to supply carriage or content services.

**NNI (network-network interface)** – a physical interface between the NBN Co network and the access seeker’s network at the point of interconnect.

**POI (point of interconnect)** – the geographical point where traffic stops being carried on the network of the access seeker and is given to the network owned by NBN Co to carry.

**Retail Service Providers** – refers to providers of services to consumers that may be wholesale customers of NBN Co or may purchase services from wholesale customers.

**Retail Customer** – an end-user of NBN services.

**Standard Access Obligations** – obligations imposed on NBN Co in relation to the supply of its declared services under Division 2 of Part XIC of the CCA.

**SAU (special access undertaking)** – a voluntary undertaking given to the ACCC by a supplier of a telecommunications service specifying the terms and conditions upon which it agrees to supply a listed carriage service or a service which facilitates the supply of a listed carriage service.

**Standard Form of Access Agreement (SFAA)** – a document published on the NBN Co website which sets out terms and conditions on which NBN Co is obliged to enter into in an Access Agreement with an access seeker upon request, and declares the services to which it relates.

**TC-1** – highest priority, dedicated capacity traffic class, suitable for voice.

**TC-2** – business grade traffic class used for delivering high-speed symmetrical internet.

**TC-4** – standard, best efforts traffic class used for delivering residential and small business broadband services.

**Wholesale Customer** – a customer of NBN Co who purchases products from NBN Co, typically a retail service provider (RSP) or other communications carrier.

**Wholesale broadband agreement (WBA)** – The WBA sets out price and non-price terms in relation to the supply of NBN Co’s services; and the processes for providing NBN Co’s customers with operational and technical information in relation to those services. The WBA is a Standard Form of Access Agreement.
1. Introduction

This public inquiry concerns the wholesale charges that access seekers pay to use the NBN to supply residential grade services. It is focused on the price-related terms for the supply of a basic speed broadband access product on the NBN, as well as service transfer and reversal charges, that would support a smooth transition to the NBN during the ongoing network rollout.

We have decided to commence the inquiry because of concerns that NBN Co’s wholesale pricing has resulted in inefficient and unfair outcomes for consumers who have no need for the higher speeds that the NBN makes possible. These concerns stem from NBN Co’s wholesale pricing changes in late 2018, and the subsequent withdrawal of basic speed retail plans that have left these consumers at risk of being unable to obtain an NBN service at a similar price and quality of their ADSL service. These consumers are nonetheless required to migrate to the NBN in order to keep their home service active.

We have been expressing these concerns for some time, with NBN Co recently announcing new pricing for basic speed access products to take effect in October and November of this year. As a consequence, we are now looking to test through this public inquiry whether NBN Co’s announced pricing initiatives will address our concerns. We are also taking the opportunity to test whether the principles we have adopted to assess NBN Co product and pricing developments remains fit for purpose.

Hence, a key matter to be considered in the course of the inquiry are the specifications that would allow an NBN basic speed access product to support a retail product that is the functional equivalent of an ADSL/ADSL2+ and line rental bundle.

The ACCC has also been concerned that NBN Co’s approach to pricing (absent the pricing proposals in NBN Co’s second consultation paper) has been driving inefficient and less competitive outcomes in the retail market. More particularly:

- The recent approach to wholesale pricing of basic speed access products could also mean that retail pricing more generally is no longer anchored to the efficient pricing that emerged over competitive ADSL/ADSL2+ networks. This would in turn make it more difficult for consumers to find NBN retail plans with a speed (quality) and price that represent fair value.

- The current approach to wholesale pricing may be creating material risks to access seekers of cost increases that they are not well placed to manage given the very strong growth in demand for busy hour network capacity. Further, the continuing reliance on adjusting prices by way of revisions to short term discounts does not provide certainty for RSPs to bed-down their retail offers, particularly where changes require significant product development on the part of access seekers to fully utilise. Each of these matters would impose additional costs and risks on access seekers, which would be passed through to consumers to some extent by way of higher prices and/or reduced quality, or may represent a barrier to entry.

- Transfer and reversal fees (which are applied each time the service transfer process is used to move an existing service between access seekers) can discourage the efficient use of service transfer processes, and can impede competition or impact consumers.

We are conducting this inquiry in the context of NBN Co approaching a peak period for service activations, and potentially managed migrations as the window for many consumers to migrate to the NBN without loss of their existing fixed line service closes. Consequently, we are interested in what practicable changes can be made quickly to mitigate against the above risks to competition and consumer outcomes, while allowing NBN Co the opportunity to grow its revenues, invest in its business and earn an appropriate rate of return.
NBN Co is continuing its own consultation with access seekers over various pricing proposals including in respect of its Entry Level Bundle offer. NBN Co has already indicated it will implement some changes to its commercial product and pricing offers, and it is possible that further changes will be announced as that consultation continues. Conducting our inquiry in parallel with the commercial consultation process will allow us to obtain information and test the reasonableness of the commercial pricing proposals through a public process.

Commencing the inquiry at this time will also allow us to make a final access determination (FAD), should one be needed, ahead of the expiry of the current wholesale broadband agreement (WBA3). The term of this agreement has previously been extended until the end of November 2020.

This would provide access seekers with certainty about the terms and conditions of access to the NBN that would apply should they be unable to reach a new commercial agreement with NBN Co at that time.

This discussion paper outlines the key issues for the inquiry and invites submissions from interested parties on these and other related issues.

1.1. Scope of inquiry

The purpose of this discussion paper is to seek views relating to the price-related terms of access to the NBN for the purpose of supplying residential grade (Traffic Class 4) broadband retail services, and in particular those that are functionally equivalent with an ADSL/ADSL2+ service.

The inquiry will consider whether regulatory intervention is necessary in respect of these access products, and, if so whether to make an access determination (AD) that will include price-related terms and conditions. Such an AD would provide a set of price-related terms and conditions to apply where a suitable commercial agreement has not been reached. Our various regulatory options are discussed in Sections 3 of this paper.

As discussed below, our current view is that, any AD that could be needed would be directed towards an access product that comprised a TC-4 Ethernet access service supplied with a 12/1 Mbps speed tier.

1.2. Consultation

The ACCC welcomes submissions from interested parties in response to this discussion paper.

To foster an informed and consultative process, all submissions will be considered as public submissions and will be posted on the ACCC’s website. Interested parties wishing to submit commercial-in-confidence material to the ACCC should submit both a public and a commercial-in-confidence version of their submission. The confidential version of the submission should clearly identify the commercial-in-confidence material by bookending the confidential material with an appropriate symbol of ‘c-i-c’. The public version should ensure that all confidential material has been removed and replaced with ‘c-i-c’.

The ACCC has prepared guidelines for parties wishing to submit confidential information to public inquiries. The ACCC-AER information policy: the collection, use and disclosure information sets out the general policy of the ACCC and the Australian Energy Regulator (AER) on the collection, use and disclosure of information. A copy of the guideline can be downloaded from the ACCC’s website.¹

The ACCC prefers to receive submissions in electronic form, in either PDF or Microsoft Word format which allows the submission text to be searched. Submitters should ensure that redacted information is not searchable or otherwise able to be disclosed.

RSPs are also asked to respond, on a voluntary basis, to a commercial-in-confidence data request. This will assist us to determine the requirements for NBN basic speed access products. A Microsoft Excel template for this purpose is available on the ACCC website where this paper is published.

Please email submissions by **5pm Friday, 15 November 2019** to nbn@accc.gov.au and copy to:

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General Manager  
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Scott Harding  
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Interested parties are encouraged to subscribe to the communications mailing list.

1.3. **Structure of this paper**

The remainder of this discussion paper is structured as follows:

- **Section 2** provides a brief background to the current inquiry. It describes the purpose of the NBN in building network capability to support higher quality broadband access products and effecting industry reform, as well as the product components that RSPs use to supply broadband products to end-users and how demand for these has developed. It also provides an overview of the concerns that have been raised in other contexts about NBN pricing and consumer experiences, and the consideration of these issues by the ACCC and other parties.

- **Section 3** provides an overview of the legislative framework and the regulatory instruments available to the ACCC. This includes the matters the ACCC must have regard to in considering whether to make an access determination or binding rule of conduct, different approaches the ACCC could take in making these instruments, and consideration of interim and longer term regulatory measures.

- **Section 4** discusses our approach to examining NBN access pricing. This includes previous consideration of NBN pricing and indicators of an approach to pricing that is likely to promote the long term interests of end users.

- **Section 5** discusses the commercial pricing that NBN Co has offered over time for recurring charges and customer transfers in respect of TC-4 services, including the proposed prices outlined in its second pricing review consultation paper released on 17 September 2019.

- **Section 6** discusses product and pricing developments in NBN retail markets, and the implications that these have for whether to establish, and if so the nature of any, regulated price-related terms of access to the NBN.

- **Section 7** proposes an assessment framework under which we would develop and consider options for entry level product and pricing offers, and service transfer charges.
2. Background

This section provides an overview of NBN services and the supply chain, including the relevant markets and the relevant commercial, regulatory and legislative arrangements.

2.1. NBN services

NBN Co was established in 2009 as a government business enterprise, with a mandate to supply wholesale-only high-speed broadband access services to reach all Australians using a mix of access technologies. NBN Co’s mandate is set through a Statement of Expectations provided by the government, which is also supplemented by policy directives and correspondence. The current Statement of Expectations, dated 24 August 2016, sets out a number of goals to guide NBN Co during the rollout, including service quality and continuity for consumers. The Statement of Expectations sets out the Government’s commitment to ensuring that all Australians have access to very fast broadband as soon as possible, at affordable prices and at least cost to taxpayers, via the NBN. It also states that NBN Co should ensure that its wholesale services enable retail service providers (RSPs) to supply services that meet the needs of end-users.²

2.1.1. NBN Ethernet Product

NBN Co provides a wholesale ‘last mile’ access service. This ‘last mile’ refers to the final leg of telecommunications infrastructure that directly connects a consumer.³ NBN Co provides the capacity to supply broadband services of different speeds to consumers through the NBN Ethernet Product, which:

- is an Ethernet-based Layer 2 virtual connection that carries traffic between a User Network Interface (UNI) used to serve a premises and a point of interconnection (POI),
- is supplied by means of the fibre to the premises network (FTTP), fibre to the building (FTTB) network, fibre to the node (FTTN) network, fibre to the curb (FTTC) network, hybrid fibre coaxial cable (HFC) network, wireless network or satellite network,
- enables an NBN customer, or its downstream service provider, to supply a carriage service or content service to a premises,
- comprises four product components which a NBN customer must acquire: the Network-Network Interface (NNI), Connectivity Virtual Circuit (CVC), Access Virtual Circuit (AVC) and UNI, and
- also comprises some optional product features that an NBN customer may elect to acquire such as multicast and enhanced fault rectification services.⁴

To supply services over the NBN, RSPs must acquire AVCs at a specified speed tier and traffic class for each customer premises. RSPs need at least one AVC for each premises.

AVCs are available for the following traffic classes:

- Traffic Class 1 (TC-1) – highest priority, dedicated capacity traffic class, suitable for voice
- Traffic Class 2 (TC-2) – business grade traffic class used for delivering high-speed symmetrical internet
- Traffic Class 3 (TC-3) – designed to give priority to transactional data such as business applications running on WAN⁵

³ The range of a ‘last mile’ access service varies, between a few metres to several kilometres.
⁴ [NBN Co, Wholesale Broadband Agreement](#), NBN Ethernet Product Module, Product Description, p 5.
⁵ Note: Traffic Class 3 is not yet available.
• Traffic Class 4 (TC-4) – standard, best efforts traffic class used for delivering residential and small business broadband services

Residential broadband services are generally supplied using Traffic Class 4 AVCs, which are available at speed tiers defined by their upstream and downstream Layer 2 Peak Information Rate (PIR). For example, the 12/1 Mbps AVC refers to an AVC with a downstream PIR of 12 Mbps and an upstream PIR of 1 Mbps.

RSPs must also buy CVC capacity from NBN Co to carry aggregated customer traffic to the points that their networks interconnect with the NBN. RSPs decide how much CVC capacity to acquire for specific geographic regions, called Connectivity Serving Areas. The amount of CVC acquired sets the aggregate bandwidth available on the NBN to send and receive data in respect of the AVCs in a particular Connectivity Service Area. CVC is also acquired by traffic class.

2.1.2. Take up of NBN services

The NBN is currently in its peak migration phase, with 3 million premises becoming ready to connect in FY2019 to bring the total footprint to 10 million premises. This footprint is forecast to expand to cover an additional 1.5 million premises in FY2020 to largely complete the broad scale network rollout. Table 2.1 shows the volume of ready to connect premises and service activations (actual and forecast).

Table 2.1: NBN ready to connect and active services (actual and forecast), 2014-2022

<table>
<thead>
<tr>
<th>Financial year</th>
<th>Ready to connect premises (million)</th>
<th>Active services (million)</th>
<th>Increase in ready to connect premises (million)</th>
<th>Increase in active services (million)</th>
<th>Take up⁹</th>
<th>Take up +1 year¹⁰</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>0.7</td>
<td>0.2</td>
<td></td>
<td></td>
<td>29%</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>1.2</td>
<td>0.5</td>
<td>0.5</td>
<td>0.3</td>
<td>42%</td>
<td>71%</td>
</tr>
<tr>
<td>2016</td>
<td>2.9</td>
<td>1.1</td>
<td>1.7</td>
<td>0.6</td>
<td>38%</td>
<td>92%</td>
</tr>
<tr>
<td>2017</td>
<td>5.7</td>
<td>2.4</td>
<td>2.8</td>
<td>1.3</td>
<td>42%</td>
<td>83%</td>
</tr>
<tr>
<td>2018</td>
<td>7.0</td>
<td>4.0</td>
<td>1.3</td>
<td>1.6</td>
<td>57%</td>
<td>70%</td>
</tr>
<tr>
<td>2019</td>
<td>10.0</td>
<td>5.5</td>
<td>3.0</td>
<td>1.5</td>
<td>55%</td>
<td>79%</td>
</tr>
<tr>
<td>2020</td>
<td>11.5</td>
<td>7.0</td>
<td>1.5</td>
<td>1.5</td>
<td>61%</td>
<td>70%</td>
</tr>
<tr>
<td>2021</td>
<td>11.7</td>
<td>8.1</td>
<td>0.2</td>
<td>1.1</td>
<td>69%</td>
<td>70%</td>
</tr>
<tr>
<td>2022</td>
<td>11.8</td>
<td>8.4</td>
<td>0.1</td>
<td>0.3</td>
<td>71%</td>
<td>72%</td>
</tr>
</tbody>
</table>

Source: NBN Co Corporate Plans

As per Table 2.1, NBN Co forecasts that it is on track to largely complete the network rollout during 2020, meaning the period of managed migration to the NBN for those consumers wishing to retain a fixed-line broadband service will conclude sometime in 2022.

A consumer can place an order for an NBN service when their premises becomes ready to connect. From then, the consumer generally has 18 months within which to place an NBN

⁶ A premises is “ready to connect” when an order for an NBN service can be placed, and the service can be connected, within an area that has been declared “ready for service”.
⁷ NBN Co, Corporate Plan 2020-23, p. 10
⁸ At this time NBN Co forecasts that it will have made 11.5m of an estimated total of 11.8m premises ready to connect.
⁹ Active services as a percentage of ready to connect premises.
¹⁰ Active services as a percentage of ready to connect premises in the previous year.
order before their existing fixed line voice, ADSL or HFC services become subject to managed disconnection.¹¹

The number of active services on the NBN increased by 1.5 million services in FY2019 to reach 5.5 million services. NBN Co forecasts that there will again be a net increase of 1.5 million active services over the course of FY2020.¹² Leaving aside any service cancellations that occur, this equates to an average service activation rate of around 29,000 services per week. The actual activation rate depends on how long consumers wait before migrating their services.

NBN Co forecasts that 73 to 75 per cent of premises within its footprint will have an active service by FY2023. NBN Co considers that these forecasts are consistent with take up figures in fixed-line areas that have gone through the mandatory disconnection process. Take up of NBN services within the NBN footprint is at 55 per cent in FY 2019, with NBN Co forecasting this to increase to 61 per cent in FY2020 and 69 per cent in FY 2021.

This lag between volume of premises that are ready to connect and service activations suggests that consumers are typically choosing to wait some time following the NBN becoming available to migrate their service.

The take up rate as a proportion of premises ready to connect in the preceding year (provided in the last column of the table) provides a high level indication as to whether a significant number of consumers could be waiting until late in the migration window to act. The denominator of this metric excludes all services that became able to migrate in the preceding 12 months, and so gives a snapshot on activation rate with an average 12 month lag to migration. This metric suggests that an average lag of at least 12 months is built into NBN Co’s business planning, as it is only on this basis that the activation rate broadly aligns with NBN Co’s overall take up forecast of around 73 percent.¹³

¹¹ There are some exceptions to this. For example, services not supplied over a Telstra or Optus access network are exempt from mandatory disconnection, and consumers on the Optus HFC network typically face a more compressed timeframe to migrate their service. Telstra can also continue to supply services over its access network in NBN fixed wireless and satellite areas.

¹² NBN Co, Corporate Plan 2020-23, p. 49

¹³ For more up to date and quarterly data regarding NBN ready to connect premises and service activations, see also: https://www.nbnco.com.au/corporate-information/about-nbn-co/corporate-plan/weekly-progress-report
2.2. NBN supply chain

A number of service providers are involved across the NBN supply chain in providing NBN broadband services to consumers. Diagram 1 sets out a high level overview of the key elements of the NBN supply chain.

Diagram 1  Key elements of the NBN supply chain

* Binding Rules of Conduct, Interim and Final Access Determinations are discussed further in Section 3.

2.2.1. Wholesale services

Larger RSPs generally acquire wholesale NBN services directly from NBN Co at all 121 NBN Points of Interconnection (POIs) and then combine them with other communication services such as transmission, interconnection and internet services to supply retail NBN broadband services to end-users.

Some smaller RSPs do not have the scale to directly acquire NBN services by connecting to all 121 POIs or may find it more cost effective to acquire NBN aggregation services from a larger service provider rather than establishing a direct relationship with NBN Co. In this case, the larger service provider will supply an aggregation service that combines wholesale NBN services (including AVC and CVC) with other wholesale products such as transmission, interconnection services in a bundled product. The smaller RSPs then use these services to supply retail NBN broadband services to end-users.

