NBNCo
Bringing broadband to life

Supporting Submission NBN Co Special Access Undertaking

28 September 2012

NBN Co Limited (ACN 136 533 741) and NBN Tasmania Limited (ACN 138 338 271)

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Environment

NBN Co asks that you consider the environment before printing this document.

Contents

Abbreviations and Acronyms

Throughout this submission, capitalised terms have the same meaning as in the Dictionary set out in Attachment C to the main body of the SAU.

AA	access agreement
ABBRR	Annual Building Block Revenue Requirement
ABG	Australian Broadband Guarantee
ABS	Australian Bureau of Statistics
ACCC	Australian Competition and Consumer Commission
AD	access determinations
ADSL	Asymmetric Digital Subscriber Line
AER	Australian Energy Regulator
ALA	Active Line Access
ARPU	Average Revenue Per User
ARTC	Australian Rail Track Corporation
AVC	Access Virtual Circuit
BROC	binding rule of conduct
B2B	Business-to-Business
capex	capital expenditure
CCA	*Competition and Consumer Act 2010*
CDP	Contract Development Process
CFRA	Carry Forward Revenue Adjustment
CIR	Committed Information Rate
CIP	Construction in Progress
CP	Communications Provider

CPI	Consumer Price Index
CSA	Connectivity Serving Area
CVC	Connectivity Virtual Circuit
DSL	Digital Subscriber Line
DSLAM	Digital Subscriber Line Access Multiplexer
EBIT	Earnings before Interest and Tax
EBITDA	Earnings Before Interest, Taxes, Depreciation and Amortization
FANOC Decision	ACCC, *Assessment of FANOC's Special Access Undertaking in relation to the Broadband Access Service – Draft Decision,* December 2007
FTTN	Fibre-to-the-Node
FTTP	Fibre-to-the-Premise
GBE	Government Business Enterprise
Gbps	Gigabits per second
IAMA	Institute of Arbitrators and Mediators (Australia)
ICRA	Initial Cost Recovery Account
IPR	intellectual property rights
IPTV	Internet Protocol television
kbps	kilobits per second
LBAS	Local Bitstream Access Service
LLU	Local Loop Unconditioned
LTIE	long-term interests of end-users
LTRCM	Long Term Revenue Constraint Methodology
Mbps	Megabits per second
NBN	National Broadband Network

NBN Access Bill	*Telecommunications Legislation Amendment (National Broadband Network Measures – Access Arrangements) Bill 2011*
NBN Co	National Broadband Network Company Pty Ltd
NBN Companies Act	*National Broadband Network Companies Act 2011*
NDRs	Network Design Rules
NFAS	NBN Co Fibre Access Service
NGA	Next Generation Network
NNI	Network-Network Interface
NPV	Net Present Value
NTD	Network Termination Device
NWAS	NBN Co Wireless Access Service
opex	operating expense
OSS/BSS	Operational Support System/Business Support System
PDF	Product Development Forum
PIR	Peak Information Rate
POI	point of interconnect
PSTN	Public Switched Telephone Network
QoS	Quality of Service
RAB	Regulatory Asset Base
RSP	Retail Service Provider
SAO	standard access obligation
SAU	special access undertaking
SFAA	standard form of access agreement
SIP	Session Initiation Protocol

TC	Traffic Class
Tribunal	Australian Competition Tribunal
TSLRIC+	Total Service Long Run Incremental Cost +
ULLS	Unconditioned Local Loop Service
UNI	User Network Interface
UNI-D	User Network Interface-Data
UNI-V	User Network Interface-Voice
UNWP	uniform national wholesale pricing
VOIP	Voice over Internet Protocol
VULA	Virtual Unbundled Local Access
WACC	Weighted Average Cost of Capital
WBA	Wholesale Broadband Agreement

Overview

- NBN Co has lodged a special access undertaking (SAU) in connection with the provision of access to the NBN Access Service and the Ancillary Services that sets out, for the first 30 years of NBN Co's operations to June 2040, the service description and supply-related terms and conditions, and certain price and non-price terms and conditions of access. This SAU replaces the SAU that NBN Co lodged in December 2011 and has now withdrawn.

- NBN Co submits that the SAU satisfies all relevant legislative requirements and should be accepted by the ACCC.

- The SAU reflects a bespoke implementation of a number of well established regulatory principles, in a manner that reflects NBN Co's particular circumstances. As such, the SAU variously reinforces and relies on a range of pre-existing incentives to ensure that NBN Co's commercial interests will be aligned, over the term of the SAU, with the interests of Access Seekers and the long-term interests of end-users (LTIE).

Objectives and background

- The Government established NBN Co as a means of implementing its NBN policy.

- NBN Co has been directed by the Government, via the Statement of Expectations[1], to develop the NBN to provide a layer 2 wholesale bitstream service, to achieve a particular coverage, speed and technology mix and also to apply a uniform national wholesale pricing (UNWP) approach and to operate as a commercial entity.

- The NBN is now a practical reality in the Australian telecommunications industry – the nationwide construction program has started, the Definitive Agreements with Telstra and the agreement with Optus are now in force, NBN Co has Standard Form of Access Agreements (SFAAs) in place, including the Wholesale Broadband Agreement (WBA), and NBN Co has executed a WBA with 46 Customers as at 17 September 2012.

- Although ongoing development of the NBN does not depend on acceptance of an SAU, it has been NBN Co's consistently expressed intention to lodge an SAU, and to operate using an SAU (if accepted) and SFAAs as permitted by the access regime.

- Consistent with this, the ACCC has previously expressed a preference for NBN Co's pricing to be addressed via the SAU mechanism.[2]

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[1] The "Statement of Expectations" is a letter from NBN Co's shareholder Ministers to NBN Co dated 17 December 2010, and is in regard to the Australian Government's expectations for NBN Co in implementing the NBN policy initiative. The Statement of Expectations is available on the website of the Department of Broadband, Communications and the Digital Economy.

[2] Joint Committee on the National Broadband Network, Transcript 16 May 2011, p.50.

- The SAU is intended to support achievement of the Government's NBN policy, and has been developed with two objectives in mind:
  - to provide an appropriate degree of certainty to Access Seekers, their End Users and NBN Co about the services being offered, and how the price and non-price terms and conditions of access (including the framework for long term cost recovery) will be regulated over the short, medium and long term; and
  - to provide the long term framework reasonably necessary to achieve UNWP of eligible services supplied by NBN Co to Access Seekers.
- The SAU (in combination with SFAAs) is the preferable regulatory mechanism, over an alternative that may rely on future access determinations (ADs) by the ACCC, because it can:
  - provide long term regulatory certainty with more consistency; and
  - be more procedurally efficient.

NBN Co has developed this revised SAU in light of feedback from Access Seekers and ongoing discussions with the ACCC regarding how the SAU can strike an appropriate balance between the interests of Access Seekers, their End Users and NBN Co.

Design of the SAU

- Based on feedback from both Access Seekers and the ACCC on the December 2011 SAU, and consistent with the objectives of regulatory certainty and UNWP, the high level design of the SAU includes:
  - a term of approximately 30 years (covering the period to 30 June 2040) with a modular approach to SAU commitments;
    - Module 0 applies for the full '30 year' term and contains foundational SAU clauses;
    - Module 1 applies until 30 June 2023 (a period of approximately 10 years from when the SAU may be approved by the ACCC) and contains detailed price, non-price and other terms and conditions;
    - Module 2 applies from the expiry of Module 1 until the end of the SAU term (a period of approximately 20 years) and is focussed on long term cost recovery and pricing arrangements, many of which are specified so as to allow for changes over time in both NBN Co's operating environment and regulatory best practice;
    - Prior to the expiry of Module 1 and every 3 to 5 years thereafter, NBN Co will develop and lodge Replacement Modules as variations to the SAU, which will provide for the specific implementation of the

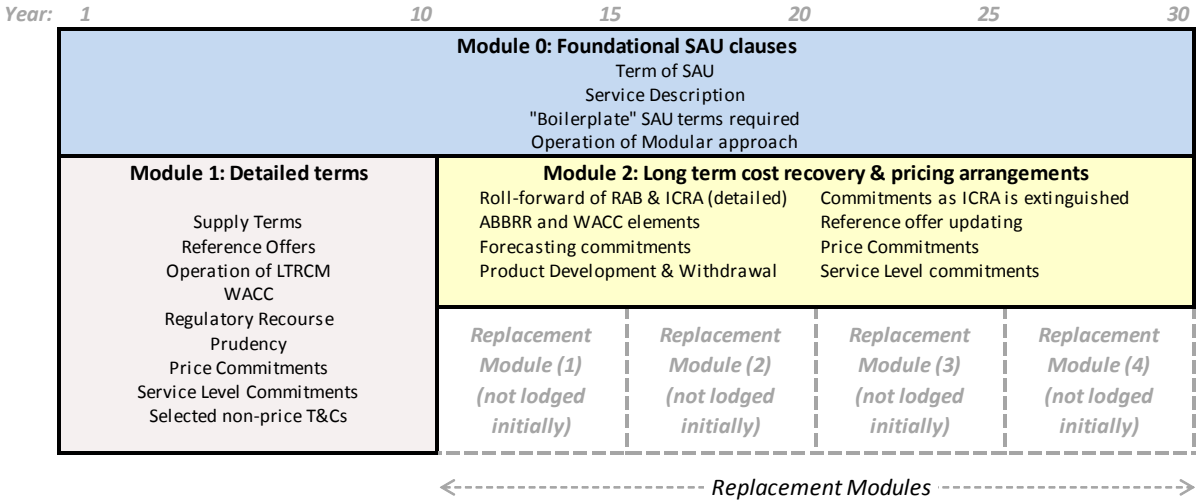
Module 2 principles. The length of the Regulatory Cycle is nominated by NBN Co, and this provides some limited flexibility to respond to the level of uncertainty existing at the time a Replacement Module is being developed; and

- Every term and condition in Module 0 and Module 2 (collectively) is a fixed principles term and condition – this will provide greater certainty for NBN Co and Access Seekers and streamline the ACCC's periodic assessment of the Replacement Modules as SAU variations over the subsequent 20 years of the SAU;

- an integrated approach to regulatory oversight (Module 1);
- greater emphasis on incentives (including incentive mechanisms for efficient expenditure in Module 2);
- Reference Offer commitments;
- both individual and broad pricing commitments;
- commitments to align the SFAAs with the SAU at all times;
- declaration of both the NBN Access Service and the Ancillary Services, with terms and conditions of Facilities Access set out in the SAU in connection with the satisfaction of NBN Co's interconnection obligations;
- service level commitments;
- clear drafting of the non-price terms and conditions (Module 1) on a stand-alone basis, which makes explicit the scope of the subject matter addressed by the SAU and therefore also makes explicit the scope of the subject matter that can be addressed by regulatory recourse;
- a range of reviews to be conducted prior to July 2018; and
- an enhanced compliance regime, with commitments to provide the ACCC with comprehensive regulatory information relating to compliance with the SAU.

▪ The 30 year term, in combination with the modular structure, balances NBN Co's requirement for certainty on long-term cost recovery arrangements with Access Seekers' and End Users' requirements for regulatory arrangements that can adapt and remain relevant over time, including by providing a well defined role for the ACCC.

- Structurally, the SAU consists of a main body (Module 0) that applies for the entire SAU term and 17 schedules that apply for differing periods – Module 1 comprises 11 schedules and applies for the Initial Regulatory Period of approximately 10 years, and Module 2 comprises 6 schedules and applies for the Subsequent Regulatory Period of approximately 20 years.



- Key benefits of the revised SAU design include:
  - A broader and clearer role for the ACCC in the evolution of the access terms over time, which should also make the ACCC's assessment of the SAU more straightforward:
    - In Module 1, the SAU provides a clear demarcation between terms and conditions set by the SAU and those terms and conditions set by the SFAAs that are potentially subject to ACCC regulatory recourse.
    - In Module 2, the SAU relies on less detailed and more principles-based terms in many areas, and the ACCC has a role in reviewing NBN Co's proposed implementation of those principles, as contained in its Replacement Module Applications (lodged every 3 to 5 years). This approach means that there is no need to commit now to how those principles will be implemented in the future, but the SAU includes principles that can be readily assessed by the ACCC at this point in time.
  - A greater role for incentives – these operate together in NBN Co's context so that over the 30 years of the SAU it is commercially rational for NBN Co to make prudent and efficient expenditure decisions (subject to meeting service level commitments) and to make efficient pricing, product development and product withdrawal decisions (subject to meeting a range of short term and long term price control arrangements and product development and withdrawal commitments).

Declared services and supply-related terms and conditions

- The SAU is given in relation to the NBN Access Service and the Ancillary Services, which will be the services declared for the purpose of subsection 152AL(8E) of the CCA.
- Terms and conditions relating to the Facilities Access Service are set out in the SAU in connection with the satisfaction of NBN Co's interconnection obligations in relation to the NBN Access Service and the Ancillary Services.
- NBN Co has developed the NBN Access Service to give effect to the key directions from the Government, in its role as shareholder, to:
  - comply with the coverage obligations for provision of fibre to the premises technology to Australian homes, schools and businesses with downlink speeds up to 100Mbps, with the remaining premises to be served by a combination of next generation fixed wireless and satellite technologies with peak speeds of at least 12Mbps; and
  - supply open and non-discriminatory access to wholesale services, at the lowest levels in the network stack necessary to promote efficient and effective retail level competition, via Layer 2 wholesale bitstream services.
- NBN Co's approach to defining the declared services is consistent with approaches endorsed by the ACCC, overseas regulators and industry and facilitates NBN Co's overall SAU objective of setting up a long term framework to achieve UNWP of eligible services supplied by NBN Co to Customers.
- The NBN Access Service will be implemented initially through the supply of Product Components (AVC, CVC, UNI and NNI), which (due to the commitment to supply the Reference Offers) will not be able to be withdrawn by NBN Co for the 30 year term of the SAU.
- The Ancillary Services will be implemented initially through the NBN Co Platform Interfacing Service and the Sandpit. These services facilitate the supply of, and are necessary for Access Seekers to acquire, the NBN Access Service on the NBN Co Network.
- The Facilities Access Service will be implemented initially through Cross-Connect, NBN Co Co-Location, and NBN Co ODF Termination but will also include other Facilities supplied by NBN Co that are necessary to facilitate entry to buildings (the points of interconnect (POIs) being built by NBN Co) such as cable trays or building duct access.
- Module 1 includes the service levels and rebates that have been developed by NBN Co via the contract development process conducted with industry, and includes 'roadmap' elements for ongoing development, as NBN Co's processes and systems become more mature. The service levels will be subject to a review in 2017-18 in

which the ACCC has an oversight role. In Module 2, NBN Co commits to including a service levels and rebates proposal in its Replacement Module Applications, which must satisfy a range of principles (also set out in Module 2), including that service levels must at least be maintained from one Regulatory Cycle to the next.

- The SAU includes a range of principles and commitments in relation to product development and withdrawal.
  - NBN Co is committed to following a customer-focussed and non-discriminatory product development process – this process is specified in detail in Module 1 (and the Product Development Forum (PDF) processes are to be reviewed in 2017-18) while in Module 2 the process is specified at a higher level and more detailed arrangements may be proposed in Replacement Module Applications.
  - In developing new products, NBN Co will consult with Customers about the detailed design, and also appropriate pricing and service levels.
  - NBN Co will provide minimum periods of notice before withdrawing a Product, Product Component or Product Feature (and subject also to the commitments relating to Reference Offers), and will discuss and consider in good faith any feedback received from Customers.

Price-related terms and conditions

- NBN Co has developed a package of price-related terms and conditions that is intended to provide for:
  - uniform national wholesale pricing – provide the long term framework necessary for UNWP;
  - long term cost recovery – provide the opportunity for recovery of prudently incurred costs over time (inclusive of an appropriate return on capital);
  - pricing stability and predictability; and
  - efficient take-up and usage – encourage economically efficient take up and usage of NBN Co's products.
- The price-related terms and conditions meet these objectives through the interaction of:
  - Reference Offers that cover all of the elements required to provide an end to end service using the Basic Access Offers (defined separately for each of the fibre, wireless and satellite networks), the Enhanced Access Offer (fibre network only) and the Standard Business Offer (fibre network only). The Basic Access Offers are intended to provide basic connectivity to the NBN for voice telephony and/or broadband services and the Enhanced Access Offer is intended to provide higher speed connectivity to the NBN, being the most

frequently acquired speed for broadband services. The Standard Business Offer is intended to provide business grade broadband connectivity to the NBN for voice (TC-1) and broadband (TC-4) services.

- The full set of Reference Offers comprises the Basic Access Offers, the Enhanced Access Offer, the Standard Business Offer, the Connectivity Virtual Circuit Offers (TC-1 and TC-4), the Network-Network Interface Offers, the Platform Interfacing Offer, the Sandpit Offer and the Facilities Access Service Offer.

- In Module 1, the Basic Access Offers will be based on a 12/1Mbps AVC TC-4 service (6/1 Mbps for interim satellite), the Enhanced Access Offer (fibre network only) will be based on a 25/5 Mbps AVC TC-4 service and the Standard Business Offer (fibre network only) will be based on a 25/10 AVC-TC-4 service bundled with 500kbps (TC-1) of Symmetric Access Capacity delivered to the same UNI-D. Initial pricing for all Reference Offers is fixed in nominal terms until 30 June 2017, and thereafter is subject to an Individual Price Increase Limit of CPI-1.5%[3]. Once the transitional CVC credit arrangements have ceased to apply in all Connectivity Serving Areas (CSAs), NBN Co will annually review the CVC (TC-4) Maximum Regulated Price with a view to reducing the nominal price as aggregate demand for that Reference Offer increases.

- After Module 1 expires, the product scope of the Reference Offers will be updated every 3 to 5 years based on the principles set out in Module 2, and the pricing of those offers will be subject to an Individual Price Increase Limit of CPI-1.5%.

- Reference Offers cannot be withdrawn during the term for which they apply (the Initial Regulatory Period in Module 1 and subsequent 3 to 5 year periods in Module 2).

- Non-Reference Offers that cover all services that are not Reference Offers and Other Charges that apply to the supply of Reference Offers and Non-Reference Offers.

  - NBN Co has included initial pricing in Module 1 for a broad range of Non-Reference Offers and Other Charges – this covers: the Asymmetric AVC Offers (including up to a 1Gbps downlink); the Additional Asymmetric AVC Offers; the Symmetric Access Capacity Offers (relating to TC-1, TC-2 and TC-3 access capacity); the Second UNI-V and AVC Offer; the Connectivity Virtual Circuit Offer (TC-2 and TC-3); the Multicast AVC Offer; the Multicast Domain Offer; the

[3] This is applied as [(1+CPI)*(1-1.5%)-1], but is referred to for simplicity throughout this submission as CPI-1.5%. The SAU also sets outs a limited number of exceptions to the Individual Price Increase Limit, which deal with situations such as the expiry of discounts.

Enhanced NFAS Fault Rectification Offer; and a comprehensive set of Other Charges.

- Subsequent pricing for Non-Reference Offers and Other Charges will be subject to an Individual Price Increase Limit of CPI-1.5%.
- Initial Pricing Principles (applying across both Module 1 and Module 2) set out a range of matters that NBN Co must have regard to in setting initial pricing, including in relation to new Non-Reference Offers and Other Charges. The ACCC will have an oversight role in regards to NBN Co's compliance with the principles, and the SAU provides that NBN Co will issue a pricing rationale statement, which will provide transparency.

- a Long Term Revenue Constraint Methodology (LTRCM) that constrains NBN Co over time to recovering no more than its prudently incurred costs of supply (inclusive of an appropriate return on capital):
  - In Module 1, the operation of the LTRCM is fully specified, and is based on an actual cost approach, supported by an extensive set of prudency commitments.
  - In Module 2, the LTRCM is specified in detailed terms for key cost recovery provisions, and in principled terms for other provisions. The LTRCM will operate in a manner similar to standard utility regulation, with forecasts of expenditure, demand and revenue being evaluated by the ACCC and then being locked in as part of the regulatory arrangement for a 3 to 5 year period.

- The service level and rebate commitments in the SAU (as discussed above) complement these price-related terms and conditions and together provide Access Seekers with greater stability and predictability in terms of quality adjusted prices.
- The initial prices for Reference Offers, Non-Reference Offers and Other Charges as specified in the SAU are the result of extensive consultation with Access Seekers. NBN Co has been responsive when legitimate concerns have been raised, leading for example to the transitional CVC rebate and the recent introduction of a 5Mbps Multicast AVC speed (i.e. Data Transfer Rate) tier.
- Based on pricing for products already available, Customers have been able to develop NBN-based retail offers that, as compared to retail offers on legacy networks, offer End Users the same or significantly better services for similar prices – this demonstrates the success of a key aspect of NBN Co's pricing strategy, which is to provide a smooth transition to the NBN.
- There is no regulatory recourse on initial or ongoing pricing (with the exception of proposed changes to any price for a Reference Offer or Other Charge related to the supply of a Reference Offer, where that price is currently set at zero). This is

appropriate given that NBN Co is precluded by law from having any competing retail interests and faces strong and consistent incentives to price its services efficiently, having particular regard to current and future market demand. These incentives are the result of the long term revenue sufficiency risk associated with the NBN (as acknowledged by the ACCC in its recent authorisation of NBN Co's agreement with Optus[4]) together with how forecasts are used in the LTRCM in Module 2.

- NBN Co submits that these price-related terms and conditions appropriately meet the needs of Access Seekers, their End Users and NBN Co.

Non-price terms and conditions

- Module 1 of the SAU covers a number of key non-price terms and conditions:
  - Rollout progress information;
  - POI rollout information;
  - Closure, relocation and introduction of new POIs;
  - Dispute Management, including detailed dispute management rules to apply where NBN Co and Customers have a dispute arising out of an access agreement (AA);
  - Confidentiality and intellectual property rights (IPR); and
  - Risk Management.
- The approach to non-price terms and conditions is designed to ensure a clear and certain role for the ACCC via the regulatory recourse mechanism. In general, that mechanism can apply where a particular non-price subject matter is not addressed by the SAU and will provide Access Seekers with transparency and certainty on how any issues relating to such subject matter may ultimately be addressed.
- The non-price terms and conditions included in the SAU (committed to be included in any SFAA) have been developed via comprehensive and detailed review and engagement with NBN Co's Customers during the CDP, as a result of which NBN Co has made significant and extensive amendments to the previous terms and conditions in accordance with industry feedback. As such, NBN Co submits that the terms that will be incorporated into the SFAAs reflect an appropriate balance between NBN Co's and Access Seekers' interests.
- Non-price terms and conditions in the SAU will be reviewed in 2017-18 under the reviews set out in Schedule 1K of the SAU.

[4] ACCC, Applications for Authorisation lodged by NBN Co Limited in respect of provisions of the HFC Subscriber Agreement entered into with Singtel Optus Pty Ltd and other Optus entities, 19 July 2012, p.iv.

- The non-price terms and conditions relate to the Initial Regulatory Period. NBN Co has appropriate incentives to engage with Customers regarding the evolution of non-price terms and conditions in general throughout the term of the SAU. NBN Co does not believe it is possible, or appropriate, at this stage, to make longer term commitments in relation to non-price terms and conditions.
- NBN Co submits that the non-price terms and conditions appropriately meet the needs of Access Seekers, their End Users and NBN Co.

Other terms and conditions

- The SAU contains a number of regulatory oversight commitments in Module 1, describing a mechanism by which terms set by the ACCC (in a manner consistent with the CCA, including the legislative hierarchy as set out in Part XIC of the CCA) are implemented in the SFAAs. Other relevant commitments include:
  - a Multilateral SFAA forum; and
  - 2 year SFAAs with co-terminus end dates.
- No later than six months prior to 1 July 2018, NBN Co will undertake a review of a number of areas in the SAU including on the effectiveness of the multilateral processes in the SAU (i.e. the operation of the customer engagement process in relation to Network Changes, PDF process, dispute management and the Multilateral SFAA Forum) and various non-price terms and conditions (i.e. non-price terms and conditions in Schedule 1H, service levels, operation of the regulatory recourse arrangements and reporting and compliance arrangements). The ACCC has a role in reviewing NBN Co's proposals in these areas, and will in certain circumstances be able to make its own decision on what arrangements should apply should it not accept NBN Co's proposal.
- The enhanced compliance regime in Module 1 enables the ACCC to have transparent and effective oversight of NBN Co's compliance with key cost recovery and pricing commitments in the SAU by requiring NBN Co to submit detailed annual reporting as well as through conferring powers on the ACCC to seek other additional information it may require.

Legislative framework for assessing the SAU

- Subsection 152CBD(2) of the CCA requires that the ACCC must not accept an SAU unless the ACCC is satisfied that:
  - the terms and conditions of the SAU are consistent with the Category B standard access obligations (SAOs) in section 152AXB;
  - the terms and conditions of the SAU are reasonable; and
  - the SAU is consistent with any Ministerial pricing determinations.

- However, in accordance with subsection 152CBD(5A) and (5C) of the CCA, in relation to price-related terms and conditions or refusals that are reasonably necessary to achieve uniform national pricing of eligible services supplied by an NBN corporation to service providers and utilities, the ACCC must not reject the undertaking for a reason that concerns any such:
  - price-related terms and conditions, or
  - refusals to permit interconnection at a location that is not a listed POI, or
  - refusals to unbundle the supply of designated access services (being an AVC service; or a CVC service; or a NNI service; or a UNI service; or a voice telephony facilitation service).
- If an SAU contains a fixed principles term or condition as permitted in section 152CBAA of the CCA, then the ACCC must refuse to accept the SAU if the ACCC considers:
  - the fixed principles term of condition specified in the SAU should not be a fixed principles term of condition;
  - the notional fixed period for the fixed principles term of condition should not be the notional fixed period;
  - if the SAU provides that one or more specified circumstances are qualifying circumstances in relation to the fixed principles term or condition, any of the qualifying circumstances should not be qualifying circumstances; or
  - if the SAU does not provide that particular circumstances are qualifying circumstances, those circumstances should be qualifying circumstances in relation to the fixed principles term or condition.
- If the SAU accepted by the ACCC contains a fixed principles term or condition and NBN Co subsequently lodges an SAU variation (within the notional fixed period) that contains an identical fixed principles term or condition (with a notional fixed period that ends at or before the original notional fixed period and also includes identical qualifying circumstances (if applicable)) then, unless those qualifying circumstances exist, the ACCC must not reject the SAU variation for a reason that concerns that fixed principles term or condition, its notional fixed period or the specification of qualifying circumstances.
- Subsection 152AXC(1) of the CCA states that NBN Co must not discriminate between Access Seekers in complying with its Category B SAOs, including in the terms and conditions proposed in the SAU.

Reasonableness of the SAU

- NBN Co has identified price-related terms and conditions in the SAU that are reasonably necessary for achieving uniform national pricing.
- In accordance with subsection 152CBD(5A) of the CCA, NBN Co submits that the ACCC cannot reject the SAU for a reason related to these terms and conditions of the SAU (because they are reasonably necessary to achieve uniform national pricing).
- In addition to supporting the achievement of uniform national pricing, the terms and conditions of the SAU promote the LTIE, by promoting competition, facilitates achieving any-to-any connectivity and encouraging efficient investment in and use of infrastructure as compared to the counterfactual of having terms of access set out via an AD and/or SFAAs alone. NBN Co submits that the regulatory certainty provided by the SAU strikes an appropriate balance between the legitimate interests of NBN Co and Access Seekers using the NBN Access Service and the Ancillary Services.
- NBN Co has lodged a number of reports by independent experts from Australia, the United Kingdom and the United States regarding key aspects of the SAU – each expert report provides substantial support for the SAU:
    - Professor Janusz Ordover and Dr Allan Shampine (Ordover and Shampine) – address the high level design of the SAU (including the 30 year term, modular structure and regulatory recourse arrangements in Module 1), the nature and strength of incentives for investment, expenditure efficiency, pricing, product development and withdrawal, service quality, and engagement with Customers on non-price terms, and the significance of NBN Co's wholesale only status and its broader context to simplifying the task of developing appropriate long term regulatory arrangements.
    - Synergies Economic Consulting (Synergies) – address the efficiency of the specific mechanisms set out in the SAU including the various elements of the LTRCM and pricing commitments made via the Reference Offers, Non-Reference Offers and Other Charges.
    - Professor Bob Officer and Dr Steven Bishop (Officer and Bishop) – address the specification of the weighted average cost of capital approach (WACC) included in Module 1 (and associated tax treatments) and also address the WACC principles set out in Module 2 for use in the subsequent 20 years of the SAU.
    - Analysys Mason – address the prudency and efficiency of the initial design of NBN Co's fibre, wireless and satellite networks.

- NBN Co submits that the ACCC should be satisfied that the terms and conditions in the SAU are reasonable (in accordance with the statutory criteria set out in section 152AH of the CCA).

Compliance with legislative requirements

- The SAU complies with all relevant legislative requirements – it includes:
  - terms and conditions relating to compliance with the Category B SAOs, expiry of the SAU and extension of the term of the SAU;
  - terms and conditions that are consistent with the Category B SAOs and are reasonable; and
  - specified conduct in relation to listed activities that will promote the LTIE.
- Every term and condition in Modules 0 and 2 (collectively) is a fixed principles term and condition with a nominal fixed period ending at the end of the SAU term with a number of qualifying circumstances. NBN Co submits that the fixed principles term and condition, its nominal fixed period and qualifying circumstances are appropriate.

Part A – SAU Context

1 Introduction

Based on feedback from Access Seekers and the ACCC, NBN Co has withdrawn the SAU it lodged on 5 December 2011 and has lodged in its place a revised SAU in respect of its NBN Access Service and Ancillary Services. This revised SAU still covers the first 30 years of NBN Co's operations (to 30 June 2040), but it includes a broader service description, takes a modular approach to specifying certain price and non-price terms and conditions of access, provides clearer arrangements for ACCC regulatory oversight, and places greater emphasis on incentives in its overall design.

The SAU is intended to achieve an appropriate degree of regulatory certainty for Access Seekers, their End Users, and NBN Co (in relation, for example, to pricing and cost recovery arrangements) over the short, medium and long term, and also provide the framework reasonably necessary to achieve UNWP.

NBN Co submits that the SAU satisfies the relevant statutory criteria and should be accepted by the ACCC.

This submission is organised in three parts, addressing the context, content and assessment of the SAU:

- Part A – SAU Context
  - objectives and background for the SAU – section 2;
  - legislative framework for the ACCC's assessment – section 3;
- Part B – SAU Content
  - design of the SAU – section 4;
  - declared services and supply-related terms and condition – section 5;
  - price-related terms and conditions – section 6;
  - non-price terms and conditions – section 7;
  - other terms and condition – section 8;
- Part C – SAU Assessment
  - reasonableness of the SAU – section 9; and
  - compliance with legislative requirements – section 10.

The submission also includes three appendices relating to the service level regime, customer engagement and prudency commitments.

NBN Co has lodged a number of reports by independent experts from Australia, the United Kingdom and the United States regarding key aspects of the SAU – each expert report provides substantial support for the SAU:

- Professor Janusz Ordover and Dr Allan Shampine (Ordover and Shampine) – high level design of the SAU (including the 30 year term, modular structure and regulatory recourse arrangement in Module 1), the nature and strength of incentives for investment, expenditure efficiency, pricing, product development and withdrawal, service quality, and engagement with Customers on non-price terms, and the significance of NBN Co's wholesale only status and its broader context to simplifying the task of developing appropriate long term regulatory arrangements;
- Synergies Economic Consulting (Synergies) – the efficiency of many of the specific mechanisms set out in the SAU including the various elements of the LTRCM and pricing commitments made via the Reference Offers, Non-Reference Offers and Other Charges;
- Professor Bob Officer and Dr Steven Bishop (Officer and Bishop) – the specification of the WACC approach included in Module 1 (and associated tax treatments) and also the WACC principles set out in Module 2 for use in the subsequent 20 years of the SAU; and
- Analysys Mason – prudency and efficiency of the initial design of NBN Co's fibre, wireless and satellite networks.