In some cases, RSPs may adopt a hybrid approach and directly acquire wholesale NBN services from NBN Co at some NBN POIs, but also acquire NBN aggregation services from other wholesale service providers at additional NBN POIs (where they may not have the scale to directly connect to those NBN POIs).

There are generally two different approaches from RSPs in acquiring NBN wholesale aggregation services. If RSPs intend to directly acquire wholesale NBN services in the future, then prior to reaching the scale at which this is commercially viable they are likely to acquire NBN wholesale aggregation services. This is distinct from RSPs that do not intend to directly acquire access services from NBN Co, and may be a pure retail broadband service provider, a wholesale reseller or part of a small business that sells NBN broadband (to both residential and business customers) in conjunction with other services, such as IT services and equipment.
Where RSPs directly connect to the NBN to acquire NBN services, they will have a greater ability to supply a differentiated service and may find this more cost effective once a threshold number of retail customers are being supplied. Therefore, the cost of NBN wholesale aggregation services relative to NBN direct connection and transmission will influence these decisions.

NBN Co has recently made its NNI Link product available. The NNI Link product allows RSPs to access wholesale services in part from NBN Co and part from a wholesale aggregator. Specifically, RSPs can acquire AVC and CVC directly from NBN Co without needing a physical connection to the NBN POIs. The RSP can purchase backhaul services from wholesale providers with which it is sharing the NNI.

As noted in Diagram 1, there are regulatory and legislative requirements and standard commercial terms that apply to wholesale NBN services. These are outlined below.

**Special Access Undertaking**

NBN Co’s Special Access Undertaking (SAU) is a key part of the regulatory framework that governs price and other terms on which NBN Co supplies services over the NBN to its wholesale customers. The SAU sets out the principles for regulating access to the NBN until June 2040. The ACCC accepted the current SAU in December 2013 following an extensive consultation and assessment process.\(^{14}\) The SAU covers services delivered using FTTP, fixed wireless and satellite. Section 4.3 sets out further discussion on the coverage of the SAU.

NBN Co sought to vary the SAU in June 2017. A key purpose of the SAU variation was to extend the original SAU to cover services delivered using technologies under the new multi-technology-mix model that were not previously captured, including FTTN, FTTH and HFC.\(^ {15}\) NBN Co withdrew the SAU variation request in October 2018, and on 2 November 2018 the ACCC published a statement on the withdrawal.\(^ {16}\)

Schedule 1C of the SAU commits NBN Co to supplying a set of services referred to as ‘NBN Offers’, including AVC, CVC and NNI offers. It then sets out the maximum regulated prices (MRPs) for those NBN Offers and specifies how the MRPs may change over time. Further, Schedule 1C provides for NBN Co to apply ‘Other Charges’.

**Wholesale Broadband Agreement**

NBN Co’s Wholesale Broadband Agreement (WBA) sets out the contractual terms on which NBN Co provides NBN services to its wholesale customers. This includes detailed descriptions of its products and prices, as well as other non-price terms and conditions. NBN Co’s WBA is a standard form access agreement (SFAA) and is published on NBN Co’s website.\(^ {17}\) NBN Co also publishes a WBA3 Discounts, Credits and Rebates list, which does not form part of its WBA or any SFAA.

On 17 November 2017, NBN Co released a revised WBA with updated terms and conditions, including the addition of terms relating to the supply of services under the multi-technology mix model. The revised WBA, which is known as WBA 3, replaced the previous version of the WBA that had been in place since December 2013. NBN Co recently

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\(^{15}\) The original SAU covers services delivered using fibre-to-the-premises (FTTP), fixed wireless and satellite technologies only. The current model for the NBN is a multi-technology mix (MTM) model that incorporates the additional technologies such as FTTN, FTTH, FTTC and HFC. The SAU variation did not propose to incorporate FTTC.


extended the term of WBA3 to the end of November 2020 to allow for negotiations on the next version of the WBA (WBA4) to take place.

**Aggregation agreements**

Wholesale aggregation agreements set out the terms and conditions of access where RSPs obtain NBN wholesale aggregation services. The parties to these agreements are the NBN access seeker that provides the aggregation service and the RSP. We have limited visibility of these agreements and specific terms relating to pricing. We recently identified that competition in the market for NBN aggregation services is developing as the NBN rollout continues, which has resulted in more reliable passing through of NBN price discounts and product launches to wholesale customers.¹⁸

### 2.2.2. Retail services

RSPs have primary responsibility for the contractual arrangements and relationships with consumers. This means that RSPs set the price-related terms and conditions that apply for consumers who purchase a broadband service on the NBN. The charges that RSPs pay for wholesale NBN services comprise a significant proportion of the cost base of delivering retail broadband services. As such, NBN Co’s wholesale charges have a significant bearing on the minimum prices at which RSPs can offer retail NBN broadband plans.

In addition to purchasing wholesale NBN services, RSPs must also provision the remainder of their end-to-end networks so that the broadband service they supply to consumers can be used to access the Internet and online applications, including making and receiving calls. RSPs can choose to either invest in their own network or purchase access to another service provider’s network, as outline above.

RSPs also need to invest in their business systems and processes in order to process orders, ship modems, provide help desk support, troubleshoot faults, organise technician appointments and bill for their services. The costs that RSPs incur to convert wholesale NBN access products into retail products are referred to in this discussion paper as transformation costs.

RSPs can differentiate their retail products with respect to a number of characteristics, including price, speed, data inclusion, contract options, bundling and service quality. The approach used by each RSP to convert access to NBN services into retail broadband products will affect the extent to which they can differentiate their product offers.

Some product characteristics, such as speed and service quality, will be a function of the underlying NBN service and the RSP’s transformation approach. For example, offering a range of AVC speed tiers, the opportunity to scale CVC and/or acquire add on services such as enhanced fault handling will in turn expand the range of retail product offers. Hence, flexibility and choice in the access products that are available over the NBN promotes RSP differentiation, including on the basis of network attributes such as maximum or typical busy hour speeds.

**Question**

1. Are there any other NBN product elements, or features of commercial access agreements not mentioned in Section 2 of the paper, that have a major bearing on basic speed access products and entry level retail plans on the NBN? What are these?

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3. Regulatory framework

This section outlines the legislative framework and regulatory instruments relevant to this inquiry. This includes the telecommunications access regime in Part XIC of the *Competition and Consumer Act 2010* (CCA), the ACCC’s powers under Part XIC to make FADs, IADs and BROCs, and the matters the ACCC must have regard to in making any such regulatory instrument.

Further detail about the relevant telecommunications regulatory framework is provided at Annexure B.

3.1. Telecommunications access regime

The telecommunications access regime is set out in Part XIC of the CCA. There is no general right to access telecommunications services in Australia, and access is usually unregulated unless a service has been ‘declared’ to be subject to access regulation under this Part of the CCA. Part XIC sets out the means by which a service can be declared and the means by which default terms and conditions of access to a declared service can be specified.

Following the introduction of the NBN, Part XIC was extended to apply to NBN Co products on the basis that the NBN would have significant bottleneck characteristics.\(^{19}\)

3.1.1. NBN Co declared services

NBN Co must only supply ‘eligible services’ that are declared services. Part XIC of the CCA sets out three means by which services that are supplied by NBN Co, or are capable of being supplied by NBN Co, may become declared services:

- NBN Co can provide the ACCC with a SAU,
- NBN Co can publish a SFAA, or
- the ACCC can declare an NBN service following a public inquiry.\(^ {20}\)

The NBN access service was declared when the current SAU was accepted by the ACCC and came into operation in December 2013.\(^ {21}\) Additionally, NBN Co has published an SFAA (the WBA) which has the effect of declaring the services to which it relates.\(^ {22}\)

In its supply of declared services, NBN Co must comply with standard access obligations (SAOs) set out in the CCA, known as the Category B SAOs.\(^ {23}\) The Category B SAOs require that NBN Co, if requested to do so by a service provider, supply the relevant service so that the service provider can provide carriage services and/or content services. NBN Co is also obliged to, among other things, permit interconnection of facilities of service providers with the facilities owned or controlled by NBN Co.

NBN Co must not, in complying with any of its SAOs, discriminate between access seekers.\(^ {24}\)

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\(^ {19}\) See discussion on ‘Applying and extending the obligations under Part XIC’ in the *Explanatory Memorandum* for the National Broadband Network Companies Bill 2010, Telecommunications Legislation Amendment (National Broadband Network Measures – Access Arrangements) Bill 2010, pp. 31-39.

\(^ {20}\) CCA ss 152AL(8A), (8D), (8E).

\(^ {21}\) See: [http://registers.accc.gov.au/content/index.phtml/itemId/1130255](http://registers.accc.gov.au/content/index.phtml/itemId/1130255)


\(^ {23}\) CCA s 152AXB.

\(^ {24}\) CCA s 152AXC and 152AXD.
3.1.2. Part XIC hierarchy of access instruments

Part XIC of the CCA allows the ACCC to set default price and non-price terms of access to a declared service. The terms made by the ACCC can operate as a fall-back that parties can rely on if they are unable to otherwise reach agreement about access. This recognises the primacy of commercial agreements.

Part XIC recognises that the terms and conditions of access may be set out in different documents and that inconsistencies may arise between them. As such, any conflict between these documents is resolved by establishing a ‘hierarchy’ of access instruments.

These access instruments, in order of precedence, are:

- access agreements, which are commercial contracts between the access provider (NBN Co for NBN declared services) and an access seeker that set out negotiated terms and conditions of supply;\(^{25}\)
- SAUs given by the access provider and accepted by the ACCC, which are documents given by the access provider proposing the terms and conditions on which it will offer access to its services;\(^{26}\)
- BROCs, which are written temporary rules made by the ACCC in relation to the supply of a declared service, where there is an urgent need to make such rules, specifying any or all of the terms and conditions for compliance with any or all of the SAOs, or specifying a manner in which a service provider is to comply with the SAOs;\(^{27}\) and
- access determinations, which are written determinations made by the ACCC relating to access to a declared service, which may specify any or all of the terms and conditions for compliance with any or all of the SAOs, or any other terms of access.\(^{28}\)

Terms and conditions about a particular matter in an instrument that is higher on the above list will prevail over terms and conditions about the same matter specified in instruments lower in the list to the extent of any inconsistency. In other words, particular provisions of regulatory instruments lower in the list will have no effect to the extent that they are inconsistent with instruments that are higher in the list.\(^{29}\)

This means that, in practice, commercial agreements between an access provider and access seeker remain paramount. However, Part XIC allows the ACCC to set up front regulated terms for declared services, which will create a benchmark that access seekers can fall back on, while still allowing parties to negotiate different terms.\(^{30}\) That is, developing regulated terms of access can potentially inform the terms and conditions that the access provider will include in its commercial agreements. Further, where parties cannot reach a complete agreement, or a commercial agreement has lapsed and a new agreement has not been reached, any relevant access instrument that is in place can constitute the terms and conditions of access or the manner in which the SAOs are to be fulfilled.

In addition, as the ‘hierarchy’ only operates to the extent of any inconsistency, where a continuing access agreement does not address particular matters, the terms and conditions of access relevant to those matters could default to those contained in another access instrument that is in effect.

\(^{25}\) CCA s 152BE.
\(^{26}\) CCA s 152CBA.
\(^{27}\) CCA s 152BD.
\(^{28}\) CCA s 152BC.
\(^{29}\) CCA ss 152BCC, 152BDE, 152CBA, 152CBIB, 152CBIC, 152CBD.
\(^{30}\) Explanatory Memorandum, Telecommunications Legislation Amendment (Competition and Consumer Safeguards) Bill 2010, p. 4
In respect of NBN Co, it was intended that terms and conditions of access could be set out in an SAU and/or an SFAA in the first instance. The ACCC could make an access determination in the event that it considers it necessary:

- at the time it declares a service in relation to NBN Co
- where a matter is not covered in an SAU; and
- where a matter is not adequately covered by an SFAA.  

### 3.1.3. NBN Wholesale Broadband Agreement

On 17 November 2017, NBN Co published WBA 3 on its website. WBA 3 is NBN Co’s current SFAA and sets out price and non-price terms relating to the supply of NBN access services.

Should an access seeker have entered into an agreement with NBN Co to acquire an NBN access service (that is in line with WBA 3 or otherwise), then that would become an access agreement for the purposes of the regulatory hierarchy set out above. Accordingly, as an access agreement, the terms and conditions would prevail as and between NBN Co and that access seeker to the extent of any inconsistency with other regulatory instruments in accordance with the hierarchy.

### 3.2. ACCC access determinations and binding rules of conduct

The ACCC may make a FAD under Part XIC of the CCA with respect to declared NBN services. It may also make an IAD or a BROC.

#### 3.2.1. Access determinations

A FAD or IAD may, among other things:

- specify terms and conditions of access to the NBN declared service,
- impose other requirements on NBN Co and specify the terms and conditions on which it must comply with those requirements, and
- deal with any other matter relating to access to the NBN declared service.  

The ACCC can only make a FAD if it has held a public inquiry about a proposal to make an access determination under Part 25 of the *Telecommunications Act 1997*, and has prepared a report on the inquiry.

#### 3.2.2. Interim access determinations and binding rules of conduct

Part XIC also allows the ACCC to set regulated terms on a short term or interim basis where required.

The ACCC may make an IAD relating to NBN declared services as the ACCC has not previously made an access determination in relation to these services. An IAD can specify the same kinds of terms that can be set out in a FAD, but is made on an interim basis.

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32. WBA version 3 replaced the previous Wholesale Broadband Agreement that was in operation immediately prior to the publication of WBA 3.
33. CCA s 152BG(2).
The ACCC may separately make a BROC that specifies any or all of the terms and conditions on which NBN Co is to comply with its SAOs.\textsuperscript{36} The ACCC can only make a BROC if it considers there is an urgent need to do so.\textsuperscript{37}

Procedural fairness does not need to be observed before issuing either an IAD or a BROC.\textsuperscript{38}

The CCA imposes certain limitations on the ACCC’s power to make an access determination or a BROC. An overview of the relevant limitations on the ACCC’s ability to make an access determination or a BROC, including specific restrictions on the making of NBN-specific access determinations or BROCs, is provided in \textit{Annexure B}.

\textbf{3.3. Criteria for making final access determinations and BROCs}

In making a FAD or BROC, the ACCC is required to take into account a number of matters. These include:

- whether the FAD or BROC will promote the LTIE
- the legitimate business interests of a carrier or carriage service provider who supplies, or is capable of supplying, the declared service, and the carrier’s or provider’s investment in facilities used to supply the declared service
- the interests of all persons who have rights to use the declared service
- the direct costs of providing access to the declared service
- the operational and technical requirements necessary for the safe and reliable operation of a carriage service, a telecommunications network or a facility, and
- the economically efficient operation of a carriage service, a telecommunications network or a facility.\textsuperscript{39}

There is no such requirement for the purposes of making an IAD.\textsuperscript{40}

The ACCC must have regard to each of the statutory criteria in making a FAD. However, for a BROC, the ACCC is not required to take a matter into account if it is not reasonably practicable for it to do so, having regard to the urgent need to make the BROC.\textsuperscript{41}

The ACCC may also take into account any other matters that it thinks are relevant.\textsuperscript{42}

The ACCC has discretion to decide the appropriate weighting of each criteria in its overall assessment.

Further information about the matters the ACCC is to consider in making a FAD or a BROC is set out in \textit{Annexure B}.

\textsuperscript{36} CCA s 152BD(1)
\textsuperscript{37} CCA s 152BD(1).
\textsuperscript{38} CCA s 152BCG(4); s 152BD(6).
\textsuperscript{39} CCA s 152BCA(1); s 152BDAA(1).
\textsuperscript{40} CCA s 152BCA(4).
\textsuperscript{41} CCA s 152BDAA(4).
\textsuperscript{42} CCA s 152BCA(3); s 152BDAA(3).
4. ACCC approach to examining NBN access pricing

The ACCC first developed principles by which to assess the reasonableness of NBN Co’s product and pricing offers in the course of considering NBN Co’s SAU. The SAU provides an overarching regulatory framework for NBN access services and covers the period to 2040. The ACCC accepted the original SAU in December 2013 following extensive consultation with industry. In order to ensure there would be strong regulatory oversight and sufficient incentives for NBN Co to operate efficiently, the SAU puts in place a number of controls and safeguards on NBN Co, including:

- Initial prices for all services listed under ‘NBN Offers’ and ‘Other Charges’ were specified in the SAU, which form the maximum regulated prices (MRPs) for those services at that time
- Initial prices for NBN Co services that have functionally equivalent (or broadly comparable) legacy services on the ADSL and HFC networks were ‘anchored’ to prices of those services
- Price controls that limit NBN Co’s ability to increase its MRPs by a maximum price increase of CPI – 1.5 per cent year-on-year, with an additional requirement for CVC pricing to be reviewed annually by NBN Co
- Restrictions on product withdrawal by NBN Co
- Ability for ACCC to review NBN Co’s decisions on new prices and product withdrawal
- Ability for ACCC to rebalance NBN Co’s prices in a revenue neutral manner.

4.1. ACCC consideration of principles in the SAU

When we initially accepted the SAU, our key aim was to ensure efficient use of the network, encourage certainty in retail markets and provide protections to consumers using the NBN. We considered that these objectives would help achieve our overarching goal of promoting the long-term interest of end-users (LTIE).

4.1.1. Ensuring a smooth transition to the NBN

A key focus of our assessment of the SAU was whether it would result in a smooth transition from the legacy networks to the NBN.

And so when assessing individual products and prices proposed by NBN Co in the SAU, a key focus of our assessment was the extent to which NBN Co’s access products would facilitate the supply of retail services that were functionally equivalent to ADSL and HFC services, and whether wholesale prices for such NBN services would facilitate a smooth transition.

Under the SAU, both 12/1 and 25/5 speed tier products, which were then identified as functionally equivalent to ADSL services, are considered to be ‘NBN offers’ under the SAU and therefore subject to strong commitments on pricing and product withdrawal. The initial prices for these services (AVC and CVC) were assessed with reference to prices of comparable legacy services to ensure a smooth transition to the NBN on a like-for-like product basis.

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43 The SAU only covers services supplied on via FTTP, fixed wireless and satellite. NBN Co sought to vary the SAU to include FTTN, FTTB and HFC. The proposed variation of the SAU was withdrawn. This is discussed in more detail in section 4.3.
44 ACCC, Update on ACCC assessment of NBN Co’s SAU variation, 2 November 2018, p 1.
45 ACCC, Draft Decision on the Special Access Undertaking, April 2013, section 1.3.1 provides a detailed discussion our view on the LTIE criteria.
46 ACCC, Draft Decision on the Special Access Undertaking, April 2013, pp. 9 & 211.
More specifically, the ACCC considered that if a functionally equivalent service is available, end-users would not be made worse off by virtue of their migration to the NBN. In particular, it is important that end-users do not experience a ‘price shock’ due to migration to the NBN. Hence, where a NBN service is functionally equivalent to a current service being offered on copper or HFC, the price for that service should be comparable to the price of the equivalent copper or HFC service.\(^{47}\)

The ACCC considered that initial maximum regulated prices (MRPs) for all NBN Co products with a copper or HFC equivalent were comparable to the prices for the equivalent copper or HFC service at the time the SAU was accepted, given the CVC requirements at that time.

We note that NBN Co’s submission to ACCC’s draft decision generally supported our approach to considering prices, and gave more details on its approach to functional equivalence and price stability in the longer term. This included that during the rollout period NBN access products should be \textit{at least} functionally equivalent to legacy offers, and NBN pricing should enable access seekers to migrate ADSL and HFC consumers without price shock.\(^{48}\)

4.1.2. **Price anchoring**

In accepting the SAU we also recognised that the specified access products and pricing could anchor the prices of other access products that were developed during the term of the SAU.\(^{49}\) Because lower speed services are a partial substitute for higher speed services, prices for low speed services can potentially serve as a constraint on NBN Co setting of prices for its premium products. That is, any price premium NBN Co is going to charge over the anchor price would need to be reflected in increased service quality and functionality with reference to end-user preferences. If not, end-users would have the option to stay on or drop back to the lower speed services.

The ACCC considered that such price anchoring effects could incentivise NBN Co to price its premium products efficiently to ensure they offer value for money. It would also promote efficient use of and investment in the network as those end-users who are willing to pay higher prices for additional functionality will contribute proportionally more to the cost of network upgrades.\(^{50}\)

4.1.3. **Balancing certainty with flexibility**

Another key principle of the SAU is the importance of providing certainty to industry and end-users. It is reflected in the design of maximum regulated prices (MRPs) faced by NBN Co and the control on price changes, which limits NBN Co’s ability to increase MRPs each year. In particular, NBN Co cannot increase MRPs by more than CPI-1.5 per cent year-on-year. These price controls effectively set a maximum price path for its charges.

Further, in relation to CVC charges, the SAU specifies that the initial MRPs for CVC product component of NBN Ethernet services was $20 per Mbps each month.\(^{51}\) As noted above, this was considered reasonable given the assumption of CVC usage at that time. Given that CVC usage was forecast to grow over time, it was expected that prices for CVC would gradually shift lower as NBN Co lowers its CVC charges. These prices would then form new


\(^{49}\) See discussions in ACCC, \textit{Draft Decision on the Special Access Undertaking}, April 2013, p. 90, 119, and 223.

\(^{50}\) \textit{ibid.}, p. 102

\(^{51}\) This was lowered to $17.50 later and currently stands at that level.
MRPs for CVC. We note that NBN Co also consistently signalled at that time that it would lower the CVC charge over time.52

To further ensure industry confidence in CVC pricing would be progressively reduced, the SAU provided an obligation for NBN Co to annually review its CVC prices with a view to reducing prices as aggregate demand increases, having regard to the level of aggregate demand for CVC and the information in the most recently published NBN Co Corporate Plan.53

We also recognised that because the SAU would span over a long time horizon, while it was important to provide certainty, it would also be useful for NBN Co to have some degree of flexibility in pricing and product development.54 This would allow NBN Co to quickly adapt to changing market dynamics during the term of the SAU.

In light of this, the SAU provides that NBN Co is free to take initiatives to develop new products and can set prices for them, with the ACCC having an oversight role. NBN Co is also free to set prices at any level below the MRPs. Further it is permitted to use temporary discounts to implement pricing adjustment to address short term challenges. However, NBN Co is generally prevented from withdrawing a product or significant product feature unless it has provided written notice of two years.55

4.1.4. Providing safeguards

We recognised that over the term of the SAU, NBN Co may face incentives to favour its own commercial interests in a way that may not be fully consistent with promoting competition in retail markets, or advancing the efficient operation of the network and consumer interests. Therefore we considered it important that the SAU provide effective safeguards for consumer protection and to encourage NBN Co to operate efficiently.

Some of the SAU safeguards include the maximum regulated price caps on NBN Co, product withdrawal restrictions, ACCC oversight on new prices and product withdrawal, and the ACCC price review to rebalance prices in a revenue neutral manner.56

4.1.5. Opportunity for NBN Co to recover efficiently incurred costs

We considered that the SAU would provide NBN Co the opportunity to recover its efficiently incurred costs, including an appropriate return on its investments, through its wholesale access prices over the long term. In reaching this view, we were satisfied that the SAU would promote efficient investment by NBN Co and appropriately accounted for NBN Co’s legitimate business interests and direct costs.

The opportunity for recovery of efficient costs over the long term is provided by several SAU elements. Firstly, the long term revenue constraint mechanism (LTRCM) in module 1 (until June 2023) and equivalent provisions in module 2 (from July 2023 to 2040) will ensure that any expenditure considered to be prudent and efficient will be included in NBN Co’s regulated cost base. Second, the initial cost recovery account (ICRA) will ensure that any unrecovered costs (or revenue shortfalls) from the initial phase of the SAU period can be recovered in later years. Third, the rules around prudent and efficient operating and capital expenditure in module 1 and the ability for ACCC to assess expenditure forecasts in module

53 NBN Co, Special Access Undertaking, 13 December 2013, 1.4.3 (d)
54 ACCC, Draft Decision on the Special Access Undertaking, April 2013, p. 104
55 NBN Co, Special Access Undertaking, 13 December 2013, schedule 1, section 1.5
56 The power to review prices in this way was included, at the ACCC’s request, through a Notice to Vary process.
provide assurance that expenditure that is included in the regulated cost base is likely to be prudent and efficient.

Finally, we considered that the price control commitments in the SAU would provide NBN Co with the opportunity to recover its efficient costs provided that NBN Co grew demand over time including demand for higher speed services. The price control commitments as initially specified in the SAU prevent NBN Co from simply increasing its revenue through price increases but rather require NBN Co to grow demand in this way. We considered the price control commitments would achieve a good balance between providing NBN Co incentives to promote revenue growth through uptake of higher speed services, ensuring availability of affordable basic broadband products and providing a degree of pricing certainty to RSPs.

4.2. NBN Co’s approach to developing product and pricing offers under the SAU

Following the acceptance of the SAU, NBN Co’s approach to developing product and pricing offers has moved away from some of the key objectives and principles that underpinned our assessment of the SAU.

Since that time, NBN Co has typically chosen to develop product and pricing offers by way of discount notices which sit outside the price control mechanisms (including MRPs) set out in the SAU. That is, instead of gradually bringing down its prices and in turn the MRPs, NBN Co has taken the approach of setting effective prices by extensively deploying temporary discounts. This has included developing new bundle access products (NBN Co pricing initiatives are discussed in section 5).

NBN Co’s pricing for its wholesale access services is now implemented through a combination of the WBA, which specifies the prices NBN Co charges for its services, and discounts and bundle offers published by NBN Co in its ‘Discounts, Credits and Rebates List’. The WBA prices are subject to the maximum regulated prices (MRPs) set out under NBN Co’s SAU accepted by the ACCC.

As a result, the MRPs in the SAU and the effective prices charged by NBN Co have diverged substantially. For example, while the MRP for CVC has remained unchanged at $17.50 for a number of years, current CVC charges on unbundled services range between $8 to $17.50 under the RSP-specific dimension-based discount (i.e. DBDR) introduced by NBN Co in 2017.

A further consequence of the use of discount notices which sit outside the SAU protections is that there is much less certainty for access seekers in supplying NBN retail services. In addition, the introduction of various discount/bundled offers appears to have led to increasingly complex pricing and product constructs for NBN services with the potential for access costs to vary considerably where the various discount conditions are not satisfied. Each of these could increase the level of risk that RSPs face.

To illustrate the nature of these risks, were current CVC prices (either under the bundle discounts or under the under DBDR discounts) to revert to the current MRP that applies

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57 The MRP for CVC has only decreased once (to $17.50) despite significant growth in data usage and demand for CVC on the network. Over the period from March 2016 to June 2019, TC-4 CVC capacity has grown from 952,561 Mbps to 9,925,600 Mbps, and TC-4 CVC dimensioning has grown from 1.01 Mbps per AVC to 1.75 Mbps per AVC. See: ACCC, NBN Wholesale Market Indicator reports.

58 The dimension-based discount prices are themselves discounted prices based on CVC dimensioning, which were first introduced in June 2016. This led to a reduction in CVC TC-4 prices to $15.75 per Mbps, based on the industry average level of CVC provisioning. In December 2016, this was reviewed again by NBN Co, which led to a further reduction in price to $15.25. In June 2017, NBN Co changed the basis of their dimension-based-discount calculations to using individual RSP CVC dimensioning rather than the industry average. Under this arrangement the CVC price ranged from $8 to $17.50. Similarly, CVC overage prices payable in respect of NBN Co’s various ‘bundle discounts’ is charged at $8 per Mbps.
under the SAU ($17.50), the cost base of access seekers would increase substantially and their exposure to future cost increases as CVC demand continues to grow would be amplified.

Since RSPs offer retail NBN services at nominated prices for the duration of the retail contract, NBN access seekers may not be well placed to manage these risks other than by way of seeking to unilaterally vary the prices applying under their retail contracts or by under provisioning network capacity and thereby constraining quality for existing customers. Either of these outcomes would be detrimental to consumers.

4.3. SAU variation assessment

On 22 June 2017, NBN Co submitted a proposed variation to the SAU to the ACCC (the SAU variation) under section 152CBG(2) of the CCA. This variation followed a previous SAU variation that was submitted in May 2016 and withdrawn in June 2017. Under the framework specified in Part XIC of the CCA, the ACCC must either accept or reject proposed variations to the SAU.

A key purpose of the SAU variation was to extend the original SAU to cover services delivered using technologies under the new multi-technology-mix model that are not the subject of the SAU, including FTTN, FTTB and HFC. This would involve extending the SAU MRPs to cover services delivered over the additional technologies.

While we were considering the SAU variation, NBN Co also initiated its ‘pricing evolution consultation’ in 2017, which sought to address concerns raised by access seekers on its pricing approach. As part of that process, NBN Co introduced a number of pricing initiatives such as the Dimension-based-Discount on CVC prices, the Focus on 50 pricing campaign, and then the high bandwidth bundle discounts, the fixed wireless bundle discounts and the entry level bundle discounts.

Given this we decided to put the SAU variation process on hold until NBN Co finalised its consultation process with the industry. During that period we continued our engagement with NBN Co and advised that we were concerned about its approach to pricing and so were unlikely to approve the SAU variation. As a result, NBN Co decided to withdraw the SAU variation in October 2018.

On 2 November 2018, we published a statement setting out our key concerns with the SAU variation, including our concerns around NBN Co’s pricing approach. In particular, we noted our concern about NBN Co’s continual use of the discount mechanism to introduce new pricing initiatives. We considered that this would undermine a central objective of the SAU, which is to ensure certainty for access seekers and to minimise price shocks for consumers and businesses using the NBN.

Relatedly, we also noted that the extensive use of discount notices rather than introducing new NBN products and pricing offers under the SAU meant that even if the SAU was extended to the additional access technologies, the products and pricing would not be subject to various protections in the SAU.

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59 NBN Co has already extended DBDR discounts a number of times.
60 Average CVC provisioning for each service increased by around 52 per cent to 1.66 Mbps in a 12 month period to June 2018 and demand for network bandwidth is forecast to continue to grow strongly over the next five years.
61 The original SAU covers services delivered using fibre-to-the-premises (FTTP), fixed wireless and satellite technologies only. The current model for the NBN is a multi-technology mix (MTM) model that incorporates the additional technologies such as FTTN, FTTB, FTTC and HFC. The SAU variation did not propose to incorporate FTTC.
We also noted that NBN Co’s pricing approach had the potential to reduce the range and/or lessen the quality of basic speed NBN retail plans in particular, and so impact price sensitive consumers, or consumers who want to retain a service on the NBN that is equivalent to their existing service supplied over a legacy network. Further, there was a risk that price conscious consumers and consumers with low data usage needs may be forced to choose between a more expensive service, a service generally suitable for voice services or poorer quality services based on unbundled products, which may have insufficient CVC and increased congestion. NBN Co has more recently requested to vary the SAU but this variation does not seek to incorporate the MTM technologies. The effect of these developments is the pricing provisions in the SAU do not apply to the MTM technologies.

4.4. ACCC future approach to assessing NBN access pricing

Given the significant developments that have occurred in NBN Co’s product and pricing offers and the limitations that have become apparent in the commitments NBN Co’s provided in its SAU, we are taking this opportunity to further refine our principles for assessing NBN access product and pricing.

We have set out below a set of principles which we will develop further over the course of the inquiry. The overall intent is for the principles to provide a reliable assessment framework to test whether particular NBN access product and pricing offers would promote the LTIE.

Our proposed pricing principles are as follows:

*End-users should be no worse off as a consequence of migrating to the NBN*

Consumers of retail broadband services that do not value higher speeds made possible by the NBN should not have to pay more to continue to access a product that is of similar speed and quality that is and was available on legacy networks.

This principle is important for ensuring a smooth transition to the NBN, which was a key consideration when accepting the SAU. Due to the mandatory decommissioning of legacy networks, these consumers will have no choice but to acquire an NBN service if they want to continue receiving a fixed line service. Given this, we do not consider it reasonable for these consumers to have to pay more for a functionally equivalent service on the NBN, or to be forced onto higher speed and more expensive products that they do not consider to offer value for money.

We consider that having an NBN basic speed access product would promote efficient use of the network, as it provides a price-quality mix that would best suit a specific and significant group of consumers. In addition, if ADSL pricing is considered efficient having developed in competitive retail markets, setting NBN services with comparable ADSL prices is likely to promote efficient pricing on the NBN.

We have previously recognised that TC-4 Ethernet access services with a 12/1 and 25/5 speed tiers would offer similar speed and quality as was typically available over legacy networks. Our current view is that while the commercial terms of access to each speed tier will likely remain important to achieving this principle, it is the 12/1 speed tier that should be the focus of any regulatory measures. This is discussed further below.

*Basic speed access products should act as an anchor*

Product specifications and prices for a basic access product should remain stable over time to anchor prices for higher speed services over time. Under this approach, NBN Co would retain a higher degree of flexibility to set prices for higher speed services. However, NBN

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63 We note that in May 2019, NBN Co lodged a SAU variation that is strictly limited to extending the expiration date of three non-price provisions set to expire 30 June 2019, and does not relate to the issues described in this section.
Co’s lower speed services are partial substitutes for its higher speed services. If stable product and pricing commitments are in place for lower speed services, this will act as a soft constraint on NBN Co in the setting of higher speed products. It will have an ability to set prices higher for higher speed services, but will be prevented from setting them much too high without risking at least a subset of customers dropping back to a lower speed access product.

This approach is intended to provide incentives to NBN Co to price its higher speed services efficiently, i.e., to maximise overall demand. Prices will be set higher for higher value services, meaning those that value higher value services will contribute a proportionally higher share towards the recovery of NBN Co’s costs, which will promote efficient use of the network. Importantly, the soft constraint provided by the anchor price is intended to achieve a reasonable balance between flexibility and certainty for RSPs. We note this is consistent with the approach we adopted in the initial assessment of the SAU.

**Price certainty**

RSPs should have a reasonable degree of certainty about NBN wholesale pricing. That is, RSPs should have sufficient certainty about the composition of NBN Co’s wholesale products (including their pricing) and their associated products over the short to medium term to allow them to make investments in their own infrastructure and systems, and to allow them to commit to stable retail offerings. We consider this principle particularly important given NBN Co’s extensive use of discount notices to achieve its pricing objectives. As discussed above, these discount offers are not subject to product and pricing protections under the SAU and can be withdrawn by NBN Co any time subject to the notice period that NBN Co decides to give.

Having a sufficient degree of certainty for RSPs will promote efficient use of the NBN network and promote efficient investment in downstream infrastructure. It will also be likely to provide better conditions for innovations by RSPs in their retail offerings, which in turn will promote competition at that level. We note that this is also a principle we adopted in our initial assessment of the SAU.

**Pricing arrangements should not be unduly complex**

Pricing arrangements should allow RSPs to readily calculate and forecast costs associated with providing services based on NBN Co’s wholesale products over a reasonable period. They should also enable NBN Co’s wholesale products to be transformed to retail services in an efficient manner, including minimising the need to operate multiple CVCs to provide different product types. Together with the principle of RSPs having a reasonable degree of pricing certainty, this will help promote efficient use of the NBN network, efficient investment in downstream infrastructure and competition. As discussed above, the price controls in the SAU were originally intended to chart maximum price paths for AVC and CVC charges. However, given increasing complexity of NBN Co’s recent pricing initiatives and move away from the SAU maximum regulated price construct, this principle is likely to provide a useful approach to assessing NBN Co’s pricing arrangements.

**Prices should meet consumer demand**

Pricing arrangements should allow RSPs to supply products in downstream markets at prices and quality that are attractive to end-users. Prices should be set in a way that encourages RSPs to provide quality services that do not experience significant levels of congestion during peak busy periods. As found in the ACCC’s communications sector market study, NBN Co’s CVC charge likely played a key role in peak hour congestion issues, which had been occurring previously and which peaked around the time of the market study. In particular, it was considered that RSPs might have been provisioning low levels of CVC to keep retail prices low (or at least competitive) and that this was contributing to significant
network congestion.\textsuperscript{64} We note that peak hour congestion issues have decreased in recent years, due in large part to NBN Co’s pricing initiatives.\textsuperscript{65} However, we also note the CVC construct remains in effect with NBN Co’s bundled products in the form of ‘overage’ and could potentially lead to future concerns about congestion given the continued growth in demand for bandwidth. We consider pricing arrangements that allow RSPs to provide quality services with minimal congestion will promote efficient use of the NBN network.