This submission makes reference to these reports where relevant, but such references are not exhaustive, and for completeness the reports should be read together with this submission.

In preparing this submission, NBN Co has sought to address all relevant issues in as comprehensive a manner as possible. While noting that the ACCC may request further information from NBN Co at any time throughout its assessment process, NBN Co may also lodge further submissions, expert reports and other information if it considers this may be useful.

2 Objectives and background

Key points

- The Government established NBN Co as a means of implementing its NBN policy.
- NBN Co has been directed by the Government, via the Statement of Expectations, to develop the NBN to provide a layer 2 wholesale bitstream service, to achieve a particular coverage, speed and technology mix and also to apply a UNWP approach and to operate as a commercial entity.
- The NBN is now a practical reality in the Australian telecommunications industry – the nationwide construction program has started, the Definitive Agreements with Telstra and the agreement with Optus are now in force, NBN Co has SFAAs in place, including the WBA, and NBN Co has executed a WBA with 46 Customers as at 17 September 2012.
- Although ongoing development of the NBN does not depend on acceptance of an SAU, it has been NBN Co's consistently expressed intention to lodge an SAU, and to operate using an SAU (if accepted) and SFAAs as permitted by the access regime.
- Consistent with this, the ACCC has previously expressed a preference for NBN Co's pricing to be addressed via the SAU mechanism. [5]
- The SAU is intended to support achievement of the Government's NBN policy, and has been developed with two objectives in mind:
  - to provide an appropriate degree of certainty to Access Seekers, their End Users and NBN Co about the services being offered, and how the price and non-price terms and conditions of access (including the framework for long term cost recovery) will be regulated over the short, medium and long term; and
  - to provide the long term framework reasonably necessary to achieve UNWP of eligible services supplied by NBN Co to Access Seekers.
- The SAU (in combination with SFAAs) is the preferable regulatory mechanism, over an alternative that may rely on future access determinations (ADs) by the ACCC, because it can:
  - provide long term regulatory certainty with more; and
  - be more procedurally efficient.

[5] Joint Committee on the National Broadband Network, Transcript 16 May 2011, p.50.

- NBN Co has developed this revised SAU in light of feedback from Access Seekers and ongoing discussions with the ACCC regarding how the SAU can strike an appropriate balance between the interests of Access Seekers, their End Users and NBN Co.

2.1 Objectives of the SAU

The Government established NBN Co as a means of implementing its NBN policy.

NBN Co has been directed by the Government to develop the NBN to provide a layer 2 wholesale bitstream service, to achieve a particular coverage, speed and technology mix and also to apply a UNWP approach.

NBN Co has lodged the SAU with the following two objectives in mind.

- To provide an appropriate degree of certainty to Access Seekers, their End Users and NBN Co about the services being offered, and how the price and non-price terms and conditions of access (including the framework for long term cost recovery) will be regulated over the short, medium and long term. Nevertheless, such certainty has to be balanced with an appropriate degree of flexibility to account for evolving technology, applications and demand.

- To put in place a long term framework to achieve UNWP of eligible services supplied by NBN Co to service providers and utilities – NBN Co has been asked by the Government (in its role as shareholder) to pursue such a pricing approach, and relevant legislation makes specific provision for this (see section 3.4). As a practical matter, NBN Co considers that the framework needs to be long term to account not just for the significantly higher average costs of providing services in rural and remote areas, but also the extent to which initial deployment and operating costs are incurred in advance of migration to the new network, and the expectation that average willingness to pay for higher speed and functionality NBN access services will rise over time as new applications and services are developed. This means that NBN Co needs an extended period of operations before it could recoup those costs that were initially unrecovered.

The SAU (in combination with SFAAs) is the preferable regulatory mechanism for achieving these objectives, over an alternative that may rely on future ADs by the ACCC, because it can:

- provide long term regulatory certainty with more consistency (through actual ex ante acceptance of the SAU rather than potential ex post declaration and AD processes); and

- be more procedurally efficient (by placing the onus on NBN Co to propose an appropriate service description and terms and conditions of access, which it is best

placed to do, given NBN Co's role as the builder of the NBN and its commercial relationships with Access Seekers).

2.2 Current status of the NBN

The NBN is a long term project that is intended to meet the changing needs of Australian residential and business End Users into the future. This is reflected in the direction given by the Government to NBN Co in December 2010:

> *The Government expects that NBN Co will design, build and operate a new NBN to provide access to high speed broadband to all Australian premises. The Government's objective for NBN Co is to connect 93 per cent of Australian homes, schools and businesses with fibre-to-the-premises technology providing broadband speeds of up to 100 megabits per second, with a minimum fibre coverage obligation of 90 per cent of Australian premises.*
>
> *All remaining premises will be served by a combination of next generation fixed wireless and satellite technologies providing peak speeds of at least 12 megabits per second.*[6]

No longer just policy, the NBN is now practical reality in the Australian telecommunications industry. This is evident in the fact that NBN Co has:

- commenced its nationwide construction program that will eventually see the NBN offering coverage to every one of Australia's 13 million premises (as will exist by 2021);
  - fibre network:
    - over the next three years, under the rollout plan released by NBN Co on 29 March 2012, construction of the fibre optic component of the network will be underway or completed in areas containing 3.5 million premises in 1500 communities in every state and territory in Australia - up to one third of the nation's homes and businesses;
    - the fibre network in Tasmania should be completed in 2015 and in the rest of Australia by June 2021;
  - fixed wireless network:
    - in April 2012, NBN Co began announcing details of communities that will receive high speed fixed wireless broadband. The earliest of these will be switched on from mid-2013 and the latest from mid-2015 onwards;
    - the fixed wireless network should be completed in 2015;

[6] Statement of Expectations, 17 December 2010, p.1.

- satellite network:
    - on 8 February 2012, NBN Co announced that it had selected Space Systems/Loral (SS/L), a leading manufacturer of commercial broadband satellites, to build two next-generation Ka-band satellites, which are planned to launch in 2015. The contract is part of a total investment of approximately $2 billion that is required to deliver the NBN Long Term Satellite Service. Other agreements will cover the ground systems, End User equipment and the space launch;
    - the satellite network should be completed in 2015;

- opened its National Contact Centre on the Gold Coast, Network Service and Operations Centre and National Test Facility in Melbourne. NBN Co also manages two data centre facilities with over 2000 servers and 500 databases running in those facilities to support NBN Co;
- concluded and is implementing Definitive Agreements with Telstra and an agreement with Optus, relating amongst other things to disconnection of legacy networks as End Users migrate to the NBN;
    - the Definitive Agreements with Telstra came into force at the start of March 2012 after satisfying all conditions precedent (including necessary regulatory approvals); and
    - on 19 July 2012, the ACCC issued a final determination authorising the agreement with Optus; and
- published the WBA as a SFAA, offered for an initial 12 month term (from 30 November 2011) pending ACCC's consideration of appropriate SAU arrangements. As at 17 September 2012, 46 Customers had signed up to this agreement (subject only to some minor variations), and NBN Co and Customers are now engaged in the Contract Development Process (CDP) for the next version of the WBA.

As the revised SAU was lodged in September 2012, and the current WBA expires at the end of November 2012, NBN Co recognises that there will not be an accepted SAU in place by the time the current WBA expires. To provide additional certainty to Customers in relation to their access terms, NBN Co has proposed that Customers extend their current agreements until the end of April 2013.

Although the ongoing development of the NBN does not depend upon acceptance of an SAU, it has been NBN Co's consistently expressed intention to lodge an SAU and to operate using an SAU (if accepted) and SFAAs as permitted by the access regime. Consistent with this, the ACCC has previously expressed a preference for NBN Co's pricing to be addressed via the SAU mechanism[7].

[7] Joint Committee on the National Broadband Network, Transcript 16 May 2011, p.50.

Consequently, while the outcomes of the regulatory process will clearly have implications for the terms and conditions on which access is subsequently offered, NBN Co will continue to develop the NBN in accordance with the Government's expectations of coverage, speed and technology mix, and will do so subject to a number of well established Government and Parliamentary oversight mechanisms.

2.3 Consultation prior to lodging December 2011 SAU

NBN Co developed the December 2011 SAU following a two year engagement process with industry stakeholders in relation to products, price and non-price terms, contractual arrangements and a range of technical and operational matters. This engagement process commenced within months of NBN Co's formation, with the release in December 2009 of its first Product Consultation Paper and has continued since then, incorporating public fora, discussion papers inviting written feedback and face to face meetings between NBN Co staff and Access Seekers.

In parallel, NBN Co engaged in ongoing discussions with the ACCC on the development of the SAU. In the course of those discussions, the ACCC provided some key considerations which it believed should be taken into account by NBN Co in developing its access arrangements (covering both the SAU and WBA). NBN Co described these considerations in its July 2011 discussion paper on the SAU.

Although substantial further consultation has taken place since then (including on the December 2011 SAU and NBN Co's proposal for a revised SAU), the ACCC's list of key considerations remain relevant. Accordingly, NBN Co has had regard to these considerations in developing the revised SAU.

2.4 December 2011 SAU

The SAU lodged by NBN Co in December 2011 (and subsequently withdrawn on 7 September 2012) was comprised of three broad elements: service description; price-related terms and conditions; and non-price related terms and conditions. Consistent with the objectives of regulatory certainty and UNWP, the high level design of that SAU included:

- a term that covered the 30 years of NBN Co's Corporate Plan to June 2040, but with a mid-term review in the lead up towards possible privatisation of NBN Co. The review was to cover the approach to the prudency of capital expenditure (capex) and operating expenditure (opex) (including the potential use of incentive based mechanisms) and the approach to setting the WACC. That review could be widened by NBN Co to include a range of other matters (as it was not possible for NBN Co to determine, with certainty at the outset which other matters should be reviewed);
- broad coverage of NBN Co services – all of NBN Co's Product Components, Product Features and Ancillary Services were covered by the SAU (however, only the NBN Access Service was declared by the SAU);

- explicit linkage to the WBA, noting that the SAU:
  - provided for Access Seekers to elect whether to have their individual Access Agreements (AA) aligned with any accepted SAU; and
  - contained high level principles which were intended to shape the terms offered in the SFAAs;
- a reliance on a series of largely self-executing rules – these were to be considered by the ACCC as part of its decision to accept or reject the SAU and the ACCC would monitor compliance with the rules over the SAU's term;
- a discrete set of powers conferred on the ACCC, including in relation to:
  - a 'regulatory recourse' role when Access Seekers and NBN Co could not reach agreement on terms of access;
  - assessing a proposal from NBN Co for any price changes above the CPI/2 price increase limit[8];
  - resolving disputes between NBN Co and its Customers in relation to the prudency of proposed Network Changes;
  - endorsing proposed Network Changes put to it by NBN Co;
  - reviewing NBN Co's customer engagement process and PDF processes every 5 years, and requesting a variation to those arrangements;
  - assessing variations to the SAU proposed by NBN Co following the mid-term review; and
  - approving the opening, closing or relocation of POIs.

2.5 Consultation post lodgement of NBN Co's December 2011 SAU

The ACCC commenced formal consultation on NBN Co's previous SAU on 20 December 2011. This included two rounds of written submissions and a confidential industry forum held by the ACCC on 12 July 2012.

During this consultation, Access Seekers expressed a range of concerns relating in particular to the nature and extent of ACCC oversight over the 30 year term of the SAU, and the level of certainty provided to Access Seekers as compared to the level of flexibility provided to NBN Co.

Based on this feedback, NBN Co advised the ACCC in June 2012 that it intended to submit a revised SAU and provided an outline of its proposed new approach.

[8] Following feedback on the Dec 2011 SAU, the individual price control limit has been changed to a more standard 'CPI – X' formulation, where X has been set at 1.5%, reflecting half of the top of the RBA's target range for inflation.

On 20 June 2012, the ACCC announced that it was suspending its assessment of NBN Co's December 2011 SAU, pending lodgement of a revised SAU. In the same news release, ACCC Chairman Rod Sims made the following comments in relation to NBN Co's outline of its revised SAU proposal.

> *NBN Co has taken a step forward in developing this proposal in response to feedback on its original SAU. It is a constructive move towards establishing reasonable access arrangements for the NBN.*
>
> *...*
>
> *The ACCC sees merit in the proposal. For example, the proposed modular design balances NBN Co's requirement for certainty on long-term cost recovery with the need to undertake regular reviews of the detailed terms of access.*
>
> *...*
>
> *Similarly, the proposal that the revised SAU will specify reference offers and use a building block model to determine revenue constraints on NBN Co appears to provide some reasonable constraints on NBN Co's pricing over time.*[9]

NBN Co's proposal outline (Incentive Based Modular SAU: Design Principles, 20 June 2012) was published on the ACCC website, and was the focal point for the confidential industry forum held by the ACCC on 12 July 2012.

Since then, NBN Co has been engaged in ongoing discussions with the ACCC in relation to how the SAU should be revised with a view to striking a more appropriate balance between the interests of Access Seekers, their End Users and NBN Co.

In parallel, since the WBA was published as a SFAA on 30 November 2011, NBN Co has continued to engage with the rest of industry regarding the further enhancement of the WBA, via the Contract Development Process, which is set out within the WBA itself. This has involved extensive multilateral consultation on the terms of the agreement, with a view to developing updated arrangements by the end of November 2012.

On 13 September 2012, NBN Co provided a pre-lodgement briefing to industry regarding NBN Co's revised SAU. The purpose of the briefing, as a follow up to the 12 July 2012 forum, was to provide more detail on the operation of the revised SAU and to serve as an introduction to the SAU before lodgement.

Before deciding whether to accept the SAU, the ACCC will conduct a consultation process. That consultation process will provide industry with the opportunity to respond to the SAU as a package of commitments with a clear interaction with the WBA (many aspects of which are currently being discussed with Customers via the CDP).

[9] ACCC News Release, ACCC suspends assessment of NBN Co special access undertaking, 20 June 2012.

3 Legislative framework for assessing the SAU

Key points

- Subsection 152CBD(2) of the CCA requires that the ACCC must not accept an SAU unless the ACCC is satisfied that:
  - the terms and conditions of the SAU are consistent with the Category B SAOs in section 152AXB;
  - the terms and conditions of the SAU are reasonable; and
  - the SAU is consistent with any Ministerial pricing determinations.
- However, in accordance with subsection 152CBD(5A) and (5C) of the CCA, in relation to price-related terms and conditions or refusals that are reasonably necessary to achieve uniform national pricing of eligible services supplied by an NBN corporation to service providers and utilities, the ACCC must not reject the undertaking for a reason that concerns any such:
  - price-related terms and conditions, or
  - a refusal to permit interconnection at a location that is not a listed POI, or
  - a refusal to unbundle the supply of designated access services (being an AVC service; or a CVC service; or a NNI service; or a UNI service; or a voice telephony facilitation service),

  where the relevant price-related terms and conditions or refusals are reasonably necessary to achieve uniform national pricing of eligible services supplied by the NBN corporation to service providers and utilities.
- If an SAU contains a fixed principles term or condition as permitted in section 152CBAA of the CCA, then the ACCC must refuse to accept the SAU if the ACCC considers:
  - the fixed principles term or condition specified in the SAU should not be a fixed principles term or condition;
  - the notional fixed period for the fixed principles term or condition should not be the notional fixed period;
  - if the SAU provides that one or more specified circumstances are qualifying circumstances in relation to the fixed principles term or condition – any of the qualifying circumstances should not be qualifying circumstances; or
  - if the SAU does not provide that particular circumstances are qualifying circumstances, those circumstances should be qualifying

circumstances in relation to the fixed principles term or condition.

- If the SAU accepted by the ACCC contains a fixed principles term or condition and NBN Co subsequently lodges an SAU variation (within the notional fixed period) that contains an identical fixed principles term or condition (with a notional fixed period that ends at or before the original notional fixed period and also includes identical qualifying circumstances (if applicable)) then, unless those qualifying circumstances exist, the ACCC must not reject the SAU variation for a reason that concerns that fixed principles term or condition, its notional fixed period or the specification of qualifying circumstances.
- Subsection 152AXC(1) of the CCA states that NBN Co must not discriminate between Access Seekers in complying with its Category B SAOs, including in the terms and conditions proposed in the SAU.

3.1 Consistency with the Category B SAOs

Subparagraph 152CBD(2)(b)(i) of the CCA requires the ACCC to be satisfied that the terms and conditions set out in the SAU would be consistent with the Category B SAOs, to the extent that those obligations would apply to an NBN corporation in relation to the service, as if the service were treated as an active declared service under subsections 152AL(8A), 152AL(8D) or 152AL(8E).

Broadly, the Category B SAOs under section 152AXB of the CCA impose:

- a requirement for an NBN corporation to supply a declared service on request to a service provider in order that the service provider can provide Carriage Services and/or Content Services[10];
- a requirement for an NBN corporation to permit interconnection to telecommunications facilities it owns or controls, if requested to do so by a service provider, for the purpose of enabling the service provider to be supplied with declared services in order that the service provider can provide Carriage Services and/or Content Services[11]; and
- a requirement for an NBN corporation that supplies a declared service by means of conditional-access customer equipment to supply on request any related service that is necessary to enable a service provider to supply its relevant retail service

[10] This requirement does not impose an obligation to the extent (if any) the obligation would lead to preventing a service provider who already has access to the declared service from obtaining sufficient amount of the service to be able to meet the service provider's reasonably anticipated requirements; preventing an NBN corporation from obtaining sufficient amount of the service to meet its reasonably anticipated requirements, or preventing a person from obtaining (via the exercise of a pre-request right) a sufficient level of access to the declared service (See subsection 152AXB(3) of the CCA).

[11] Subsection 152AXB(4) of the CCA

and/or Content Services by means of the declared service and using the equipment[12].

The requirements for an NBN corporation to comply with the Category B SAOs are subject to a number of exceptions including where there are reasonable grounds to believe that:

- the Access Seeker would fail to materially comply with the terms and conditions on which the NBN corporation complies, or is reasonably likely to comply with the relevant obligations.[13] The CCA provides a non-exhaustive list of examples of exceptions including evidence that an Access Seeker is not credit worthy and repeated failures by an Access Seeker to comply with the terms and conditions on which the same or similar Access Seekers have been provided[14]; or
- the Access Seeker would not protect the integrity of a telecommunications network or the safety of individuals working on, or using services supplied by means of, a telecommunications network or a facility.[15]

Further, for the purposes of assessing consistency with SAOs, the ACCC must not consider:

- price-related terms and conditions, or
- a refusal to permit interconnection at a location that is not a listed POI, or
- a refusal to unbundle the supply of designated access services (being an AVC service; or a CVC service; or a NNI service; or a UNI service; or a voice telephony facilitation service),

where the relevant price-related terms and conditions or refusal are reasonably necessary to achieve uniform national pricing of eligible services supplied by the NBN corporation to service providers and utilities.[16] This exception relating to uniform national pricing is discussed in detail below at section 3.4.

3.2 Assessment of reasonableness

Under subparagraph 152CBD(2)(b)(ii) of the CCA, the ACCC cannot accept an SAU submitted by an NBN corporation unless it is satisfied that the terms and conditions specified are reasonable.

In its 2007 draft decision on the assessment of FANOC's SAU in relation to the Broadband Access Service (FANOC Decision), the ACCC noted that it does not determine reasonableness in a vacuum and that the terms and conditions of the SAU are always referrable to the

[12] Subsection 152AXB(5) of the CCA. 'Conditional-access customer equipment' is defined in section 152AC of the CCA. The definition is intended to capture any customer equipment that: consists of or incorporates a conditional access system that allows a service provider to determine whether an End User is able to receive a particular service; and is intended for use in connection with the supply of a content service or is of a particular kind of equipment that is specified in the regulations.
[13] Paragraph 152AXB(6)(a) of the CCA
[14] Subsection 152AXB(7) of the CCA
[15] Paragraph 152AXB(6)(b) of the CCA
[16] Subsections 152CBD(5A) and (5C) of the CCA

objectives of Part XIC set out in section 152AB[17] and the reasonableness criteria under section 152AH[18] of the CCA.

In determining whether terms and conditions are 'reasonable', regard must be had to the following matters[19]:

- whether the terms and conditions promote the long-term interests of end-users (LTIE) of carriage Services or of services supplied by means of carriage Services;
- the legitimate business interests of the access provider concerned, and access provider's investment in facilities used to supply the declared service concerned;
- the interests of persons who have rights to use the declared service concerned;
- the direct costs of providing access to the declared service concerned;
- 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.

These matters do not limit the matters to which the ACCC may have regard to in considering reasonableness.[20]

The ACCC noted in the FANOC Decision that in order to have 'regard' to particular matters, it is required to take the matters in section 152AH of the CCA into account and give weight to them as fundamental elements in making its determination.[21]

The ACCC also noted that it is required to determine whether the terms and conditions of an undertaking are reasonable, not whether they are the best possible terms and conditions or whether they could be improved. This approach is supported by the Australian Competition Tribunal (the Tribunal), which in the context of assessing reasonableness of Telstra's pricing methodology in *Telstra Corporation Limited [2006] ACompT 4* noted that:[22]

> *In this analysis we are limiting ourselves to asking whether Telstra's charge term and its cost allocation method is reasonable having regard to the statutory matters. We are not concerned to enquire whether any other price term or cost allocation method is more reasonable.*

[17] The object of Part XIC of the CCA is to promote the LTIE of carriage services or of services provided by means of carriage service.
[18] Subsections 152AH(1) and (2) of the CCA
[19] Subsection 152AH(1) of the CCA
[20] Subsection 152AH(2) of the CCA
[21] ACCC, Assessment of FANOC's Special Access Undertaking in relation to the Broadband Access Service – Draft Decision, December 2007, p.2.
[22] *Telstra Corporation Limited [2006] ACompT 4 at* [150]. See also *Seven Networks Limited (No 4)* (2005) ATPR 42-056 at [119].

The ACCC has also outlined that it is the terms and conditions of the SAU as a whole that must be taken into account in assessing reasonableness of the SAU. [23]

In relation to price-related terms and conditions, the ACCC has noted that there is no one correct figure in determining reasonable costs as this will entail matters of judgement. However the ACCC's assessment will entail determining whether the submitting party's method or approach to calculating its costs is reasonable having regard to the statutory criteria.[24]

Further, the ACCC has noted that reasonableness is not determined by reference to what would exist if the undertaking was not accepted. In this sense, there is no 'with and without' test in applying the reasonableness test. It may be appropriate to apply the test to individual criteria (for example, the promotion of the LTIE – see discussion in section 3.2.1 below) or in specific circumstances to assist in the assessment, but ultimately, the reasonableness test is applied as a stand-alone test.[25]

The ACCC has indicated that the 'with and without' test should only be applied in having regard to those criteria where it facilitates (as opposed to determines) the ACCC's analysis in determining the overall reasonableness of the terms and conditions.[26]

The elements involved in assessing reasonableness are discussed further below:

3.2.1 Promotion of long-term interests of end-users (LTIE)

In considering whether terms and conditions of an SAU promote the LTIE, regard must be had only to the extent to which the terms and conditions achieve the following objectives:

- promoting competition in markets for listed services;
- achieving any-to-any connectivity in relation to carriage services that involve communication between end-users; and
- encouraging the economically efficient use of, and the economically efficient investment in: (i) the infrastructure by which listed services are supplied; and (ii) any other infrastructure by which listed services are, or are likely to become, capable of being supplied.

The Tribunal has discussed the meaning of LTIE and clarified the definitions of the following terms:

- '*end-users*': should be interpreted to include actual and potential customers; and

[23] ACCC, Assessment of FANOC's Special Access Undertaking in relation to the Broadband Access Service – Draft Decision, December 2007, p.31.
[24] ACCC, Assessment of FANOC's Special Access Undertaking in relation to the Broadband Access Service – Draft Decision, December 2007, p.22.
[25] ACCC, Assessment of FANOC's Special Access Undertaking in relation to the Broadband Access Service – Draft Decision, December 2007, p.31.
[26] ACCC, Final Decision: Assessment of Foxtel's Special Access Undertaking in relation to the Digital Set Top Unit Service, March 2007, p.122.

- '*interest*': should be interpreted in the sense that end-users would obtain lower prices, increased quality of service and increased diversity and scope in product offerings; and
- '*long-term*': should be interpreted to mean the period over which the full effects of the Tribunal's decision will be felt.[27]

In its decision in *Application by Chime Communications Pty Ltd (No 2) [2009] ACompT 2 (27 May 2009)***,** the Tribunal stated that the assessment of the LTIE involves a comparison between the factual and counter factual scenarios, i.e. a future with or without test. The Tribunal noted:[28]

> *The task of deciding what is likely to happen in the future is not simply a matter of guesswork. Logically the first step is to examine the existing state of affairs as regards the three objectives: promoting competition, achieving any-to-any connectivity and encouraging economic efficiencies.*

The Tribunal referred to the earlier Tribunal decision in *Re Seven Network Limited (No 4) (2004) 187 FLR 373.* In that decision, the Tribunal stated:[29]

> *a degree of satisfaction is reached by applying the future with and the future without test, that is to say we compare the future situation with the exemption orders having been made with the future situation without the exemption orders having been made. We then ask the question which situation is in the [long-term interests of end-users].*

i Promotion of competition

In considering whether competition will be promoted, subsections 152AB(4) and 152AB(5) of the CCA provide that in determining the extent to which a particular thing is likely to result in the achievement of the promotion of competition, regard must be had to the extent to which the thing will remove obstacles to end-users of listed services gaining access to listed services.

This consideration does not, however, limit matters to which regard may be had in considering the promotion of competition.

The ACCC has also expressed the view that the key issue in determining whether a regulatory decision will promote competition is whether the decision will assist in establishing conditions by which an improvement in competition will be likely to occur.[30]

This view reflects the view of the Tribunal in *Re Sydney International Airport*, which stated:[31]

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[27] *Seven Network Limited (No 4) [2004] ACompT 11 at [120]*
[28] *Application by Chime Communications Pty Ltd (No 2) [2009] ACompT 2 (27 May 2009)pp.12-14*
[29] *Seven Network Limited (No 4) [2004] ACompT 11 at [119]*
[30] ACCC, Assessment of FANOC's Special Access Undertaking in relation to the Broadband Access Service – Draft Decision, December 2007, p.33.
[31] *Re Sydney International Airport [2000] ACompT 1 (1 March 2000)*, paragraph 106

The Tribunal does not consider that the notion of 'promoting' competition in s 44H(4)(a) requires it to be satisfied that there would be an advance in competition in the sense that competition would be increased. Rather, the Tribunal considers that the notion of 'promoting' competition in s 44H(4)(a) involves the idea of creating the conditions or environment for improving competition from what it would be otherwise. That is to say, the opportunities and environment for competition given declaration, will be better than they would be without declaration.

ii Achieving any-to-any connectivity

The ACCC has noted that the objective of any-to-any-connectivity is particularly relevant when considering services that involve communications between end-users, and has stated that this criterion will be given less weight compared to the other objectives when considering other types of services (such as carriage services that are inputs to an end-to-end service or distribution services such as the carriage of pay television).[32]

iii Encouraging economically efficient use of, and economically efficient investment in, infrastructure

The ACCC has previously noted that the phrase 'economically efficient use of, and economically efficient investment in, infrastructure' requires considering three components of efficiency*:*

- 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 allocated to their highest valued uses (i.e. those that provided the greatest benefit relative to costs);
- 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.

In looking at the question of whether a particular measure results in economically efficient use of and investment in infrastructure, subsection 152AB(6) of the CCA provides that regard must be had to the following:

- whether it is, or is likely to become, technically feasible for the services to be supplied and charged for, having regard to:
  - the technology that is in use, available or likely to become available; and
  - whether the costs that would be involved in supplying, and charging for, the services are reasonable or likely to become reasonable; and
  - the effects, or likely effects, that supplying, and charging for, the services would have on the operation or performance of telecommunications networks;

[32] ACCC, ACCC advice to Government on NBN POIs, November 2010, p.82.

- 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;
- the incentives for investment in:
  - the infrastructure by which the services are supplied; and
  - any other infrastructure by which the services are, or are likely to become, capable of being supplied.

The above factors do not limit the matters to which regard may be had in considering whether a term or condition results in encouraging the economically efficient use of, and economically efficient investment in, infrastructure.

Subsection 152AB(7A) of the CCA provides that for the purposes of determining incentives for investment, regard must be had to the risks involved in making the investment.

3.2.2 Legitimate business interests

A Carrier's 'legitimate business interests' are confined to what is regarded as allowable and appropriate when negotiating access to its infrastructure. In *Re Telstra Corporation Ltd,* the Tribunal stated that[33]:

> *... In the context of section 152AH (1)(b), the expression connotes something which is allowable and appropriate when negotiating access to the carrier's infrastructure. When looked at through the prism of a charge term and condition of access and its relationship to a carrier's cost structure, it is a reference to the interest of a carrier in recovering the costs of its infrastructure and its operating costs and obtaining a normal return on its capital.*

The ACCC has also outlined that the criterion requires an assessment of the broader commercial interests of the service provider in conducting its own business affairs. An access provider should not be unduly compromised in the conduct of its own legitimate business interests simply because it has an obligation to provide access to its service. By way of example, the ACCC noted that an access provider must be able to make appropriate decisions about modifications and upgrades to its network or set appropriate requirements for billing and the payment of accounts. Generally, an access provider is entitled to have some legitimate control over its relationship with an Access Seeker to the extent reasonably required to protect its business concerns.[34]

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[33] *Re Telstra Corporation Limited (ACN 051 775 556) [2006] ACompT 4 (2 June 2006)*

[34] ACCC, Assessment of FANOC's Special Access Undertaking in relation to the Broadband Access Service – Draft Decision, December 2007, p.38.

3.2.3 Interests of persons who have rights to use the declared services

The ACCC has stated that it is the interest of all Access Seekers that will be relevant. In the FANOC Decision the ACCC noted:[35]

> *In respect of the interests of persons who may wish to use the service in question in the event that the service is declared, the ACCC's focus is not on any one particular Access Seeker but all potential Access Seekers who may seek to use the service.*

The ACCC's approach to considering interests of persons who have the right to use the declared service involved ensuring that an Access Seeker is able to compete in the supply of service in a dependant market based on cost and quality of its service relative to its competitors, rather than about ensuring that an Access Seeker is able to conduct a profitable business.

3.2.4 Direct costs of providing access to the declared service

In making its final ADs for fixed line services, the ACCC noted that the term 'direct costs of providing access to a declared service' includes those costs incurred (or caused) by the provision of access. Further the ACCC considered that the use of the term 'direct costs', allowed for consideration to be given to a contribution to indirect costs. The ACCC noted that this view had also been confirmed by the Tribunal.[36]

3.2.5 Safety and reliability

The ACCC has noted that the objective of this criterion is to ensure that the access prices that are the subject of an SAU do not lead to arrangements between parties that will result in or encourage the unsafe or unreliable operation of a carriage service.[37]

In examining this criterion in the context of an ordinary access undertaking submitted by Telstra, the Tribunal noted that a service provider will have sufficient incentive to ensure the safe and reliable operation of carriage services, telecommunications networks or facilities, as long as it receives sufficient revenue to cover the costs of ensuring safe and reliable operations. The Tribunal equated 'sufficient revenue' with a price for the service that enabled recovery of efficient costs inclusive of a normal return on investment.[38]

The ACCC noted that a Carrier or Carriage Service Provider will generally seek to have in place operations and procedures designed to ensure the integrity of a network or facility is not harmed. As such the ACCC will consider whether any non-price terms and conditions,

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[35] ACCC, Assessment of FANOC's Special Access Undertaking in relation to the Broadband Access Service – Draft Decision, December 2007, p.39.