\textit{Prices should promote downstream competition}

NBN Co’s product and pricing arrangements should promote downstream competition by supporting product diversity and access to wholesale products on a non-discriminatory basis. The pricing arrangements should allow RSPs to supply a wide range of differentiated products in terms of price and quality in downstream markets. This can be supported by a variety of wholesale products available to RSPs for delivering products to end-users in a competitive and sustainable manner. Pricing arrangements should also allow RSPs to have the same opportunity to access the same set of prices and achieve cost outcomes that are the same as other access seekers that make similar use of the access network.

\textit{NBN Co should have the opportunity to recover efficiently incurred costs}

NBN Co should have the opportunity (not necessarily the guarantee) to recover its efficiently incurred costs and receive an appropriate commercial return on its investments over the longer term. This was a key principle adopted in the initial assessment of the SAU and should remain an important consideration. Under the SAU long-term revenue constraint methodology, NBN Co has the opportunity to seek to recover its efficiently incurred expenditure over the duration of the SAU. However, the way in which NBN Co generates the revenue also depends on its product structure and pricing, with its prices being subject to the maximum price caps in the SAU. Structuring products and setting prices in this way will promote efficient investment of infrastructure by NBN Co and is consistent with NBN Co’s legitimate business interests. Also relevant is the need to generate sufficient cash flow to enable new investments and to upgrade existing infrastructure to promote service improvements.

\textit{Questions}

2. How do you consider the ‘no worse off’ condition for migration of legacy customers onto the NBN should operate?

3. Do you consider that price regulation of a basic speed access product would serve as an effective price anchor on higher speed NBN services? If so, for what range of higher speed TC-4 access products would the price terms for a TC-4 12/1 speed access product provide an effective price anchor?

4. Do you have any comments on the pricing principles proposed by the ACCC for assessing NBN Co’s access prices?

5. Do you consider that any other changes to NBN Co’s current approach to pricing NBN access services are required to provide pricing certainty for access seekers and to safeguard the interests of end-users?

\textsuperscript{64} ACCC, \textit{Communications sector market study final report}, April 2018, p. 38.

\textsuperscript{65} NBN Co’s Fo50 discounts (along with some related actions by the ACCC including Measuring Broadband Australia (MBA), speed guidance and truth in advertising enforcement actions) have likely contributed to increases in CVC per AVC purchased by RSPs and an improvement in the performance of end-user NBN services during 2018.
5. **NBN access pricing**

This section discusses the commercial pricing that NBN Co has offered over time for recurring charges as well as service transfers and transfer reversals in respect of TC-4 access products.

The focus of this is on the entry-level TC-4 broadband access products that are used by RSPs to supply residential grade services that are of similar quality to ADSL services. The key components are NBN Co’s AVC and CVC charges on a bundled or unbundled basis.

5.1. **Initial pricing approaches**

Under the pricing terms specified in NBN Co’s SAU accepted by the ACCC, access seekers incur a charge for each AVC purchased that varies with the speed, as well as a charge for the amount of CVC purchased to service these AVCs. The charge for a 12/1 Mbps AVC is $24 per month and CVC is charged at $17.50 per Mbps (reduced from an original level of $20.00 per Mbps).

NBN Co subsequently introduced, using SAU discounting provisions, a mechanism to allow the CVC price paid to be reduced the higher the level of provisioning of CVC per AVC. This occurred first in mid-2016 under a discounting method where the CVC price paid varied with the industry average level of provisioning of CVC per AVC (abbreviated as DBDI). This was replaced in mid-2017 by a discounting method where each RSP was able to pay a CVC price that depended on its own average level of provisioning per AVC (abbreviated as DBDR).

5.2. **Focus on 50**

In response to evidence of under-provisioning of CVC capacity by RSPs leading to poor end-user service performance, and a desire to promote increased take-up of higher speed services, NBN Co introduced its Focus on 50 (Fo50) pricing discounts in December 2017.

Under these discounts, RSPs were able to purchase around 50 per cent more CVC per AVC without paying more than what they were paying under the DBDR prices. A $7 per month discount was also offered on the 50 Mbps AVC to make it the same price as the 25 Mbps AVC ($27 per month).

The Fo50 discounts (along with some related actions by the ACCC including Measuring Broadband Australia (MBA), speed guidance and truth in advertising enforcement actions) are credited with producing a sustained increase in CVC per AVC purchased by RSPs and rise in the take-up of 50 Mbps services that saw a dramatic improvement in the performance of end-user NBN services during 2018.

5.3. **Bundles**

The bundled discounts fully replaced the Fo50 discounts from 1 November 2018 (following a period of coexistence, during which they did not get taken up in great numbers due to the Fo50 being more generous and the lead-in time required by RSPs to put them in place).
The key bundled discounts comprise:

- A 12/1 entry level bundle (12 ELB) with 150 kbps of CVC priced at $22.50 (noting that there is an additional charge of $22.50 which takes the total charge to $45 if these services on average use more than a nominal amount of CVC capacity)\(^{66}\)

- A $45 bundle with 2 Mbps of CVC priced with CVC overage charged at $8 per Mbps. This bundle was originally available for 12, 25 and 50 Mbps AVCs, but following the introduction of the 12 ELB, could only be taken with 25 and 50 Mbps AVCs.

- A $65 bundle with 2.5 Mbps of CVC with CVC overage charged at $8 per Mbps, available for 100 Mbps AVCs.

In order to utilise the bundles, RSPs must operate separate CVCs for these services and unbundled services for each customer service area (CSA). Aggregation of different bundled services and the CVC allowance is permitted. The resulting aggregate CVC allowances apply by CSA.

The CVC prices for the unbundled services have reverted to the DBDR discounted prices, which are currently due to expire on 1 July 2020.

Table 5.1 below provides some indicative access costs for 12/1 Mbps and 50/20 Mbps services under the key pricing arrangements detailed above. This illustrates how the access cost of the 12/1 Mbps service has increased from Fo50 to be above the previous DBDR cost, and how it has risen steadily relative to the access cost of the 50/20 Mbps service.

### Table 5.1: Indicative NBN access costs

<table>
<thead>
<tr>
<th></th>
<th>SAU</th>
<th>DBDR</th>
<th>Fo50</th>
<th>Bundles*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low speed (12 Mbps)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>$41.50</td>
<td>$36.00</td>
<td>$33.50</td>
</tr>
<tr>
<td>High Speed (50 Mbps)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>$69.00</td>
<td>$58.00</td>
<td>$46.00</td>
</tr>
<tr>
<td>Ave CVC**</td>
<td>1.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CVC price per Mbps</td>
<td></td>
<td>$17.50</td>
<td>$12.00</td>
<td>$9.50</td>
</tr>
<tr>
<td>Low speed v high speed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>cost</td>
<td>60%</td>
<td>62%</td>
<td>73%</td>
<td>85%</td>
</tr>
</tbody>
</table>

* Bundle price applied to high speed service only. Low speed based on unbundled price with rate based on standalone provisioning of CVC.

** Assumed average CVC for determining applicable CVC price under DBDR and Fo50.

A further concern with the bundled offers on separate CVCs has been that there is differing opportunity for RSPs to avoid overage charges and access the lower effective CVC price that is available on the bundles. In particular, quite different pricing outcomes can be driven by differences in the distribution of low speed and high speed services within the RSP’s customer base, and the amount of overage available to offset on higher speed services. This raises questions as to whether the bundles could result in discriminatory pricing outcomes contrary to NBN Co’s non-discrimination obligations under the *Competition and Consumer Act 2010*.

\(^{66}\) The additional charge applies to 12ELB services on a shared CVC where their average peak CVC utilisation during a month exceeded 150 Kbps (0.15 Mbps).
5.4. NBN Co’s pricing review second consultation paper offers

In its pricing review second consultation paper, NBN Co proposes some modifications to the existing bundled offers and new bundles among some other changes. The proposals of particular relevance to this inquiry are as follows:

- Modification of the ELB to create a cheaper 12/1 Mbps bundle when the 150kbps peak CVC inclusion is exceeded. This is achieved by progressively lowering the penalty charge from $22.50 to $5.70 from 1 October 2019, $4.90 from May 2020 and $4.10 from October 2020. The CVC overage charge of $8/Mbps also applies for any CVC required above the pooled allocation with other bundles in a CSA. This means that for a $35 price point, and without drawing on any pooled CVC, the CVC inclusions per AVC shown in Table 5.2 can be achieved.

<table>
<thead>
<tr>
<th>CVC per AVC</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 Oct 2019</td>
</tr>
<tr>
<td>ELB bundle price $35</td>
<td>1.0</td>
</tr>
</tbody>
</table>

- Introduction of a $37 bundle for a 25/5 Mbps AVC with 1.25 Mbps of included CVC from November 2019. The CVC allowance will rise to 1.5 Mbps in May 2021. At present a 25/5 Mbps bundled service is priced at $45 and has a CVC allowance per AVC of 2 Mbps.

- The current CVC allowances per AVC for the 50/20 Mbps (2 Mbps CVC) and 100/40 Mbps services (2.5 Mbps CVC) in the $45 and $65 bundles respectively are to be increased as follows:
  - 50/20 – 2.25 Mbps (May 2020) and 2.5 Mbps (May 2021)
  - 100/40 – 3.0 Mbps (Oct/Nov 2019), 3.75 Mbps (May 2020) and 4.0 Mbps (May 2021)

- Introduction of a new 100/20 Mbps bundle discount with 3.75 Mbps of CVC in May 2020 (rising to 4.0 Mbps of CVC in May 2021) along with other new higher speed bundles. There are also increases in CVC allowances for the current higher speed ones (from Oct/Nov 2020).

- Further details of the above and other changes are detailed in NBN Co’s second consultation paper.

5.5. Service transfer and transfer reversal charges

NBN Co currently levies RSP a ‘service transfer charge’ of $22.50 for transferring an active NBN service from other RSPs. In addition, RSPs are also levied a ‘transfer reversal transfer’ of $22.50 when RSPs seek to reverse a service transfer.

These charges were first introduced by NBN Co on 2 November 2015.

We note that NBN Co currently does not levy charges for initial installation of NBN services in the majority of cases, or to reactivate a cancelled service. As a consequence the service transfer fees can represent a cost that incumbents did not face when migrating end-users to

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67 The charge for ‘initial standard installation’ is currently set at zero in the WBA3 and while the charge for ‘initial non-standard installation is determined as ‘Labour Rate + Materials over and above Initial Standard Installation’ under the WBA3, it is currently waived as per NBN Co’s WBA3 Discounts, Rebates and Credits list.
the NBN. In addition, the fees can be avoided however this comes at a cost of service continuity and other protections such as number retention which is possible only where the service transfer process is used.

In its pricing review second consultation paper NBN Co has proposed to standardise its various activation charges as part of its WBA4 process. In the meantime it has indicated it will apply a discount to its service transfer fees so the effective charge is $5.00 from 1 December 2019 to 30 November 2020.

Questions

6. Do the pricing features covered in this section represent the key pricing elements bearing on the supply of entry level NBN services to end-users by RSPs?

7. Do the service transfer charges identified in this section represent the key pricing elements bearing on service transfers?
6. Product and pricing developments in retail fixed-line broadband markets

This section discusses the product and pricing developments in retail broadband markets, and the implications that these have for whether to establish, and if so the nature of any, regulated price-related terms of access to the NBN in accordance with the LTIE.

The retail fixed-line broadband market was effectively kick-started by Telstra in 2004 when it lowered its ADSL prices by around 30 percent, ahead of other DSL network operators entering the market using unbundled copper loops and investing in higher quality ADSL2+ networks. By 2008 around half of all premises were located close enough to an exchange to receive a downstream speed of around 12 Mbps on an ADSL2+ plan.

By 2010, many consumers within this competitive footprint could pay $60 per month for an ADSL2+ and line rental bundle with a data quota that was much higher than even a heavy user at the time could exhaust.68

From this time, the price points for ADSL/ADSL2+ plans generally stabilised while plan inclusions continued to become more competitive. Data compiled for our annual communications market reports indicates that retail broadband prices for the plans purchased by retail customers have declined slightly over time in real terms while monthly data quotas have increased.

As a consequence, consumers of retail broadband services have been accustomed to generally stable or falling prices, even though they were using their services to access more data intensive online applications or were simply spending more time online. These applications included catch up television, online video sharing and subscription video on demand services.

By 2016, there were a number of retail fixed line broadband plans that offered unlimited data plans for $60 per month, as well as a limited data quota of around 100GB for $50 per month. These plans were offered on both ADSL2+ networks and the NBN69, although the NBN services then represented only a very small segment of the market.70 As a consumer will typically spend between 2 to 3 years between renewing their retail broadband plan, many consumers yet to migrate to the NBN could be expected to be on ADSL/ADSL2+ plans that were offered for sale to new or renewing customers in 2016.

While internet service providers were largely unsuccessful in directly capturing the additional revenues that consumers were willing to pay for the new applications, they were able to benefit from increasing demand for their services in order to access these popular applications. Importantly, they were able to mitigate against the risks that this rapid growth in demand posed to their supply costs by efficiently investing in additional capacity in their DSLAM and optical transmission networks and exploiting additional economies of scale and scope.

The migration to the NBN that has largely occurred from 2016 has however significantly disrupted RSPs ability to mitigate these risks. This is because they now need to buy access

68 See NBN, Corporate Plan 2011-13, Figure 18-8, p. 105, available at: https://web.archive.org/web/20111011213843/http://nbnco.com.au/assets/documents/nbn-co-3-year-gbe-corporate-plan-final-17-dec-10.pdf. For example, in July 2010, TPG was selling ADSL2+ services including line rental and 500GB (150GB peak/350GB off-peak) for $60 per month. In December 2010, NBN Co considered a heavy user would consume 75GB.

69 For example TPG’s offer of unlimited data quota for $60 per month, including telephone line rental. This continues to the present day. Correspondingly, its ADSL2+ price for a 100GB (50 GB peak/ 50 off-peak) plan was $50 per month, which also remains available. See also Dodo’s ADSL2+ plans, including phone line, of $60-$65 per month unlimited and $50-55 per month for 50 GB to 250GB around the same time and unlimited Optus ADSL2+ and 12/1 plan on NBN for $60 per month including line rental and local calls.

to network capacity in the form of CVC charges. To the extent that CVC charges drive costs above the revenues that they can earn in the retail market, RSPs can no longer look to offset these cost increases by seeking further network economies themselves, but are instead dependent upon NBN Co sharing these economies in the form of lower prices. Initially RSPs instead managed this risk by not buying enough CVC to meet busy hour demand. This was an effective strategy in containing growth in their input costs, but it came at the expense of customer experience. During the period over which Fo50 pricing was available, average NBN network congestion reduced substantially. Following the removal of this pricing we have observed that average network congestion has started to creep up gain, although to nowhere near the levels experienced in the months preceding the Fo50 discounts. (See Figure 6.1 below).

**Figure 6.1: Average network bandwidth congestion on the NBN**

![Figure 6.1: Average network bandwidth congestion on the NBN](image)

This reflects that there is now much greater transparency and awareness around network congestion on the NBN and this limits the potential for RSPs to simply under provision their services on the NBN and maintain their position in the market.

This is not to say that RSPs are now necessarily acquiring sufficient CVC on the NBN to deliver all end-user traffic during all but the busiest hour of the week. Rather, RSPs may have become more sophisticated in their traffic management techniques. For instance, where traffic can be identified as not time critical, it can be shaped, i.e., delayed or blocked entirely, during particularly busy hours, in a way intended to be less noticeable to the end-user. That said, there are limits to which these techniques can be used without compromising consumer experience. Shaping occurs on the RSP network and so is not captured in NBN minutes of average network bandwidth congestion metrics.

In addition, most RSPs responded to the higher access costs that resulted from increasing CVC requirements and the changes in wholesale pricing that occurred in 2018 through retail product and pricing changes. In particular, with the replacement of NBN Co’s Fo50 price arrangements with the bundled offers, several RSPs have withdrawn their Entry Level Retail plans on the NBN for 100GB and unlimited data per month (mainly based on the 12/1 Mbps access service) and/or increased their prices. These product and price increases are summarised in Table 6.1 below.
Table 6.1: Cheapest NBN offer withdrawals and pricing increases

<table>
<thead>
<tr>
<th>Product withdrawals</th>
<th>Price increases</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>100 GB offers</strong></td>
<td></td>
</tr>
<tr>
<td>Belong 12/1 $50 p.m. (replaced with 50/20 unlimited with $5 p.m. price rise to $55 p.m.)</td>
<td>Telstra 25/5 $69 p.m. increased by $1 p.m. to $70 p.m. with calls added to plan.</td>
</tr>
<tr>
<td>Exetel 12/1 $39.99 p.m. (replaced with 50/20 with $10 p.m. price rise to $49.99 p.m. and then removal of limited GB offer completely)</td>
<td></td>
</tr>
<tr>
<td>Dodo 12/1 $39.90 p.m. (50GB) (replaced with 25/5 (101GB) with $20.10 p.m. price rise to $60 p.m.)</td>
<td></td>
</tr>
<tr>
<td>iPrimus 12/1 $60 p.m. (replaced with 25/5 at same price)</td>
<td></td>
</tr>
<tr>
<td>Aussie Broadband 12/1 $45 p.m. replaced with 25/5 with $10 p.m. price rise to $55 p.m.)</td>
<td></td>
</tr>
<tr>
<td>Active8me 12/1 $39.95 p.m. (and 25/5 $44.95 p.m.) to be replaced with 50/20 with $20 p.m. (and $15 p.m.) price rise to $59.95 p.m. (From 19 September 2019).</td>
<td></td>
</tr>
<tr>
<td><strong>1000/unlimited GB offers</strong></td>
<td></td>
</tr>
<tr>
<td>Exetel 12/1 $54.99 p.m. (replaced with 50/20 with $15 p.m. price rise in three stages of $5 p.m. to $69.99 per month)</td>
<td>Telstra 50/20 $79 p.m. increased by $11 p.m. to $90 p.m. with calls added to plan.</td>
</tr>
<tr>
<td>Dodo 12/1 $59.90 p.m. (replaced with 50/20 with $10.10 p.m. price rise to $70 p.m.)</td>
<td>Optus 12/1 $60 p.m. increased by $20 p.m.</td>
</tr>
<tr>
<td>iPrimus 12/1 $70 p.m. (replaced with 25/5 at same price)</td>
<td>Optus 50/20 $70 p.m. increased by $15 p.m., to $85 p.m. with calls and sports subscription added to plan (but subsequently reintroduced 50/20 $70 p.m. offer without add-ons).</td>
</tr>
<tr>
<td>Vodafone 12/1 $59 p.m. (replaced with 25/5 at same price)</td>
<td></td>
</tr>
<tr>
<td>iiNet 12/1 $69.99 p.m. (replaced with 25/5 at same price)</td>
<td></td>
</tr>
</tbody>
</table>

We consider that these recent product and pricing changes demonstrate how changes to wholesale access products and pricing can flow through to retail broadband plans. Further, the consequences of the 2018 product and pricing changes appear to have been that:

- A material number of consumers would have to pay more when migrating to the NBN even if they did not require an upgraded plan, which is unreasonable under a forced migration model.
- The price of higher speed plans that are available over the NBN could now be set higher than the additional value they represent over and above ADSL plans.
- All consumers are at more risk of not finding an NBN product that represents fair value to them, reducing NBN demand and/or risking inefficient bypass of the NBN in future for lower quality or higher cost alternative services.

Moreover, these retail outcomes suggest to us that NBN Co’s pricing has placed at risk an original objective of the SAU, namely the objective of providing a smooth migration to the NBN throughout the network rollout.71 These outcomes also appear inconsistent with a number of the pricing principles as we have outlined in Section 4 of this paper.

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71 See also: R.Sims, NBN affordability an growing issue, Speech to CommsDay conference, April 2019
On 17 September 2019, NBN Co published a second consultation paper outlining its proposed pricing intentions. These future pricing intentions are discussed in Section 5.4.

Questions

8. Are there any additional retail pricing and product changes relevant to this inquiry that resulted from NBN Co's product and pricing changes that took effect in 2018?

9. Are there any further retail pricing and product changes that are being contemplated due to NBN Co's 2018 pricing changes?

10. What retail pricing and product changes have you made or are contemplating in response to NBN Co's pricing changes outlined in its second consultation paper?
7. Considerations for potential regulated NBN access pricing

As noted previously, the key focus of the inquiry is to test whether NBN Co’s most recent commercial offers for its basic access products are capable of supporting the supply of a retail product that is the functional equivalent of an ADSL/ADSL2+ and line rental bundle, and the pricing will promote a smooth migration. This raises for consideration both the product specifications and pricing that would be appropriate for an NBN basic speed access product.

The inquiry will also consider related matters, in particular the role of this product as an anchor product, NBN Co’s current approach to implementing its basic speed access product constructs through discount notices, and the impacts of service transfer and reversal fees.

This section of the discussion paper outlines the key elements of NBN Co’s access pricing that we will consider as part of the inquiry. These elements include the choice of NBN AVC, the target retail and wholesale price points to achieve a smooth migration, as well as CVC inclusions and how these inclusions may need to increase over time.

We set out observations based on publicly available information, or other information received from parties in recent market enquiries. We also set out how we propose to consider each aspect of the basic speed access product during the inquiry. Finally, we seek stakeholder views on a range of questions on individual pricing elements and pricing data to further inform our analysis.

We note that the approaches set out in the section have been developed in accordance with the general pricing principles and framework discussed in section 4, which we also welcome stakeholder views on.

7.1. NBN access products for which to consider regulated prices

As discussed previously, our principal objective for this inquiry is to promote a smooth transition to the NBN. Hence, we intend to focus on examining the price related terms for the NBN access products that are close functional equivalents to the most popular access products being supplied over Telstra’s fixed-line copper network, and the Telstra and Optus HFC networks (which are the networks that are subject to mandatory migration).

We consider that this is best achieved by focusing on access products that are based on NBN Co’s 12/1 Mbps TC-4 Ethernet product. This is because

- most end-users are migrating from ADSL/ADSL2+, and the 12/1 TC-4 NBN access products will be the closest functional equivalent to this product set.
- the median speed on ADSL2+ services is within the range of 10 to 15 Mbps, with any remaining ADSL customers not on an ADSL2+ services receiving speeds less than maximum speed of 8 Mbps.  

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72 As at 30 June 2019 there were around 1.965m ADSL services in operation on the Telstra customer access network. See ACCC, Snapshot of Telstra’s Customer Access Network as at 30 June 2019. As at 31 December 2018 there were around 0.745m HFC broadband services being supplied over the Telstra and Optus cable networks. See ACCC, Internet Activity Report (December 2018), May 2019 for total HFC broadband services and ACCC, NBN Wholesale Market Indicators Report as at December 2018, Table 4, 12 February 2019, for HFC broadband services supplied over the NBN access network.

73 By 2008 around half of the population lived close enough to an ADSL2+ enabled exchange to access a retail broadband service with a download speed of 12 Mbps. See ACMA, Communications Infrastructure and Service Availability in Australia 2008, at p6. Although ADSL2+ services can provide download speeds of up to 24 Mbps in theory, speeds greater than 12 Mbps are only available within 1.5 km of the exchange. In July 2010, Telstra estimated that 50 percent of its ADSL2+ customers could achieve download speeds of 10 Mbps or more. See Telstra, ADSL Broadband, published at http://www.telstra.com.au/bigpond-internet/adsl2/index.htm, 22 July 2010. Whereas TPG stated the median speed for its ADSL2+ customers with filters installed was approximately 15 Mbps. See TPG, “ADSL2+ Rollout Progress”, published at www.tpg.com.au as at 31 July 2010:
We also note that NBN Co have based its Entry Level Bundle access product on a 12/1 Mbps TC-4 product.

We acknowledge that we have previously recognised that TC-4 Ethernet services supplied with a 25/5 Mbps speed tier were functionally equivalent to the very high performing ADSL2+ access products. Further the 25/5 Mbps speed tier would be broadly equivalent to more popular HFC broadband products, which have been offered with a download speed of around 30 Mbps, and an upload speed of around 1 Mbps. We have also recognised that the 50/20 Mbps and 100/40 Mbps speed tiers were also relevant insofar as they support the migration of high speed HFC services.74

While the structure or level of prices for these higher speed NBN access products is unlikely to be a particular focus of our inquiry, any price-related terms for the 12/1 speed access product is likely to have an indirect influence over the level at which NBN Co sets its commercial prices for the 25/5 speed products, and potentially also for the higher speed tiers. This is because NBN Co will have an incentive to promote uptake of higher speed tiers, which would be impacted if the additional price for the 25/5 speed (or other speed tiers) was so great that consumers no longer saw sufficient value in those offerings. That is, specifying prices for more basic broadband access products can potentially anchor other product offers in the same stack.

In this regard, we note that NBN Co has indicated its intent to offer a 25/5 speed access product at a price point and with a CVC inclusion that appears to represent a small additional monthly cost above the monthly cost incurred when using the ELB to supply a retail broadband plan.

Relatively, we would still expect only those consumers that do not see sufficient value in higher speeds to migrate to a 12/1 speed NBN service, and hence overall demand for this product would remain dependent on NBN Co’s commercial offers for higher speed products.

An advantage of this anchoring approach is that it can potentially encourage more efficient pricing, particularly where relative demand is uncertain and end-user preferences are still developing for the high speed products.

In these circumstances, the access provider can adjust the pricing of its higher speed access products so that its prices do not push consumers down onto speed tiers that do not fully meet their needs or even cancel their service entirely. At the same time, this flexibility for higher level products can enable an access provider to recover its costs more efficiently, including by spreading those costs across a larger customer base than it might otherwise have and asking those that value the higher speeds to contribute proportionately more to the cost recovery exercise.

Ultimately whether regulated pricing is required for the 25/5 speed tier product (and the higher speed tier products) is likely to turn on whether the commercial prices that NBN Co offers still allow the customers acquiring higher speed legacy services (i.e., very high performing ADSL2+ and HFC services) to migrate to the NBN without price shock.

Question

11. Which TC-4 ethernet broadband access service speed tier(s) are most relevant to the objective of providing a smooth migration for all or most consumers?

74 ACCC, Draft Decision on the Special Access Undertaking, April 2013
7.2. Pricing methodology

We are considering using a benchmarking methodology to test whether NBN Co’s recent product and pricing announcement is capable of achieving our principal objective of providing for a smooth transition to the NBN. NBN Co described this approach in its initial corporate plan when assessing the speed and pricing of the retail plans that its then wholesale products would support against the plans supplied over existing wholesale products.75

The benchmarking methodology involves firstly identifying the efficient price level that consumers have been paying for the retail broadband services that are migrating to the NBN and then identifying the NBN access pricing that would enable access seekers to supply a functionally equivalent product on the NBN at a directly comparable price. This is discussed further below.

The New Zealand Government has adopted a benchmarking approach in setting initial access charges for the Ultra-Fast Broadband network, although there the benchmarking was undertaken at the wholesale level and with a view to UFB products offering a vastly superior service at comparable prices to copper services. More particularly, the UFB partners agreed to offer an entry level broadband product that had a higher speed and a lower price than its functional equivalent copper service, the wholesale naked DSL product. Both the maximum data rate of 30/10 Mbps and the committed information rate of 2.5 Mbps of this entry level product were above the product specification of the copper service.76

That said, while we do not propose a cost based methodology to set the prices, we will have regard to NBN Co’s costs to provide access, and its legitimate interests in recovering its efficiently incurred operating costs and to continue to invest in its networks and systems, and earn an appropriate return on prudent investment.

7.3. Proposed approach to pricing a basic broadband access product

7.3.1. Target retail product and price

In order to provide a smooth transition for consumers, it is firstly necessary to reach a view on the retail product and pricing plans that retailers would need to replicate on the NBN. That is, NBN retail product offers should align with the efficient price at which popular ADSL/ADSL2+ products that have been offered. In this regard, an efficient plan would be one that provided close to the highest value in inclusions for a given price point (or was provided at the lowest price for a given value in inclusions). This is because consumers would likely have chosen from the efficiently priced plans when they last recontracted for their service and hence would typically reflect the prices paid.

As noted above, retail broadband products and prices generally improved over time. Generally speaking, speeds and quality have improved as new variants of DSL have been implemented, and data quota and other inclusions have progressively increased. At the same time, product offerings have tended to converge around particular price points, ranging from $30 to $80 per month, with product offerings at each price point tending to improve over time.

The main factors that have differentiated product offers have been whether the service provider is an incumbent or challenger brand, whether separate line rental charges applied and the level of included data quota. We observe that:

76 Crown Fibre Holdings, Fact Sheet: Agreement with Chorus, p.29
• While remaining profitable, challenger brands have been more generous in inclusions in order to win customers and build scale, whereas incumbent brands tended to charge more and/or offer less.

• Some products included line rental for a notional or zero charge, or else did not require line rental to be acquired, whereas cheaper products required the separate purchase of line rental at usual rates from around $25 to $30 per month.

• Cheaper products have had a limited quota that would meet the needs for a proportion of consumers. Higher priced products on the other hand have had generous quotas that would few consumers would be likely to reach, or else were expressed to be unlimited, i.e., only subject to fair use policies.

Consequently, it will be necessary to select from this range of products and pricing plans that have been in the market. Our current view is that we should be undertaking this selection process over the period from 2016. This is because it is unlikely that many consumers would remain on pricing plans that were introduced earlier than this time. Further, we should be selecting from the more efficient plans that have been in market over this period as consumers generally had the option not to recontract, and instead rollover their existing plan, while they remained on ADSL/ADSL2+ if the plans then being marketed were priced higher or were not as generous in inclusions.

We are intending to limit the analysis to products and pricing plans that were offered by retailers with a material market share. This is to align with the objective of providing a smooth transition to the NBN for most consumers and also to keep the analysis at a practicable level.

In terms of the type of products and plans we should include in this assessment, we are focusing on pricing plans that have been offered inclusive of line rental. This is because the TC-4 Ethernet access product bundles in network bandwidth necessary to ensure a good quality voice product can be supplied. In a practical sense we could still include ADSL/ADSL2+ plans that required the separate payment of line rental but only after grossing up the plan for the most basic line rental charge then available to the consumers on those plans.

We are also intending to identify efficient pricing plans for ADSL/ADSL2+ products with an unlimited quota (or a quota that was many multiples of median monthly usage so that few consumers would fully use the quota), as well as a more limited quota that was at or below median usage.

This appears consistent with efficient pricing levels that were available in retail broadband markets from 2016. In this regard, retail ADSL2+ products have been widely offered with very high usage quotas for around the last ten years. TPG, and possibly other challenger brands, have offered unlimited ADSL2+ plans at a $60 price point from at least March 2012. Optus also offered unlimited quota ADSL2+ and HFC cable plans to eligible mobile subscribers from 2016 and more generally from 2017 at this price point. Challenger brands have also offered retail plans at a $50 or $55 price point with a limited quota of 100GB or less.

77 These products were generally speed limited until the commencement of the next billing period once usage reached the quota.


7.3.2. Target monthly access cost

Identifying a target monthly access cost involves deducting allowances for the transformation costs that RSPs incur in supplying retail services over the NBN and a reasonable margin so that retailing an entry level product can be sustainable.

RSPs incur network level costs which include network backhaul, interconnection, core switching, as well as the holding and shipping costs of modems/gateway devices, and costs for product development, sales and marketing, help desk, billing and to cover bad debts and business level overheads (legal, accounting, finance, IT, management).

NBN Co has pitched its recently announced new pricing for its ELB product that results in an input cost of $31 when 500 Kbps of CVC is provisioned on average and $35 when acquired with 1 Mbps of CVC.\(^\text{80}\)

Our current view is that a monthly unit access cost of $35 per month would likely permit access seekers to supply a very high quota or unlimited retail product of $60 per month inclusive of GST. However we are looking to test this view.

We note that this would allow for a transformation cost of $14.10 and an EBITDA margin of $5.45 per service per month (or 10 percent), after accounting for GST.

<table>
<thead>
<tr>
<th>Unit cost</th>
<th>$35.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allowance for transformation cost</td>
<td>$14.10</td>
</tr>
<tr>
<td>Margin</td>
<td>$5.45</td>
</tr>
<tr>
<td>GST</td>
<td>$5.45</td>
</tr>
<tr>
<td>Retail price</td>
<td>$60.00</td>
</tr>
</tbody>
</table>

This can be compared to the forecasts that NBN Co made in its initial corporate plan issued in December 2010. In that plan NBN Co envisaged that access seekers would then incur higher transformation costs in converting access to its then 12/1 product offer of around $18 per month and that EBITDA margins would be in the range of 10 to 20 percent.\(^\text{81}\)

Consequently, the 10 percent EBITDA margin is at the bottom of the range envisaged in 2010, and the allowance for transformation costs is around 80 percent of the level then forecast.

7.3.3. CVC requirements on commencement

As discussed previously, access seekers face two significant charges for access to the NBN. The first is an AVC charge that provides access to a maximum speed over the NBN and the second is the CVC, which is a charge for aggregate capacity provisioned on the access network.

When acquiring bundled products, access seekers can utilise CVC up to a specified limit for the bundled price aggregated across all bundled services in a CSA, with additional CVC available on payment of an overage charge. Basic CVC costs will also increase as more bandwidth is provisioned, even though CVC unit price per Mbps can decline as CVC dimensioning (bandwidth per AVC) increases while the DBDR scheme is in operation.

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\(^\text{80}\) NBN Co, *Pricing Review Consultation Paper 2*, September 2019, Table 1 Entry Level Bundle usage examples, p.6.

Consequently, it is necessary to reach a view on the level of CVC that is required in order to supply an unlimited ADSL/ADSL2+ product, so an allowance can be made for that cost when determining the AVC charge component. In this regard we are looking to test whether NBN Co’s recently announced revised Entry Level Bundle, which allows for 1 Mbps of CVC to be provisioned for each AVC within a $35 per month access cost, allows for sufficient CVC to be acquired at this cost.\(^\text{82}\)

There are two reference points we are proposing to consider in reaching a view on the level of CVC dimensioning that would be needed to provide a smooth transition to the NBN. The first is the level of CVC provisioning and network utilisation during the busiest hour of the day that is attributable to 12/1 speed NBN retail services. This shows the level of dimensioning that RSPs have been applying in order to meet demand from consumers on the relevant NBN retail plans. We are seeking data from NBN access seekers to reach a view on this.

The second reference point is the equivalent network dimensioning that occurs in the supply of ADSL/ADSL2+ services. This is because this level of network capacity per end-user would provide a good indication as to what would be required to allow the NBN basic speed access product to support a smooth transition as end-users migrate from those ADSL/ADSL2+ networks.

Telstra provides high level data to us each quarter pursuant to its Structural Separation Undertaking that shows the average monthly peak network utilisation of its ADSL/ADSL2+ retail services as well as the simple average of services in operation over the quarter.

We are seeking data from ADSL/ADSL2+ network operators, i.e., Telstra and other carriers that operated DSL networks over the ULLS or their own copper networks. The particular data we are seeking are intended to demonstrate

- the peak network utilisation of on-net ADSL/ADSL2+ services in absolute terms and on a per on-net service basis that was observed each week (or failing that, each month) over the last two years
- the network capacity that is available to on-net ADSL/ADSL2+ customers and the scale of investment undertaken to increase this overtime
- whether this network capacity fully met peak demand (or if not the frequency of congestion observed or extent of network management practices deployed).

We are seeking both the NBN and ADSL information in sufficient detail to allow us to better forecast demand for CVC per 12/1 speed NBN retail service that would continue to support a smooth migration over the remainder of the NBN rollout.