[36] ACCC, Final Decision: Inquiry to make final access determinations for the declared fixed line service, July 2011, p.22; *Application by Optus Mobile Pty Limited and Optus Networks Pty Limited [2006] ACompT 8 at [137].*

[37] ACCC, Assessment of FANOC's Special Access Undertaking in relation to the Broadband Access Service draft decision, December 2007, p.40.

[38] *Telstra Corporation Ltd (No 3) [2007]* ACompT 3 at 277

purportedly in relation to the safe operation of a network, are not used as a barrier to effective access. [39]

3.2.6 Economically efficient operation of the network

The ACCC had indicated that the concept of 'economically efficient operation' does not limit the considerations to networks and facilities operated by the access provider, but would include those operated by others, including services provided by Access Seekers.[40]

In examining this criterion, the Tribunal has noted:

> *The factors that are likely to encourage the economically efficient use of, and the economically efficient investment in, the infrastructure … are similar to those factors which are likely to lead to the economically efficient operation of a carriage service, a telecommunications network or a facility.*[41]

3.3 Consistency with any Ministerial pricing determinations

Division 6 of Part XIC of the CCA provides that the Minister can make a written determination setting out principles dealing with price or a method of ascertaining a price relating to the SAOs. Paragraph 152CBD(2)(c) provides that the ACCC must not accept an SAU unless the ACCC is satisfied that the SAU is consistent with any Ministerial Pricing Determination.

The Minister has not made a pricing determination in relation to the NBN Access Service or the Ancillary Services.

Subsection 152CI(1) of the CCA provides that if a provision of an access undertaking is inconsistent with any Ministerial pricing determination, the provision will have no effect to the extent of that inconsistency.

3.4 Consideration of uniform national pricing in assessing SAU

3.4.1 Price-related terms and conditions reasonably necessary to achieve uniform national pricing

Subsection 152CBD(5A) of the CCA prevents the ACCC from rejecting an SAU for a reason that concerns price-related terms and conditions that are reasonably necessary to achieve uniform national pricing of eligible services supplied by NBN Co. Such a price-related term or condition would be excluded from the ACCC's consideration of whether the terms and conditions of the SAU are consistent with the Category B SAOs and are reasonable.

The supplementary Explanatory Memorandum to the *Telecommunications Legislation Amendment (National Broadband Network Measures – Access Arrangements) Bill 2011* (NBN Access Bill) provides:

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[39] ACCC, Assessment of FANOC's Special Access Undertaking in relation to the Broadband Access Service draft decision, December 2007, p.40.
[40] ACCC, Assessment of Telstra's ULLS monthly charge undertaking - final decision, August 2006, p.24.
[41] *Telstra Corporation Ltd (No 3) [2007]* ACompT 3 at 279

> *…subsection 152CBD(5A) prevents the ACCC from rejecting a special access undertaking if that undertaking contains price-related terms and conditions (within the meaning of s151DA), which are attributable to cross-subsidisation and the extent of such cross-subsidisation is no greater than is reasonably necessary. This amendment ensures that the ACCC cannot reject a special access undertaking for a reason that concerns cross-subsidisation.*[42]

The CCA provides that uniform national pricing is achieved if the price-related terms and conditions on which NBN Co supplies, or offers to supply, the eligible service to service providers and utilities are the same throughout Australia.[43]

Section 151DA of the CCA defines price-related terms and conditions as terms and conditions relating to price or a method of ascertaining price.

3.4.2 Terms and conditions in the SAU relating to authorised refusal

Subsection 152CBD(5C) of the CCA prevents the ACCC from rejecting the SAU for a reason that concerns a refusal authorised under subsections 151DA(2) and (3) of the CCA for the purposes of subsection 51(1) of the CCA.[44]

- Subsection 151DA(2) sets out authorised conduct relating to POIs . The provision authorises NBN Co to refuse to permit interconnection to its facilities at locations that are not identified in the listed POIs[45] provided that the refusal is reasonably necessary to achieve uniform national pricing of services supplied by an NBN corporation.

- Subsection 151DA(3) sets out authorised conduct relating to bundling of designated access services provided by NBN Co. The provision authorises NBN Co to refuse to supply or refuse to offer to supply a designated access service to a service provider unless the service provider agrees to acquire one or more other designated access services from NBN Co, provided the refusal is reasonably necessary to achieve uniform national pricing of services supplied by an NBN corporation. Designated access service is defined in subsection 151DA(9) to cover any of the following Carriage Services: an AVC service; a CVC service; a NNI service; a UNI service; and a voice telephony facilitation service.

If subsection 151DA(2) or (3) applies, the ACCC is also required to disregard the relevant price-related terms and conditions in considering whether the terms and conditions of the SAU are consistent with the Category B SAOs and are reasonable.

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[42] Supplementary Explanatory Memorandum to the Telecommunications Legislation Amendment (National Broadband Network Measures—Access Arrangements) Bill 2011 , p.15.
[43] Section 151DA(5) of the CCA
[44] Section 51 of the CCA provides that, in determining whether a person has contravened Part IV of the CCA, certain matters must be disregarded, including anything specified in, and specifically authorised by, an Act.
[45] Subsection 151DB of the CCA requires the ACCC to publish a list of POIs. The authorisation relates to refusal to supply at facilities not on the ACCC's list of POIs.

3.5 Assessment of specified conduct in the SAU

3.5.1 Specified conduct in relation to access to the declared service

Subsection 152CBA(3B) provides for an NBN corporation to outline in the SAU that it will engage in specified conduct in relation to access to the declared service and will do so on such terms and conditions as are specified in the SAU. This subsection enables an NBN corporation to undertake obligations relating to access to the service that are additional to the obligations contained in the Category B SAOs in section 152AXB.

If such conduct is specified in the SAU[46], then in accordance with paragraph 152CBD(2)(ca) of the CCA, the ACCC cannot accept the SAU unless it is satisfied that the conduct specified will promote the LTIE and the terms and conditions are reasonable.

3.5.2 Specified conduct in relation to a listed activity

Subsection 152CBA(3C) provides for an NBN corporation to outline in the SAU that it will engage in specified conduct in relation to a number of activities listed in the section. The activities specified are:[47]

- developing a new eligible service (within the meaning of section 152AL of the CCA); or
- enhancing a declared service; or
- extending or enhancing the capability of a facility or telecommunications network by means of which a declared service is, or is to be, supplied; or
- planning for a facility or telecommunications network by means of which a declared service is, or is to be, supplied; or
- an activity that is preparatory to the supply of a declared service; or
- an activity that is ancillary or incidental to the supply of a declared service; or
- giving information to service providers about any of the above activities.

If such conduct is specified in the SAU, then in accordance with paragraph 152CBD(2)(cb) of the CCA the ACCC cannot accept the SAU unless it is satisfied that the conduct specified will promote the LTIE of carriage services or of services supplied by means of carriage services.

3.6 Assessment of fixed principles

Section 152CBAA of the CCA states that an SAU may provide that a term or condition specified in the SAU is a 'fixed principles' term or condition for a 'notional fixed period'. A fixed principles term or condition must contain a 'notional fixed period' setting out the period for which the term or condition is fixed and which begins when the SAU comes into operation and is set to expire at a time before, on or after the expiry of SAU itself. Under

[46] NBN Co has covered this aspect of the legislation framework for completeness, even though no such conduct is actually specified in the SAU.
[47] Paragraphs 152CBA(3C)(a)-(g) of the CCA

subsection 152CBAA(2) of the CCA, an SAU may provide that one or more special circumstances are 'qualifying circumstances' in relation to a particular fixed principles term or condition.

If an SAU contains a fixed principles term or condition, then in addition to the assessment criteria noted above, subsection 152CBD(4) of the CCA states that the ACCC must refuse to accept the SAU if the ACCC considers:

- the fixed principles term or condition specified in the SAU should not be a fixed principles term or condition;
- the notional fixed period for the fixed principles term or condition should not be the notional fixed period;
- if the SAU provides that one or more specified circumstances are qualifying circumstances in relation to the fixed principles term or condition – any of the qualifying circumstances should not be qualifying circumstances; or
- if the SAU does not provide that particular circumstances are qualifying circumstances, those circumstances should be qualifying circumstances in relation to the fixed principles term or condition.

The Explanatory Memorandum for the Bill which introduced fixed principles into Part XIC of the CCA, states that:[48]

> *It is envisaged that the ACCC may require a person giving it a special access undertaking that includes fixed principles terms or conditions to set out qualifying circumstances in relation to those fixed principles terms and conditions, as a pre-condition to its accepting the undertaking.*

If an SAU containing the fixed principles term or condition ceases to be in operation, then the fixed principles term or condition will cease to be in operation, even if the notional fixed period for the fixed principles was specified to end at some later date than when the SAU ceased to be operational.[49]

If an operational SAU contains a fixed principles term or condition then this will have a bearing on the ACCC's assessment of any new SAUs or variations to such an SAU, where the proposed new or varied SAU contains an identical fixed principles term or condition.

Subsection 152CBAA(5) sets out that if the ACCC has accepted an SAU containing a fixed principles term or condition and then during the notional fixed period of that fixed principles term or condition another SAU (or a variation to the accepted SAU) is given to the ACCC containing:

- an identical fixed principles term or condition;

[48] *Telecommunications Legislation Amendment (Competition and Consumer Safeguards) Bill 2010,* Explanatory Memorandum, p.204.
[49] Subsection 152CBAA(4) of the CCA.

- with a notional fixed period that ends at or before the end of the notional fixed period for the original fixed principles term or condition; and
- if applicable, any qualifying circumstances that are identical to the original qualifying circumstances;

then provided that none of the qualifying circumstances exist the ACCC's assessment of the subsequent SAU (or variation) under section 152CBD of the CCA is conditioned as follows:

- the ACCC must not reject the subsequent SAU (or varied SAU) for a reason that concerns the fixed principles term or condition, the notional fixed period or qualifying circumstances;[50] and
- the ACCC does not need to be satisfied that the fixed principles term or condition, its notional fixed period and the qualifying circumstances are consistent with the SAOs, are reasonable, consistent with any Ministerial Determinations and if applicable, any specified conduct will promote the LTIE and is reasonable.[51]

If the fixed principles term or condition is the only term and conditions contained in the subsequent SAU then the ACCC is not required to undertake a public consultation process as outlined in paragraph 152CBD(2)(d) of the CCA.[52] If the fixed principles term or condition is are not the only term or condition contained in the subsequent SAU, then the ACCC does not need to consider any submissions received to the extent to which they relate to the fixed principle, its notional fixed period or qualifying circumstances.[53] The ACCC is required to carry out a public consultation process in accordance with paragraph 152CBD(2)(d) even if an SAU variation consists only of fixed principles.

3.7 Assessment of future variations to the SAU and interaction with fixed principles

As noted in section 1 and discussed in more detail in section 4, NBN Co has adopted a modular approach to the SAU in which NBN Co commits to periodically lodge Replacement Modules in the form of SAU variations. The inclusion of the terms and conditions of Modules 0 and 2 as a fixed principles term or condition is intended to preclude rejection of variations for a reason that concerns terms and conditions already approved by the ACCC for the term of the SAU. NBN Co considers that this approach is appropriate to provide certainty for NBN Co and stakeholders that the terms that have been accepted by the ACCC for the term of the SAU will not be re-assessed. NBN Co considers that this approach will also simplify the ACCC's future assessments of the periodic SAU variations by narrowing the scope of the areas the ACCC needs to consider under section 152CBD of the CCA.

Given these aspects of the SAU, it is useful to describe the legislative framework for assessing future variations to the SAU and the interaction of the standard assessment criteria with fixed principles terms or conditions.

[50] Paragraph 152CBAA(5)(h) of the CCA
[51] Paragraph 152CBAA(5)(i) of the CCA
[52] Paragraph 152CBAA(5)(j) of the CCA
[53] Paragraph 152CBAA(5)(k) of the CCA

Once an SAU variation containing a Replacement Module is lodged by NBN Co, the ACCC will be required to make a decision to accept or reject the variation under subsection 152CBG(3) of the CCA. This requires the ACCC to carry out an assessment of the variation under section 152CBD of the CCA, the same section that applies to the assessment of an SAU.

If a fixed principles term and condition that was accepted as part of the original SAU is contained as part of the varied SAU then the ACCC's assessment under section 152CBD will be subject to section 152CBAA(6) of the CCA.

Section 152CBD(2) of the CCA requires that the ACCC must not accept a varied SAU unless the ACCC is satisfied:

- the terms and conditions of the varied SAU are consistent with the Category B SAOs in section 152AXB;
- the terms and conditions of the varied SAU are reasonable; and
- the varied SAU is consistent with any Ministerial pricing determinations.

However, in accordance with subsections 152CBD(5A) and (5C) of the CCA, the ACCC must not reject the varied SAU for a reason that concerns:

- price-related terms and conditions, or
- a refusal to permit interconnection at a location that is not a listed POI, or
- a refusal to unbundle the supply of designated access services (being an AVC service; or a CVC service; or a NNI service; or a UNI service; or a voice telephony facilitation service),

where the relevant price-related terms and conditions or refusals are reasonably necessary to achieve uniform national pricing of eligible services supplied by an NBN Corporation to service providers and utilities.

If the varied SAU provides for NBN Co to engage in specified conduct in relation to access to the declared service and will do so on such terms and conditions as are specified in the varied SAU, then in accordance with paragraph 152CBD(2)(ca) of the CCA, the ACCC cannot accept the SAU unless it is satisfied that the conduct specified will promote the LTIE and the terms and conditions are reasonable.

If the varied SAU provides for NBN Co to engage in specified conduct in relation to a number of activities (e.g. enhancing a declared service, developing a new eligible service), then in accordance with paragraph 152CBD(2)(cb) of the CCA the ACCC cannot accept the varied SAU unless it is satisfied that the conduct specified will promote the LTIE of carriage services or of services supplied by means of carriage services.

If the SAU accepted by the ACCC contains a fixed principles term or condition and NBN Co subsequently lodges an SAU variation (within the notional fixed period) that contains an identical fixed principles term or condition (with a notional fixed period that ends at or before the original notional fixed period and also includes identical qualifying

circumstances (if applicable)) then, unless those qualifying circumstances exist, the ACCC must not reject the SAU variation for a reason that concerns :

- the corresponding fixed principles term or condition;
- the notional fixed period for the corresponding fixed principles term or condition; or
- if there are qualifying circumstances in relation to the corresponding fixed principles term or condition, the specification of those circumstances.

3.8 Other relevant legislative provisions – NBN Co's non-discrimination obligations

Subsection 152AXC(1) of the CCA states that an NBN corporation must not 'discriminate between Access Seekers' in complying with its Category B SAOs. There are, however, limited circumstances in which discrimination in the supply of services is expressly permitted. This includes where NBN Co has reasonable grounds to believe that an Access Seeker would fail, to a material extent, to comply with the terms and conditions on which NBN Co complies, or on which NBN Co is reasonably likely to comply, with the relevant obligation.[54] Examples of such circumstances include where an Access Seeker is not creditworthy or has repeatedly failed to comply with the terms and conditions on which the same or similar access has been provided.[55]

The terms and conditions of the SAU have been drafted in compliance with NBN Co's non-discrimination obligations; these obligations have been a key consideration, for example, in designing the following aspects of the SAU:

- in Schedule 1B of the SAU, the commitment to offer two year co-terminus SFAAs – the rationale for this is that co-terminus agreements will assist NBN Co to meet its non-discrimination obligations by ensuring that all Access Seekers are able to seek supply on NBN Co's standard terms at the same time (discussed in more detail in section 8.1); and
- in Schedule 1H of the SAU, the terms and conditions relating to the Dispute Management Rules – these rules needed a special process to deal with Industry Relevant Disputes because it is likely that the matters at issue in a dispute between NBN Co and one Customer will have an impact on other Customers. Accordingly, to enable NBN Co to comply with its non-discrimination obligations, the SAU includes a special dispute resolution process in which multiple parties can become involved in one dispute with NBN Co.

In addition, subsection 152AXD(1) of the CCA prohibits NBN Co from discriminating between Access Seekers in the carrying on of activities related to the supply of declared services.

The relevant 'related activities' are:

- developing a new eligible service;

[54] Subsection 152AXC(2) of the CCA
[55] Subsection 152AXC(3) of the CCA

- enhancing a declared service;
- extending or enhancing the capability of a facility or telecommunications network by means of which a declared service is, or is to be, supplied;
- planning for a facility or telecommunications network by means of which a declared service is, or is to be, supplied;
- an activity that is preparatory to the supply of a declared service;
- an activity that is ancillary or incidental to the supply of a declared service; and
- giving information to service providers about any of the above activities.

NBN Co has designed its approach to product development, including the PDF Processes in Annexure 1 to Schedule 1I, to be compliant with its non-discrimination obligations under 152AXD(1). For example the clauses of the PDF Processes provide all Access Seekers with non-discriminatory access to information about a new Product Idea.

Section 152CJH of the CCA requires the ACCC, as soon as practicable after the commencement of the section, to publish on its website explanatory material relating to the non-discrimination provisions. On 19 April 2012, the ACCC released its final guidelines on non-discrimination relating to the NBN and superfast broadband networks. The concept of non-discrimination in the CCA is currently largely untested and it is likely that the guidelines may need to be periodically reviewed and refined to reflect circumstances that may arise.

Relevantly for the SAU, the Explanatory Memorandum to the NBN Access Bill states that the ACCC would refer to its explanatory material when assessing an SAU.[56]

[56] Revised Explanatory Memorandum to the National Broadband Network Companies Bill 2010 Telecommunications Legislation Amendment (National Broadband Network Measures – Access Arrangements Bill 2011, p. 148.

Part B – SAU Content

4 Design of the SAU

Key points

- Based on feedback from both Access Seekers and the ACCC on the December 2011 SAU, and consistent with the objectives of regulatory certainty and UNWP, the high level design of the SAU includes:
  - a 30 year term (covering the period to 30 June 2040) with a modular approach to SAU commitments;
  - an integrated approach to regulatory oversight (Module 1);
  - greater emphasis on incentives (including incentive mechanisms for efficient expenditure in Module 2);
  - Reference Offer commitments;
  - both individual and broad pricing commitments;
  - commitments to align the SFAAs with the SAU at all times;
  - declaration of both the NBN Access Service and the Ancillary Services, with terms and conditions of Facilities Access set out in the SAU in connection with the satisfaction of NBN Co's interconnection obligations;
  - service level commitments;
  - clear drafting of the non-price terms and conditions on a stand-alone basis, which makes explicit the scope of the subject matter addressed by the SAU and therefore also makes explicit the scope of the subject matter that can be addressed by regulatory recourse;
  - a range of reviews to be conducted prior to July 2018; and
  - an enhanced compliance regime, with commitments to provide the ACCC with comprehensive regulatory information relating to compliance with the SAU.
- The 30 year term, in combination with the modular structure, balances NBN Co's requirement for certainty on long-term cost recovery with Access Seekers' and End Users' requirements for regulatory arrangements that can adapt and remain relevant over time, including by providing a well defined role for the ACCC.

- The implementation of the modular approach under Part XIC of the CCA will require periodic variations to be lodged by NBN Co, with the ACCC's assessments of those variations being subject to any fixed principles terms and conditions accepted as part of the SAU at the outset.
- Structurally, the SAU consists of a main body (Module 0) that applies for the entire SAU term and 17 schedules that apply for differing periods – Module 1 comprises 11 schedules and applies for the Initial Regulatory Period of approximately 10 years, and Module 2 comprises 6 schedules and applies for the Subsequent Regulatory Period of approximately 20 years.

4.1 Key SAU Features

In designing the SAU (or in effect redesigning the December 2011 SAU), NBN Co has had particular regard to the feedback from both Access Seekers and the ACCC and what this implies about how the SAU should seek to achieve the objectives of providing: an appropriate degree of regulatory certainty to Access Seekers, their End Users and NBN Co; and the long-term framework reasonably necessary to achieve UNWP.

NBN Co has also had particular regard to the approach taken by the ACCC in key regulatory decisions on other matters related to NBN Co. For example, the ACCC has recently acknowledged the pricing and expenditure efficiency incentives that exist in NBN Co's context:

> *Amongst other things, the constraint of long-term price controls (including for basic services) in the context of a significant up-front capital commitment mean that NBN Co will only be able to fully recover the costs of its investment if, over time, users demand and migrate to higher speed services with greater data usage. If such demand does not eventuate, then NBN Co will incur a loss. This creates incentives for NBN Co to keep costs to efficient levels and to encourage take-up of higher speed services and greater usage. NBN Co's proposed pricing structures, particularly for data throughput charges, should also provide incentives for NBN Co to continuously upgrade the network to meet developing demand for those services.*[57]

NBN Co recognises that there are potentially many different ways to achieve the same objectives, but there is ultimately a need to focus on a particular design that addresses the most significant concerns and, moreover, only those concerns that are of substance in NBN Co's context. As observed by Ordover and Shampine in their report on the SAU:

[57] ACCC, Applications for Authorisation lodged by NBN Co Limited in respect of provisions of the HFC Subscriber Agreement entered into with Singtel Optus Pty Ltd and other Optus entities, 19 July 2012, p.iv.

> *It is important to note at the outset that the economics of regulation raise a host of very complex issues. Indeed, there is rarely a single "best" approach to attaining the regulatory objectives, such as ensuring short-term and long-term economic efficiency, while satisfying a potentially wide range of other public policy constraints that may be relevant. Different regulatory strategies have different strengths and weaknesses. Consequently, it is common for the regulator to adopt regulatory policies that have desirable properties in respect of the particular policy issues of most concern. In this report, we discuss the issues that have been identified to us as being of paramount concern and how appropriate the various measures in the SAU are to addressing those concerns. We find that the measures in the SAU are reasonable and appropriate to the concerns identified.* [58]
>
> ...
>
> *It is also important to note that because NBN Co is a wholesale only entity prohibited from offering retail services or acquiring an interest in firms offering retail services, many of the most vexing concerns that often arise in designing and policing a regulatory scheme for an access provider do not apply. A vertically integrated access provider which also provides retail services may have an incentive and ability to discriminate in favor of its own retail services. However, structural separation of the sort implemented in Australia with respect to NBN Co should ensure that all retail customers have equal access to the network, which has no incentive to favor one over another. In this situation, as we discuss further below, NBN Co has incentives to ensure its retail customers are successful, as that will increase demand for NBN Co's own services and the concomitant revenue flow.* [59]

At a high level, this focused approach has led to NBN Co designing the SAU as a bespoke implementation of a number of well established regulatory principles, in a manner that reflects the particular circumstances of NBN Co. As such, the design involves:

- a 30 year term with a modular approach to SAU commitments (the arrangements for 3 to 5 yearly updating after the NBN is rolled out are based on the standard utility regulation approaches applicable to electricity and gas networks in Australia);
- an integrated approach to regulatory oversight;
- greater emphasis on incentives (the SAU is consistent with Australian utility regulation in taking, wherever possible, an incentive-based rather than a compliance-based approach in order to encouraging appropriate behaviour);
- Reference Offer commitments (the concept for such offers is based on the requirements of the National Gas Rules);
- both individual and broad pricing commitments (layering of pricing commitments is common in network regulation, and the approach in the SAU is similar to that applying to electricity distribution under the National Electricity Rules)

[58] Expert Report of Janusz A. Ordover and Allan L. Shampine, September 24 2012, paragraph 21.
[59] Ibid, paragraph 22.

- commitments on the alignment between the SAU and the SFAAs; and
- a range of other key features (including a broader service description).

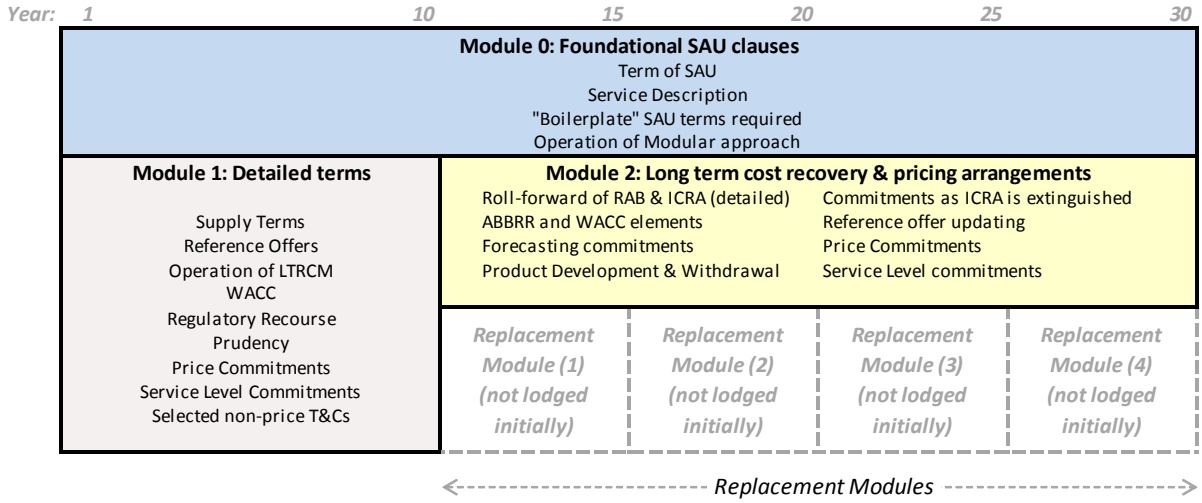
These are discussed at a high level below, and in more detail in subsequent sections.

4.1.1 30 year term with a modular approach to SAU commitments

The SAU covers the 30 years of NBN Co's Corporate Plan to June 2040 (referred to throughout this submission as a '30 year term'), but would in effect be comprised of four types of modules each of which operates for a different period of time over those 30 years.

The key reason for adopting such a long overall term for the SAU is to provide certainty in regard to the long term cost recovery framework for NBN Co, which needs to account appropriately for the unrecovered costs that will accumulate over the rollout and early years of operation of the network. The choice of the 30 year term and modular structure is discussed in more detail in section 4.3 and its implementation under Part XIC of the CCA in section 4.4.

Figure 4.1: Modular structure of the SAU



As depicted in Figure 4.1 above, the modular structure of the SAU comprises the following.

- Module 0 contains foundational terms and conditions (including the service description, details of the operation of the modular approach, boilerplate legal terms, and the fixed principles term and condition) that would apply for the full 30 years);
- Module 1 contains the more detailed terms relating to prudency of expenditure, non-price terms, service levels, WACC, operation of the LTRCM, Reference Offers and Non-Reference Offers, and will expire on 30 June 2023 (a period of around 10 years from when the SAU may be approved by the ACCC).
- Module 2 contains long term arrangements that apply once Module 1 ceases, and covers the roll forward of the regulatory asset base (RAB) and initial losses, as well as

commitments in relation to pricing, service levels, product development and withdrawal and the use of forecasts in relation to expenditure, revenue and demand in the LTRCM. In general these are specified as principles rather than detailed operating terms.

- Replacement Modules are not included in the SAU as lodged, but they will be the means by which NBN Co maintains regulatory certainty after Module 1 expires. To this end, NBN Co would need to submit periodic variations to the SAU every 3 to 5 years to insert a Replacement Module in the SAU to complete the detailed terms to apply for the following Regulatory Cycle. Such terms will include forecasts of expenditure, revenue and demand, WACC, Reference Offer composition, and service levels and rebates, and may (if considered appropriate at the time) include non-price terms and conditions. The length of the Regulatory Cycle is nominated by NBN Co (as either 3, 4 or 5 years), and this provides some limited flexibility to respond to the level of uncertainty existing at the time a Replacement Module Application is being developed.
- Every term and condition in Module 0 and Module 2 (collectively) is a fixed principles term and condition – this will provide greater certainty for NBN Co and Access Seekers and streamline the ACCC's periodic assessment of the Replacement Modules as SAU variations over the subsequent 20 years of the SAU.

The variation to insert a new Replacement Module would be assessed by the ACCC for reasonableness in the context of the other commitments made in the SAU and subject to the fixed principles term and condition and would either be accepted or rejected. If accepted, the new Replacement Module would then operate in conjunction with Modules 0 and 2 to provide the complete set of SAU commitments for the next 3 to 5 years.

Importantly, the modular design of the SAU would allow the ACCC to make effective ADs on some or all of those matters that would have been covered by a Replacement Module in the event that the proposed variation is rejected and the existing detailed terms have expired. The SAU provides certainty in relation to what arrangements will apply in such circumstances (discussed in more detail in section 4.4), which is important in ensuring that there are always relevant Reference Offers and service levels available and that the LTRCM operates continuously over time (and on a full Financial Year basis). This structure provides a strong incentive for NBN Co to submit variations that are balanced and reasonable.

The modular structure is designed to strike a better balance between providing certainty on long term cost recovery arrangements and some flexibility for the other regulatory terms and conditions to evolve as required over time (including an appropriate role for the ACCC in that process, by reviewing and approving those changed arrangements). The structure allows for inclusion of higher-level principles that, although intended to operate for long periods of time, can readily be assessed by the ACCC as part of the SAU that is initially lodged. Neither the ACCC nor NBN Co need to commit now to the specifics of how those principles would be implemented, say, 20 years in the future; this would be a matter to be considered much closer to that future time.

4.1.2 Integrated approach to regulatory oversight

Module 1 of the SAU sets out a regulatory recourse mechanism that makes commitments as to how NBN Co will give effect to regulatory decisions made by the ACCC (ADs, BROCs or Facilities Access Decisions) in the SFAAs.

NBN Co is proposing that the terms of any such decision, to the extent not inconsistent with the terms of the SAU and otherwise in accordance with Part XIC of the CCA, would be given effect to in the SFAAs when the terms of those SFAAs expire. The SAU also commits that NBN Co will offer co-terminus SFAAs with a term of no longer than 2 years, to ensure that all Access Seekers are able to avail themselves of regulated terms set by the ACCC at the same time, and within a reasonable time frame.

The SAU will commit NBN Co to conducting a 'Multilateral SFAA Forum' at regular intervals, to provide a mechanism for industry to raise issues regarding NBN Co's SFAAs in a structured and transparent manner, for the ongoing refinement and evolution of the SFAAs.

Should Access Seekers be dissatisfied with the outcomes of the Multilateral SFAA Forum and/or negotiations with NBN Co, they would have the ability to seek recourse from the ACCC at any time by requesting the ACCC to make an AD, BROC or Facilities Access Decision in relation to terms and conditions offered in the SFAAs. Any AD, BROC or Facilities Access Decision made by the ACCC will only have effect to the extent that it is not inconsistent with the SAU – NBN Co therefore recognises that it is important for the SAU to be drafted in such a way that it is explicit as to which terms would allow for an effective decision-making role to be undertaken by the ACCC.

This approach, while preserving the primacy of commercial negotiations and agreements and the role of an approved SAU, is intended to address the ACCC's concern that Access Seekers must have an opportunity for recourse to a regulated outcome in the absence of genuine agreement on terms.

Unlike Module 1, Module 2 does not include a regulatory recourse mechanism. Given the bespoke nature of the regulatory oversight arrangements, NBN Co considers that it is in the interest of all stakeholders to monitor how well the arrangements operate over Module 1, including any refinements made as a result of review half way through Module 1. This will provide stakeholders with the benefit of 'lived experience' of the effectiveness of the Module 1 arrangements to inform any mechanism that may be required over the latter 20 years of the SAU.

In addition to the mechanisms described above, Module 1 also provides for additional reporting commitments via an 'Enhanced Compliance Regime' and for a range of reviews to be undertaken in 2017-18 (including in relation to regulatory recourse arrangements). Both of these are discussed further below, in section 4.1.7.

4.1.3 Emphasis on incentives

As a package, the SAU is designed such that NBN Co will have an appropriate balance of incentives that will be effective over the term of the SAU, subject to some periodic review by the ACCC of a number of key matters. Some incentives are created by specific aspects of the SAU while others are created by NBN Co's structure and context.

As discussed above, the ACCC has recently acknowledged the significance of the interaction between these two groups of incentives in its decision to authorise provisions of the Optus Agreement[60].

The SAU variously reinforces and relies on the pre-existing incentives to ensure that NBN Co has appropriate overall incentives in regard to:

- investment;
- expenditure efficiency;
- pricing (initial and ongoing);
- product development and withdrawal;
- service quality; and
- engagement with Access Seekers on non-price terms.

For example, in relation to expenditure efficiency, the SAU includes a similar approach to prudency over the first 10 years (Module 1) as in the December 2011 SAU, but subject to the Enhanced Compliance Regime discussed above. This recognises that NBN Co will have considerable external governance and oversight arrangements in place during this period. It also recognises that NBN Co will face significant ongoing risk as to its long-term revenue sufficiency throughout the network rollout period, and it will therefore be commercially rational for NBN Co to only incur expenditure in a prudent and efficient manner.

Beyond the 10 year timeframe, the SAU will commit NBN Co to implementing a conventional utility regulation approach based around the periodic provision of expenditure forecasts to the ACCC. These forecasts would be assessed as part of the overall reasonableness of the variations that NBN Co would submit every 3 to 5 years. Once set, NBN Co would then have financial incentives to beat these forecasts, while meeting its service level commitments.

4.1.4 Reference Offer commitments

The SAU includes commitments to supply certain Reference Offers. The intent of these offers is to provide greater stability and predictability for Access Seekers in regard to the NBN Co products that will be of most significance to servicing the needs of End Users over a given period. In addition to a defined product scope and pricing commitments, a key feature

[60] ACCC, Applications for Authorisation lodged by NBN Co Limited in respect of provisions of the HFC Subscriber Agreement entered into with Singtel Optus Pty Ltd and other Optus entities, 19 July 2012, p.iv.

of the Reference Offers is that they cannot be withdrawn by NBN Co for the term of the offer (the Initial Regulatory Period in Module 1 and subsequent 3 to 5 year periods in Module 2).

Module 1 of the SAU specifies a range of Reference Offers that will apply for the first 10 years of the SAU. These include Basic Access Offers (defined separately for the fibre, wireless and satellite networks), an Enhanced Access Offer (fibre network only) and a Standard Business Offer (fibre network only), and those NBN Access Services, Ancillary Services and types of Facilities Access necessary for an Access Seeker to supply End Users with end-to-end services based on those offers.

Module 2 of the SAU includes principles for the updating the product scope of the Reference Offers on a periodic 3 to 5 year basis.

In respect of the price elements for all Reference Offer services, these are set out in fixed nominal terms until 30 June 2017 in the SAU, and thereafter are subject to an individual price increase limit of CPI-1.5%. In light of feedback from Access Seekers, NBN Co has also included in Module 1 a statement of intent regarding future pricing of the CVC TC-4 service.

4.1.5 Individual and broad pricing commitments

NBN Co will have discretion to set initial prices for new products and ongoing prices for existing products (with no conferral of powers on the ACCC to determine such prices), subject to the combined effect of the:

- individual pricing commitments:
  - the Reference Offers, as described above;
  - the initial prices for a broad range of Non-Reference Offers and Other Charges as set out in Module 1 (these include initial prices for the multicast service and a range of business grade services);
  - the individual price increase limit for Non-Reference Offer and Other Charges, which is CPI-1.5% (with no ability for NBN Co to request a price increase above that limit except by lodging an SAU variation); and
- broad pricing commitments that:
  - in Module 1 are applied as an annual revenue constraint (via the Long Term Revenue Constraint Methodology (LTRCM)) in the event that the initial losses are recovered during the 10 year term of that module;
  - in Module 2 are applied in a similar manner to those in Module 1, but with the Annual Building Block Revenue Requirement (ABBRR) being determined with regard to forecast opex and capex (as described above), and the Initial Cost Recovery Account (ICRA) being rolled forward using a forecast of ABBRR and revenue as set out in each 3 to 5 year Replacement Module (reinforcing the

incentive for NBN Co to price in a market responsive manner over time).

4.1.6 Alignment between an accepted SAU and the SFAAs

NBN Co has consistently expressed its intention to lodge an SAU, and to set out terms and conditions of access using both an SAU (if accepted) and SFAAs as permitted by the access regime in Part XIC of the CCA. This approach is explicitly contemplated in the Explanatory Memorandum to the NBN Access Bill which states that SFAAs may supplement the terms and conditions of services set out in an SAU.[61] NBN Co intends for terms and conditions of access to be governed by an SAU (if accepted) and SFAAs (AAs once signed by Access Seekers). The SAU is not intended as an offer document in and of itself due to the SAU not containing the complete set of terms and conditions required to supply and receive NBN Co's services as well as the commitments in the SAU only being enforceable against NBN Co and not Access Seekers.

It is likely that certain terms and conditions of supply (e.g. those relating to non-price terms and conditions) will continue to be refined over time, and this is particularly the case during the rollout period with initial services and systems being developed. As such, it is appropriate to include some terms and conditions in the SFAAs (but not in the SAU) to preserve the flexibility to update them without the need for an SAU variation. Refinement to non-price terms and conditions set out only in the SFAAs will be subject to the regulatory recourse arrangements in Module 1 (provided not inconsistent with the SAU).

NBN Co intends for the SAU and SFAAs to operate as complementary and consistent documents and they have been drafted to be so, and an alignment clause will ensure ongoing consistency (clause 6 of the SAU). The SAU contemplates that terms and conditions relating to supply may be set out in a combination of the SAU and SFAAs and the ACCC regulatory decisions (ADs/BROCS or Facilities Access Decisions), with AAs being the instrument under which NBN Co will provide the supply of the NBN Access Service, the Ancillary Services and the Facilities Access Service.

This approach aligns with the general practice in the Australian telecommunications industry, which is to receive supply of services pursuant to a contractual agreement. This approach is appropriate as contractual agreements provide certainty and protection to both NBN Co and Access Seekers in relation to their rights and obligations.

NBN Co acknowledges previous feedback from both industry and the ACCC in relation to the interaction between the various documents, including the potential for misalignment and NBN Co's ability to unilaterally include other terms in the SFAAs. Taking these concerns into account, NBN Co has ensured that the documents will operate in a complementary and consistent manner by embedding the following commitments in the SAU.

- For the duration of the SAU term, the SFAAs will not be inconsistent with the SAU, and if any such misalignment occurs NBN Co is under an obligation to amend the

[61] Explanatory Memorandum to the National Broadband Network Companies Bill 2010 Telecommunications Legislation Amendment (National Broadband Network Measures – Access Arrangements) Bill 2010, p.135.

SFAAs to ensure consistency. This is particularly important in light of the modular nature of the SAU, which means that the operative terms and conditions are likely to vary over time.

- For the Initial Regulatory Period, the Regulatory Recourse mechanism will ensure that any terms and conditions not addressed by the SAU and included in the SFAAs (for example additional non-price terms and conditions) will be subject to the regulatory recourse mechanism in Schedule 1B of the SAU. NBN Co has drafted the SAU so as to ensure that it is explicit as to which terms would allow for an effective decision-making role to be undertaken by the ACCC.

NBN Co considers that the combined SAU and SFAAs approach is appropriate because it will make progressive refinement of a range of terms and conditions (those not specified in the SAU) much simpler, which will be particularly important during the rollout period with initial services and systems still being developed. Incorporating all terms and conditions in the SAU would be relatively inflexible by comparison.

4.1.7 Other key features

The SAU includes a number of other key features relative to the December 2011 SAU.

- Broader service description –the declared service is expanded to include the Ancillary Services in addition to the NBN Access Service.

- Service levels – Module 1 includes the service levels and rebates that have been developed by NBN Co via the contract development process conducted with industry, and includes 'roadmap' elements for ongoing development, as NBN Co's processes and systems become more mature. The service levels will be subject to a review in 2017-18 in which the ACCC has an oversight role. In Module 2, NBN Co commits to including a service levels and rebates proposal in its Replacement Module Applications, which must satisfy a range of principles (also set out in Module 2), which include that service levels must at least be maintained from one Regulatory Cycle to the next.

- A key set of non-price terms and conditions that apply for the first 10 years – the SAU includes a key set of non-price terms and conditions that apply only for the term of Module 1 (rather than the full 30 years of the SAU) and are subject to a review in 2018 (as discussed below). These terms and conditions have been developed following extensive consultation with NBN Co's Customers during the CDP. These include specific commitments by NBN Co to all Access Seekers (e.g. providing information on rollout progress) and detailed stand-alone terms and conditions (e.g terms and conditions for dispute management), which NBN Co commits to incorporating into any SFAAs and are drafted without reference to other documents not part of the SAU. The more limited scope of the non-price terms and conditions, ensures that there is a clear demarcation between SAU terms and those terms in the SFAAs on which the ACCC may make an AD, BROC or Facilities Access Decision, and strikes an appropriate balance between certainty and flexibility by only specifying

the non-price terms and conditions for the term of Module 1.

- Reviews – no later than 6 months prior to 1 July 2018, NBN Co will undertake reviews of a number of areas in Module 1, including multilateral processes[62], non-price terms and conditions, service levels, the regulatory recourse mechanism and the enhanced compliance regime (regulatory information). The ACCC has a role in reviewing NBN Co's proposals in these areas, and will in certain circumstances be able to make its own decision on what arrangements should apply. The modular nature of the proposed SAU, which will involve variations being submitted and assessed by the ACCC every 3-5 years from year 10, can be used in the future to ensure that the detailed terms and conditions of the SAU stay relevant after the end of Module 1.

- An 'Enhanced Compliance Regime' with commitments (in Module 1) to provide the ACCC with comprehensive regulation information relating to compliance with the SAU. Module 1 of the SAU confers powers on the ACCC in relation to seeking additional information or requesting further explanation regarding the information that has already been provided to it.

4.2 Key benefits of revised design

The revised design of the SAU has a number of key benefits.

- A broader and clearer role for the ACCC in the evolution of the access terms over time, which should also make the ACCC's assessment of the SAU more straightforward – in Module 1, the SAU provides a clear demarcation between SAU terms and those terms in the SFAAs that are potentially subject to regulatory recourse. In Module 2, the SAU relies heavily on high level principles, and the ACCC has a role in reviewing NBN Co's proposed implementation of those principles, as contained in its Replacement Module Applications (lodged every 3 to 5 years). This approach means that there is no need to commit now to how those principles will be implemented in the future, but the SAU includes principles that can be readily assessed by the ACCC at this point in time; and

- A greater role for incentives – these should operate together so that over the 30 years of the SAU it is commercially rational for NBN Co to make prudent and efficient expenditure decisions (subject to meeting service level commitments) and to make efficient pricing, product development and product withdrawal decisions (subject to meeting a range of short term and long term price control arrangements and product development and withdrawal commitments).

These benefits are supported by Ordover and Shampine's high level conclusion:

> *The SAU provides for commonly observed, reasonable and effective methods of achieving the goals set forth by the Australian Government. In particular, the*

[62] Multilateral processes include the operations of the customer engagement process, PDF Processes, Dispute Management Rules and the Multilateral SFAA Forum.

> *LTRCM's assurance of a specified rate of return is very effective at providing incentives for durable sunk investment, such as the $37.4 billion required to build the National Broadband Network. The Reference and Non-Reference Offers combined with SLAs provide assurance to potential customers that will encourage take-up and investment, and the modular nature of the SAU allows adaptation to changing circumstances expected in a dynamic industry such as telecommunications.* [63]

4.3 Choice of 30 year term and modular structure

The 30 year term, in combination with the modular structure, balances NBN Co's requirement for certainty on long-term cost recovery with the need to undertake regular reviews of the detailed terms of access, to ensure that they can remain appropriate as the circumstances of NBN Co and Access Seekers evolve.

The following sections address the rationale for the 30 year term and its alignment with NBN Co's commercial context, and the views of a number of experts on the combined term and modular structure.

4.3.1 Rationale for 30 year term

In compliance with subsection 152CBA(6) of the CCA, clause 3.2 of the SAU specifies that the expiry date of the SAU is 30 June 2040.

As explained in the following section, NBN Co's commercial context (marked by long-lived assets, a long payback period for the initial investment, and long-term commercial arrangements) necessitates that the SAU be specified for a long term, and the specific expiry date of 30 June 2040 was selected because it aligns with the 30 year Corporate Plan published by NBN Co in December 2010 (and in this regard, it should be noted that the same end date is maintained in NBN Co's 2012-15 Corporate Plan).

Given NBN Co's commercial context, the SAU is intended to deliver an appropriate degree of regulatory certainty and stability to Access Seekers, their End Users and NBN Co by committing to key principles, parameters, methodologies and processes associated with delivering services over the 30 year term. This will encourage efficient use and investment in the NBN by enabling Access Seekers to develop and implement medium to long term business models that are predicated on supplying End Users via NBN based services. Such business models are also the precursor to efficient use of the NBN and will often provide the rationale for further investment by both NBN Co and Access Seekers in the development and application of new technology.

The potential for and desirability of long term SAUs are contemplated by the current regulatory regime. The Explanatory Memorandum to the *Telecommunications Competition Bill 2002* (which introduced the concept of SAUs) notes:

> *Unlike ordinary access undertakings, special access undertakings do not have a maximum time limit. This is intended to provide further certainty for investors and an*

[63] Expert Report of Janusz A. Ordover and Allan L. Shampine, September 24 2012, paragraph 51.

> *additional incentive for access providers to submit a special access undertaking as special access undertakings have the benefit of providing industry-wide access to the service on terms that are agreeable to the access provider and regulator.* [64]

The ACCC acknowledge this understanding in the FANOC Decision by stating:

> *...allowing SAUs with a longer term than that generally allowed for ordinary access undertakings (three years) is consistent with the objective of providing greater regulatory certainty for investors in new services.* [65]

Clause 7.3 of the SAU also permits NBN Co to request an extension of the 30 year term, at any time within 12 months of the expiry of the SAU. In determining whether to approve the extension, the ACCC must be satisfied that the extension satisfies the criteria set out in sections 152CBD(2)(b) and 152CBD(2)(ca) of the CCA, subject to the same matters referred to in section 152CBD(5A) of the CCA as if those matters applied to the extension. These criteria are discussed in detail in section 3.

4.3.2 30 years aligned with NBN Co's commercial context

There are three aspects of NBN Co's commercial context that are particularly relevant to the choice of a 30 year term for the SAU: the long-lived nature of the assets; the expected payback period for the initial investment and ongoing prudently incurred costs; and the long term commercial arrangements that underpin the construction of the NBN and the ongoing provision of services.

- Long lived nature of the assets – While electronic equipment will have a relatively short economic life (i.e. generally less than 10 years) due to obsolescence, it is anticipated (and reflected in NBN Co's statutory accounts depreciation profiles) that passive network assets - cables, ducts and trenches – will have economic lives of up to 30 years. Passive network and civil assets will make up a significant proportion of the total initial network capital investment (excluding the drop and NTU).

- Long expected payback period – NBN Co's 2012-15 Corporate Plan anticipates an initial 'loss making' period of approximately 10 years (NBN Co is forecast to be EBITDA positive in 2018-19 and EBIT positive in 2019-20). These initial 'losses' will be carried forward on a capitalised basis for recovery in later years. To allow NBN Co to recover these losses at a later date, it is important for NBN Co to have certainty that the 'rules of the game' (the applicable regulatory model) will not change before NBN Co has had the opportunity to unwind these losses, and that NBN Co is not prevented from recovering accumulated losses as a consequence of the transition from one regulatory control period to the other.

- Long term commercial arrangements – the arrangements between NBN Co and Telstra provide for infrastructure payments for a period greater than the 30 year

[64] Explanatory Memorandum to the *Telecommunications Competition Bill 2002* p.59.
[65] ACCC, Assessment of FANOC's Special Access Undertaking in relation to the Broadband Access Service draft decision, December 2007, p102.

SAU period[66]. NBN Co believes that a level of regulatory certainty for a commensurate period is appropriate given the long term nature of these commitments, including incorporating these costs into the LTRCM over a 30 year period.

4.3.3 Expert opinion on 30 year term and modular structure

Both the Synergies Report and the Ordover and Shampine Report address the SAU's 30 year term and modular structure.

In regard to these aspects, as implemented in the SAU, Synergies concludes that they can reasonably be expected to deliver efficient outcomes, including because:

> *... the economic and regulatory trade-offs that predispose long-term undertakings apply in respect of NBN Co. Specifically:*
>
> - *the requirement to allow a sufficient scope for infrastructure providers to recover their costs, particularly in environments where initial uptake (or the value of initially provided services) is low;*
> - *longer terms are desirable for new infrastructure projects in which the terms of the undertaking are a key consideration for prospective investors; and*
> - *there is scope within the SAU to allow changes to the terms and conditions of access in the event that circumstances change significantly.* [67]

Ordover and Shampine reach essentially the same conclusion in their report, observing as follows:

> *The structure of the SAU must balance the need to provide certainty for investing significant capital in long-lived infrastructure with the fact that telecommunications is a dynamic and rapidly changing industry, making it difficult to specify contractual and other terms far in advance. ... it is appropriate for the SAU to specify a longer period during which explicit regulations are in place assuring recovery of NBN Co's initial investment. By the same token, once the investment has been earned back, the ICRA will have served its purpose and it is appropriate to switch the regulatory regime to a "building block" approach in which the revenue cap specified by the ABBRR becomes binding.* [68]
>
> *...*
>
> *The same uncertainty referred to above raises concerns about specifying detailed terms far in advance. There is a risk that in the future such terms will be no longer relevant. The SAU addresses this risk by providing significant detail for the initial period of ten years and then setting out key principles to be implemented in a series*

[66] Telstra, Media Release, Telstra signs NBN Definitive Agreements, 23 June 2011, p.2.
[67] Synergies Economic Consulting, Advice on NBN Co Ltd's Special Access Undertaking, September 2012, paragraph 14.
[68] Expert Report of Janusz A. Ordover and Allan L. Shampine, September 24 2012, paragraph 47.

> *of three to five year regulatory cycles for the remaining twenty years. ... Together, these mechanisms are reasonable and appropriate methods for providing flexibility needed for addressing industry changes and concerns that may arise while still providing adequate assurance to investors as to their likely potential returns.* [69]

4.4 Implementation of Replacement Modules under Part XIC of the CCA

The SAU has been lodged in accordance with section 152CBA of the CCA, containing three modules (Module 0, Module 1 and Module 2). Clause 4.6 of the SAU provides that no later than 9 months prior to the expiry of Module 1, NBN Co will lodge a Replacement Module for assessment by the ACCC. NBN Co will also be required to submit a Replacement Module Application nearing the end of each subsequent Regulatory Cycle.

This process will entail NBN Co lodging a variation to the originally accepted SAU under section 152CBG of the CCA setting out the detailed terms and conditions to apply in conjunction with Modules 0 and 2 for a period of 3, 4 or 5 years.

The legislative framework relevant to the ACCC's assessment of such variations (including the interaction with fixed principles terms or conditions) is discussed in section 3.7 above.

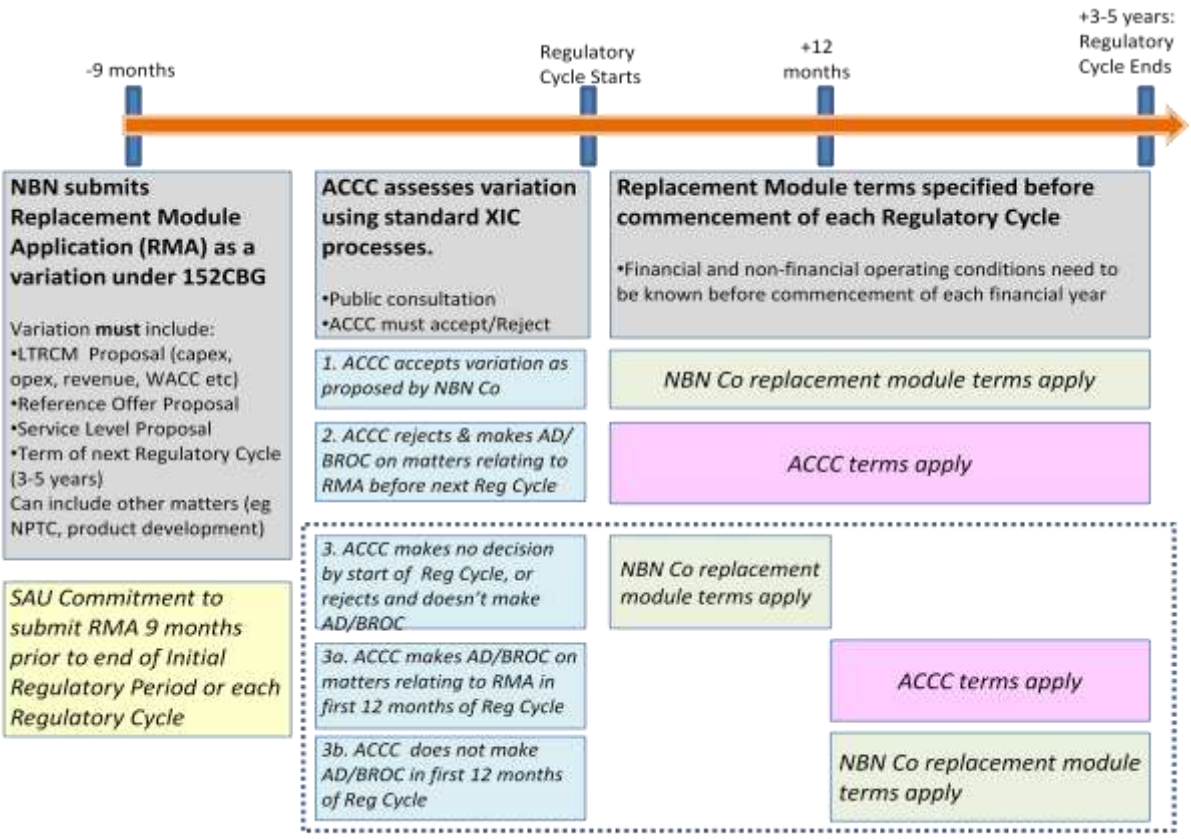
Module 0 of the SAU also addresses (as depicted in Figure 4.2 below) what arrangements will apply in the event that an accepted Replacement Module is not in place in time for the end of the existing detailed arrangements.

The approach is designed to ensure that there is always a well-defined set of relevant Reference Offers, service levels and LTRCM arrangements in place, and that these are consistent with Module 2. Furthermore, from a purely practical perspective, it simplifies the appropriate application of Module 2 by ensuring that any arrangements that come into force apply for a full financial year. Many aspects of Module 2 would be extremely difficult to express on a part year basis.

Consistent with this practical approach, the Regulatory Cycle is constrained to apply on a full financial year basis, and its length is as nominated by NBN Co in a Replacement Module Application as either 3, 4 or 5 years. This provides some limited flexibility for NBN Co to respond to the level of uncertainty existing at the time a Replacement Module Application is being developed.

[69] Ibid, paragraph 48.

Figure 4.2: Replacement module process



Note: The SAU also addresses other matters of detail including NBN Co updating the RMA, and details of what must be contained in proposals made in the RMA.

The arrangements set out in Module 0 are as follows.

- In relation to the Initial Regulatory Period, there will be an automatic 12 month extension of the term of that period provided NBN Co had complied with the commitment to lodge a Replacement Module Application not later than 9 months prior.
- In relation to the end of the Extended Initial Regulatory Period or a Regulatory Cycle, the Reference Offer Proposal, LTRCM Proposal and Service Level Proposal included in the Replacement Module Application will be deemed to apply as if accepted by the ACCC.
- In the event that the Replacement Module Application was withdrawn or rejected and NBN Co had lodged an Updated Replacement Module Application at least 20 business days prior to the end of the Extended Initial Regulatory Period or a Regulatory Cycle, then that Updated Replacement Module Application would be subject to the deeming provisions. Such a scenario could arise if, following an ACCC Draft Decision, it becomes apparent that the Replacement Module Application as

lodged will not be acceptable to the ACCC, so NBN Co has to withdraw the existing Application and lodge an updated Application.

- If the ACCC makes a relevant Access Determination or a Binding Rule of Conduct prior to the expiry of that period or cycle, then those terms may apply from the start of the new Regulatory Cycle to the extent not inconsistent with Module 2. If the ACCC makes such a Determination or Rule no more than 12 months after the relevant expiry date then the terms may apply from 1 July in the next Financial Year to the extent not inconsistent with Module 2. This maintains the Financial Year basis on which the various elements in a Replacement Module are applied.

4.5 Structure of the SAU

As noted above, the SAU as lodged consists of three modules.

- Module 0 sets out the terms of the SAU that apply until the expiry of the SAU term and comprises a main body, the Service Descriptions (Attachment A), the Facilities Access Service (Attachment B) and the Dictionary (Attachment C).
- Module 1 sets outs the detailed commitments that NBN Co makes in connection with the provision of access to the NBN Access Service and the Ancillary Services during the Initial Regulatory Period and comprises 11 schedules.
  - Schedule 1A – Implementation of NBN Access Service, Ancillary Services and the Facilities Access Service
  - Schedule 1B – Regulatory Oversight
  - Schedule 1C – Reference Offers
  - Schedule 1D – Non-Reference Offers and Other Charges
  - Schedule 1E – Regulatory Asset Base
  - Schedule 1F – Long Term Revenue Constraint Methodology
  - Schedule 1G – Regulatory Information
  - Schedule 1H – Non-Price Terms and Conditions
  - Schedule 1I – Product Development and Withdrawal
  - Schedule 1J – Service Level Commitments
  - Schedule 1K - Reviews
- Module 2 sets out long term arrangements that apply in connection with the provision of access to the NBN Access Service and the Ancillary Services during the Subsequent Regulatory Period and comprises 6 schedules.

- Schedule 2A – Implementation and Regulatory Cycle
- Schedule 2B – Reference Offers
- Schedule 2C – Pricing Commitments
- Schedule 2D – Long Term Revenue Constraint Methodology and Regulated Asset Base
- Schedule 2E – Product Development and Withdrawal
- Schedule 2F – Service Level Commitments

The main body and the schedules in operation at a particular time cannot and do not operate in isolation from each other. Instead, commitments made in one schedule interact with and support commitments in others, even where there is no explicit linkage in the SAU drafting.

5 Declared services and supply-related terms and conditions

Key points

- The SAU is given in relation to the NBN Access Service and the Ancillary Services, which will be the services declared for the purpose of subsection 152AL(8E) of the CCA.
- Terms and conditions relating to the Facilities Access Service are set out in the SAU in connection with the satisfaction of NBN Co's interconnection obligations in relation to the NBN Access Service and Ancillary Services.
- NBN Co has developed the NBN Access Service to give effect to the key directions from the Government, in its role as shareholder, to:
  - comply with the coverage obligations for provision of fibre to the premises technology to Australian homes, schools and businesses with downlink speeds up to 100Mbps, with the remaining premises to be served by a combination of next generation fixed wireless and satellite technologies with peak speeds of at least 12Mbps; and
  - supply open and non-discriminatory access to wholesale services, at the lowest levels in the network stack necessary to promote efficient and effective retail level competition, via Layer 2 wholesale bitstream services.
- NBN Co's approach to defining the declared services is consistent with approaches endorsed by the ACCC, overseas regulators and industry and facilitates NBN Co's overall SAU objective of setting up a long term framework to achieve UNWP of eligible services supplied by NBN Co to Customers.
- The NBN Access Service will be implemented initially through the supply of Product Components (AVC, CVC, UNI and NNI), which (due to the commitment to supply the Reference Offers) will not be able to be withdrawn by NBN Co for the 30 year term of the SAU.
- The Ancillary Services will be implemented initially through the NBN Co Platform Interfacing Service and Sandpit. These services facilitate the supply of, and are necessary for Access Seekers to acquire, the NBN Access Service on the NBN Co Network.
- The Facilities Access Service will be implemented initially through Cross-Connect, NBN Co Co-Location, and NBN Co ODF Termination but will also include other Facilities supplied by NBN Co that are necessary to facilitate entry to buildings (the POIs being built by NBN Co) such as cable trays or building duct access.

- Module 1 includes the service levels and rebates that have been developed by NBN Co via the contract development process conducted with industry, and include 'roadmap' elements for ongoing development, as NBN Co's processes and systems become more mature. The service levels will be subject to a review in 2017-18 in which the ACCC has an oversight role. In Module 2, NBN Co commits to including a service levels and rebates proposal in its Replacement Module Applications, which must satisfy a range of principles (also set out in Module 2), including that service levels must at least be maintained from one Regulatory Cycle to the next.
- The SAU sets out a transparent process for future product development and withdrawal through the creation of a PDF that will provide for the development of NBN Co and Customer product ideas in a consultative manner that is compliant with NBN Co's non-discrimination obligations.

5.1 Scope of services covered by the SAU

The SAU is given in connection with the provision of access to the NBN Access Service and the Ancillary Services. If the SAU comes into operation, the NBN Access Service and Ancillary Services will become declared services for the purposes of section 152AL(8E) of the CCA, with NBN Co being required to comply with the Category B SAOs in respect of these declared services. Attachment A of the SAU sets out the service descriptions for the NBN Access Service and the Ancillary Services which will apply until the expiry of the SAU.

Terms and conditions relating to the Facilities Access Service are set out in the SAU in connection with the satisfaction of NBN Co's interconnection obligations in relation to the NBN Access Service and Ancillary Services. Attachment B of the SAU sets out the details of the Facilities Access Service in connection with the satisfaction of NBN Co's interconnection obligations under the CCA in relation to the NBN Access Service and Ancillary Services.

Module 1 sets out in detail the implementation of the NBN Access Service, Ancillary Services and Facilities Access Service. The details relating to the implementation of these services, including product development work to date, have been arrived at in close consultation and engagement with Access Seekers, and this will continue via the PDF process in Schedule 1I of the SAU.

Module 2 makes higher level commitments in relation to these services without setting out the specifics of how these services will be implemented in years 11 to 30. It is intended that Replacement Modules will set out the details of implementation, applicable at that time, at a similar level to Module 1.