Ideally we would want to compare the network demand profile for ‘light’ end-users, i.e., those end-users that are infrequently online, or do not use data intensive applications, in the evening peak hours, and the demand profile of heavier users. This will better allow us to test the extent to which growth in total demand is occurring due to growth in one or other of these demand profiles, and/or changes in the number or mix of end-users online in the busiest hour of the day.

Questions:

12. What level of CVC dimensioning for the basic broadband access product do you consider is needed to support a smooth transition of ADSL/ADSL2+ customers to the NBN for a retail price point of $60 with unlimited data? Could this same level of provisioning be supported on the ADSL/ADSL2+ network for the same price point?

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\(^{82}\) See NBN Co, Pricing Review Consultation Paper 2, September 2019
13. RSPs that are supplying or have previously supplied retail 12/1 speed plans using the NBN, please complete the data request that accompanies this discussion paper.

14. RSPs that operate ADSL/ADSL2+ networks, please complete the data request that accompanies this discussion paper.

7.3.4. Adjusting CVC requirements to account for growth in traffic

We note that the amount of revenue NBN Co earns by supplying its 12/1 speed tier products has increased significantly from less than $25 when it introduced the product in 2010.83 The proposed pricing approach that we have outlined would allow this access product to provide a revenue contribution of around $35 per month, depending on the mix of restricted quota and high/unlimited quota products that are supplied. This increase has resulted from growth in demand for CVC per end-user that has more than offset reductions in per Mbps CVC prices.

Access seekers have expressed significant concern that NBN Co’s current pricing construct, under which costs can scale significantly as CVC requirements grow, can cause considerable uncertainty in their business planning and may distort their product or pricing decisions.

As noted previously, we do not intend to address concerns directly during this inquiry to the extent that they stem from NBN Co’s use of a two-part price construct. We will however consider whether and if so the extent to which CVC inclusions or allowances for the basic broadband access product should be increased over time. This is consistent with the general approach that NBN Co has outlined in its second pricing consultation paper, whereby it has proposed to periodically increase the CVC inclusions in each of its bundled products including the entry level bundle.84

Cisco, a global supplier of network equipment, monitors and reports on Australian fixed-line busy-hour network traffic. Cisco reports that in 2017 this traffic grew by 45 percent and that its medium term forecast is for traffic to increase strongly over the five years to 2022, with an annual compounding rate of 36 percent forecast.85

Further, data that NBN Co provides to us under a record keeping rule concerning busiest daily hour CVC utilisation levels and CVC provisioning confirms that demand for peak network bandwidth on the NBN is growing at a high rate.

While CVC provisioning levels are also increasing significantly, as shown by aggregate data that we publish from NBN Co’s records,86 the rate of growth is less than the growth in volume of data carried over the NBN in peak periods. This mismatch is likely explained in part by some CVCs that were initially provisioned with spare capacity now filling up.

There is also the possibility that at least some access seekers are using more aggressive network management techniques in order to contain CVC costs and/or avoid penalty charges that NBN Co imposes for over utilisation of provisioned CVC.87 There are limits to which these techniques can be deployed before consumer experience is materially impacted. Consequently, if CVC allowance is not indexed at all then it is likely that either RSPs would need to find further cost efficiencies within their transformation activities, or


84 NBN Co, Pricing Review Consultation Paper 2, September 2019


87 We understand these techniques include blocking certain online sites or applications and queuing traffic for certain online applications at times of high demand.
otherwise raise prices and/or constrain quality so that their entry level NBN product was no longer a close substitute for legacy services.

On the other hand, it has been envisaged and accepted for some time that NBN Co could earn additional revenue as bandwidth demand increased to the extent that this was needed to recover its costs over the full period of their useful life. Over the course of this inquiry we will consider what would be a reasonable approach to NBN Co increasing its revenues as network bandwidth demand continues to grow.

In these circumstances, we are interested in views on what approach we should adopt to indexing the allowance for CVC over time. In particular we are seeking information on both

- the minimum index rate that would be required to provide sufficient network bandwidth so that entry level NBN products would continue to provide comparable quality to ADSL services, and
- the maximum increase in CVC cost that could be offset against future cost efficiencies in transformation costs, so that the $60 retail price point for a high or unlimited quota product was not placed in jeopardy.

We are also seeking views on how any allowance for revenue growth is best accommodated within the price related terms of the basic speed access product, since this could be done either by

- Increasing the AVC/bundle price/target cost over time
- Adjusting down the indexing that is allowed for the CVC dimensioning of the product
- A combination of the above.

We are interested in considering this both from the perspective of

- supporting a smooth transition to the NBN, i.e., what would best provide for a similar busy hour speed (quality) and price, and
- allowing the business risks posed by the increasing demand for busy hour bandwidth to be best managed so that consumers do not face congestion or out of the ordinary network management practices on their services.

**Questions**

15. What rate of indexing of the CVC dimensioning is required on a basic broadband access service for it to continue to provide for a smooth migration over the course of the rollout? Could this same rate of indexing be supported on the ADSL/ADSL2+ network?

16. How should the required growth in CVC dimensioning be accommodated in developing price related terms for the basic speed access product and does this put the $60 retail price point with unlimited data at risk?
7.3.5. New product and pricing offer, or use of discount notices?

Given the advanced stage of the rollout and the volume of services that will be facing managed disconnection if they do not migrate to the NBN in the near term, if price regulation is warranted, there would appear to be significant benefit in moving quickly to restore retail product offers than can provide for a smooth migration path to the NBN. Consequently, this may require the use of a rebate type mechanism similar to that which NBN Co has announced as part of its second consultation paper on product and pricing options.

That said, we are also interested in how the price related terms and conditions for a basic speed access product could be offered in a more straight-forward manner[^88] and in a way that provides an appropriate level of long term certainty to access seekers and end-users that they would remain appropriate over time.

As discussed previously, NBN Co now makes extensive and ongoing use of discounts, credits and rebates in preference to introducing new product and prices, even where these effectively implement fundamental changes to its commercial offers.[^89]

On the one hand, this approach can preserve flexibility to NBN Co, particularly as NBN Co takes the view that all commercial offers that are labelled as discounts sit outside the controls that it proposed in its special access undertaking.[^90] On the other hand, however, this pricing flexibility can undermine certainty and create additional risk for access seekers that they may not be able to mitigate. We would anticipate that the use of discount notices to effect product and pricing specifications for a basic speed access product could provide additional challenges when certainty of access would appear a key attribute for an anchor product.

**Question**

17. What do you see as the pros and cons of establishing the price related terms and conditions of access to a basic broadband access product by way of a new product bundle or being implemented by way of a partial waiver/discount?

7.3.6. Implications for transformation costs and scale economies

As discussed previously, we are interested in testing whether NBN Co’s recent product and pricing changes facilitate opportunities for access seekers to reduce their transformation costs, and exploit economies of scale and scope. In particular, we are interested in whether these changes are likely to obviate the need to operate duplicate CVCs to better manage unit costs of access.

In this regard, we understand that there can be material scale economies in operating larger CVCs, as the amount of CVC that must be dimensioned to meet a given customer experience will tend to reduce with the higher degree of averaging that is potentially available on larger circuits. Further, we would anticipate that the costs of monitoring CVCs can increase to some extent with the number of CVCs in operation.

On the other hand, if it was still the case that an access seeker needed to split basic access speed AVCs across bundle CVCs and basic CVCs in order to better manage unit costs, as was a consequence of NBN Co’s initial implementation of its high speed bundle and ELB

[^88]: Strictly speaking, NBN Co’s announcement is that it will offer a partial rebate of the “additional amount” that it levies when one of the eligibility conditions that it has attached to its entry level bundle discount has been breached.

[^89]: As at October 2019, NBN Co’s Discounts, Credits and Rebates List comprised 129 pages, and its Price List comprised 20 pages.

[^90]: These controls concern not withdrawing product offers without giving extensive notice and gaining regulatory approval.
offers\textsuperscript{91}, this would tend to act against access seekers realising these cost savings and scale economies, either to offer better consumer experience and/or lowering their retail pricing.

**Questions**

18. Will NBN Co’s proposed pricing in its second consultation paper allow access seekers to rationalise their CVCs?

19. What further approaches could be considered to facilitate opportunities to reduce transformation costs and/or allow access seekers to exploit scale economies in respect of the basic broadband access product?

### 7.3.7. Support for a limited and unlimited quota basic speed retail product

NBN Co has announced revised pricing for the ELB that still requires a low minimum level of CVC inclusion of 0.15 Mbps (i.e., 150 Kilobits per second). Additional CVC can be provisioned in the usual course on the relevant ‘bundled CVC’ at the same per unit price of other ‘CVC overage’.

We would anticipate that this approach will provide sufficient flexibility for access seekers to develop basic speed plans with a reduced quota, such as 50GB, 100GB or 200 GB plans, at a retail price that is lower than their unlimited quota offers. This would assist in promoting consumer choice and competition, as a greater diversity of offers can be supplied into the retail market.

We are interested in understanding whether this is the case, and what would be the preferred approach to preserving this flexibility into the future.

**Questions**

20. What is your preferred approach to preserving sufficient flexibility to offer limited quota plans over a basic broadband access product?

21. Should this be left to individual dimensioning choices of access seekers acquiring a scalable basic access product or should a separate limited quota access product be developed?

22. What do you consider to be the level of CVC dimensioning that would support a limited quota, basic speed retail plan?

### 7.3.8. Allowing access seekers to achieve a comparable access cost when supplying basic speed retail plans on the NBN

We consider that it is important that NBN Co’s access product and pricing offers should allow access seekers the opportunity to achieve a similar unit cost of access to provide the same quality retail services, and so militate against some access seekers facing materially different pricing outcomes that could impede competition in retail markets.

This objective can potentially be impeded to the extent that the price related terms and conditions of access require a high ‘buy-in’ to access significantly more favourable price terms, or otherwise result in more favourable terms only being available to some access seekers in a practical sense.

In this regard, we would be looking to avoid an implementation that provides more favourable pricing for basic speed access products for access seekers that tend to target end-users that are interested in high speed plans only.

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\textsuperscript{91} NBN Co’s initial bundling approach resulted in some access seekers quarantining basic speed access products on separate CVCs (termed ‘basic’ CVCs) in order to contain their access costs.
That said, this outcome appears relatively unlikely with the minimum CVC dimensioning now set at a very low level when using the ELB to supply a basic speed retail plan, and additional CVC for these access products now being priced at the bundle overage rate.

Question

23. Are there any features of NBN Co’s new ELB offer that favours some access seekers or business models over others when it is used to supply a basic speed broadband plan? What are these features?

7.3.9. Application to NBN Co’s wireless access networks

NBN Co’s commercial offer for its ELB (including when the bundle is used to supply a basic speed broadband service) does not appear to be available over fixed wireless or satellite access technologies.

That said, applying this pricing to Fixed Wireless or Satellite areas might not be necessary in order to promote a smooth transition to the NBN. This is because consumers in the NBN wireless and satellite footprint with access to ADSL do not face mandatory disconnection, and so have the option to delay migrating to the NBN until the product and pricing represents fair value to them. In addition, some other consumers in these areas do not have an existing service to migrate at all.

NBN Co does instead offer a 12/1 bundle that comes with 2 Mbps of CVC dimensioning for $45 per month as part of its Fixed Wireless Bundle. This CVC can be applied across all other bundled services on that CVC. Consequently the effective cost would be reduced to the extent that there is a surplus CVC entitlement that can be applied to avoid CVC overage charges on that CVC. Notwithstanding this, the effective cost to supply a 12/1 service over a fixed wireless network will likely be higher than will be the case when the Entry Level Bundle is used over a fixed line network.

As an access seeker could choose to absorb or average out any difference in access costs, depending upon the size of any price differential that exists and volume of services involved, it could be that basic speed retail plans would be still be offered with similar inclusions and at a similar retail price in any case.

Questions

24. What approach do you consider should be adopted in respect of basic broadband access products that are supplied over NBN Co’s fixed wireless or satellite access technologies?

25. Are RSPs likely to differentiate their prices based on access technology if the Entry Level Bundle is not available over Fixed Wireless networks?

7.3.10. Implications for competing networks

It will be important that NBN Co is exposed to competition at the network level if it is to face more market oriented incentives to invest and operate more efficiently over the longer term to the extent that alternative networks can provide this level of competition. This competition objective could potentially be made more difficult should NBN Co’s access prices be set so low that an equally efficient network operator would be foreclosed from the market.

We do not believe that the pricing initiatives that NBN Co has announced could have this effect. This is because the stated intention is to support a 12/1 speed retail plan with an unlimited quota for $60 per month, and we estimate there would also be the potential to support retail plans with a more limited quota at around the $55 price point. As these are

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92 Fixed Wireless Bundle Discount is specified in the NBN Co WBA3 Discounts, Credits and Rebates List at page 58.
long standing price points that have existed on legacy networks, should an alternative network operator not also be able to support these offers then their potential to provide a competitive constraint would be relatively weak.

Further, higher NBN Co access pricing might not bring forward competing networks that are of comparable quality to the NBN, or might do this in only limited localities, with the business cases for alternative networks facing a range of challenges other than the level of pricing in the market. Hence, it is uncertain what weight we should put on this objective where doing so would appear to compromise other important objectives such as promoting a smooth transition to the NBN.

We note that in those limited geographic areas where competing fixed line networks have emerged, these networks already support equivalent retail plans at a similar or cheaper price, with basic speed unlimited quota plans in market at $50 per month or $60 per month.93 Fixed wireless plans supplied over cellular networks are also emerging at prices that are competitive with the prices that emerged under NBN Co’s 2018 bundled offers, with a 200GB or 250GB quota plan currently in market at $65-70 per month.94

Question

26. Do you consider that NBN Co implementing its revised ELB offer to support a basic speed broadband product would likely have the effect of inhibiting efficient competition?

7.3.11. Implications for access revenues and costs

As noted previously, we are interested in how to realise the objectives of promoting a smooth migration to the NBN and the other objectives outlined in this discussion paper while preserving the opportunity for NBN Co to recover its efficiently incurred costs.

Hence, we are looking to understand the implications for NBN Co’s revenues and costs of its revised pricing for the ELB, as well as any alternative approaches to delivering an NBN basic speed access product.

This is from a perspective of considering the access provider’s legitimate business interests as well as the productive efficiency of the NBN services, i.e., the costs of meeting end-user demand are minimised. To be clear there are other matters which we must also consider and, taken together, these typically support an access provider having a reasonable opportunity to recover its costs, provided it operates efficiently and takes reasonable steps to grow and meet consumer demand.

We would anticipate that a range of factors might be relevant to this assessment, including the scale of the effective price reduction and the likely demand response. We would expect that some of these factors would make a negative contribution to NBN Co’s revenues and could potentially raise NBN Co’s costs to some extent. However we can also anticipate other factors making a positive contribution to revenues.

The scale of the effective price reduction is currently not known and will likely vary between access seekers depending upon their current and future purchase decisions for NBN access. We understand from market inquiries that some access seekers have optimised their effective access cost when supplying a basic speed broadband product by carefully managing their CVC dimensioning and acquiring a mix of wholesale inputs.


In this regard, we note that the effective access cost to use a high speed bundle that was shaped down to a basic speed broadband product with a CVC dimensioning rate of 1 Mbps was around $37. However access seekers that could not fully utilise spare CVC entitlements on the high speed bundle to avoid overage on other bundled services may have faced a higher charge of around $40 per month or above when using a mix of bundled and basic access products. Some access seekers could however have been adopting more aggressive network management practices than others to achieve this. On the other hand, some access seekers may not have been able to optimise their costs in this way and so were instead incurring an access cost that was significantly higher.

The proportion of consumers that will select a basic speed broadband service is also uncertain. We estimate that around 15 percent of the total NBN residential customer base is currently acquiring a retail NBN broadband service with a 12/1 speed tier. In reaching this view, we have estimated the number of TC-4 services that are being acquired at either the 12/1 speed tier or the 25/5 speed tier that are being used today for the provision of a basic speed retail service. We understand that, on the one hand, a subset of the 25/5 speed tier services are being shaped to a 12/1 speed tier retail broadband service, while on the other hand a significant proportion of the TC-4 12/1 speed tier access services are being used to supply voice only products.

There is some potential for consumers to reassess the speed of their broadband service should more basic speed retail products again become more widely available95, with those end-users that are not often on line or not using data intensive applications (such as high definition video streaming services) more likely to reassess their choices in this way.96

Should these low-bandwidth end-users shift away from a higher speed tier, it is likely that the access seeker would need to purchase CVC overage in order to maintain similar quality of service for its high speed customers. Consequently, the net revenue impact of any such shift that does occur would be materially less than the difference in ‘sticker price’ for the different bundles.97

On the other hand, some consumers may continue to shift up to higher speed products due to NBN Co’s other product and pricing decisions, as well as exogenous factors such as the emergence of new applications that require higher speeds to work well.98

There are two further factors that we would anticipate having a material bearing on the influence of a lower price for basic speed access products on NBN Co revenues. The first is the response to lower priced plans by those consumers that are delaying or reconsidering their migration to the NBN due to the lack of a suitably priced product. Should these consumers migrate sooner this would boost NBN Co’s revenues. The extent to which

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95 Some incumbent brands appear to only offer basic speed broadband plans on the NBN in limited circumstances such as where the connection speed available to the premise cannot support a higher speed product, and consumers with a strong brand allegiance may not be motivated to reassess their options in this manner where it involves changing service provider.

96 Detailed product information is widely available concerning the limitations of the basic broadband access products for multi-person households and for bandwidth intensive applications (including popular full HD video streaming applications). These limitations would be apparent should such a consumer drop back to a basic speed product, and so it is single occupancy, or non-streaming premises more likely to consider dropping down in speed in return for a lower price. Most households have at least one paid video streaming service, and 43% have more than one subscription. See NBN facts sheets available on RSP websites, and also Telesyte, Australians turn to multiple subscriptions for entertainment, 19 August 2019.

97 This class of end-users would not be fully utilising the 2 Mbps of CVC dimensioning that is bundled with NBN Co’s higher speed access products and to the extent that the NBN access seeker has been relying on this ‘surplus entitlement’ to CVC to meet the busy hour bandwidth requirements of high-speed customers without purchasing additional CVC (termed ‘overage’) then the net revenue effect of any such revisions would be much less than the change in ‘sticker price’ for the respective bundles.