5.2 NBN Access Service

5.2.1 Development of the NBN Access Service

The NBN Access Service has been developed in the context of key directions provided by Government, in its role as shareholder, to:

- comply with the coverage obligations for provision of fibre to the premises technology to Australian homes, schools and businesses with downlink speeds up to 100Mbps, with the remaining premises to be served by a combination of next generation fixed wireless and satellite technologies with peak speeds of at least 12Mbps [70] and
- supply open and equivalent access to wholesale services, at the lowest levels in the network stack necessary to promote efficient and effective retail level competition, via Layer 2 bitstream services. [71]

In adopting the recommendation in the NBN Implementation Study that active services at Layer 2 provide the best means of levelling the retail playing field in the short term, the Government enacted provisions in the *Telecommunications Act 1997* setting out an obligation on owners of certain telecommunications networks that are capable of supplying superfast carriage services to supply a Layer 2 bitstream service.[72]

The Revised Explanatory Memorandum to the NBN Access Bill noted that these measures were designed to ensure that other providers of superfast broadband networks in Australia can provide outcomes to consumers that are similar to those available on the NBN and ensure that NBN Co operates on a more level regulatory playing field to assist it to achieve the range of objectives for which it has been established.[73]

The CCA also requires the ACCC to declare a Layer 2 bitstream service as soon as practicable after the commencement of the relevant subsection.[74] On 22 February 2012, the ACCC made a decision to declare a layer 2 bitstream service, to be called the Local Bitstream Access

[70] Statement of Expectations from shareholder Ministers, 17 December 2010, p.1
[71] Statement of Expectations from shareholder Ministers, 17 December 2010, p.2
[72] Part 7, *Telecommunications Act 1997*
[73] Revised Explanatory Memorandum to the National Broadband Network Companies Bill 2010 Telecommunications Legislation Amendment (National Broadband Network Measures – Access Arrangements Bill 2011 p.14
[74] Subsections 152AL(3C) and (3D) of the CCA will require (upon their commencement) the ACCC to declare a Layer 2 bitstream service applying only to services supplied using a designed superfast telecommunications network. Under section 152AGA of the CCA (yet to commence), a designated superfast telecommunications network includes a telecommunications network (except the NBN) used, or proposed to be used, to supply one or more Layer 2 bitstream services, and used, or proposed to be used to supply a superfast carriage service, to residential or small business customers, provided that the network came into existence after 1 January 2011 or is upgraded after that time and as a result becomes capable of supplying a superfast carriage service.

Service (LBAS).[75] NBN Co has taken into account the service description of the LBAS in formulating the service description for the NBN Access Service.

5.2.2 NBN Access Service is a Layer 2 wholesale bitstream service

NBN Co intends to offer wholesale access to the NBN by means of a Layer 2 wholesale bitstream service supplied over NBN Co's fibre, wireless and satellite networks (NBN Access Service). This section addresses some of the benefits and features of the service description that NBN Co has adopted in addressing the direction from Government.

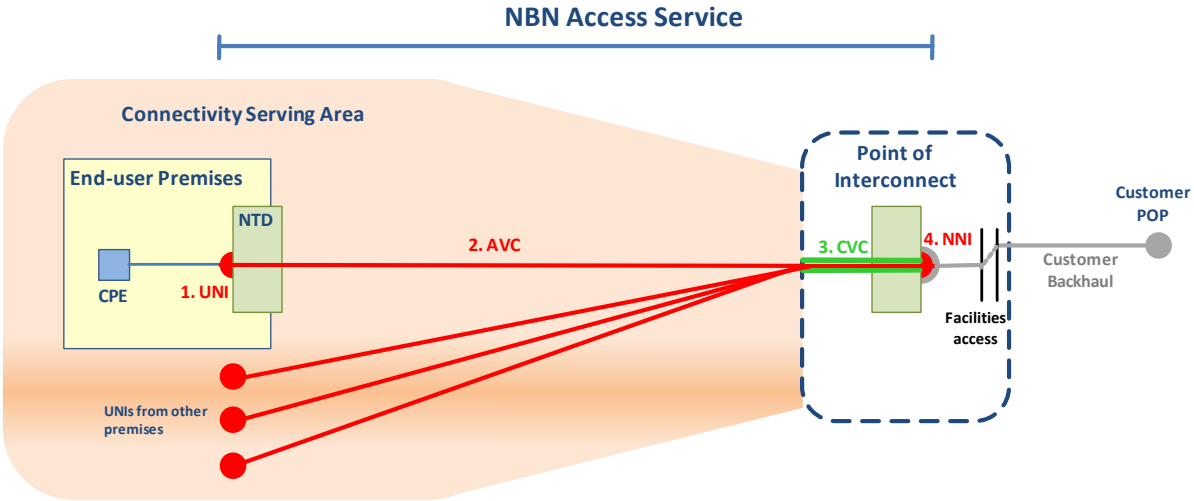
The NBN Access Service represents an 'end to end' service on the NBN Co network and provides the basis for an Access Seeker to supply Carriage Services or Content Services, such as voice telephony, high-speed broadband services, IPTV services and a range of other next generation services (e.g. e-health and telemedicine, high quality video conferencing, etc).

The NBN Access Service will be implemented initially through four Product Components, which are the same across each NBN access network (except for some minor differences due to the different technical capabilities of each network). The four Product Components are:

- User Network Interface (UNI);
- Access Virtual Circuit (AVC);
- Connectivity Virtual Circuit (CVC); and
- Network-Network Interface (NNI).

Figure 5.1 presents a simplified schematic description of the NBN Access Service and its delivery via the four Product Components.

Figure 5.1: Schematic description of NBN Access Service and Product Components



[75] On 6 July 2012, the ACCC made an interim access determination in relation to the LBAS. The public inquiry for making a final determination for the LBAS has been extended til February 2013.

5.2.3 Functional description

The NBN Access Service is described functionally in Attachment A of the SAU as follows:

> *The NBN Access Service is a Layer 2 service supplied on the NBN Co Network between and including:*
>
> *(a) a User Network Interface on a Network Termination Device; and*
>
> *(b) the Network-Network Interface 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 Services or Content Services.*

A functional approach to describing the NBN Access Service, which is to be declared for the purposes of section 152AL(8E), is consistent with the approach adopted by the ACCC when it declares services under Part XIC of the CCA. As stated by the ACCC:

> *Wherever possible, the Commission's preference is to specify services in functional, rather than technology-specific, terms. In the Commission's view this minimises any distortionary effects of declaration in terms of technological and innovative developments. It also leaves the access provider with flexibility to determine the most efficient way of supplying the service and gives greater flexibility to the Access Seeker in terms of the service that can be provided within the ambit of the declared service.*[76]

5.2.4 End-to-end and technology neutral service

The NBN Access Service is a Layer 2 wholesale bitstream service provided by NBN Co over the NBN Co Networks between and including:

- a UNI on a Network Termination Device (NTD) – this is the port on the device installed at each End User premises into which an End User may plug certain devices, such as a telephone, Residential Gateway or TV; and
- the NNI associated with the relevant NTD – this is the effective demarcation point between the NBN and the Access Seeker's backhaul infrastructure.[77]

The NBN Access Service is access-technology neutral and is intended to capture services supplied by NBN Co over the fibre, wireless and satellite platforms (including any interim satellite solutions that are implemented) and is intended to remain relevant over the life of the SAU.

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[76] ACCC, Declaration of local telecommunications services. A report on the declaration of an unconditioned local loop service, local PSTN originating and terminating services, and a local carriage service under Part XIC of the Trade Practices Act 1974, July 1999, p. 8.

[77] NBN Co's Facilities Access enables management of the physical optical connection between the Access Seeker's backhaul and the NNI.

A technology and service neutral approach has been considered appropriate by the ACCC in its consideration of service descriptions in the past.

As the ACCC noted in the 2006 Fixed Services Review:

> *Regulation in a technology neutral and service neutral way is required to ensure that, in a convergent environment, regulation does not prevent the emergence of new services due to distortions created by access services being defined in a technology or service specific manner.* [78]

Recently in declaring the LBAS, the ACCC adopted a technology neutral service description covering all Layer 2 bitstream services that are superfast carriage services provided on non-NBN networks.[79]

NBN Co submits that an access-technology neutral approach is also reasonably necessary to facilitate the objective of the SAU in providing a long term framework necessary for UNWP, by facilitating a degree of cross-subsidisation between the various platforms.

In particular, an SAU that covers fibre, wireless and satellite services facilitates cross-subsidisation across the three technology platforms to allow NBN Co to recover potential losses from its proposed wireless and satellite operations from its fibre operations (which are expected to become profitable over time. Given that it is unlikely that NBN Co will be able to recover the costs of its wireless and satellite operations on a standalone basis, the NBN Access Service service description covers all three technology platforms as a means of addressing its UNWP objectives.

NBN Co submits that an access-technology neutral approach is also key to providing a consistent product and systems experience to Access Seekers across all geographical areas. This facilitates the ability of Access Seekers to address wider markets than may have been the case with a technology-specific service description.

5.2.5 Ethernet-based service

The NBN Access Service will be delivered using Ethernet technology. As noted by Analysys Mason in their report:

> *Ethernet is now the ubiquitous Layer 2 protocol, not only for local area networks but also for metropolitan and national area networks. Ethernet has been prescribed and recommended by a number of standards bodies (e.g. the Broadband Forum and the Metro Ethernet Forum) and regulators around the world as the preferred Layer 2 broadband access technology.*[80]*.*

[78] ACCC, A strategic review of the regulation of fixed network services, ACCC position paper, June 2006, p.76.
[79] ACCC final report on the Local bitstream access service description p.6.
[80] Analysis Mason: Review of the efficiency and prudency of NBN Co's fibre, wireless and satellite network design – Public Version, 26 September 2012, p. 73.

As NBN Co has previously noted, the reasons for this include that Ethernet technology:[81]

- supports Retail Service Provider (RSP) service differentiation as a result of a ubiquitous interface that is neutral to higher layers;
- facilitates competition and choice as it is able to support multiple services and RSPs on the same physical interface, when necessary;
- offers flexible and potentially substantial bandwidth, as required;
- supports layer 2 service segregation and grades of Quality of Service (QoS);
- offers transparency required to identify and manage faults by NBN Co and RSPs independently; and
- offers competitive equipment pricing as a result of broad adoption, with prices continuing to decline as a result of experience curve effects.

In particular, Ofcom has stated:

> *Regardless of the physical location at which the competitive operator takes them, active inputs are likely to offer some form of wholesale electronic line access product. Ethernet increasingly appears to be a viable and beneficial technology on which to base such future products. The ubiquity and simplicity of Ethernet as a networking technology has led to huge equipment volumes and subsequently low costs. Also, as 'Carrier Ethernet' standards are being developed, features required for major telecoms operators to use the technology in their large core networks are being added. These new variants are designed to overcome the limitations of standard Ethernet which make it problematic to run with large numbers of customers and different services. As a result, Ethernet may be a promising basis on which future active input products could be developed to offer more flexibility and scope for innovation than today.* [82]

5.2.6 Layer 2 service

NBN Co's objective, as directed by the Government, is to occupy the lowest practical layer in the technology stack in order to provide Access Seekers with the maximum ability to innovate and differentiate their services, so as to promote efficient and effective retail level competition, via a layer 2 bitstream service.[83]

NBN Co will supply the NBN Access Service over the 'active layer' of the NBN Co Network (i.e. at Layer 2). NBN Co's expectation is that other players will step into the 'space' above Layer 2, to aggregate and wholesale Layer 3 and other services to smaller Service Providers. NBN Co does not currently intend to supply passive products to Access Seekers. There is also

[81] NBN Co consultation paper: proposed wholesale fibre bitstream products, December 2009, p.12.
[82] Ofcom, Future Broadband Policy approach to next generation access, September 2007, p. 51.
[83] The Statement of Expectations from shareholder Ministers, 17 December 2010, p.2: requires NBN Co to operate, "at the lowest level in the network stack necessary to promote efficient and effective retail level competition, via Layer 2 bitstream services".

currently no industry support for passive products from NBN Co, as discussed in NBN Co's response to industry submissions on its fibre access service.[84]

The NBN Co Network will have some limited Layer 3 awareness (for example, to allow the provision of multicast or voice services). Layer 3 is also inherent in the technology NBN Co is using to implement its interim satellite solution but this is only a temporary measure, specifically implemented to meet the requirements of the Government's Statement of Expectations[85].

Ofcom noted the relevance of an active Layer 2 approach in next generation access (NGA) networks stating:

> *... the net benefit of passive input based competition over the active alternative may reduce under next generation access. This is partly because the relative static costs of passive based competition may be higher than today, and partly because the relative benefits in terms of scope for innovation it offers over active competition may be lower as the prospects for innovation from competition based on active inputs improves.* [86]

The provision of a Layer 2 service on its fibre network means that NBN Co will own active equipment to 'light' the fibre in all fibre nodes and at each End User premises served. However, Access Seekers will also need to install equipment to interact with and move data around the network and translate the Layer 2 bitstream service into suitable End User applications such as broadband Internet, voice and video.

By analogy with today's Digital Subscriber Line (DSL) broadband environment, the NBN Access Service lies in between an Unconditioned Local Loop Service (ULLS) and a retail service. It also lies at a lower level than typical wholesale DSL services in Australia, which could be characterised as 'Layer 2.5' services, provided via Layer 2 tunnelling protocols. The NBN Co service thus lowers barriers to entry across the market (by being higher in the technology stack than ULLS), while still being low enough in the technology stack to promote competition by providing scope for substantial product innovation and differentiation.

Likewise, the provision of a Layer 2 service on NBN Co's wireless and satellite networks means that NBN Co will own active equipment in these networks (e.g. the wireless base stations and satellites), as well as at the End User premises. Although the physical facilities used to deliver the Layer 2 services differ, NBN Co has configured its networks to deliver consistent logical Layer 2 services across all three technologies.

While NBN Co is responsible for determining the features and functionality associated with active Layer 2 products, such as downlink and uplink speed and increments, this functionality

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[84] NBN Co response to industry submissions – proposed wholesale fibre bitstream products, March 2010, p.12.

[85] "*In the interim, the Government expects NBN Co to explore options to bring forward a suitable satellite solution to ensure the availability of improved satellite broadband services for regional Australia, eventually replacing the existing Australian Government Australian Broadband Guarantee program*." Statement of Expectations from shareholder Ministers, 17 December 2010, p.4.

[86] Ofcom, *Future Broadband Policy approach to next generation access*, September 2007, p. 50.

will be provided in a manner that gives Access Seekers considerable scope to innovate and control key aspects of the retail product design.

NBN Co's Layer 2 product component construct will support a broad range of services and applications in line with Access Seekers' business requirements. Ofcom has identified service agnostic access as a key characteristic for the virtual unbundled local access (VULA) service delivered by BT in its NGA network noting:

> *We consider that VULA, like LLU, should be a generic access product. That is, it should provide service agnostic connectivity, replicating one of the key features of LLU.*[87]

Further, as active products do not require the same level of investment at a localised level by Access Seekers and can support interconnection at locations that are further back in the network (i.e. a higher degree of aggregation), active products provide a considerably lower barrier to entry than passive products.

To deliver the long term 12Mbps Layer 2 services at the volumes and capacities required to service 3% of the population over satellite requires NBN Co to design, build and launch its own satellites.[88] Given the long lead times to undertake these activities, the Government, in the Statement of Expectations, requested NBN to find an interim replacement for the Australian Broadband Guarantee (ABG) program by 1 July 2011 and provide this interim service until the long term satellite service was launched.[89]

NBN Co was only able to source a managed Layer 3 service to deliver this interim solution, but as far as possible has sought to implement the interim satellite product in a manner consistent with the Product Component approach adopted for NBN Co's other networks. While not meeting the long-term speed objectives of the satellite solution, this interim solution (capable of supplying downlink speed of 6Mbps) is significantly superior to the ABG threshold speed of 1Mbps, and hence appropriate in the circumstances.

Although the SAU has not been given specifically in respect of the Layer 3 interim satellite service, it provides for all capex associated with all of NBN Co's networks, including the interim satellite solution, to be included in the RAB (subject to meeting applicable prudency requirements). Likewise, all revenue and opex associated with the interim satellite solution will be included in the operation of the long term revenue constraint.

5.2.7 NBN Access Service implemented by Product Components

As outlined above, the NBN Access Service will be supplied initially through four Product Components; the UNI, AVC, CVC and NNI. This section discusses these Product Components in detail and details NBN Co's rationale for supplying the NBN Access Service via Product Components.

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[87] Ofcom, Review of the wholesale local access market statement on market definition, market power determinations and remedies, 7 October 2010, p 126.
[88] NBN Co's Corporate Plan notes that NBN Co intends to launch two satellites with commercial operations intended to begin in mid 2015. NBN Co Corporate Plan 2012-15, August 2012, p.8.
[89] The Statement of Expectations from shareholder Ministers, 17 December 2010, p.4.

i User-Network Interface (UNI)

The UNI is the physical interface on the NTD at an End User's premises and represents the network boundary on the End User side. The UNI allows the End User to connect various devices, such as a telephone handset, PC and TV.[90]

On the NBN Co fibre, wireless and long-term satellite networks, an End User may receive services from multiple Access Seekers simultaneously. On the interim satellite service, only a single UNI will be available on each NTD, meaning that only one Access Seeker can supply services to an End User at a point in time.

An Access Seeker is able to deliver multiple services (for example, triple play) through a single UNI, or alternatively may elect to use multiple UNIs. A UNI is uniquely allocated to an Access Seeker.

Further, on the fibre network, two types of UNIs are provided:

- User Network Interface-Data (UNI-D) – Four independent 10/100/1000BaseT Ethernet interfaces are provided for data service delivery.
- User Network Interface-Voice (UNI-V)– This interface will utilise Session Initiation Protocol (SIP) for media signalling and can be integrated with an existing Access Seeker SIP soft switch infrastructure. Access Seekers can use the UNI-V to provide a migration path from traditional PSTN- based telephony services.

In the case of the NBN wireless and satellite networks, only the UNI-D is currently supported, which can also be used by Access Seekers to supply voice services using VOIP technology.

ii Access Virtual Circuit (AVC)

The AVC provides logical connectivity between a UNI at the End User's premises and the NNI. The AVC is specific to each UNI and provides the bandwidth in the selected traffic class (TC) to the relevant UNI that has been ordered by the Access Seeker or which is otherwise required to deliver the relevant application or content (e.g. IPTV services).

Each Access Seeker wishing to deliver a service to a given End User must order one or more AVCs. Multiple AVCs can be mapped to a single UNI-D but a UNI cannot be shared by multiple Access Seekers.

AVC bandwidth is defined by four Class of Service traffic classes offering committed information rate (CIR) and/or peak information rate (PIR). Currently for the fibre network, there are five defined PIR combinations of downstream and upstream speeds based on 'Best Efforts' TC-4.

Services offered have the option to add incremental CIR bandwidth based on TC-1, TC-2 and TC-3 to support 'just-in-time and real-time' applications such as voice (TC-1) and interactive

[90] A gateway device will typically be needed to connect PCs and TVs.

video (TC-2) and transactional data (TC-3). Initially, only TC-1 and TC-4 will be provided, with other traffic classes to follow in planned product releases.

iii Connectivity Virtual Circuit (CVC)

The CVC provides logical connectivity and aggregates traffic delivered over the various AVCs in the relevant Connectivity Serving Area (CSA).

The CVC is dimensioned by the Access Seeker according to their End User capacity requirements and the degree of contention consistent with their overall retail value proposition, including the QoS they wish to provide. Access Seekers can dimension the CVCs differently based on applications and market requirements and as a result, enabling the Access Seeker to control and manage the overall service experience to the End User.

Access Seekers may implement multiple CVCs in order to create a differentiated experience for particular End User segments such as residential or business.

Like the AVC, the CVC consists of four Class of Service traffic classes. Access Seekers dimension the CVC based on the capacity requirements of each traffic class being aggregated i.e. TC-4 on an AVC can only be mapped into TC-4 on the CVC.

All traffic on the CVC is CIR. This provides a high degree of predictability of Access Seeker traffic performance within the NBN Co Network. Each traffic class on the CVC needs to be specifically dimensioned as there is no 'bursting' between different traffic classes on the CVC.

iv Network-Network Interface (NNI)

The NNI forms the effective physical interface between the NBN Co Network and the Access Seeker's network.[91] The NNI supports all CVC types and is common between long-term satellite, wireless and fibre access services.

The NNI consists of two components: the NNI Bearer which is the physical interface and the NNI Group which is a logical group of physical interfaces. The NNI supports a number of physical and logical options that allow Access Seekers to tailor the interface to their needs, and hence allows different competitive models to be established.

Interface Types

Each NNI Bearer operates at either 1 Gbps or 10 Gbps and is available with either a short range or a long range optical interface.

Redundancy Modes

Two redundancy modes are offered: Single Chassis; and Chassis Diverse. Each NNI Bearer is configured as a member of a NNI Group using IEEE802.1ax link aggregation. A NNI Group can comprise up to eight NNI Bearers which can operate in load-sharing mode. If one of the

[91] NBN Co's Facilities Access Service enables management of the physical optical connection between the Access Seeker's backhaul and the NNI.

physical links in the NNI Group goes down, its load will be transferred to the remaining links in the Group and the NNI Group will continue to function, although at a reduced aggregate capacity.

In Single Chassis mode, all NNI Bearers are located on the same chassis.

In Chassis Diverse mode, NNI Bearers within a Group are configured in pairs across two chassis, one of which is active while the other is in stand-by. If one chassis becomes inoperable, the traffic is automatically switched to the stand-by. Since the NNI Bearers are always configured in pairs, there will be no loss of capacity for single bearer failures.

v Product features

While the Product Components are intended to reflect the key building blocks of an end-to-end service on the NBN, Product Features denote the aspects of each Product Component that are selectable and configurable by an Access Seeker (such as downlink speeds and classes of service).

For example, NBN Co's entry level Product Component will be an AVC with a TC-4 downlink speed of 12 Mbps and uplink speed of 1 Mbps as Product Features of the AVC.

5.2.8 Benefits of Product Components Approach

The component-based product construct is designed to give Access Seekers the flexibility to configure capacity and features on the NBN as if it were the Access Seeker's own network.

This provides Access Seekers with a higher degree of flexibility in how they configure their services and will allow Access Seekers to control key elements of the End User experience, such as the dimensioning of aggregation links and classes of service, which will assist Access Seekers to differentiate their products, which in turn will promote competition through varied product offerings.

The Product Component approach, in conjunction with the ability to select additional Product Features, such as improved service levels, protected infrastructure and specialist video features, will permit Access Seekers to construct services for different types of End Users in line with their chosen business models, and to compete in the market on the basis of these retail product attributes.

Importantly, NBN Co's product offering is in step with, and at the leading edge of, international wholesale-only product offerings. For example, the Product Components are broadly consistent with Active Line Access (ALA) product offerings being made available by wholesale-only operators in other jurisdictions, most notably Nucleus Connect in Singapore.

In the context of VULA, Ofcom noted that:

> *The most effective way to support the development of downstream competition is to provide significant scope for alternative providers to innovate and differentiate in how they package and deliver services.*

> *We consider that the benefits of VULA would be greater if it was provided as a 'raw' product which provides CP's with significant flexibility over their own networks and the services that they could deliver to End Users. This would replicate many of the features associated with LLU.* [92]

Further, Ofcom noted that control of access was an important characteristic in relation to the VULA:

> *Given the aim of realising competition benefits by allowing CPs maximum flexibility in their ability to offer differentiated products to consumers it is necessary for VULA to provide a high degree of access control to the interconnecting CP.*
>
> *CPs would need freedom of control in order to provide different types of services and, potentially, also vary the QoS parameters in delivering those services to enable them to effectively compete with other providers.* [93]

5.2.9 NBN Co may require Access Seekers to acquire each Product Component

While each of the Product Components comprising the UNI, AVC, CVC and NNI are separately described as Product Components, NBN Co may require an Access Seeker to acquire each of the Product Components to provide an end-to-end service to an End User.

Most services delivered by NBN Co will require Access Seekers to acquire all four products components as this will be the most technically and operationally efficient manner for delivering the NBN Access Service (as discussed in more detail below). However NBN Co recognises that new services may be developed whereby it may be more efficient to provide supply through some but not all of the product components and NBN Co has accordingly reserved the flexibility to supply as the circumstances require.

Further subsection 151DA(3) of the CCA authorises NBN Co to refuse to supply or refuse to offer the supply of a designated access service to a service provider unless the service provider agrees to acquire one or more other designated access services from NBN Co. This authorisation is subject to the refusal being reasonably necessary to achieve uniform national pricing of services supplied by an NBN corporation. Designated access service is defined in subsection 151DA(9) to cover any of the following Carriage Services; an AVC service, a CVC service, a NNI service, a UNI service and a voice telephony facilitation service.

The requirement to acquire each of the Product Components is appropriate in most circumstances for the following reasons.

- Technical requirements: Generally, all four Product Components are required for NBN Co to deliver the NBN Access Service to a Customer. For example, without an NNI, an Access Seeker cannot connect to the NBN and therefore receive the NBN Access Service. Without the UNI, the AVC has nothing to terminate on at the End User premises and the End User could not utilise the service. Without the AVC

[92] Ofcom, Review of the wholesale local access market statement on market definition, market power determinations and remedies, 7 October 2010, p 125.
[93] Ibid.

there is no bandwidth profile/connection to the End User premises. The CVC facilitates the sharing of capacity on the NBN by multiple Access Seekers. Without the CVC defined by the Access Seeker, NBN Co would need to either define the capacity at the NNI for all Customers without any visibility of the Access Seeker's End Users, or define the capacity of the NNI to full line rate. Put another way, the CVC enables an Access Seeker to acquire and pay for just the capacity on the NNI that the Access Seeker requires.

- Operational requirements: Only a single Access Seeker can operate a UNI despite multiple AVCs being able to be delivered to the single UNI. This allows NBN Co to more effectively and efficiently manage any service issues associated with a UNI. It also allows NBN Co to ensure that only valid combinations of services are able to be configured on the network.

The use of these Product Components to provide an end-to-end service is consistent with wholesale product designs internationally. As noted by Ofcom, ALA products – implementations of which include product offerings from Nucleus Connect (Singapore), BT/Openreach (UK) and others, albeit with regional variations – aim "to enable standardised, competitive wholesale active access to superfast broadband networks; a wholesale bitstream access which, unlike previous forms of bitstream, offers Communications Providers scope for innovation and retail product differentiation which is as close as possible to that allowable by passive infrastructure access" [94]. The component model effectively provides Access Seekers with a set of building blocks from which they can construct a bitstream service that meets their particular needs. It aims to mirror the same low-level construct that Service Providers are familiar with in the context of the ULLS, albeit supplied with an active service rather than a passive infrastructure link.

A key aspect of the current ULLS model is that Service Providers have full flexibility to dimension and contend their networks and DSLAMs to meet their business needs. At the most basic level, with a DSLAM, a Service Provider is able to contend the ULLS lines that they individually purchase into whatever sized uplink/downlink bandwidth they choose, to balance their cost base against their user experience targets. NBN Co's Product Components approach aligns with this capability, allowing Service Providers the full flexibility to select uplink/downlink bandwidth (i.e. CVC size) independently of the number and size of access lines (i.e. AVCs). This is the key requirement/feature underpinning Ofcom's statement that ALA is "unlike previous forms of bitstream" (which did not implement this basic flexibility).

Nucleus Connect implements the component model using product components analogous to those of NBN Co; being the Aggregation Ethernet Virtual Circuits as the CVC equivalent, the Qualifying Persons Ethernet Virtual Private Line as the NNI, and Per-End User Connection as the AVC plus UNI. While Nucleus Connect chose not to offer the physical UNI as a selectable component, the key components of AVC and CVC remain independently selectable.

Openreach implements the product components approach in a less granular manner, but its approach is still analogous to the NBN Co Product Components. The UNI and AVC are offered

[94] Ofcom, Ethernet Active Line Access: Updated Technical Requirements, 3 March 2009.

as a single product component within the Generic Ethernet Access over Fibre to the Premises product. Access Seekers must also purchase a Generic Ethernet Access Cablelink product component, this being analogous to the CVC. The Generic Ethernet Access Cablelink product component can only be purchased in granular bandwidths of 1Gbps, which match the NNI physical interface and hence make a separate NNI product component superfluous. Nucleus Connect and NBN Co have chosen to provide more granular offerings on their analogous components.

5.2.10 NBN Access Service meets ACCC minimum requirements for Layer 2 Bitstream Service

In the ACCC's draft FANOC Decision[95], the ACCC set out the minimum requirements that the ACCC considered were necessary to establish that a Layer 2 broadband service would be reasonable.

These requirements and the manner in which the NBN Access Service meets the minimum requirements is set out in Table 5.1. Criteria that are not relevant in the current context have also been noted.

The ACCC stated in its FANOC Decision that:

> *... a bitstream access service with a service specification that addresses these minimum elements would be likely to provide Access Seekers with sufficient flexibility and control over the access service to allow any-to-any connectivity and enable Access Seekers to compete effectively and make appropriate decisions in relation to the efficient use of and investment in infrastructure. Therefore, the ACCC considers that such a service description would be likely to promote the LTIE.* [96]

NBN Co submits that its NBN Access Service fulfils the minimum requirements that the ACCC set out in the FANOC Decision, and is also appropriate more generally.

NBN Co notes that the ACCC's minimum requirements were set out in the context of a fibre-to-the-node (FTTN) network where contention, for example, is a more significant issue than in the context of a FTTP network. Therefore, some of the issues raised by the ACCC are not relevant in a FTTP context where the standards of service are significantly superior to those which are capable over a FTTN network. While services offered over the NBN wireless and satellite networks do not have the same characteristics as those offered over the fibre network, they are broadly consistent with the ACCC's minimum criteria for Layer 2 bitstream services.

[95] ACCC Assessment of FANOC's Special Access Undertaking in relation to the Broadband Access Service draft decision December 2007 pp.60 – 61.
[96] ACCC, Assessment of FANOC's Special Access Undertaking in relation to the Broadband Access Service – Draft Decision, December 2007,p.61.

Table 5.1: Minimum requirements of a Layer 2 Broadband Service to promote the LTIE

ACCC criteria	NBN Access Service
A Layer 2 bitstream access service, which may be offered at a variety of rates but should include a product that is not throttled as well as a product that is symmetric to the extent the technology permits. Products (both consumer and business-grade) should be equally available to all Access Seekers on a non-discriminatory basis.	The NBN Access Service supports a variety of products at a variety of rates. NBN Co's Product and Pricing Overview[97] sets out the range of rates that are currently possible and are planned for the future. These reflect the capabilities of the different networks, and are available to all Access Seekers. All products will be available to all Access Seekers on a non-discriminatory basis in accordance with NBN Co's non discrimination obligations pursuant to the CCA (see section 3.8 for a discussion of the obligations). Consumer and business-grade retail products are also supported, with business grade retail products supported through business oriented option features (some of these are currently available while others are planned for future release). NBN Co does not offer an 'unthrottled' product, for a number of operational reasons. On the wireless and satellite networks, capacity management is important in ensuring that all End Users will have access to the 12Mbps downlink speed (i.e. Data Transfer Rate) that NBN Co is offering. On the fibre network, similar management of the shared network capacity is also important in ensuring consistent End User experience. The peak speeds that will be made available on the fibre network are expected to be at least an order of magnitude greater than that possible on the FTTN network considered by the ACCC in the FANOC proposal, and these speeds will be selectable by Access Seekers. NBN Co therefore submits that this criteria is not as important as in the FANOC scenario.

[97] NBN Co, NBN Co Wholesale Access Service – Product and Pricing Overview for Service Providers, December 2011.

ACCC criteria	NBN Access Service
	(continued) During the initial regulatory period, the UNI, AVC, CVC and NNI form part of Reference Offers (in accordance with Schedule 1C) and as such cannot be withdrawn. Reference Offers will also be updated in accordance with the principles in Schedule 2C, which will ensure the ongoing availability of the NBN Access Service in accordance with this criterion.
A service (whether the bitstream service or another service) that allows Access Seekers to provide a voice service.	The NBN Access Service supports a voice service both through VOIP (using the UNI-D) and through analogue voice services (using the UNI-V for the fibre access network). A further description of voice capability is set out in section 5.2 above.
POIs as close to customers as is feasible and efficient, which in the first instance is likely to mean at or near existing local access switches and other POIs for current ULLS and Line Sharing Service products (it may have other POIs as well).	NBN Co has worked with the ACCC to apply the Competition Criteria to derive a set of network planning rules (based on the Competition Criteria) and to develop a list of initial POI locations based on the application of the Competition Criteria and planning rules.
Interconnection protocols based on well accepted standards for broadband, voice and, if applicable, video which are sufficiently well described to allow Access Seekers to design and build their own interconnecting facilities.	The NBN Access Service supports the Ethernet IEEE802.1ad interconnection protocol at the NNI (refer to the WBA Product Technical Specification and the Interim Satellite Product Technical Specification)
Arrangements for access to buildings, shelters and facilities for interconnection.	Terms and conditions of supply relating to NBN Co's Facilities Access Service (consisting of Cross-Connect, NBN Co Co-Location, NBN Co ODF Termination, and other Facilities supplied by NBN Co that are necessary to facilitate entry into buildings, such as cable trays and building ducts access) be included in the SAU in connection with the satisfaction of NBN Co's interconnection obligations in relation to the NBN Access Service and the Ancillary Services. The Facilities Access Service is discussed further at section 5.4.

ACCC criteria	NBN Access Service
Well described and appropriate protocols for how packets are to be prioritised and handled.	NBN Co has defined four traffic classes. The traffic classes are implemented across NBN Co's network. Access seekers can use these classes to manage their traffic across the NBN. The Interim Satellite Solution will provide TC-1 and TC-4 classes only. Wireless will have all four traffic classes available in future, but will initially only offer TC-1 and TC-4.
Well described and appropriate protocols for how congestion in shared network elements is to be handled.	NBN Co has industry standard QoS mechanisms to provide fairness of resource allocation. The Access Seeker can manage congestion within their own CVCs.
Equivalent treatment of Access Seekers in relation to quality of service parameters such as jitter, delay and packet loss.	NBN Co has defined four traffic classes. The traffic classes are implemented across NBN Co's network, without reference to specific Access Seekers. Initially, only the TC-1 and TC-4 traffic classes will be offered, with other traffic classes to be progressively introduced. All products will be available to all Access Seekers on a non-discriminatory basis in accordance with NBN Co's non discrimination obligations pursuant to the CCA.
Interaction by Access Seekers with operations support systems including: • visibility of provisioning, fault reporting and rectification and service assurance, and • control of own customer configuration and use of the Access Seeker's allocated part of the capacity.	In implementing entirely new systems designed in the context of a wholesale-only provider, NBN Co believes that its OSS/BSS systems will provide a superior experience compared to existing legacy fixed-line systems, and provide appropriate visibility and control for Access Seekers.
No barriers to multicasting and IPTV by Access Seekers.	The NBN Access Service supports multicast and IPTV services. NBN Co's multicast product for the fibre network is summarised in its Multicast Product Paper[98]. While interim satellite and wireless networks do not currently have multicast implemented, this is scoped in the Product Roadmap.
An appropriate process for amending service specifications in later periods as needed or	The adoption of a broad functional service description for the NBN Access Service in combination with the use of Reference and

[98] NBN Co Fibre Access Service Multicast – feature, technical and pricing overview for multicast over fibre, July 2012 http://www.nbnco.com.au/assets/documents/multicast-feature-technical-and-pricing-overview-17-july-2012.pdf

ACCC criteria	NBN Access Service
desired.	Non-Reference offers in a modular approach which sets out the detailed implementation specifications in Module 1 (10 years) and requires updating every 3 to 5 years will ensure service specifications remain relevant. NBN Co has developed a roadmap for the service levels that will be introduced in 2015. The roadmap provides for improved service levels across all the key areas. Service levels will also be reviewed midway through the Initial Regulatory Period and will also be reviewed by the ACCC as part of its assessment of Replacement Module Applications, as lodged by NBN Co every 3 to 5 years in the Subsequent Regulatory Period (such applications must include a Service Levels Proposal consistent with the service level principles set out in Module 2). NBN Co's PDF and Product Development Process support the introduction of new products by NBN Co over the term of the SAU.

5.3 Ancillary Services

In light of feedback provided by industry and the ACCC, 'Ancillary Services' that facilitate the supply of, and are necessary for Access Seekers to acquire, the NBN Access Service will form part of the service declared for the purposes of section 152AL(8E) of the CCA, with NBN Co being required to comply with the Category B SAOs in respect of the Ancillary Services.

As with the NBN Access Service, NBN Co has sought to set out a functional service description for the Ancillary Services that also encapsulates the Ancillary Services (NBN Co Platform Interfacing Service and Sandpit Service) currently offered by NBN Co. Attachment A of the SAU sets out the service description of the Ancillary Services as follows:

> *The Ancillary Services are the services supplied by NBN Co that facilitate the supply of, and are necessary for Access Seekers to acquire, the NBN Access Service, including:*
>
> *(a) a service supplied by NBN Co that supports an Access Seeker to perform activation and assurance related transactions; and*
>
> *(b) a test and verification service supplied by NBN Co that enables an Access Seeker to prepare for, and perform, certain network and operational interoperability testing in relation to the NBN Access Service and development*

and implementation by that Access Seeker of Carriage Services, Content Services and operational platforms that utilise components and functionality of the NBN Access Service.

but excludes the Facilities Access Service.

NBN Co will offer to supply the Ancillary Services initially through the NBN Co Platform Interfacing Service and the Sandpit Service for the duration of Module 1. Both these services are Reference Offers (per Schedule 1C) for the duration of Module 1 and therefore NBN Co commits not to withdraw them for the duration of Module 1.

Module 2 provides that the scope of the Reference Offers in the Subsequent Regulatory Period will be updated every Regulatory Cycle and include any Ancillary Services that are reasonably necessary for an Access Seeker to acquire and use the Access Reference Offers (being the Basic Access Offers, the Enhanced Access Offer and the Standard Business Offer). The SAU requires NBN Co to propose updated Reference Offers in its Replacement Module Applications.

5.3.1 Implementation of Ancillary Services through the NBN Co Platform Interfacing Service

The NBN Co Platform Interfacing Service is set out in clause 1A.5.1 of the SAU as follows:

(a) NBN Co will implement the Platform Interfacing Service by offering to supply a service which supports the following key business transactions via access to the NBN Co Platform:

(i) activation transactions, including address inquiries, service qualification enquiries, order feasibility checks, submission of orders, enrichment of orders with further information, modification of orders being processed and tracking of orders being processed, and such other transactions as may be described as activation transactions by NBN Co from time to time;

(ii) assurance transactions, including submission of trouble tickets, modification of trouble tickets and tracking of trouble tickets, and such other transactions as may be described as assurance transactions by NBN Co from time to time; and

(iii) billing transactions, including notification of billing events and invoices, retrieval of historical billing information, and such other transactions as may be described as billing transactions by NBN Co from time to time,

*(each, a **Key Business Transaction**).*

(b) As at the SAU Commencement Date, NBN Co will permit each of the Key Business Transactions to be performed through at least one of the following means:

(i) B2B access, which enables a Customer and NBN Co to perform Key

Business Transactions using their own operations support systems and billing support systems by exchanging encrypted and digitally-signed messages over the Internet between B2B gateways that are hosted by that Customer and NBN Co respectively (B2B Access); or

(ii) service portal, which enables a Customer and NBN Co to perform Key Business Transactions over the Internet using a web-based portal that is designed, created, hosted, operated and maintained by NBN Co (Service Portal).

(c) In respect of the NBN Co Satellite Network, NBN Co may use an interim satellite portal to process service qualification requests.

5.3.2 Supply of Ancillary Services through the Sandpit

The NBN Co Sandpit is described in clause 1A.5.2 of the SAU as follows:

NBN Co will implement the Sandpit by offering to supply test and verification facilities that allow a Customer and NBN Co to undertake each of the following activities in relation to the NBN Access Service to be provided over the NBN Co Fibre Network:

(a) the preparation and performance of testing in respect of the relevant Product Components or Product Features;

(b) the performance of the following activities that are related to the performance of testing in respect of the Platform Interfacing Service, including:

(i) business process interoperability activities related to the development of that Customer's B2B gateway;

(ii) interoperability functional testing activities;

(iii) functional testing related to the development or maintenance of a Customer's operational support systems, which may include the exchange of messages between that Customer's B2B gateway and NBN Co's B2B gateway in relation to:

(A) pre-order management, including address queries, service qualification enquiries and order feasibility checks; and

(B) order management, including submitting orders and fair order progression notifications;

(c) the preparation and performance of testing in respect of any product functionality developed by NBN Co, subject to NBN Co being able to make the functionality available for testing in relation to the NBN Access Service;

(d) the development of Customer Products that are directly related to the Product Components and Product Features that are or will be acquired by that

Customer from NBN Co over the NBN Co Fibre Network; and

(e) the performance of activities that are related or ancillary to the activities described in clauses1A.5.2(a) to 1A.5.2(d).

5.4 Facilities Access Service

NBN Co has set out in the SAU the terms and conditions of supply for facilities access in connection with the satisfaction of NBN Co's interconnection obligations under the CCA in relation to the NBN Access Service and Ancillary Services. While the SAU is not given in connection with the Facilities Access Service, the underlying assets supporting the provision of the Facilities Access Service form part of the Relevant Assets and the revenues earned by NBN Co in relation to the Facilities Access Service form part of the revenues considered under the SAU.

To be clear, the Facilities Access Service will not be a declared service pursuant to section 152AL(8E) of the CCA.

The Facilities Access Service is set out in Attachment B of the SAU as follows:

The Facilities Access Service is a service that provides:

(a) cross connection;

(b) co-location for a Carrier or Carriage Service Provider to install, operate and maintain its telecommunications equipment at or near an Established POI for the purpose of supporting interconnection with the NBN Co Network in connection with the NBN Access Service and the Ancillary Services;

(c) NBN Co ODF termination; and

(d) other Facilities supplied by NBN Co that are necessary to facilitate entry to buildings such as cable trays or building duct access.

NBN Co will initially offer to supply the Facilities Access Service through Cross-Connect, NBN Co Co-Location and NBN Co ODF Termination, and will also include other Facilities supplied by NBN Co that are necessary to facilitate entry to buildings (the POIs being built by NBN Co), such as cable trays or building ducts. Such services have historically not been considered 'eligible services' in their own right (and have not been declared) because they have been considered ancillary services acquired for the purpose of receiving supply of declared services.

NBN Co has formulated the above approach to the Facilities Access Service in the SAU having regard to a number of factors including:

- The need to provide certainty in relation to services supplied by NBN Co, including arrangements for facilities access;
- NBN Co's Category B SAOs in relation to interconnection for the purposes of

enabling an Access Seeker to be supplied with declared services in order that the Access Seeker can provide carriage services and/or content services;

- The manner in which facilities access has traditionally been regulated in the Australian telecommunications industry[99]; and
- The extent and nature of NBN Co's own contractual rights in relation to access to facilities access.

The SAU includes enforceable terms and conditions relating to the Facilities Access Service in connection with the satisfaction of NBN Co's interconnection obligations under section 152AXB(4) of the CCA in relation to the NBN Access Service and Ancillary Services.

5.4.1 Implementation of the Facilities Access Service

Clause 1A.6 of the SAU sets out that NBN Co will implement the Facilities Access Service through the following arrangements:

*(a) cross connect, which provides point-to-point connectivity between certain pairs of locations within the relevant Aggregation Node Site (**Cross-Connect**);*

*(b) NBN Co co-location, which enables a Customer to install, operate and maintain Customer Active Equipment in Rack Space (**NBN Co Co-Location**);*

*(c) NBN Co ODF termination, which enables a Customer's lead-in or backhaul transmission cables to be connected by NBN Co to the NBN Co ODF at the relevant Aggregation Node Site (**NBN Co ODF Termination**);*

(d) other Facilities supplied by NBN Co that are necessary to facilitate entry to buildings such as cable trays or building duct access; and

(e) such other types of facilities access that NBN Co introduces in accordance with Schedule 1I (Product Development and Withdrawal).

NBN Co has made commitments about Cross-Connect and NBN Co ODF Termination being Reference Offers (per Schedule 1C) with commitments not to withdraw these for the duration of Module 1. [100]

Module 2 provides that the scope of the Reference Offers in the Subsequent Regulatory Period will be updated every Regulatory Cycle and include all the types of Facilities Access Service that are reasonably necessary for an Access Seeker to acquire and use the Access Reference Offers (being the Basic Access Offers, the Enhanced Access Offer and the Standard

[99] Facilities access services have traditionally been regulated under parts of the Telecommunications Act 1997. The ACCC is currently consulting on its Facilities Access Code (A Code of Access to Telecommunications Transmission Towers, Sites of Towers and Underground Facilities (October 1999) which governs how access to eligible telecommunications facilities is provided to carriers seeking to install their equipment on or in facilities owned by other carried.

[100] NBN Co Co-Location is a Non-Reference Offer as per Schedule 1D.

Business Offer). The SAU requires NBN Co to propose updated Reference Offers in its Replacement Module Applications.

5.5 Services levels

5.5.1 Initial Regulatory Period

i Overview

In the Initial Regulatory Period, the SAU provides that NBN Co will incorporate the terms set out in Annexure 1 (Service Levels Schedule) to Schedule 1J into any SFAA and maintain such terms that are the same or better (having regard to all the circumstances) in any SFAA subject to any changes arising out of the review of service levels in 2017-18 (clause 1K.3) or changes made with the ACCC's approval (clause 1B.3.1(e)).

The SAU thus makes commitments to include service level terms of at least a particular standard into any SFAA, rather than being the vehicle which actually makes the service level commitments. This means that any issues related to compliance with the service level terms will be dealt with as a contractual matter between NBN Co and its Customers, rather than as a regulatory matter. The Service Levels Schedule focuses on the two key products already being supplied under SFAA terms, namely the NBN Co Fibre Access Service (NFAS) and NBN Co Wireless Access Service (NWAS). It also sets out the service levels for the Facilities Access Service and the NBN Co Platform Interfacing Service.

Over the past six months, via the Contract Development Process (CDP), NBN Co has consulted extensively with Customers in regards to a number of key issues, including service levels. Although significant progress has been made, NBN Co has not yet finalised its CDP consultations in respect of service levels; in fact, on 19 September 2012, NBN Co launched the new Service Levels Schedule, in respect of which the consultation has only just commenced.

- NBN Co has held a number of multilateral workshops on service levels culminating in the multilateral workshop on 19 September 2012 during which NBN Co launched the Service Levels Schedule included in Annexure 1 to Schedule 1J. During that workshop, a range of feedback was received, which NBN Co is currently considering.
- In the course of the next three weeks, NBN Co expects to receive further feedback in response to the Service Levels Schedule. NBN Co will consider this feedback and, where appropriate, make amendments to the Service Levels Schedule due to be released as part of the final draft version of the next WBA by mid-October 2012.

Although there may, therefore, be some differences between the Service Levels Schedule included in the SAU and in the final draft version of the WBA, the nature of these differences would be such that the WBA version would be the same as or better than the SAU version. This is entirely consistent with the commitments made in Schedule 1J.

When considered within the broader context of the SAU (which provides for regulatory recourse on service levels, as discussed below), NBN Co submits that the service level

commitments in Schedule 1J (in particular, the Service Levels Schedule) appropriately address Customers' requests for improved service levels that will facilitate a better End User experience. It does this by:

- providing greater clarity and certainty on service performance – NBN Co's service levels are more detailed and provide greater granularity in respect of the metrics that NBN Co will use to measure performance of activities associated with supply of products. Under the proposed framework, NBN Co will measure its performance in respect of activities associated with the supply of the NWAS, NFAS, NBN Co Platform Interfacing Service or the Facilities Access Service by way of a Service Level , Service Level Target , Performance Objective , or Operational Target (each a Metric) (the nature of each of these Metrics is explained below);
- including a remedies structure that will incent NBN Co to perform better – the 'corrective action' requirement will incent NBN Co to investigate where it has under-performed, and devise measures to prevent future under-performance. Further, the commercial rebates will provide NBN Co with a financial performance incentive;
- assisting Customers in meeting their downstream regulatory obligations – NBN Co is committed to helping Customers to meet their downstream regulatory obligations. As such, NBN Co has implemented a queue for Accelerated Connections, which Customers can use for submitting CSG-eligible orders in order to receive faster connection timeframes. NBN Co will introduce a separate compensation claims process for CSG-related claims;
- providing a framework aimed at better customer experience – NBN Co considers that it is on the pathway to greater network maturity and sophistication. As NBN Co continues to improve its network performance and systems capabilities, NBN Co will continue to work collaboratively with the Industry in improving its service levels. Schedule 1K of the SAU also commits to a review in 2017-18 of the service levels and service level rebates applying under Schedule 1J;
- including reporting measures that will provide transparency on NBN Co's overall performance – NBN Co will provide Customers with performance reports to provide Customers with transparency of NBN Co's performance. Further, Customers can require further data on NBN Co's reports to verify NBN Co's reporting; and
- providing for regulatory recourse on service levels – ultimately, if NBN Co and Customers cannot, through commercial negotiations, reach an outcome in respect to service levels, Customers will have the right to request that the ACCC make an Access Determination (AD) or a Binding Rule of Conduct (BROC) in respect of service levels. Any such AD or BROC would then apply to the extent not inconsistent with the terms and conditions of the SAU.

These elements are discussed further below. A more detailed explanation of the service levels framework, the service levels remedies framework, reporting measures and development of the service levels in response to Customer feedback is provided in Appendix A.

ii Service levels framework

Under the Service Levels Schedule, the following Metrics are used to measure NBN Co's performance:

- **Service Levels** apply in relation to NBN Co's performance of activities associated with NBN Co's supply of a specified product.
- **Service Level Targets** apply in relation to activities that relate to the availability of the NBN Co Fibre Network, the NBN Co Wireless Network and the NBN Co Platform Interfacing Service.
- **Performance Objectives** apply in relation to NBN Co's expectations (at the execution date of the WBA) as to its performance of activities for a Customer associated with NBN Co's supply of a specific product to the Customer.
- **Operational Targets** apply in relation to NBN Co's performance of activities associated with NBN Co's supply of a specific product to a Customer (in respect of which NBN Co is not obliged to take corrective action).

At least one type of Metric is specified in regards to each activity associated with the supply of the NFAS, NWAS, NBN Co Platform Interfacing Service and the Facilities Access Service (as set out in Table 5.2 below, where the 'parts' referred to are the various parts of the Service Levels Schedule):

Table 5.2: Service Level Activity Metrics

Item	Activity	Metric
Part B: Connections		
1	End User Connection	Service Levels
		Performance Objective
		Operational Target
2	Accelerated Connection	Service Levels
3	Priority Assistance Connection	Service Levels
		Performance Objective
4	Service Provider Connection	Service Levels
		Performance Objective

Item	Activity	Metric
5	Kept Connection Appointment	Service Level
6	Initial Confirmed Connection Appointments kept	Performance Objective
7	Second Confirmed Connection Appointments kept	Operational Target
8	Confirmed Connection Appointments rescheduled	Operational Target
9	Notice of rescheduled connection appointments	Operational Target
Part C: Service Experience		
10	Access Component Modification Without Need for an Appointment	Service Levels
		Operational Target
11	Access Component Modification With Need for an Appointment	Service Levels
12	Access Component Modification	Performance Objective
13	Access Component Disconnection	Service Levels
		Performance Objective
14	Connectivity Component Modification	Service Levels
		Performance Objective
15	Multicast Domain Activation	Service Levels
		Performance Objective
16	Service Impacting Multicast Domain Modification	Service Levels
		Performance Objective
17	Non-Service Impacting Multicast Domain Modification	Service Levels
		Performance Objective
18	End User Fault Rectification	Service Levels
		Performance Objective
19	Enhanced-12 Fault Rectification	Service Levels
		Performance Objective
20	Priority Assistance NFAS Fault Rectification	Service Levels
		Performance Objective
21	Initial End User Fault Response	Operational Target
22	Network Fault Rectification	Service Levels

Item	Activity	Metric
		Performance Objective
		Operational Target
23	Kept Fault Rectification Appointment	Service Level
24	Initial Confirmed Fault Rectification Appointments kept	Performance Objective
25	Initial Confirmed Fault Rectification Appointments rescheduled	Operational Target
Part D: Facilities Access Service		
26	Facilities Access Service Order Processing	Service Levels
		Performance Objective
27	Facilities Access Service Order Completion	Service Levels
		Performance Objective
Part E: Availability		
28	Network performance and availability	Service Level Target
29	Availability of the NBN Co Platform Interfacing Service	Service Level Target

iii Service levels remedies frameworks

NBN Co is committed to meeting the service levels as set out in the Service Levels Schedule, to provide certainty to Customers to enable them to meet their downstream commercial commitments and regulatory obligations.

The Service Levels Schedule provides that if NBN Co does not achieve the relevant Metric, a Customer may (subject to and in accordance with Part F of the Service Levels Schedule):

- require NBN Co to perform 'corrective action' (except for Operational Targets) – NBN Co is required to take action to, in effect, 'put right a wrong' in respect of its commitment on service levels. This corrective action obligation would result in NBN Co continuing to look for ways to improve its performance;
- claim a Commercial Rebate – two commercial rebates are provided in relation to:
  - failing to meet the End User Connection service levels; and
  - failing to meet the Enhanced-12 Fault Rectification service level;
- claim CSG Compensation – in this regard:
  - the timeframes set out in the Service Levels Schedule in respect of fault rectification and kept appointments are aligned with CSG timeframes,

therefore, assisting Customers to meet their downstream CSG obligation to their End Users;

- there is also an Accelerated Connection queue that Customers can also use to assist in meeting their downstream CSG obligations in respect of connections. Customers can place an order for an End User connection relating to specified premises through the Accelerated Connection queue for a service that is an input into a downstream CSG service;
- NBN Co will pay a Customer CSG compensation if the Customer contravenes a CSG performance standard and NBN Co has wholly or partly contributed to that contravention due to an act or omission by NBN Co, including failing to meet a Metric, as specified in the Service Levels Schedule;
- However, Customers must take all actions reasonably available to them to mitigate liability to pay Primary Damages under the CSG Standard. This may include requesting an End User to waive its rights to the CSG Standard or ordering the Access Components that are to be used as a downstream CSG service as an Accelerated Connection; and
- NBN Co will establish a separate claims process for CSG compensation. This process will have no direct relationship with the general claims that may be made by Customers under the commercial rebates structure, described above.

iv Reporting measures

The Service Levels Schedule commits NBN Co to providing each Customer with Performance Reports regarding NBN Co's performance of each activity to which a service level applies, and also provides Customers with the ability to make enquiries regarding those reports.

NBN Co will also be required to conduct an independent audit every two years to assess the general accuracy of the reports.

These arrangements will provide increased transparency and certainty to Customers in regard to the quality of service that they can offer to End Users.

v Future development of service levels and remedies framework

NBN Co is committed to improving its service levels on a continuous basis. On 19 September 2012, NBN Co launched the Service Levels Schedule to the Industry, in respect of which it is consulting with Customers. NBN Co expects to improve the Service Levels Schedule in the short term in order to address Customer feedback in respect of the Service Levels Schedule.

For the long term, NBN Co has developed a roadmap (beyond its commitments in the SAU) to improve customer experience over the next two years. This is reflected in the Service Levels Schedule in the form of Operational Targets that NBN Co will seek to perform to during the rest of 2012 and 2013.

The purpose of the Operational Targets for 2012 and 2013 is to provide Customers with

greater certainty in respect of the service quality that they can expect from NBN Co in the future, and to assure them that NBN Co will continuously improve its service over time. In addition, the commitments made in clause 1J.2 ensure that service level terms will be maintained (having regard to all the circumstances) in any updated SFAA.

NBN Co commits in section 1J.2 to maintain service levels and service level rebates on terms that are the same or better (having regard to all the circumstances) to those that applied in the immediately prior relevant period. This means NBN Co will have regard to the overall effect of any changes in service levels or service level rebates across NBN Co's customer base. The overall effect will be the same or better. For the purposes of section 1J.2, this applies to maintaining metrics on terms after 2014 to those that applied under the Service Levels Schedule prior to the end of 2014.

vi Regulatory recourse on service levels

During the Initial Regulatory Period, NBN Co is proposing to consult with Customers at regular intervals through the Multilateral SFAA Forum, including during the term of the next WBA. Should any Customer be dissatisfied with NBN Co's proposed evolution of service levels, Customers have the right, at any time, to request that the ACCC make an Access Determination (AD) or a Binding Rule of Conduct (BROC) in respect of service levels. Any such AD or BROC would then apply, via the regulatory recourse commitments in Schedule 1B, to the extent not inconsistent with the terms and conditions of the SAU.

The same regulatory recourse arrangements will apply, in regard to service levels, for the remainder of the Initial Regulatory Period. This should alleviate any concerns regarding whether or not NBN Co is committed to the Service Levels Schedule, and to appropriately evolving service levels over time.

5.5.2 Subsequent Regulatory Period

Service levels in the Subsequent Regulatory Period will be set out in Replacement Modules every 3-5 years, in accordance with the terms and conditions in Module 2. Schedule 2F indentifies the principles that must apply to those service levels in the Subsequent Regulatory Period, both for existing products, and for new products that are introduced during a Regulatory Cycle. If NBN Co's proposed service levels and rebates proposed in the Replacement Module Application are not accepted by the ACCC, the SAU clarifies that the ACCC may make an AD or BROC in relation to service levels and rebates. This design feature of the modular SAU approach means that NBN Co will have strong incentives to propose meaningful and relevant service levels in each Replacement Module.

NBN Co commits in section 2F.2.1 to maintain service levels and service level rebates on terms that are the same or better (having regard to all the circumstances) to those that applied in the immediately prior relevant period. For the purposes of section 2F.2.1, this applies to NBN Co maintaining service levels and service level rebates in the next Regulatory Cycle that applied immediately before that next Regulatory Cycle.

In terms of existing products (i.e. those that carry over from one regulatory cycle to the next), the service levels and service level rebates in the next regulatory cycle for those

products will be based on the service levels and service level rebates that apply (in accordance with the SAU) in the financial year immediately preceding the commencement of the Regulatory Cycle, and will be the same or better having regard to all the circumstances. These service levels may be updated, varied or specified in further detail to the extent necessary to promote the efficient take-up and usage of NBN Co's Product Components, Product Features, Ancillary Services and types of Facilities Access Service having regard to costs of proposed changes and retail level regulatory requirements.

In terms of new products introduced during a Regulatory Cycle, Service Levels and Service Level Rebates for these will be specified by NBN Co and will apply from the introduction of a product until the end of the Regulatory Cycle. The Service Levels and Service Level Rebates must be specified in a manner that will promote the efficient take-up and usage of products having regard to cost impacts and retail-level regulatory requirements.

NBN Co will have incentives to behave in a manner consistent with these principles in any event. Ordover and Shampine observe that:

> *... NBN Co generally has incentives to provide its customers with products its customers wish to purchase.* [101]
>
> *...*
>
> *Accommodating customers with respect to non-price terms can increase sales by increasing quality (and reducing quality-adjusted prices).* [102]

5.6 Product development and withdrawal

5.6.1 Initial Regulatory Period

Given the proposed term and scope of operation of the SAU, the Product Components and Product Features currently able to be identified within the SAU are not the only ones that NBN Co will make available pursuant to the terms of the SAU. NBN Co may progressively release additional Products, Product Components and Product Features during the Initial Regulatory Period in accordance with the product development processes outlined in Schedule 1I of the SAU.

Conversely, over time Products, Product Components, Product Features, Ancillary Services or type of Facilities Access Service may no longer be relevant in the market, and NBN Co will (subject to Reference Offer commitments) seek to vary or withdraw these to ensure it can continue to efficiently supply relevant options for its Customers.

Module 1 of the SAU sets out in detail the process that NBN Co will apply to the development, variation and withdrawal of Products, Products Components and Product Features in the Initial Regulatory Period. These processes are a manifestation of the processes and principles NBN Co has followed in developing its products to date (including

[101] Expert Report of Janusz A. Ordover and Allan L. Shampine, September 24 2012, paragraph 41.
[102] Ibid, paragraph 44.

products noted in NBN Co's Initial Product Roadmap) and as such represents an enforceable commitment to continue the practices it has already been following.

The commitments in Schedule 1I will not apply to:

- Products, Product Components and Product Features covered by or contemplated within the Initial Product Roadmap;
- Products, Product Components or Product Features NBN Co is obliged to offer as a result of a carrier licence condition imposed under the *National Broadband Network Companies Act 2011* (NBN Companies Act);
- A minor variation or enhancement of a Product, Product Component or Product Feature; and
- A withdrawal of a Product, Product Component, Product Feature, Ancillary Service or type of Facilities Access Service that relates to a requirement of law (including prohibition on supply under the NBN Companies Act) or a direction by Shareholder Minister.

NBN Co considers that the exclusion of Products, Product Components and Product Features covered or contemplated within the Initial Product Roadmap from the PDF processes is appropriate because NBN Co has already developed these products through a consultative and collaborative product development process (which has been used as the model for what is now incorporated into Schedule 1I) which informed the prioritisation shown on that roadmap and procurement and other decisions necessary to implement that roadmap. As such, requiring these products to now go through the PDF processes would be unnecessary and inefficient.

The obligations in Schedule 1I are intended to ensure that Customers are central to NBN Co's product development and improvement processes and to provide Customers with certainty about the way in which NBN Co will assess and implement Product Ideas over time. These obligations inform the procedures which are set out in the PDF Processes (discussed below).

NBN Co must produce and keep up to date a roadmap of the products which are under development, and those scheduled for implementation. This obligation creates transparency for Customers about NBN Co's product development pipeline and allows Customers to express their preferences in relation to the products which NBN Co intends to offer and the development priorities.

i Product development principles

In response to industry feedback, the SAU sets out a number of product development principles which are intended to apply to the development of products. The principles relate to the following:

- Committing to develop products that Customers want, that have sufficient demand to be commercially viable and from which Customers will gain value;

- Implementing Australian Government Policy communicated to NBN Co by its shareholder Ministers including via the Statement of Expectations);
- Complying with NBN Co's legal obligations under the CCA and the NBN Companies Act; and
- Encouraging Customer participation in the design of products and facilitating Customer engagement and consultation in relation to Product Ideas.

The above principles will promote a collaborative, non-discriminatory and commercially sound approach to the development of products that will appropriately meet the needs of Customers and their End Users.

ii Product Development Forum (PDF)

Clause 1I.3.1 creates an obligation for NBN Co to implement the PDF and NBN Co commits to ensuring the PDF will be the primary forum for the development of Product Ideas and Customer engagement.

Clause 1I.3.2 requires NBN Co and Customers to comply with the PDF Processes in order to participate in the PDF.

Clause 1I.3.3 sets out some criteria that NBN Co may apply in selecting which Product Ideas to develop through the PDF Processes. These criteria are consistent with the general principles for product development discussed above, and are an indicative list of criteria intended to provide Customers with a transparent commitment as to the approach NBN Co will adopt. The list of criteria is necessarily indicative, because NBN Co expects to receive a broad range of Product Ideas over time.

Together these obligations ensure that each of NBN Co's decisions about product development is subject to scrutiny by, and feedback from, Customers throughout the product development cycle.[103]

Schedule 1I subjects two fundamental aspects of new product ideas to Customer consultation:

- new product pricing; and
- new product service levels.

These obligations ensure that NBN Co will not introduce a new Product, Product Component or Product Feature without prior consultation with Customers and an opportunity for Customers to raise issues in relation to pricing and service levels.

Where Product Ideas require Network Changes, clause 1I.3.4 provides that NBN Co will not introduce the product solution until it has satisfied the prudency requirements as required by Schedule 1E of the SAU.

[103] The general rationale and benefits of such customer engagement in a regulatory context is discussed in Appendix B.

Together, these obligations ensure that product development results in Products, Product Components and Product Features which have been effectively consulted on with Customers, and are implemented on a prudent basis.