98 An example of such an application would be one that allowed high quality access to popular sports content over retail broadband connections at a lower price than subscription TV services.
consumers appear to be at least delaying their migration to the NBN is discussed in section 2 of this discussion paper.99

The second factor is the potential for access seekers to respond to more attractive pricing for the basic speed access products by improving their CVC dimensioning in order to offer a better quality retail product, rather than simply reduce the access charges they pay. This is more likely for those RSPs that may have applied more aggressive shaping (network traffic management techniques) in order to constrain access costs at a specific level.

Questions

27. What changes, if any, should we make to this framework for assessing the likely effect of price related terms and conditions for a basic broadband access product on NBN Co’s revenues? What changes to input assumptions should we make?
28. For RSPs supplying a basic broadband access product on the NBN, please complete the migration forecasts contained within the data request accompanying this discussion paper.

Turning to implications for NBN Co’s investment and operating costs, should revised pricing lead to access seekers provisioning greater CVC bandwidth for their basic NBN services, then there is potential for this to bring forward incremental investment in some parts of NBN Co’s networks.

As noted above, a reduced wholesale access cost may enable some RSPs to adopt more liberal network traffic management techniques as they are no longer under the same cost pressures to deliver basic speed broadband services at a competitive price point. This would in turn result in some boost to the level of CVC that is provisioned. In turn this could increase CVC dimensioning rates more generally, as retail competition drives RSPs to deliver a reasonable customer experience for their customers.

However, the requirement to make incremental investments in the capacity of the access networks is unlikely to scale linearly with increases in CVC that is dimensioned for basic access services. Based on its published network design rules, many parts of NBN Co’s fixed line networks appear to have significant amounts of installed (or readily scalable) capacity that could accommodate a step change in CVC dimensioning.100 In this regard, NBN Co has agreed with its access seekers to upgrade the capacity of its physical network elements where an aggregate bandwidth utilisation metric is triggered. Currently, a very small percentage of NBN Co’s fixed line access services (around 0.27 percent of all such services) are served from a network element that has triggered this utilisation metric.101

Further we would not expect that growth in network bandwidth requirements for basic speed access services would be driving these instances or are likely to do so going forward, with growth in requirements to meet consumer demand on high speed services likely to contribute considerably more aggregate demand. These higher speed access products are both more popular than basic speed services and more likely to generate much higher busy hour traffic on NBN Co’s access networks.

Question

29. How material a contribution to network provisioning costs would growth in CVC dimensioning for basic broadband access services make?

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99 On the assumption NBN Co will realise a $35 yield for the revised basic broadband access product, then NBN Co’s revenues would be boosted by this amount for each month that a service migration is brought forward. Similarly, this may deter some consumers at the margins from disconnecting an existing NBN service as wireless products become more widely offered and to this extent will boost NBN Co’s revenues by $35 per month on an ongoing basis.
100 Available at: https://www.nbnco.com.au/content/dam/nbnco2/documents/network-design-rules.pdf
7.4. Service transfer and transfer reversal charges

As discussed in Chapter 5, NBN Co currently levies RSPs a charge of $22.50 when they seek to transfer an active NBN service from another RSP (see section 5.5), and again if the transfer has to be reversed.

RSPs have recently raised significant concerns with the present level of these charges as they have been encountered more frequently as more end-users have been considering changing RSP. A key concern is that the level of charges are material given the low margins available on NBN services, particularly for recent entrants or challenger brands. Moreover they are concerned that these charges appear materially above the incremental cost of processing the transactions in what appears to them as a fully automated system, and that no such charges were imposed when migrating services to the NBN.

NBN Co has indicated that it intends to temporarily reduce the charge to $5 for one year commencing from 1 December 2019. NBN Co has also indicated that it intends to standardise various charges to take effect at the end of that period.102

We are seeking views on the reasonableness of this approach as service transfer charges can have a direct impact on the LTIE where the level of these charges inhibit competitive behaviour and/or risk consumer experience. That is, as they are applied at the point of winning an existing service, they can impede service providers from making more competitively priced offers, and hence these can reduce the level of rivalry to win customers already on the NBN. In addition, they may create incentives for RSPs to not make efficient use of the transfer process at a cost to consumer protections to avoid paying the transfer charge.

Imposing material charges for service transfers could also create an uneven playing field and disadvantage smaller RSPs as they enter the market and seek to increase their customer base, since incumbent service providers did not incur connection charges when migrating customers on to the NBN. This could further impede competition in the retail market and efficiency in use of and investment in transfer processes.

On the other hand, it is likely that NBN Co will incur some level of costs for those requests that drop out of its automated system and require manual processing. In addition, if there is no charge at all, the absence of a price signal may lead to the transfer process being used inefficiently, e.g., prior to any applicable cooling off period that might apply or to place orders without first obtaining a proper customer authority.

Question

30. What level of charges do you consider reasonable for these service transfer and reversal charges? Should these be implemented by way of a price change or via a discount?

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102 NBN Co, Pricing Review Consultation Paper 2, September 2019, p.10
Annexure A – list of questions

Background
1. Are there any other NBN product elements, or features of commercial access agreements not mentioned in Section 2 of the paper, that have a major bearing on basic speed access products and entry level retail plans on the NBN? What are these?

ACCC approach to examining NBN access pricing
2. How do you consider the ‘no worse off’ condition for migration of legacy customers onto the NBN should operate?
3. Do you consider that price regulation of a basic speed access product would serve as an effective price anchor on higher speed NBN services? If so, for what range of higher speed TC-4 access products would the price terms for a TC-4 12/1 speed access product provide an effective price anchor?
4. Do you have any comments on the pricing principles proposed by the ACCC for assessing NBN Co’s access prices?
5. Do you consider that any other changes to NBN Co’s current approach to pricing NBN access services are required to provide pricing certainty for access seekers and to safeguard the interests of end-users?

NBN access pricing
6. Do the pricing features covered in this section represent the key pricing elements bearing on the supply of entry level NBN services to end-users by RSPs?
7. Do the service transfer charges identified in this section represent the key pricing elements bearing on service transfers?

Product and pricing developments in retail fixed-line broadband markets
8. Are there any additional retail pricing and product changes relevant to this inquiry that resulted from NBN Co’s product and pricing changes that took effect in 2018?
9. Are there any further retail pricing and product changes that are being contemplated due to NBN Co’s 2018 pricing changes?
10. What retail pricing and product changes have you made or are contemplating in response to NBN Co’s pricing changes outlined in its second consultation paper?

Considerations for potential regulated NBN access pricing
11. Which TC-4 ethernet broadband access service speed tier(s) are most relevant to the objective of providing a smooth migration for all or most consumers?

CVC requirements on commencement
12. What level of CVC dimensioning for the basic broadband access product do you consider is needed to support a smooth transition of ADSL/ADSL2+ customers to the NBN for a retail price point of $60 with unlimited data? Could this same level of provisioning be supported on the ADSL/ADSL2+ network for the same price point?
13. RSPs that are supplying or have previously supplied retail 12/1 speed plans using the NBN, please complete the data request that accompanies this discussion paper.
14. RSPs that operate ADSL/ADSL2+ networks, please complete the data request that accompanies this discussion paper.
**Adjusting CVC requirements to account for growth in traffic**

15. What rate of indexing of the CVC dimensioning is required on a basic broadband access service for it to continue to provide for a smooth migration over the course of the rollout? Could this same rate of indexing be supported on the ADSL/ADSL2+ network?

16. How should the required growth in CVC dimensioning be accommodated in developing price related terms for the basic speed access product and does this put the $60 retail price point with unlimited data at risk?

**New product and pricing offer, or use of discount notices?**

17. What do you see as the pros and cons of establishing the price related terms and conditions of access to a basic broadband access product by way of a new product bundle or being implemented by way of a partial waiver/discount?

**Implications for transformation costs and scale economies**

18. Will NBN Co’s proposed pricing in its second consultation paper allow access seekers to rationalise their CVCs?

19. What further approaches could be considered to facilitate opportunities to reduce transformation costs and/or allow access seekers to exploit scale economies in respect of the basic broadband access product?

**Support for a limited and unlimited quota basic speed retail product**

20. What is your preferred approach to preserving sufficient flexibility to offer limited quota plans over a basic broadband access product?

21. Should this be left to individual dimensioning choices of access seekers acquiring a scalable basic access product or should a separate limited quota access product be developed?

22. What do you consider to be the level of CVC dimensioning that would support a limited quota, basic speed retail plan?

**Allowing access seekers to achieve a comparable access cost when supplying basic speed retail plans on the NBN**

23. Are there any features of NBN Co’s new ELB offer that favours some access seekers or business models over others when it is used to supply a basic speed broadband plan? What are these features?

**Application to NBN Co’s wireless access networks**

24. What approach do you consider should be adopted in respect of basic broadband access products that are supplied over NBN Co’s fixed wireless or satellite access technologies?

25. Are RSPs likely to differentiate their prices based on access technology if the Entry Level Bundle is not available over Fixed Wireless networks?

**Implications for competing networks**

26. Do you consider that NBN Co implementing its revised ELB offer to support a basic speed broadband product would likely have the effect of inhibiting efficient competition?

**Implications for access revenues and costs**

27. What changes, if any, should we make to this framework for assessing the likely effect of price related terms and conditions for a basic broadband access product on NBN Co’s revenues? What changes to input assumptions should we make?
28. For RSPs supplying a basic broadband access product on the NBN, please complete the
migration forecasts contained within the data request accompanying this discussion
paper.

29. How material a contribution to network provisioning costs would growth in CVC
dimensioning for basic broadband access services make?

Service transfer and transfer reversal charges

30. What level of charges do you consider reasonable for these service transfer and reversal
charges? Should these be implemented by way of a price change or via a discount?
Annexure B – Legislative framework

This Annexure sets out the relevant regulatory framework in relation to access determinations, binding rules of conduct (BROCs), and the approach the ACCC will take in applying the legislative provisions.

Access determinations

Section 152BC of the CCA enables the ACCC to make a written determination relating to access to a declared service, known as an ‘access determination’.

An access determination may make different provisions with respect to different access providers or access seekers.\(^\text{103}\)

An access determination may also be expressed to be an NBN-specific access determination.\(^\text{104}\) An access determination will not apply to an NBN corporation unless it is expressed to be an NBN-specific one.\(^\text{105}\) If an access determination is expressed to be an NBN-specific access determination, the access determination does not apply to access to a declared service to the extent to which the service is supplied, or is capable of being supplied, by a person other than an NBN corporation.\(^\text{106}\)

The ACCC can make interim access determinations (IAD) and final access determinations (FAD).

**Interim access determinations**

The statutory provisions state that the ACCC must not make an IAD otherwise than in accordance with section 152BCG.\(^\text{107}\)

Section 152BCG(1) requires the ACCC to make an IAD in relation to access to a declared service where a public inquiry under Part 25 of the *Telecommunications Act 1997* (Public Inquiry) has commenced, and the ACCC considers that:

- it is unlikely that a FAD will be made within six months after the commencement of the Public Inquiry, or
- there is an urgent need to make an AD before the completion of the Public Inquiry.\(^\text{108}\)

Section 152BCG(2) allows the ACCC to make an IAD in relation to a declared service if no AD has previously been made in relation to access to that declared service.\(^\text{109}\)

Section 152BCG(3) notes that an IAD cannot commence before the commencement date of a service declaration.

Section 152BCG(4) of the CCA states that the ACCC is not required to observe procedural fairness requirements when making an IAD.

\(^\text{103}\) CCA, s. 152BC(5).
\(^\text{104}\) CCA, s. 152BC(4A).
\(^\text{105}\) CCA, s. 152BC(4B).
\(^\text{106}\) CCA, s. 152BC(4C).
\(^\text{107}\) CCA, s. 152BCG(5).
\(^\text{108}\) CCA, s. 152BCG(1).
\(^\text{109}\) CCA, s. 152BCG(2).
**Final access determinations**

Section 152BCH(1) states that the ACCC must not make a FAD without first holding a Public Inquiry and publishing a report about the Public Inquiry under section 505 of the *Telecommunications Act 1997* (Cth) within 180 days of making the determination.\(^{110}\)

If the ACCC make a BROC that relates to access to a declared service and no access determination is in force that service, the ACCC must within 30 days of making the BROCs commence a Public Inquiry about the proposal to make an access determination regarding access to that declared service.\(^{111}\)

The ACCC must have regard to the matters specified in section 152BCA(1) of the CCA when making a FAD. These mandatory matters are discussed further below.

**Content of access determinations**

Section 152BC(3) of the CCA specifies what an access determination may contain. It includes, among other things, terms and conditions on which a carrier or CSP is to comply with the SAOs provided for in the CCA and terms and conditions of access to a declared service.

Section 152BC(8) notes that terms and conditions specified in an access determination must include terms and conditions relating to price or a method of ascertaining price.

**Fixed principles provisions**

An access determination may contain a fixed principles provision, which allows a provision in an access determination to have an expiry date after the expiry date of the access determination.\(^{112}\) Such a provision would allow the ACCC to ‘lock-in’ a term so that it would be consistent across multiple access determinations.

**Varying an access determination**

Section 152BCN allows the ACCC to vary or revoke an access determination, provided that certain procedures are followed.

A fixed principles provision cannot be varied or removed unless the access determination sets out the circumstances in which the provision can be varied or removed, and those circumstances are present.\(^{113}\)

**Commencement and expiry provisions**

Section 152BCF of the CCA sets out the commencement and expiry rules for access determinations.

An access determination must have an expiry date,\(^{114}\) which should align with the expiry of the declaration for that service unless there are circumstances that warrant a different expiry date.\(^{115}\)

\(^{110}\) CCA, s. 152BCH(2) states that this is not applicable for IADs.

\(^{111}\) CCA, s. 152BCI(8).

\(^{112}\) CCA, s. 152BCD.

\(^{113}\) CCA, s. 152BCN(4).

\(^{114}\) CCA, s. 152BCN(4).

\(^{115}\) CCA, s. 152BCF(6).
An access determination may be ‘backdated’ such that it comes into force on a date prior to the making of the determination.\textsuperscript{116} There are, however, limitations on the extent of backdating that is permitted.\textsuperscript{117}

**Binding rules of conduct**

Section 152BD of the CCA provides the ACCC with the power to make BROCs that specify terms and conditions in relation to the supply of a specified declared service. The ACCC can only use this power where it considers there is an urgent need to do so.

BROCs can be of general application or may be limited to:

- particular carriers or carriage service providers (CSPs),
- particular classes of carriers or CSPs, or
- particular access seekers, or
- particular classes of access seeker.\textsuperscript{118}

Section 152BD(4A) states that BROCs may be expressed to be ‘NBN-specific binding rules of conduct’. BROCs will not apply to an NBN corporation unless they are expressed to be NBN-specific BROCs.\textsuperscript{119} If BROCs are NBN-specific, the rules will not apply to access to a declared service to the extent to which the service is supplied, or is capable of being supplied, by a person other than an NBN corporation.\textsuperscript{120}

Under section 152BD(6) of the CCA, the ACCC is not required to observe any procedural fairness requirements in relation to making BROCs.

However, the ACCC is required to consider a number of matters set out in section 152BDAA when making BROCs. These matters are discussed further below.

**Content of BROCs**

The ACCC can make BROCs, if it considers there is an urgent need to do so, that:

- specify any or all of the terms and conditions on which a carrier or CSP is to comply with any or all of the standard access obligations (SAOs) applicable to the carrier or CSP in relation to a specified declared service, or
- require a carrier or CSP to comply with any or all of the SAOs applicable to the carrier or CSP in relation to a specified declared service in a manner specified in the rules.\textsuperscript{121}

**Commencement and expiry provisions**

Section 152BDC of the CCA sets out the commencement and expiry rules for BROCs. A BROC can commence at any date after they are made, but can only be in force for a limited time. The BROCs come into force on the day specified in the rules and their duration is limited to a maximum of 12 months.\textsuperscript{122}

\textsuperscript{116}CCA, s. 152BCF(2).
\textsuperscript{117}CCA, ss. 152BCF(2A), 152BCF(3), 152BCF(3A), 152BCF(3B), 152BCF(3C), 152BCF(4) and 152BCF(4A).
\textsuperscript{118}CCA, s. 152BD(4).
\textsuperscript{119}CCA, s. 152BD(4B).
\textsuperscript{120}CCA, s. 152BD(4C).
\textsuperscript{121}CCA, s. 152BD(1).
\textsuperscript{122}CCA, s. 152BDC(3).
Matters to consider when making a final access determination and/or binding rules of conduct

The ACCC must have regard to the matters specified in section 152BCA(1) of the CCA when making a FAD and section 152BDAA(1) of the CCA when making BROCs. The list of matters in sections 152BCA(1) and 152BDAA(1) are identical.

These matters are:

(a) whether the FAD or BROC will promote the long-term interests of end-users (LTIE) of carriage services or services supplied by means of carriage services

(b) the legitimate business interests of a carrier or CSP who supplies, or is capable of supplying, the declared service, and the carrier’s or provider’s investment in facilities used to supply the declared service

(c) the interests of all persons who have rights to use the declared service

(d) the direct costs of providing access to the declared service

(e) the value to a person of extensions, or enhancement of capability, whose cost is borne by someone else

(f) the operational and technical requirements necessary for the safe and reliable operation of a carriage service, a telecommunications network or a facility

(g) the economically efficient operation of a carriage service, a telecommunications network or a facility.

Sections 152BCA(1) and 152BDAA(1) matters reflect the repealed section 152CR(1) matters that the ACCC was required to take into account in making a final determination in an access dispute. The ACCC intends to interpret the sections 152BCA(1) and 152BDAA(1) matters in a similar manner to the approach taken in access disputes.

Sections 152BCA(2) and 152BDAA(2) set out other matters that the ACCC may take into account in making a FAD and BROCs, respectively. More specifically, these provisions allow the ACCC to take into account the characteristics, costs, revenues and demand for other eligible services supplied by (or capable of being supplied by) the carrier or CSP of the relevant declared service.

The ACCC can also take into account any other matters it thinks are relevant.