Clause 1I.4 of the SAU does not require NBN Co to submit minor product changes to the formal customer consultation process. However, such changes will be notified to Customers through the PDF.

iii Product Development Forum and PDF Processes

The PDF Processes are set out in Annexure 1 to Schedule 1I and outline the practical rules and structures through which the PDF objectives are achieved in the Initial Regulatory Period.

NBN Co must communicate with Customers on a non-discriminatory and transparent basis about NBN Co's activities and decisions at each key point of product development and variation. This transparency empowers Customers to ensure that each Product Idea is judged on its merits and is accorded development resources that are commensurate with the potential value of the Product Idea to NBN Co and to Customers.

In order to participate in the PDF, Customers must register an authorised participant and agree to the terms and conditions set out in the PDF Processes. A Customer may submit a Product Idea (which could be a proposal for the development of a new Product, Product Component or Product Feature, or an enhancement to an existing one) and as soon as practicable after receiving the Product Idea, NBN Co will inform all participants of the PDF and provide any information that NBN Co has been provided (subject to confidentiality and IPR claims made by the submitting Customer).

NBN Co will then, as soon as practicable, inform the submitting Customer of when NBN Co expects to conduct an initial review of the Product Idea. This timeframe is likely to be based on multiple variables including the complexity of the Product Idea, NBN Co's existing product development program and the likely market for the Product Idea. NBN Co will inform the Customer if anything material changes in relation to the timing they are provided.

In conducting an initial assessment of a Product Idea, NBN Co will have regard to a number of criteria (as set out in Schedule 1I and discussed in section 5.6.1(i)) including factors such as the demand, commercial, technical and operational viability of the Product Idea, and whether the Product Idea is within NBN Co's permitted scope of activities (which include compliance with the NBN Companies Act, the CCA and NBN Co's obligation to implement Government policy communicated to it by its shareholder Ministers).

Once NBN Co completes an initial assessment, if NBN Co decides to further develop a Product Idea, NBN Co will publish a Product Construct Paper setting out all relevant details for Customers to understand the product solution being proposed. If NBN Co decides not to pursue a Product Idea, it will inform Customers and provide reasons for that decision. In addition to this, if applicable (i.e. the Product Idea is not excluded from the PDF) NBN Co will also provide Customers with information regarding Customer Consultation. If NBN Co

decides to not develop a Product Idea, it will publish a notice to that effect to the PDF giving specific reasons for its decision.

Product Ideas and variations may be developed through workshops, submissions, mailing lists, working papers, or any other collaboration modes that are appropriate to a particular Product Idea.

After a Product Idea has been fully developed through Customer consultation, NBN Co will publish a final Product Construct Paper setting out the details of the development of the Product Idea.

NBN Co anticipates that the Product Ideas submitted to it will vary widely in complexity, novelty and utility. In addition, there is a degree of uncertainty about exactly what products Customers will require and request. For that reason, strict obligations on NBN Co to undertake each of the steps in the product development process transparently are balanced by the PDF Processes preserving flexible timeframes and modes of Customer consultation to allow for a variety of Product Ideas to be developed in the manner most effective and appropriate for each such Product Idea.

Commitments made in the PDF to keep Customer's informed of the process means NBN Co will be held accountable for its decisions relating to Product Ideas on a case-by-case basis without requiring artificial or unrealistic constraints and without requiring onerous procedures which stifle the rapid development of Product Ideas and variations which are capable of rapid development.

The PDF Processes will be reviewed in 2017-18, in accordance with Schedule 1K.

iv Product development – confidentiality and IPR

In developing the confidentiality and Intellectual Property Rights(IPR) arrangements contained in the PDF processes, NBN Co consulted extensively with Customers in the CDP and has arrived at arrangements that strike an appropriate balance between the interests of Customers to protect their confidential information and IPR rights and the need for NBN Co to consult transparently and in accordance with its non-discrimination obligations to ensure the development of new products (that meet Customer requirements).

To this end, a key shift in the confidentiality arrangements is the move away from having stand-alone multi-party confidentiality agreements to incorporating confidentiality and IPR arrangements in the PDF processes (which are themselves annexed into the SAU).

In submitting Product Ideas or information to the PDF (i.e. making formal submissions or providing information at workshops), Customers will be required to clearly identify what information NBN Co should treat as confidential. NBN Co will only share with the PDF those aspects of the information that are not considered by the Customer to be confidential. NBN Co will agree to keep Customers' confidential information confidential and not share it with other Customers and parties not provided for in the PDF Processes. The confidentiality provisions will explicitly provide for permitted uses of confidential information (e.g. information about Customers' technical requirements may be used in the product design

provided the Customer can be de-identified).

Whilst acknowledging the importance of Customers having their confidential information protected, if NBN Co considers that Customer's confidentiality claims may preclude the development of a Product Idea, the project can be terminated at NBN Co's discretion. To balance these interests the confidentiality regime provides for NBN Co and the Customer to negotiate, on a case by case basis, for the use of the Customer's confidential information in developing the Product Idea.

If NBN Co and the Customer cannot agree mutually acceptable terms (including terms that would allow NBN Co to comply with its non-discrimination obligations) , NBN Co will not proceed with developing the product or will take an alternative approach to continue developing.

In terms of IPR, the previous arrangement of granting general licences and assignments of IPR from Customers to NBN Co has been removed from the terms and conditions. The IPR arrangements in the PDF Processes will require Customers to identify (upfront) IPR claims when they provide any information into the PDF (including third party IPR claims). If NBN Co wishes to develop a product that incorporates a Customer's IPR , as with the approach to confidential information, NBN Co will negotiate with the Customer on a case by case basis for a licence to use that IPR.

The confidentiality and IPR terms and conditions incorporated into the PDF processes place a greater emphasis on the requirement for Customers to identify up-front any confidentiality and IPR of the ideas they have submitted. This approach adopts feedback from Customers which indicated a preference to have control over IPR and confidentiality of material they submit. In addition, NBN Co needs to have visibility over Customers' confidentiality and IPR (as well as third party claims) at an early stage in the product development process for the purpose of compiling an accurate business case (e.g. building in licensing costs).

Consistent with an approach where the Customer takes responsibility for their own IPR and confidentiality, Customers will be required to meet NBN Co's costs or losses arising in connection with a Customer's failure to properly identify confidentiality and IPR as required under the PDF Processes. For example if NBN Co determines that implementing a product solution derived from a Customer's Product Idea will require third party IPR, and that requirement was not disclosed by the Customer (in accordance with the required process), NBN Co may cease development of the product solution, and the Customer will be responsible to pay for any losses suffered by NBN Co as a result.

NBN Co considers that this approach to IPR and confidentiality is also important in maintaining the integrity of the PDF processes, by ensuring that the process is not 'gamed' to hinder product development, stifle innovation and divert resources away from legitimate ideas for products.

v Product Withdrawal

Subject to Reference Offer commitments in Schedule 1C and the non-circumvention clause in clause 1I.5.1, NBN Co commits in Clause 1I.5 of the SAU to:

- provide Customers with no less than 24 months written notice of its intention to withdraw a Product, Product Component, Ancillary Service or type of Facilities Access Service;[104] and
- provide Customers with 12 months written notice of its intention to withdraw a Product Feature, unless the withdrawal will have material adverse effect on the functionality or performance of a Product or Product Component with which the Product Feature is associated, in which case NBN Co will provide 24 months written notice.

In each case NBN Co will also provide written notice of the transitional arrangements that NBN Co may put in place (if any) to migrate its Customers from the Product, Product Component, Product Feature, Ancillary Service or Type of Facilities Access Service being withdrawn to an alternative.

In determining whether to withdraw, NBN Co will have regard to a number of factors including existing demand for what is proposed to be withdrawn, cost to NBN Co of maintaining and continuing to supply, the functionality offered, technical and commercial feasibility and price of an alternative offering.

NBN Co will consult with Customers in good faith about any impending withdrawal of a Product, Product Component, Product Feature, Ancillary Service or type of Facilities Access Service.

NBN Co also commits to not withdrawing Products, Product Components, Product Features, Ancillary Services or Types of Facilities Access Service for the purpose of circumventing or avoiding the operation the individual price increase limits set out in the SAU.

Together, these commitments provide Customers with long lead times to prepare for any Product Component or Product Feature withdrawal and with a high degree of input into proposals regarding such withdrawals.

Nothing in clause 1I.5 will apply to withdrawals that NBN Co is required to carry out by law.[105]

[104] Except for the Tasmania Tri-Area Service, and the Interim Satellite Service in respect of which NBN Co will provide no less than 6 months written notice. (clause 1I.5.2(a)(i)) of the SAU).
[105] Including where a Shareholder Minister has required withdrawal or NBN Co is prohibited from providing a service under section 41(3) of the NBN Companies Act. (Clause 1I.5.3 of the SAU).

5.6.2 Product development and withdrawal in the Subsequent Regulatory Period

Schedule 2E of the SAU sets out NBN Co's commitments in relation to product development and withdrawal in the Subsequent regulatory period. In effect these commitments mirror those discussed above in the context of the Initial Regulatory Period, with the SAU setting out the following:

- Product development principles and criteria relating to assessment of Product Ideas;
- The requirement to have a Product Roadmap;
- The requirement to have a PDF, although in contrast to Module 1, no detailed commitments are made in relation to PDF Processes. NBN Co considers that details pertaining to product development processes may appropriately be dealt by a Replacement Module taking into account the effectiveness of the processes during Module 1; and
- Commitments around how NBN Co will approach product withdrawal (i.e. Customer focussed approach), with a commitment not to withdraw Reference Offers (subsisting at that time).

6 Price-related terms and conditions

Key points

- NBN Co has developed a package of price-related terms and conditions that is intended to provide for:
  - uniform national wholesale pricing – provide the long term framework necessary for UNWP;
  - long term cost recovery – provide the opportunity for recovery of prudently incurred costs over time (inclusive of an appropriate return on capital);
  - pricing stability and predictability; and
  - efficient take-up and usage – encourage economically efficient take up and usage of NBN Co's products.
- The price-related terms and conditions meet these objectives through the interaction of:
  - Reference Offers that cover all of the elements required to provide an end to end service using the Basic Access Offers (defined separately for each of the fibre, wireless and satellite networks), the Enhanced Access Offer (fibre network only) and the Standard Business Offer (fibre network only). The Basic Access Offers are intended to provide basic connectivity to the NBN for voice telephony and/or broadband services and the Enhanced Access Offer is intended to provide higher Speed connectivity to the NBN, being the most frequently acquired Speed for broadband services. The Standard Business Offer is intended to provide business grade broadband connectivity to the NBN for voice (TC-1) and broadband (TC-4) services.
    - The full set of Reference Offers comprises the Basic Access Offers, the Enhanced Access Offer, the Standard Business Offer, the Connectivity Virtual Circuit Offers (TC-1 and TC-4), the Network-Network Interface Offers, the Platform Interfacing Offer, the Sandpit Offer and the Facilities Access Service Offer.
    - In Module 1, the Basic Access Offers will be based on a 12/1Mbps AVC TC-4 service (6/1 Mbps for interim satellite), the Enhanced Access Offer (fibre network only) will be based on a 25/5 Mbps AVC TC-4 service and the Standard Business Offer (fibre network only) will be based on a 25/10 AVC-TC-4 service bundled with 500kbps (TC-1) of Symmetric Access Capacity delivered to the same UNI-D. Initial pricing for all Reference Offers is fixed in nominal terms until 30 June 2017, and

thereafter is subject to an Individual Price Increase Limit of CPI-1.5%[106]. Once the transitional CVC credit arrangements have ceased to apply in all CSAs, NBN Co will annually review the CVC (TC-4) Maximum Regulated Price with a view to reducing the nominal price as aggregate demand for that Reference Offer increases.

- After Module 1 expires, the product scope of the Reference Offers will be updated every 3 to 5 years based on the principles set out in Module 2, and the pricing of those offers will be subject to an Individual Price Increase Limit of CPI-1.5%.
- Reference Offers cannot be withdrawn during the term for which they apply (the Initial Regulatory Period in Module 1 and subsequent 3 to 5 year periods in Module 2).

- Non-Reference Offers that cover all services that are not Reference Offers and Other Charges that apply to the supply of Reference Offers and Non-Reference Offers.
  - NBN Co has included initial pricing in Module 1 for a broad range of Non-Reference Offers and Other Charges – this covers: the Asymmetric AVC Offers (including up to a 1Gbps downlink); the Additional Asymmetric AVC Offers; the Symmetric Access Capacity Offers (relating to TC-1, TC-2 and TC-3 access capacity); the Second UNI-V and AVC Offer; the Connectivity Virtual Circuit Offer (TC-2 and TC-3); the Multicast AVC Offer; the Multicast Domain Offer; the Enhanced NFAS Fault Rectification Offer; and a comprehensive set of Other Charges.
  - Subsequent pricing for Non-Reference Offers and Other Charges will be subject to an Individual Price Increase Limit of CPI-1.5%.
  - Initial Pricing Principles (applying across both Module 1 and Module 2) set out a range of matters that NBN Co must have regard to in setting initial pricing, including in relation to new Non-Reference Offers and Other Charges. The ACCC will have an oversight role in regards to NBN Co's compliance with the principles, and the SAU provides that NBN Co will issue a pricing rationale statement, which will provide transparency.
- a Long Term Revenue Constraint Methodology (LTRCM) that constrains NBN Co over time to recovering no more than its prudently

[106] This is applied as [(1+CPI)*(1-1.5%)-1], but is referred to for simplicity throughout this submission as CPI-1.5%.

incurred costs of supply (inclusive of an appropriate return on capital):

- In Module 1, the operation of the LTRCM is fully specified, and is based on an actual cost approach, supported by an extensive set of prudency commitments.
- In Module 2, the LTRCM is specified in detailed terms for key cost recovery provisions, and in principled terms for other provisions. The LTRCM will operate in a manner similar to standard utility regulation, with forecasts of expenditure, demand and revenue being evaluated by the ACCC and then being locked in as part of the regulatory arrangement for a 3 to 5 year period.

- The service level and rebate commitments in the SAU (as discussed in section 5.5) complement these price-related terms and conditions and together provide Access Seekers with greater stability and predictability in terms of quality adjusted prices.
- The initial prices for Reference Offers, Non-Reference Offers and Other Charges as specified in the SAU are the result of extensive consultation with Access Seekers. NBN Co has been responsive when legitimate concerns have been raised, leading for example to the transitional CVC rebate and the recent introduction of a 5Mbps Multicast AVC speed (i.e. Data Transfer Rate) tier.
- Based on pricing for products already available, Customers have been able to develop NBN-based retail offers that, as compared to retail offers on legacy networks, offer End Users the same or significantly better services for similar prices – this demonstrates the success of a key aspect of NBN Co's pricing strategy, which is to provide a smooth transition to the NBN.
- There is no regulatory recourse on initial or ongoing pricing (with the exception of proposed changes to any price for a Reference Offer or Other Charge related to the supply of a Reference Offer, where that price is currently set at zero). This is appropriate given that NBN Co is precluded by law from having any competing retail interests and faces strong and consistent incentives to price its services efficiently, having particular regard to current and future market demand. These incentives are the result of the long term revenue sufficiency risk associated with the NBN (as acknowledged by the ACCC in its recent authorisation of NBN Co's agreement with Optus) together with how forecasts are used in the LTRCM in Module 2.
- NBN Co submits that these price-related terms and conditions appropriately meet the needs of Access Seekers, their End Users and NBN Co.

6.1 Objectives

The price-related terms and conditions set out in the SAU are a reflection of the context in which the NBN is being built and operated, and are intended to achieve a number of objectives, including the following.

- UNWP – Provide the long term framework reasonably necessary for UNWP, bearing in mind that:
  - the Government, in its role as shareholder, has directed NBN Co to "charge Access Seekers uniformly for services across its network for all technologies and for the basic service offering"[107]; and
  - this direction is supported by specific provisions in the CCA dealing with how uniform national pricing should be treated in the ACCC's assessment of an SAU (see discussion in section 3.4).
- Long term cost recovery – Provide the opportunity for recovery of prudently incurred costs over time (inclusive of an appropriate return on capital).
- Pricing stability and predictability – Strike a balance between pricing certainty for Access Seekers and pricing flexibility for NBN Co, having regard to the need to account for evolving technology, applications and demand.
- Efficient take-up and usage – Encourage the economically efficient take up and usage of NBN Co's products, including by:
  - encouraging early migration from legacy networks to the NBN once the NBN is available in a particular area (noting that in NBN fibre areas Telstra's copper access network will be run in parallel for 18 months under Telstra's Migration Plan);
  - minimising (to the extent reasonable over time having regard to incremental cost and revenue effects) the incentive for End Users to abandon a fixed connection and switch to mobile only instead of migrating to (and staying on) the NBN;
  - encouraging Access Seekers (and in turn End Users) to experience the opportunities and benefits afforded by the NBN, with a view to developing a virtuous circle of investment in applications and patterns of use that will build willingness to pay for higher speed and functionality services over time; and

[107] Statement of Expectations from shareholder Ministers, 17 December 2010, p.7.

- recognising that willingness to pay for different products and features will vary considerably between different market segments and over time, but that the costs of the NBN are subject to significant economies of scale and scope (resulting in the avoidable costs associated with serving a particular market segment, such as voice only services, or offering a particular product or feature, such as a particular access speed tier, being typically well below the relevant customer willingness to pay).

6.2 NBN Co's overarching pricing strategy

Consistent with the multiple objectives set out above, NBN Co's overarching pricing strategy involves setting prices for Product Components, Product Features, Ancillary Services and types of Facilities Access Service that vary across the product suite and across time, but do not vary according to the network over which access is provided. This is consistent with the objective of UNWP, and necessarily means that prices are not reflective of the cost of the specific network over which access is actually provided. NBN Co considers that willingness to pay for its higher speed and functionality services will grow over time (supported by new applications and patterns of use) and NBN Co's Corporate Plan is based on this assumption.

As a consequence of this expectation, combined with the imperative of encouraging economically efficient take up and usage (necessarily taking as given the coverage and technology mix of the network), the key element of NBN Co's overarching pricing strategy is a two part pricing approach comprising an access component in the form of the AVC charge and a usage component in the form of the CVC charge. Average Revenue Per User (ARPU) will initially be driven mostly by AVC revenue, but over time it will be driven to a greater degree by CVC revenue as usage of the NBN increases.

The ongoing growth in network usage (and take-up of higher speed access services) is based on the anticipated evolution of telecommunications from traditionally voice and email to a much broader service including high definition video, e-education, e-health and other new applications. This will lead to increased usage by the End User and hence increased utility being derived from the NBN service. Overall, this is expected to result in an increasing ARPU even though the individual unit prices (for both AVC and CVC) are expected to decrease. In particular, NBN Co's Corporate Plan assumes that the nominal unit price of CVC (TC-4) capacity will reduce over time, but that the revenue effect of such reductions will be more than offset by the ongoing growth in network usage.

This pricing strategy should allow NBN Co to balance, over time, the competing needs of maintaining high rates of take-up of the NBN (through affordable AVC prices) with high rates of usage of the NBN (through affordable CVC prices). Striking an effective balance, and having the flexibility to adjust it dynamically is very important for NBN Co, Access Seekers and their End Users given the extent of the economies of scale and scope associated with the NBN and also the need to account for evolving technology, applications and demand over the 30 year term of the SAU.

6.3 Approach to SAU price-related terms and conditions

Based on the objectives set out in section 6.1 and the overarching pricing strategy described in section 6.2, NBN Co's approach to the SAU's price-related terms and conditions combines price controls that operate at an individual Product Component, Product Feature, Ancillary Service and types of Facilities Access Service level with long-term revenue controls that operate across all Product Components, Product Features, Ancillary Services and types of Facilities Access Service. The price-related terms and conditions comprise the following broad elements:

- Reference Offers that cover all of the elements required to provide an end to end service using the Basic Access Offers (defined separately for each of the fibre, wireless and satellite networks), the Enhanced Access Offer (fibre network only) and the Standard Business Offer (fibre network only);
- Non-Reference Offers that cover all services that are not Reference Offers and Other Charges associated with the supply of Reference Offers and Non-Reference Offers; and
- a LTRCM that constrains NBN Co over time to recovering no more, on an expected NPV, basis than its prudently incurred costs of supply (noting that this constraint will not directly affect product pricing in the short to medium term because of the extent of initial cost under-recovery).

Subject to compliance with these price-related terms and conditions (which apply differently across Modules 1 and 2), NBN Co will retain flexibility to set the initial and ongoing prices for existing and new Product Components, Product Features, Ancillary Services and types of Facilities Access Service. Such pricing is not subject to regulatory recourse to the ACCC.

These elements and their interaction as an overall package of price-related terms and conditions are discussed further in the following sections.

6.4 Reference Offers

6.4.1 Initial composition – Module 1

For the Initial Regulatory Period, Module 1 sets out the following Reference Offers:

- Basic Access Offers (12/1Mbps) – there is one offer in respect of each of the NBN Co fibre, wireless and satellite networks given that the technical capabilities of each network are different;
- Enhanced Access Offer (25/5 Mbps) – fibre only;
- Standard Business Offer (25/10 Mbps bundled with 500 kbps (TC-1) of Symmetric Access Capacity)) – fibre only;
- NNI Offers – specified NNI port configurations;

- CVC Offers (TC-1 and TC-4) – all TC-4 symmetrical CVC capacity tiers;
- NBN Co Platform Interfacing Offer;
- Sandpit Offer; and
- Facilities Access Service Offer (includes Cross-Connect and ODF Termination).

The intent of these offers is to provide greater stability and predictability for Access Seekers in regard to a selection of the NBN Co products that will be of most significance to servicing the needs of End Users expected to connect to the NBN over the next 10 years[108]. In a practical sense, the Reference Offers cover all of the elements required to provide an end to end service using the Basic Access Offers, the Enhanced Access Offer and the Standard Business Offer.

In addition to defining the product scope and including pricing commitments, a key feature of the Reference Offers is that they cannot be withdrawn by NBN Co for the term of the offer (the Initial Regulatory Period in Module 1 and subsequent 3 to 5 year periods in Module 2).

The stability and predictability provided by the Reference Offers from a pricing perspective will be complemented by the service level commitments included in the SAU (as discussed in section 5).

NBN Co highlights the following points regarding the scope of the Reference Offers.

- On the fibre network, it is expected that in 2017-18 the services that comprise the Reference Offers will account for 60% of total fibre revenues (covering both residential and business services). This means that the Reference Offers are expected to form a significant proportion of NBN Co's expected revenues, and hence are likely to provide a meaningful pricing anchor for most of NBN Co's remaining product set.
- In addition to the Standard Business Offer, many of the Reference Offers will be purchased as the basis for business grade services – for example, CVC TC-1, CVC TC-4, NNI, and Facilities Access.
- In respect of Non-Reference Offers and Other Charges:
  - NBN Co has strong financial incentives to develop and price new services over time in a manner that meets the current and evolving future needs of both the residential and the business markets; and
  - NBN Co has included initial pricing in Module 1 for a broad range of Non-Reference Offers and Other Charges (this includes the multicast service and a range of business grade services). These prices will then be subject to the individual price increase limit that applies to each Non-Reference Offer and also

[108] Any Other Charges that an Access Seeker may incur in taking up any of the Reference Offers are addressed as part of the Non-Reference Offer and Other Charges pricing commitments.

to Other Charges associated with the supply of Reference Offers and Non-Reference Offers. The initial prices of any new Non-Reference Offers and new Other Charges are subject to a set of initial pricing principles, and the ongoing prices will then be subject to the individual price increase limit.

- In a practical sense, the only benefit that Access Seekers may gain were NBN Co to include an additional product as a Reference Offer in Module 1 would be that NBN Co would be committed to not withdraw the product for 10 years.
  - The pricing commitment that NBN Co would propose making in that context would be the same Individual Price Increase Limit as would apply to a Non-Reference Offer service.
  - Although the stability provided by a commitment not to withdraw may be of value to some Access Seekers, it may also inhibit innovation by unnecessarily restricting NBN Co's ability to evolve its product set over the next 10 years, which would ultimately be to the detriment of both Access Seekers and End Users.
  - The SAU provides commitments in relation to product development and withdrawal (including withdrawal notification periods and anti-circumvention provisions in relation to the individual price increase limit), and NBN Co submits that these are the appropriate means by which to address the issue of product withdrawal for all but the (core) set of services, as represented by the Reference Offers.

6.4.2 Periodic updating of Reference Offer composition – Module 2

For the Subsequent Regulatory Period, Module 2 sets out Reference Offer Principles, and the relevant considerations for determining the composition of the Reference Offers.

The Reference Offer Principles, which define the period over which the offers can apply and the pool of possible offers from which they can be drawn, provide as follows.

- Each Reference Offer will exist for the duration of the Regulatory Cycle to which it relates.
- Reference Offers established for each Regulatory Cycle will be offered and will not be withdrawn during the Regulatory Cycle.
- Reference Offers established for each Regulatory Cycle will be based on Reference Offers and Non-Reference Offers that are already being supplied by NBN Co in the Financial Year immediately preceding the start of each Regulatory Cycle.
- Any Reference Offers that were established prior to the Regulatory Cycle but which are not re-established as Reference Offers in the Regulatory Cycle will become Non-Reference Offers at the commencement of the Regulatory Cycle.

The relevant considerations for determining the composition of the Reference Offers are

specified differently for different categories of Reference Offer.

- Basic Access Offer – in respect of each NBN Co network, the focus is on determining the lowest Data Transfer Rate for the AVC (TC-4) being acquired by a material number of End Users for the primary purpose of achieving basic connectivity to the NBN for voice telephony and/or broadband services.
- Enhanced Access Offer – in respect of the fibre network only, the focus is on determining the Data Transfer Rate for the AVC (TC-4) being most frequently acquired by End Users for the purpose of broadband connectivity to the NBN.
- Standard Business Offer – in respect of the fibre network only, the focus in on the asymmetric AVC capacity (TC-4) with the Data Transfer Rate that was being most frequently acquired in conjunction with a Symmetric Access Capacity (TC-1) with the Data Transfer Rate most frequently acquired for the purposes of business-grade broadband connectivity to the NBN.
- CVC Offer (TC-1 and TC-4), NNI Offer, Ancillary Service Offer and Facilities Access Service Offer – for each of these, the focus is not on picking one out of range of possible options, but rather on including all such options provided that the Data Transfer Rate or Type (as relevant) is actually being acquired by Access Seekers in the Financial Year immediately preceding the Regulatory Cycle and are reasonably necessary for an Access Seeker to acquire the Basic Access Offers, the Enhanced Access Offer and the Standard Business Offer (as updated).

Specified in this way, it is clear what the Reference Offers are intended to provide once updated, and the SAU avoids an unduly mechanistic approach in regard to the analytical process by which such updates should be arrived at.

6.4.3 Pricing of Reference Offers – Module 1

For the Initial Regulatory Period, Module 1 of the SAU includes the following Reference Offer pricing commitments.

- Between the commencement of the SAU and 30 June 2017 the Maximum Regulated Price for each Reference Offer is fixed in nominal terms at the level set out in Clause 1C.3 of the SAU.
- From 1 July 2017 until the end of the Initial Regulatory Period, the Maximum Regulated Price for each Reference Offer will be determined with respect to an Individual Price Increase Limit of CPI-1.5%. This limit is calculated annually with respect to the average price specified in the SFAAs over the previous financial year and is not subject to any carry forward in relation to pricing below the limit in prior years. To allow for the complex effects of price changes part way through a prior year on the Individual Price Increase Limit, the Maximum Regulated Price for the current year is specified such that it will never be less than the price in any SFAA on the last day of the prior year.

- The operation of the Individual Price Increase Limit is subject to a number of important exceptions and protections.
  - The limit does not apply to any notional change in a price due to the reduction, removal or cessation of the application of a discount.
  - In respect of Zero Priced Reference Offers, NBN Co may introduce a new price in certain circumstances, but it must provide 3 months' notice to Access Seekers. If, during the notice period, the ACCC makes a relevant Access Determination or Binding Rule of Conduct, then the price will be as specified in that Access Determination or Binding Rule of Conduct. The same arrangement applies in regard to Zero Priced Other Charges associated with the supply of Reference Offers.
  - The Individual Price Increase Limit is subject to anti-circumvention provisions related to not arbitrarily reducing, removing or ceasing a discount relevant to a Reference Offer. In addition, NBN Co must not introduce a new Other Charge in respect of a Reference Offer that has the principal purpose of circumventing or avoiding the operation of the Individual Price Increase Limit.
  - Where a Reference Offer comprises a bundle of one or more Product Components, Ancillary services or types of Facilities Access Service that is offered for a single price, then that bundle is subject to the Individual Price Increase Limit as if it were an individual item.
- The Maximum Regulated Prices for each Reference Offer is also subject to pass through of tax change events.

6.4.4 Pricing of Reference Offers – Module 2

For the Subsequent Regulatory Period, the pricing of Reference Offers in Module 2 is subject to the CPI-1.5% Individual Price Increase Limit. The limit applies in the same way as in Module 1, and it applies without any interruption in the transition from Module 1 to Module 2, from Regulatory Cycle to Regulatory Cycle during the Subsequent Regulatory Period, and in the event that a Non-Reference Offer becomes a Reference Offer and vice versa. As such, if a Reference Offer maintains its composition in the transition between the Initial Regulatory Period and the first Regulatory Cycle in the Subsequent Regulatory Period, then the Maximum Regulated Price of that Reference Offer will be calculated in the same way as if the Initial Regulatory Period had not ended.

6.5 Non-Reference Offers and Other Charges

6.5.1 Scope

For the Initial Regulatory Period, Module 1 sets out a broad range of Non-Reference Offers that includes:

- Asymmetric AVC Offers (up to 1000/400 Mbps);
- Additional Asymmetric AVC Offers;
- Symmetric Access Capacity Offers;
- Second UNI-V and AVC Offer;
- Connectivity Virtual Circuit Offers (TC-2 and TC-3);
- Multicast AVC Offer;
- Multicast Domain Offer; and
- NBN Co Co-location Offer

As some of these are still being developed, the commitment to supply under the SFAAs only commences when each Non-Reference Offer is introduced into the SFAAs.

The list of Non-Reference Offers will be added to over time as NBN Co introduces new Product Components, Product Features, Ancillary Services or types of Facilities Access Service. It may also be subtracted from if NBN Co withdraws a Non-Reference Offer by following the Product Withdrawal process in Schedule 1I.

For the Subsequent Regulatory Period, the list of Non-Reference Offers will carry over into the operation of Module 2, but the list may also be subject to change due to the periodic review of the composition of Reference Offers. That is, some Non-Reference Offers may become Reference Offers and vice-versa.

Module 1 also sets out a list of Other Charges that are mostly non-recurrent in nature, and relate to both Reference Offers and Non-Reference Offers. The list of Other Charges will evolve over time and carry over into Module 2 in the same way as for Non-Reference Offers.

6.5.2 Pricing

The pricing of Non-Reference Offers and Other Charges across both the Initial Regulatory Period and the Subsequent Regulatory Period is subject to the CPI-1.5% Individual Price Increase Limit and a set of Initial Pricing Principles for new Non-Reference Offers, new Other Charges and any new prices for Zero Priced Non-Reference Offers.

The CPI-1.5% Individual Price Increase Limit applies in essentially the same manner as in relation to Reference Offers. The only differences are as follows.

- Module 1 of the SAU sets out the Maximum Regulated Prices for the Other Charges

that will apply from the SAU Commencement Date and the Non-Reference Offers (as described above) that will apply in the Financial Year in which each Non-Reference Offer is introduced. Note that the Maximum Regulated Prices in subsequent financial years are then subject to the Individual Price Increase Limit.