When making BROCs, the ACCC is:

- not obliged to take a matter into account if it is not reasonably practicable for the ACCC to do so,
- for the purposes of taking a particular matter into account, not required to obtain information, or further information, that is not already in its possession, if it is not reasonably practicable for the ACCC to do so,

having regard to the urgent need to make the BROCs. There are no equivalent legislative exceptions for making a FAD.

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123 CCA, s. 152BCA(4) states that section 152BCA does not apply to IADs.
124 CCA, ss. 152BCA(3) (FAD) and 152BDAA(3) (BROC).
125 CCA, ss. 152BDAA(4) and 152BDAA(5).
The ACCC’s views on how the matters in section 152BCA should be interpreted for the FAD process, and in section 152BDAA for the BROCs process, are set out below.

**Long-term interests of end-users**

The first matter for the ACCC to consider when making a FAD and/or BROCs is whether the determination or BROCs ‘will promote the long-term interests of end-users of carriage services or of services supplied by means of carriage services’.  

The ACCC has published a guideline explaining what it understands by the phrase ‘long term interests of end-users’ in the context of its declaration responsibilities. This approach to the LTIE was also used by the ACCC in making determinations in access disputes. The ACCC considers that the same interpretation is appropriate for making FADs and BROCs in relation to the declared NBN Access Service.

In the ACCC’s view, particular terms and conditions promote the interests of end-users if they are likely to contribute towards the provision of:

- goods and services at lower prices
- goods and services of a high quality, and/or
- a greater diversity of goods and services.

The ACCC also notes that the Australian Competition Tribunal (Tribunal) has offered guidance in its interpretation of the phrase ‘long-term interests of end-users’ (in the context of access to subscription television services):

- End-users: “end-users” include actual and potential [users of the service]…
- Interests: the interests of the end-users lie in obtaining lower prices (than would otherwise be the case), increased quality of service and increased diversity and scope in product offerings… [T]his would include access to innovations … in a quicker timeframe than would otherwise be the case…
- Long-term: the long-term will be the period over which the full effects of the…decision will be felt. This means some years, being sufficient time for all players (being existing and potential competitors at the various functional stages of the … industry) to adjust to the outcome, make investment decisions and implement growth — as well as entry and/or exit — strategies.

To consider the likely impact of particular terms and conditions on the LTIE, the CCA requires the ACCC to have regard to whether the terms and conditions are likely to result in:

- promoting competition in markets for carriage services and services supplied by means of carriage services
- achieving any-to-any connectivity, and
- encouraging the economically efficient use of, and economically efficient investment in:
- the infrastructure by which listed carriage services are supplied, and

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126 ACCC, ss. 152BCA(1)(a) (FAD) and 152BDAA(1)(a) (BROC).
129 Re Seven Network Limited (No 4) [2004] ACompT 11 at [120]
• any other infrastructure by which listed services are, or are likely to become, capable of being supplied.130

Promoting competition

In assessing whether particular terms and conditions will promote competition, the ACCC will analyse the relevant markets in which the declared services are supplied (retail and wholesale) and consider whether the terms set in those markets remove obstacles to end-users gaining access to telephony and broadband services.131

Obstacles to accessing these services include the price, quality and availability of the services and the ability of competing providers to provide telephony and broadband services.

The ACCC is not required to precisely define the scope of the relevant markets in which the declared services are supplied. The ACCC considers that it is sufficient to broadly identify the scope of the relevant markets likely to be affected by the ACCC’s regulatory decision.

Any-to-any connectivity

The CCA gives guidance on how the objective of any-to-any connectivity is achieved. It is achieved only if each end-user who is supplied with a carriage service that involves communication between end-users is able to communicate, by means of that service, with each other end-user who is supplied with the same service or a similar service. This must be the case whether or not the end-users are connected to the same telecommunications network.132

The ACCC considers that this criterion is relevant to ensuring that the terms and conditions contained in FADs or BROCs do not create obstacles for the achievement of any-to-any connectivity.

Efficient use of and investment in infrastructure

In determining the extent to which terms and conditions are likely to encourage the economically efficient use of and investment in infrastructure, the ACCC must have regard to:

• whether it is, or is likely to become, technically feasible for the services to be supplied and charged for, having regard to:
  o the technology that is in use, available or likely to become available
  o whether the costs involved in supplying and charging for, the services are reasonable or likely to become reasonable, and
  o the effects or likely effects that supplying and charging for the services would have on the operation or performance of telecommunications networks
• the legitimate commercial interests of the supplier or suppliers of the services, including the ability of the supplier or suppliers to exploit economies of scale and scope
• incentives for investment in the infrastructure by which services are supplied; and any other infrastructure by which services are, or are likely to become, capable of being supplied, and
• the risks involved in making the investment.133

130 CCA, s. 152AB(2).
131 CCA, s. 152AB(4). This approach is consistent with the approach adopted by the Tribunal in Telstra Corporations Limited (No 3) [2007] A CompT 3 at [92]; Telstra Corporation Limited [2006] A CompT 4 at [97], [149].
132 CCA, s. 152AB(8).
133 CCA, ss. 152AB(6) and (7A).
The objective of encouraging the ‘economically efficient use of, and economically efficient investment in ... infrastructure’ requires an understanding of the concept of economic efficiency. Economic efficiency consists of three components:

- productive efficiency — this is achieved where individual firms produce the goods and services that they offer at least cost
- allocative efficiency — this is achieved where the prices of resources reflect their underlying costs so that resources are then allocated to their highest valued uses (i.e. those that provide the greatest benefit relative to costs), and
- dynamic efficiency — this reflects the need for industries to make timely changes to technology and products in response to changes in consumer tastes and in productive opportunities.

On the issue of efficient investment, the Tribunal has stated that:

An access charge should be one that just allows an access provider to recover the costs of efficient investment in the infrastructure necessary to provide the declared service.\(^{134}\)

... efficient investment by both access providers and access seekers would be expected to be encouraged in circumstances where access charges were set to ensure recovery of the efficient costs of investment (inclusive of a normal return on investment) by the access provider in the infrastructure necessary to provide the declared service.\(^{135}\)

... access charges can create an incentive for access providers to seek productive and dynamic efficiencies if access charges are set having regard to the efficient costs of providing access to a declared service.\(^{136}\)

**Legitimate business interests**

The second matter requires the ACCC to consider ‘the legitimate business interests’ of the carrier or CSP when making a FAD or BROC.\(^{137}\)

In the context of access disputes, the ACCC considered that it was in the access provider’s legitimate business interests to earn a normal commercial return on its investment.\(^{138}\) The ACCC is of the view that the concept of ‘legitimate business interests’ in relation to FADs or BROCs should be interpreted in a similar manner, consistent with the phrase ‘legitimate commercial interests’ used elsewhere in Part XIC of the CCA.

For completeness, the ACCC notes that it would be in the access provider’s legitimate business interests to seek to recover its costs as well as a normal commercial return on investment having regard to the relevant risk involved. However, an access price should not be inflated to recover any profits the access provider (or any other party) may lose in a dependent market as a result of the provision of access.\(^{139}\) Further, the Federal Court has ruled that the regulatory framework did not require that the determination provide for full cost recovery in respect of the consequential costs or losses that a service provider may incur.\(^{140}\)

The Tribunal has taken a similar view of the expression ‘legitimate business interests’.\(^{141}\)

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\(^{134}\) *Telstra Corporation Ltd (No. 3)* [2007] ACompT 3 at [159].

\(^{135}\) Ibid at [164].

\(^{136}\) Ibid at [176].

\(^{137}\) CCA, ss. 152BCA(1)(b) (FAD) and 152BDAA(1)(b) (BROC).


\(^{140}\) *Telstra Corporation Ltd v ACCC* (2017) 344 ALR 511 at [95]–[133].

\(^{141}\) *Telstra Corporation Limited* [2006] ACompT 4 at [89].
Persons who have a right to use

The third matter requires the ACCC to consider 'the interests of all persons who have the right to use the service' when making a FAD or BROC.142

The ACCC considers that this matter requires it to have regard to the interests of access seekers. The Tribunal has also taken this approach.143 The access seekers' interests would not be served by higher access prices to declared services, as it would inhibit their ability to compete in the provision of retail services.144

People who have rights to currently use a declared service will generally use that service as an input to supply carriage services, or a service supplied by means of carriage service, to end-users.

The ACCC considers that this class of persons has an interest in being able to compete for the custom of end-users on the basis of their relative merits. This could be prevented from occurring if terms and conditions of access favour one or more service providers over others, thereby distorting the competitive process.145

However, the ACCC does not consider that this matter calls for consideration to be given to the interests of the users of these 'downstream' services. The interests of end-users will already be considered under other matters.

Direct costs of providing access

The fourth matter requires the ACCC to consider ‘the direct costs of providing access to the declared service’ when making a FAD or BROC.146

The ACCC considers that the direct costs of providing access to a declared service are those incurred (or caused) by the provision of access, and includes the incremental costs of providing access.

The ACCC interprets this matter, and the use of the term ‘direct costs’, as allowing consideration to be given to a contribution to indirect costs. This is consistent with the Tribunal's approach in an undertaking decision.147 A contribution to indirect costs can also be supported by other matters.

However, the criterion does not extend to compensation for loss of any 'monopoly profit' that occurs as a result of increased competition.148

The ACCC also notes that the Tribunal has considered the direct costs criterion ‘is concerned with ensuring that the costs of providing the service are recovered’.149 The Tribunal has also noted that the direct costs could conceivably be allocated (and hence recovered) in a number of ways and that adopting any of those approaches would be consistent with this matter.150

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142 CCA, ss. 152BCA(1)(c) (FAD) and 152BDAA(1)(c) (BROC).
143 Telstra Corporation Limited [2006] ACompT 4 at [91].
144 Ibid.
145 Ibid.
146 CCA, ss. 152BCA(1)(d) (FAD) and 152BDAA(1)(d) (BROC).
147 Application by Optus Mobile Pty Limited and Optus Networks Pty Limited [2006] ACompT 8 at [137].
148 See Explanatory Memorandum for the Trade Practices Amendment (Telecommunications) Bill 1996, p. 44: [T]he ‘direct’ costs of providing access are intended to preclude arguments that the provider should be reimbursed by the third party seeking access for consequential costs which the provider may incur as a result of increased competition in an upstream or downstream market.
149 Telstra Corporation Limited [2006] ACompT 4 at [92].
150 Telstra Corporation Limited [2006] ACompT 4 at [139].
Extensions or enhancements of capability

The fifth matter requires that the ACCC consider ‘the value to a party of extensions, or enhancements of capability, whose cost is borne by someone else’ when making a FAD or BROC. 151

In the 1997 Access Pricing Principles, the ACCC stated that this matter:

…requires that if an access seeker enhances the facility to provide the required services, the access provider should not attempt to recover for themselves any costs related to this enhancement. Equally, if the access provider must enhance the facility to provide the service, it is legitimate for the access provider to incorporate some proportion of the cost of doing so in the access price. 152

The ACCC considers that this application of sections 152BCA(1)(e) and 152BDAA(1)(e) is relevant to making FADs and BROCs.

Safe and reliable operation

The sixth matter requires the ACCC to consider ‘the operational and technical requirements necessary for the safe and reliable operation of a carriage service, a telecommunications network or a facility’ when making a FAD or BROC. 153

The ACCC considers that this matter requires that terms of access should not compromise the safety or reliability of carriage services and associated networks or facilities, and that this has direct relevance when specifying technical requirements or standards to be followed.

The ACCC has previously stated in the context of model non-price terms and conditions, it is of the view that:

…this consideration supports the view that model terms and conditions should reflect the safe and reliable operation of a carriage service, telecommunications network or facility. For instance, the model non-price terms and conditions should not require work practices that would be likely to compromise safety or reliability. 154

The ACCC considers that these views will apply in relation to this matter for the making of a FAD and BROC.

Economically efficient operation

The ACCC must consider ‘the economically efficient operation of a carriage service, a telecommunications network facility or a facility’ when making a FAD or BROC. 155

The ACCC has noted that the phrase ‘economically efficient operation’ embodies the concept of economic efficiency as discussed earlier under the LTIE. That is, it calls for a consideration of productive, allocative and dynamic efficiency. The ACCC has also noted (in the context of resolving access disputes) that the ACCC may consider whether particular terms and conditions enable a carriage service, telecommunications network or facility to be operated efficiently. 156

Consistent with the approach taken by the Tribunal, the ACCC considers that in applying this matter, it is relevant to consider the economically efficient operation of:

151 CCA, ss. 152BCA(1)(e) (FAD) and 152BDAA(1)(e) (BROC).
153 CCA, ss. 152BCA(1)(f) (FAD) and 152BDAA(1)(f) (BROC).
155 CCA, ss. 152BCA(1)(g) (FAD) and 152BDAA(1)(g) (BROC).
156 Access Dispute Guidelines, p. 57.
• retail services provided by access seekers using the access provider’s services or by the access provider in competition with those access seekers, and
• the telecommunications networks and infrastructure used to supply these services.\textsuperscript{157}

\textbf{Other eligible services}

In making a FAD or BROC that applies/apply to a carrier or CSP who supplies, or is capable of supplying, the declared services, the ACCC may, if the carrier or provider supplies one or more eligible services,\textsuperscript{158} take into account:

• the characteristics of those other eligible services
• the costs associated with those other eligible services
• the revenues associated with those other eligible services, and
• the demand for those other eligible services.\textsuperscript{159}

The Explanatory Memorandum to the Bill that introduced section 152BCA(2) states that this provision is intended to ensure that the ACCC, in making an AD, does not consider the declared service in isolation, but also considers other relevant services.\textsuperscript{160} As an example, the Explanatory Memorandum states:

\ldots when specifying the access price for a declared service which is supplied by an access provider over a particular network or facility, the ACCC can take into account not only the access provider’s costs and revenues associated with the declared service, but also the costs and revenues associated with other services supplied over that network or facility.\textsuperscript{161}

\textbf{Any other relevant matters}

The ACCC may also take into account any other matters that it thinks are relevant when making a FAD or BROC.

The ACCC is of the view that considerations of regulatory certainty and consistency will be important when setting the terms and conditions of a FAD or BROC.

The ACCC also considers that it should have regard to:

• submissions in response to this Discussion paper, and
• other information provided to the ACCC by stakeholders.

Considerations of these other relevant matters do not limit the matters that the ACCC may have regard to when making a FAD or BROC.

\textbf{Restrictions on access determinations and BROCs}

Sections 152BCB and 152BDA impose certain restrictions on the ACCC’s ability to make an access determination or BROC, respectively. These restrictions are identical for both access determinations and BROCs.

More specifically, the ACCC is restricted in making an access determination and/or a BROC that would have any of the following effects:

\textsuperscript{157} \textit{Telstra Corporation Limited} [2006] ACompT 4 at [94]–[95].
\textsuperscript{158} ‘Eligible service’ has the same meaning as in section 152AL of the CCA.
\textsuperscript{159} CCA, ss. 152BCA(2) and 152BDAA(2) sets out other matter that the ACCC may take into account in making a FAD and BROC, respectively.
\textsuperscript{160} Explanatory Memorandum, \textit{Telecommunications Legislation Amendment (Competition and Consumer Safeguards) Bill 2010}, p. 178.
\textsuperscript{161} Ibid.
• preventing a service provider who already has access to the declared service from obtaining a sufficient amount of the service to be able to meet its reasonably anticipated requirements,
• preventing a carrier or CSP from obtaining a sufficient amount of the service to be able to meet its reasonably anticipated requirements,
• preventing a person from obtaining, by exercise of a pre-rules right, a sufficient level of access to the declared service to be able to meet their actual requirements,
• depriving any person of a protected contractual right,
• resulting in an access seeker becoming the owner (or one of the owners) of any part of a facility without the consent of the owner of the facility,
• requiring a person (other than an access seeker) to bear an unreasonable amount of costs of:
  o extending or enhancing the capability of a facility, or
  o maintaining extensions to or enhancement of the capability of a facility,
• requiring a carrier or CSP to provide an access seeker with access to a declared service if there are reasonable grounds to believe that:
  o the access seeker would fail, to a material extent, to comply with the terms and conditions on which the carrier or provider provides, or is reasonably likely to provide, that access; or
  o the access seeker would fail, in connection with that access to protect the integrity of a telco network or to protect the safety of individuals working on, or using services supplied by means of, a telco network or a facility.

The ACCC is also unable to make an access determination (under section 152BCB(3)) and/or a BROC (under section 152BDA(3)) that is inconsistent with any of the SAOs that are, or will be, applicable to a carrier or CSP.

**NBN-specific restrictions**

The legislation also provides for specific restrictions on the making of access determinations and BROCs in relation to NBN corporations, that is, the ACCC must not make an access determination or a BROC that would have the effect of:

• imposing requirements or prohibitions on an NBN corporation that are inconsistent with conduct authorised under section 151DA(2) or (3) of the CCA (relating to a refusal to supply a service)\(^{162}\)
• preventing an NBN corporation from engaging in conduct that is reasonable necessary to achieve uniform national pricing of eligible services supplied by the NBN corporation to service providers and utilities,\(^{163}\) or
• discriminating between access seekers in relation to any or all of the Category B SAOs applicable to an NBN corporation.\(^{164}\)

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\(^{162}\) CCA, ss. 152BCB(3B) (access determination) and 152BDA(3B) (BROC).
\(^{163}\) CCA, ss. 152BCB(3C) (access determination) and 152BDA(3C) (BROC).
\(^{164}\) CCA, ss. 152BCB(4A) (access determination) and 152BDA(4A) (BROC). These provisions do not apply where the NBN corporation has reasonable grounds for believing that an access seeker will not comply with its obligations: CCA, ss. 152BCB(4B) and (4C) (access determination) and 152BDA(4B) and (4C) (BROC).
Inconsistencies between regulatory instruments

Under the regulatory regime, an access determination or BROC that is inconsistent with an access agreement that is in place between the relevant parties will have no effect to the extent of the inconsistency.\textsuperscript{165}

If a provision of an access determination (other than a fixed principles provision) is inconsistent with a BROC, the provision of the access determination has no effect to the extent of the inconsistency.\textsuperscript{166}

\textsuperscript{165} CCA, ss.152BCCA (access determination) and 152BDB (BROC).

\textsuperscript{166} CCA, s.152BDE.