- The limit does not apply to: initial prices for new Non-Reference Offers or new Other Charges in the Financial Year in which they are introduced; the introduction of a charge applicable to a zero-priced Non-Reference Offer or Other Charge (but where an Other Charge is associated with the supply of a Reference Offer, the ACCC may have a role, as described in section 6.4.3); any notional change in a price due to the reduction, removal or cessation of the application of a discount; or Other Charges specified on a "hourly labour rate" or "hourly labour rate plus cost of materials" basis (the labour rates for these are subject to indexation to a specified ABS Labour Price Index and may be periodically updated with reference to the relevant rates charged to NBN Co by its contractors).
- For completeness, any Non-Reference Offers and Other Charges that are not described in Schedule 1D but are contained in the SFAAs as at the SAU Commencement Date will be a Non-Reference Offer or Other Charge (as the case may be) for the purposes of Schedule 1D. The Price, or Prices, in the SFAAs for that Non-Reference Offer or Other Charge as at the SAU Commencement Date will be its Maximum Regulated Price for the First Financial Year, subject to the operation of the remainder of Schedule 1D.
- Where a price for a Non-Reference Offer or an Other Charge is set at zero or not specified, NBN Co may introduce a new price subject to compliance with the Initial Pricing Principles but unlike in relation to Reference Offers (or Other Charges related to the supply of Reference Offers) there is no regulatory recourse in these circumstances.
- The Maximum Regulated Prices for each Non-Reference Offer and Other Charge is also subject to pass through of tax change events.

The Initial Pricing Principles apply when NBN Co: introduces a new Product Component, Product Feature, Ancillary Service or type of Facilities Access Service (including any associated Other Charge); introduces or otherwise commences an activity requiring a new Other Charge; or introduces a new price for a Zero-Priced Non-Reference Offer. The principles require that NBN Co have regard to, amongst other relevant matters:

- UNWP;
- the Statement of Expectations;
- the nature and extent of market demand;
- the relationship between the New Offer, New Other Charge or Zero-Priced Non-Reference Offer and existing Reference Offers, Non-Reference Offers and Other

Charges;

- the importance of affordability to drive take-up rates;
- NBN Co's long term cost recovery; and
- the projected timeframes for recovery of initial losses.

The ACCC will have a role in oversighting NBN Co's compliance with these SAU commitments on initial pricing. To aid in providing transparency to both the ACCC and Access Seekers, the SAU provides that NBN Co will publish a pricing rationale statement describing, in qualitative terms, how it determined the initial price of the New Offer or New Charge, or the new Price for a Zero-Priced Non-Reference Offer. This will assist the ACCC in oversighting NBN Co's compliance with the SAU in relation to initial pricing.

6.6 Appropriateness of initial pricing as set out in the SAU

Consistent with its overarching pricing strategy, the initial pricing of Reference Offers, Non-Reference Offers and Other Charges as set out in the SAU has been designed, amongst other things, to allow Customers to provide a smooth transition for End Users to the NBN and to develop compelling offers that make use of the NBN's greater capability vis a vis legacy networks. As discussed in NBN Co's 2012-2015 Corporate Plan, NBN Co's initial pricing is compelling at both retail and wholesale levels.

> *As at June 2012, all major Retail Service Providers (RSPs) with the exception of TPG Telecom had released NBN plans to market. ... More than 500 NBN plans (total permutations) are in the market from 15 RSPs, including both fibre and satellite services ... Bundled [voice and broadband] retail pricing released by RSPs for a 12/1 Mbps and 25/5 Mbps services fall largely within the range of ADSL 2+ bundled pricing* [109]
>
> ...
>
> *When compared to both the ACCC's Interim Access Determination charges and Telstra's initial proposed rates for wholesale ADSL services, comparable NBN port wholesale rates are up to 27% cheaper than Telstra's Zone 2/3 rate and up to 12% cheaper than the finally declared ACCC rate.*[110]

In developing initial prices, NBN Co has had to form a view about relative willingness to pay for different products, both now and over time. Of note, NBN Co has not used a costing technique such as TSLRIC+ to determine its initial prices. Such techniques suffer from a number of well known theoretical and practical problems[111] that are even more significant in NBN Co's context due to UNWP and the use of different technologies (fibre, wireless and

[109] NBN Co, Corporate Plan 2012-2015, pp. 57-58.
[110] Ibid, p.60.
[111] Ergas H (1998) TSLRIC, TELRIC and Other Forms of Forward-Looking Cost Models in Telecommunications: A Curmudgeon's Guide. Centre for Research in Network Economics and Communications The University of Auckland.

satellite) each of which have very different cost characteristics. NBN Co notes that the ACCC has itself moved away from using TSLRIC+ and to a building block approach in respect of fixed line services as a response to industry demand for greater certainty over time[112].

NBN Co acknowledges that the ACCC does need to form a view as to how NBN Co's initial prices contribute to the reasonableness of the SAU, and this will need to be considered in the broader context of how those prices are allowed to change over time. As noted by Ordover and Shampine in their report:

> *Price uncertainty is a concern for making investment decisions. Consequently, the Reference Offers and Non-Reference Offers provide explicit assurances to potential customers that future prices for an extensive list of services will not exceed specified prices. The actual prices charged by NBN Co may be lower, but they will not be any higher than provided for in the SAU. This certainty will stimulate downstream incentives for investment and take-up of NBN Co's services. We understand that the prices in the Reference Offers and the Non-Reference Offers have been set in consultation with potential customers. If potential customers find the SAU acceptable with the Offers in place, then their actions suggest that their take-up and investment will not be suppressed because of particular concerns about ex post rate increases. The Reference and Non-Reference Offers will thus have served important functions in encouraging take-up and downstream investment and implementing the Government's stated social policies.*[113]

In forming a view on the initial pricing of Reference Offers, Non-Reference Offers and Other Charges, NBN Co considers that the ACCC can rely on assessing whether the combination of incentives faced by NBN Co and its Customers and the process by which the initial prices were developed are such that the resulting initial prices can be presumed to be in conformance with the relevant standards for such pricing.

In NBN Co's context, the relevant standards would comprise, subject to UNWP, initial prices that:

- lie between marginal and stand-alone cost;
- in recovering fixed and common costs, take into account differences in willingness to pay for different products and over time and, where relevant, network effects;
- are set based on an expectation of future price and demand evolution that is consistent with stable and predictable prices that recover no more than the long term costs of supply (inclusive of an appropriate return on capital); and
- provide for a smooth transition from legacy services to the NBN on a like-for-like product basis.

NBN Co considers that its initial prices do satisfy these standards for two reasons.

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[112] ACCC, Inquiry to make final access determinations for the declared fixed line services, Final Report, July 2011, p.9.

[113] Expert Report of Janusz A. Ordover and Allan L. Shampine, September 24 2012, paragraph 39.

First, Customers and NBN Co face some shared and some individual (commercially opposed) incentives related to the development of the initial prices.

- Customers and NBN Co have shared incentives to:
  - Develop new revenue streams based on the use of NBN Co products to serve downstream markets; and
  - Generate network effects, which require initial prices that attract a critical mass of End Users to connect to the NBN and make use of its new capabilities.
- Customers have individual incentives to:
  - Protect and enhance their current and potential business models by advocating in favour of their commercial interests in terms of both NBN Co's product suite and associated pricing.
- NBN Co has individual incentives to:
  - Set prices initially (and with a view to future prices) so as to increase the probability of long term cost recovery subject to UNWP and ensuring affordability to drive take-up rates. But due to its wholesale only status, NBN Co has no competing retail interests that may distort its incentives in setting wholesale access prices.

Second, the process by which the initial prices were developed provided ample opportunity for all stakeholders to make their views known, ensuring that NBN Co was well informed in its pricing decisions, and NBN Co has remained open to considering the need for subsequent refinements as and when legitimate issues subsequently become apparent.

- The initial prices set out in the revised SAU are the result of an extended process of consultation with Customers.
- A number of issues have been raised by Access Seekers, and NBN Co has been responsive in working to resolve these, for example by:
  - introducing the CVC transitional rebate to address concerns about CVC affordability while the NBN is still being built out in respect of a particular CSA; and
  - developing a new entry-level Multicast AVC speed tier, to smooth the transition of IPTV services from legacy networks to the NBN.
- At the current time, from NBN Co's perspective there are no significant unresolved issues in relation to the initial prices in the SAU.

Taken together, the incentives and the process of development suggest that it is reasonable to conclude that the initial prices conform to the relevant pricing standards as set out above.

- Lie between marginal and stand-alone cost:
  - Customers can be relied on to have identified when a price may exceed stand-alone cost (and there are no claims at present that any prices exceed such limits); and
  - NBN Co can be relied on to only propose prices that would at least recover marginal costs over time[114] and has no interest in pricing in such a way as to stifle demand, discourage take-up or encourage disconnection from the NBN.
- In recovering common costs, take into account differences in willingness to pay for different products and over time and, where relevant, network effects:
  - Customers can be relied on to highlight where there is an issue with the relativities between initial prices (and also ongoing prices over time) and where network effects are significant; and
  - NBN Co can be relied on to incorporate willingness to pay considerations and network effects (informed in part by Customer feedback) into its pricing, and indeed this is evident in NBN Co's Corporate Plan.
- Are set consistent with an expectation of future price and demand evolution that is consistent with recovering no more than the long term costs of supply:
  - NBN Co can be relied on to do this, and this is evident in NBN Co's Corporate Plan – indeed, NBN Co will have regard to the present value of its revenue rather than just focussing on short term revenue maximisation (something made possible by the ICRA mechanism in the SAU).
- Provide for a smooth transition from legacy services to the NBN on a like-for-like product basis:
  - Both Customers and NBN Co have incentives to ensure that the initial prices provide for this (and, as discussed above, the available evidence shows that NBN Co's initial pricing is compelling at both retail and wholesale levels); and
  - NBN Co has been responsive to Customer concerns in this regard, and from NBN Co's perspective there are currently no significant unresolved issues.

NBN Co also notes that, in addition to apparent Customer acceptance of NBN Co's initial pricing, the ACCC has also seen fit to use the price of NBN Co's 25/5 Mbps AVC (TC-4) service to set the ceiling price for the Local Bitstream Access Service in its July 2012 Interim Access Determination, and that the ACCC intends to base the Final Access Determination for that service on NBN Co's prices once NBN Co has an approved SAU in place. In this regard, NBN

[114] In this regard, recovery of marginal cost needs to be considered in the context of UNWP, and may occur via a combination of charges and over time. For example, NBN Co does not charge for standard installation, but the cost of standard installation will be recovered over time via recurrent charges such as AVC and CVC.

Co notes that this will mean that the LBAS ceiling price will be a uniform national wholesale price.

6.7 Incentives to price efficiently for new and existing services

NBN Co's revised SAU approach includes a set of pricing arrangements that are intended to apply for 30 years, with no further regulatory recourse[115] after approval of the SAU (however, the ACCC will have an oversight role in relation to NBN Co's compliance with its SAU commitments, including on those relating to pricing matters). As in regard to the initial prices as set out in the SAU, NBN Co faces appropriate incentives in setting prices for new products and existing products alike. Given its wholesale only status, NBN Co has aligned interests with Customers in regard to development of downstream markets and there is a clear financial benefit to NBN Co from developing new products and pricing them appropriately. As observed by Ordover and Shampine in their report:

> *Encouraging takeup initially can yield great dividends down the road. ... NBN Co has incentives to price in such a way as to ensure the growth of downstream services, provided of course, that it receives some upside from such pro-growth policies.*[116]
>
> *...*
>
> *Because NBN Co is not a vertically integrated access provider and thus does not compete with its downstream customers, it will not have incentives to discriminate in an anticompetitive manner against its downstream customers. In addition, NBN Co is subject to explicit non-discrimination obligations.* [117]

NBN Co also notes that, even with an approved SAU in place, Part XIB of the CCA still applies to NBN Co's conduct, which provides a further incentive to act in a manner that does not lead to anti-competitive effects in downstream markets.

The fact that a new product may be such that its price is not effectively anchored by that of an existing product does not change the strength or appropriateness of these various incentives - the absence of a price anchor does not imply a need for regulatory recourse.

Price anchoring describes the constraint on NBN Co's pricing of new products and changes to pricing of existing products that arises from the willingness of Customers to substitute from one NBN Co product to another. Under the revised SAU, price anchoring is an outcome of the interaction over time of the initial prices set out in the SAU, how NBN Co prices relative to the CPI-1.5% individual price increase limit and the fact that Reference Offers (as updated) cannot be withdrawn.

The degree of price anchoring provided by the SAU is primarily intended to address the objective of pricing stability and predictability, which has flow on benefits for efficient take-

[115] The only exception to this is in regard to the introduction of a positive price for a Reference Offer or an Other Charge associated with the supply of a Reference Offer where the current price is zero dollars.
[116] Expert Report of Janusz A. Ordover and Allan L. Shampine, September 24 2012, paragraph 36.
[117] Ibid, paragraph 40.

up and usage (because Customers can be more confident in making complementary investments). Price anchoring is not intended to provide NBN Co with appropriate pricing incentives but will nonetheless constrain NBN Co's pricing of new products. NBN Co has appropriate pricing incentives that have led to the initial prices in the SAU (as discussed above), and will influence future pricing decisions for existing and new products.

In regard to determining ongoing prices, NBN Co will, as a practical matter, have regard to essentially the same matters as it would do in determining initial prices for new products, and will face similar incentives. In particular, NBN Co will have a financial incentive to price in such a way as to increase the probability of recovering its long term costs, an incentive that is strengthened by the way the ICRA roll forward is specified in the Subsequent Regulatory Period (using forecast rather than actual revenue). As observed by Ordover and Shampine in their report:

> *NBN Co's pricing flexibility is limited by the price caps, but NBN Co has incentives to price in such a way as to encourage take-up of its services. While NBN Co will price so as to maximize its expected profits given the constraints it faces, it is important to note that NBN Co will seek to maximize the present value of its expected profits, not just its profits on a year by year basis. That is, NBN Co, like most firms, has to focus on the net present value of its future revenues and costs. In a dynamic industry, particularly one displaying network effects, the distinction between short-term and long-term goals is important.* [118]

NBN Co also notes that there are potentially very significant benefits over time for users of existing products from NBN Co setting appropriate prices for new products (and in particular for products for which there are no or limited existing substitutes), with a view to driving further take-up and usage. This is because the additional revenue that NBN Co may earn from such new products will ultimately help in defraying the significant fixed costs associated with NBN Co's fibre, wireless and satellite networks.

6.8 Long term revenue constraint methodology (LTRCM)

Under the LTRCM, NBN Co will be allowed the opportunity to recover its costs over time (inclusive of an appropriate return on capital), but no more.

NBN Co's proposed approach is consistent with the 'Building Block' revenue methodologies used by the ACCC and other regulators in a range of industries (now including telecommunications) and also incorporates an Initial Cost Recovery Account (ICRA) mechanism, which recognises the timing difference between when costs are incurred to build and operate the NBN and when revenues are received, and is also supported by a number of regulatory precedents.

The ICRA mechanism, in combination with the long term of the SAU, is particularly significant in NBN Co's context because initial prices (which are then subject to the CPI-1.5% Individual Price Increase Limit for the remainder of the SAU) have been struck to facilitate migration from the legacy networks to the NBN rather than to achieve cost recovery at as fast a rate as

[118] Ibid, paragraph 36.

possible. NBN Co anticipates that the ICRA will grow significantly for at least the next 10 years, and it will take a further extended period for these initial costs to be fully recovered.

Given this, over the short to medium term the LTRCM will not provide the sort of constraint on annual revenues that is typical in other utility industries. However, similar to the regulatory arrangements prevailing in such industries, the LTRCM has been designed to provide appropriate incentives for efficient expenditure over time (both in the Initial and Subsequent Regulatory Periods).

6.8.1 High level summary of LTRCM

Five key concepts underpin NBN Co's proposed LTRCM (as set out in Figure 6.3 below in regard to Module 1, and applying with some differences in Module 2):

- RAB – NBN Co has a RAB comprised of its actual capex. The RAB will be rolled forward each year, by adding new investments and deducting depreciation and disposals. In Module 1 the inclusion of actual capex is subject to satisfaction of the Prudent Design Condition and Prudent Cost Condition as defined in Schedule 1E of the SAU (and described in Appendix C to this submission). In Module 2, incentives for capex efficiency are provided by using a standard utility regulation approach, so there is no need for standalone prudency conditions (but NBN Co will continue to update the Network Design Rules (NDRs), which will be a relevant matter to have regard to in forecasting opex and capex in the Subsequent Regulatory Period).

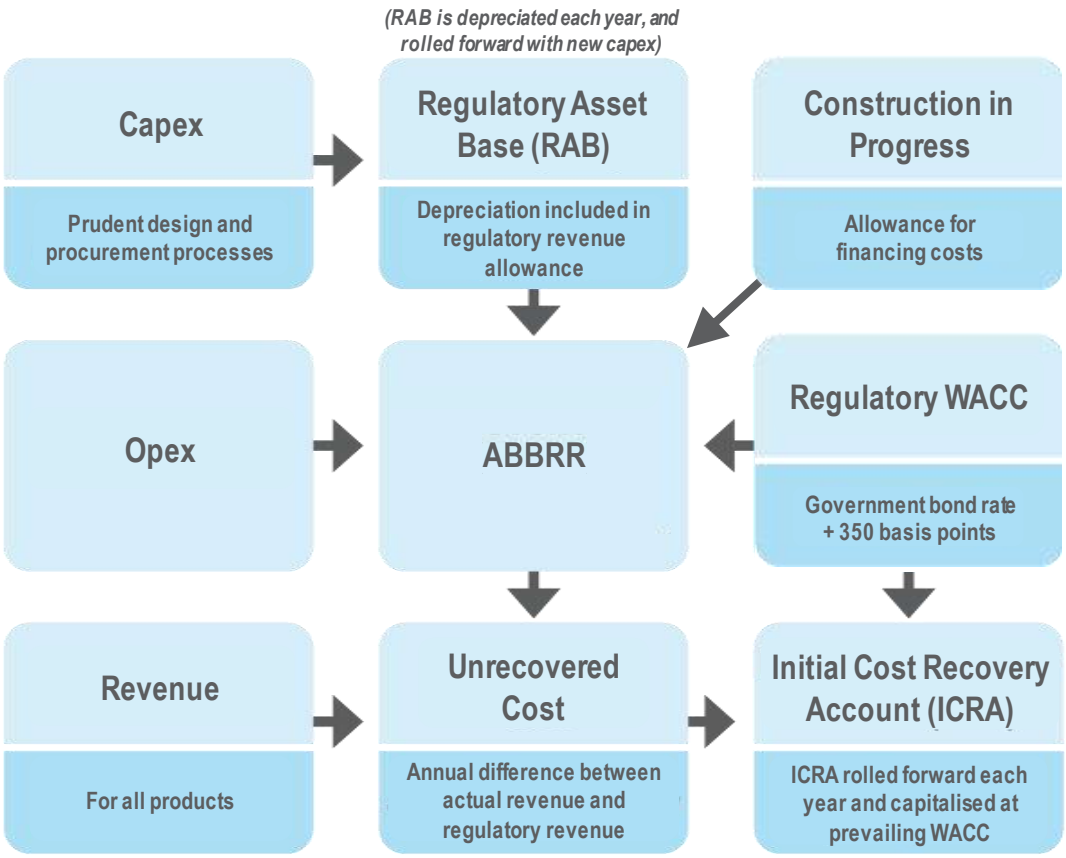
- ABBRR – There is an Annual Building Block Revenue Requirement (ABBRR) that represents a level of revenue that would allow NBN Co to earn a return on its RAB and cover its depreciation, opex, and net taxation expenses. In Module 1, the ABBRR is calculated at the end of each year using actual values for opex, capex and bond rates, and all of the necessary calculations are specified in detail in Module 1. In Module 2 the ABBRR will be based on forecast values, and is set in real terms for a period of between 3 and 5 years. Module 2 describes the ABBRR via a set of principles (rather than setting out detailed calculations as in Module 1). Across both Modules 1 and 2, the definition of the ABBRR is based on the approach taken in most other utility industries (with some adjustments to account for NBN Co's circumstances), and would allow an expected economic profit of zero in each year (after accounting for movements in the ICRA and RAB).

- ICRA – Initially, NBN Co will be unable to earn revenues that match the ABBRR, which can be considered as an under-recovery of its initial costs. These unrecovered costs are rolled forward each year in a separate regulatory account (the ICRA) and have a capital charge applied to the balance each year. Thus, the initial under-recovery is capitalised, and essentially forms part of the overall capital base that NBN Co can earn a return on over time. In the Initial Regulatory Period, the ICRA is calculated at the end of each year using actual revenue and actual ABBRR. In the Subsequent Regulatory Period, the ICRA is also calculated at the end of each year, but it is with respect to the forecast real values of revenue and ABBRR, set at the start of the 3 to

5 year period, with conversion to nominal terms based on actual CPI each year.

- Initial Cost Recovery Period – As NBN Co's actual revenues increase and exceed the ABBRR at some point in time, the value of the ICRA may be reduced over time until it is extinguished.
- Building Block Period – Once the ICRA is extinguished, the ABBRR would effectively act as a cap on NBN Co's revenues.

Figure 6.3: Main components of the LTRCM in Module 1



There are a number of important implications from the LTRCM:

- Over the long term, the maximum revenues that NBN Co can expect to be able to earn are those consistent with recovering its costs, including a regulated return on capital (regulatory WACC). Such revenues would result in a zero expected net present value (NPV) of all relevant cash flows, which is consistent with standard utility regulation.
- NBN Co anticipates that its annual revenues will be less than the ABBRR (leading to unrecovered costs that will be capitalised into the ICRA) for at least 10 years. This means that NBN Co will require an extended period later in the SAU term in which its revenues exceed the ABBRR to enable NBN Co the opportunity to recover those

initial costs that were capitalised into the ICRA in earlier years (inclusive of an appropriate return on capital). Over time, however, NBN Co could still recover no more than its prudently incurred costs on an expected NPV basis

- As the ICRA reaches the point at which it is extinguished, NBN Co will need to manage its prices and revenues to provide a transition to the regime in which its actual revenues must more closely match its ABBRR on an annual basis.

The key elements of the LTRCM are discussed in the following sections.

6.8.2 Key elements of the LTRCM

i Two key periods

There are two key periods that are relevant to the operation of the LTRCM across both Modules 1 and 2.

- The Initial Cost Recovery Period: in the early years of the Initial Cost Recovery Period, NBN Co's revenues will be lower than the ABBRR. During this period, NBN Co will accumulate unrecovered costs in the ICRA (described further below) and a return on capital will be applied to the ICRA in each year. Following completion of the NBN, it is expected that revenues will exceed the ABBRR and this difference will contribute to reducing the value of the ICRA. The Initial Cost Recovery Period ends when the value of the ICRA is extinguished.

- The Building Block Revenue Period: during the Building Block Revenue Period, NBN Co's cost recovery is similar to a standard utility. If the transition to the Building Block Period occurs in the Initial Regulatory Period, Module 1 provides that NBN Co will price its Product Components, associated Product Features and Ancillary Services having regard to the need for the forecast values of Nominal Revenue not to exceed the forecast value of Regulated Revenue for the relevant Financial Year. For the Subsequent Regulatory Period, the commitment in Module 2 is similar, but expressed to apply in present value terms over the Regulatory Cycle. In the last Regulatory Cycle of the SAU Term, NBN Co is not entitled to earn and retain more than the relevant ABBRR amounts, after accounting for any carry forward adjustments.

ii Annual Building Block Revenue Requirement (ABBRR)

NBN Co has adopted an ABBRR calculation that is consistent with that commonly used in utility regulation.

In Module 1, the ABBRR is calculated using actual values as:

$$ABBRR_t = WACC_{vanilla,t}^{nominal} * Nominal\ RAB_t^{start} + Nominal\ Regulatory\ Depreciation_t + Nominal\ Opex_t + Net\ Tax\ Allowance_t + Annual\ Construction\ in\ Progress\ Allowance_t$$

The WACC that is used in the SAU is described in section 6.8.2(vi) below. This WACC does not incorporate tax effects and so the ABBRR must include an allowance for the tax that would be required to be paid on any accounting profits made by NBN Co.

In Module 2, the ABBRR is conceptually very similar to that in Module 1, but calculated using forecast values and specified in principled terms such that it must include the following elements:

- forecast opex;
- forecast regulatory depreciation;
- forecast return on capital; and
- forecast tax allowance.

This specification is deliberately non-exhaustive, which enables possible future inclusions in the ABBRR such as efficiency incentive schemes. However, the particular ABBRR specification implemented in each Regulatory Cycle must meet an overall NPV=0 principle on an expected value basis. The rationale and benefits of this principle are addressed by Ordover and Shampine in their report:

> *In the Subsequent Regulatory Period, the SAU sets forth principles for how the ABBRR for each regulatory cycle should be specified, but does not require a particular formula. ... the possibility is left open to specify new elements which could produce a net present value other than zero.* [119]
>
> *...*
>
> *Alterations to the formula could raise two issues. First, new elements which resulted in a positive net present value would represent a windfall for NBN Co – a rate of return in excess of that provided for in the SAU. The [NPV=0] principle noted above is designed to help prevent NBN Co from making such a proposal. Second, new elements which resulted in a negative net present value would represent a reduction in the rate of return of return provided for in the SAU. NBN Co would presumably not make a proposal to under-recover its investment, but if the ACCC rejects an NBN Co*

[119] Ibid, paragraph 49.

proposal for a regulatory cycle, the ACCC has some scope to propose its own regulatory framework subject to the principles set forth in the SAU. This [NPV=0] principle can help provide assurance against expropriation of the returns on NBN Co's investment in such circumstances.[120]

iii Regulatory Asset Base (RAB)

NBN Co will maintain a single RAB that aggregates all actual capex incurred on any NBN-related assets by NBN Co or any of its related bodies corporate since the commencement of NBN Co's operations.

- The actual value of all capex incurred in relation to all Relevant Assets will form part of the RAB. The Relevant Assets include NBN Co's fibre, wireless and satellite networks, any other telecommunications networks, network elements, platforms, systems and any other assets owned, controlled or operated by or on behalf of NBN Co or a related body corporate of NBN Co.
- All capex incurred by NBN Co since the date on which NBN Co commenced operation (referred to as the Cost Commencement Date) is attributable to the RAB.
- Further, all capex incurred by any NBN Co related company also falls within the scope of the RAB. At present, NBN Co Limited has two subsidiaries: NBN Tasmania Limited and NBN Co Spectrum Pty Ltd. Capex prudently incurred by any other subsidiaries that NBN Co may own in the future in connection with the Relevant Assets will also fall within the scope of the RAB.
- In the Initial Regulatory Period, the inclusion of actual capex is subject to meeting the prudent design condition and the prudent cost condition, as described in Appendix C, while in the Subsequent Regulatory Period incentives for capex efficiency are provided by using a standard utility regulation approach, so there is no need for standalone prudency conditions (although, as noted above, NBN Co will continue to maintain and update the NDRs).

The value of the RAB is rolled forward every year. The value of the RAB at the beginning of a Financial Year is the same as the value of the RAB at the end of the previous Financial Year (in both real and nominal terms). The end of year RAB is calculated as the start of year RAB for that year plus actual capex (including the half WACC adjustment described below) less depreciation plus CPI indexation of the start of year RAB value.

The basis on which capex is included in the RAB is as follows.

- Actual capex incurred (subject to prudency requirements in respect of the Initial Regulatory Period) will fall within the RAB when the Relevant Asset is Placed-In-Service. Placed-In-Service is defined to mean the time at which an asset is ready for commercial operation and the capex is recognised in NBN Co's accounts. This principle aligns with the accounting treatment.

[120] Ibid, paragraph 50.

- As the WACC in the ABBRR calculation is only applied to the start of year RAB value, a half year WACC adjustment is made to capex incurred on a new Relevant Asset which is Placed In Service in that year when calculating the end of year RAB. NBN Co notes that this approach is the same as that adopted by the Australian Energy Regulator (AER) in its Post Tax Revenue Model[121]. Asset disposals will also be treated in the same way (i.e. a half year WACC is applied to the value of asset disposals in a given year).

Each year, the RAB is reduced by the annual depreciation of the assets which form part of the RAB. NBN Co applies a straight line depreciation approach in both the Initial and Subsequent Regulatory Periods as described in section 6.8.2(ix) below. The RAB is also reduced by the value of any asset disposals in a given year (subject to the timing approach described above).

NBN Co considers that its RAB approach is consistent with:

- UNWP – a single RAB is appropriate to such a pricing approach and there would be little utility in maintaining, for example, separate RABs for each access network;
- Established regulatory practice – the ACCC recently adopted the RAB approach for use in fixed services access pricing, concluding in its final report that:

  In conjunction with the change in the regulatory regime, the ACCC has moved from its previous hypothetical pricing approach (total service long-run incremental cost, TSLRIC+) to now setting prices based on the assessed costs of providing services. To do this, the ACCC has adopted a 'building block' approach. Building block, or RAB, pricing approaches are commonly used in estimating prices for regulated utilities. The ACCC's adoption of this approach responds to industry demands for greater certainty over time in the ACCC's pricing framework and, in particular, in the value of the assets used to provide the declared fixed line services.[122]

Fortunately, the practical and theoretical issues that typically arise in the context of establishing a RAB value for a mature network do not arise in NBN Co's case because the NBN is a new network that is currently being built. The initial value of NBN Co's RAB will be zero as at the Cost Commencement Date and will incorporate prudently incurred capex over time at its actual cost.

iv Opex and capex – Initial Regulatory Period

In the Initial Regulatory Period, the ABBRR incorporates actual opex and (via the RAB) actual capex only where such expenditure has been prudently incurred. Module 1 includes specific prudency commitments (described in detail in Appendix C) that are designed to ensure that actual expenditure is necessary, effective, efficient and aligned with NBN Co's and Customers' interests.

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[121] Australian Energy Regulator, Electricity Distribution Network Service Providers Post Tax Revenue Model Handbook, 26 June 2008, p.11.
[122] ACCC, Fixed line services final access determination - Final Report, July 2011, p.9.

In summary, capex will be deemed to have been incurred on a prudent basis subject to compliance with the:

- Prudent Design Condition – the expenditure must be consistent with the prevailing NDRs for the fibre, wireless and satellite networks:
  - the initial set of NDRs was provided to the ACCC with the SAU. The ACCC can consider these NDRs as part of its assessment of the SAU; and
  - the SAU sets out processes for making changes to the NDRs over time, which includes engaging with NBN Co's Customers via the PDF and seeking their endorsement, as well as the power for the ACCC to resolve disputes that may arise between NBN Co and Customers in respect of Network Changes;
- Prudent Cost Condition – the expenditure must be incurred in compliance with a set of procurement processes, including competitive tendering and other forms of procurement practices.

In the Initial Regulatory Period, NBN Co considers that the use of a customer engagement (and endorsement) approach in relation to the evolution of the NDRs is likely to be more efficient and effective than requiring all Network Changes to be assessed and approved by the ACCC. This is because (consistent with the general discussion of customer engagement approaches in Appendix B and the specific discussion in the Synergies Report[123]) NBN Co's Customers are well placed to assess whether Network Changes are prudent and will have incentives to engage in regard to proposed changes where they have a material interest.

Opex will be deemed to have been incurred on a prudent basis if NBN Co:

- ensures that opex is incurred in a manner that seeks to achieve value for money and the lowest Total Cost of Ownership;
- otherwise controls opex in accordance with the Statement of Expectations and other requirements relating to procurement by NBN Co; and
- in respect of third party opex, incurs the expenditure in compliance with the same Prudent Cost Condition as applies to capex.

In respect of both capex and opex, a number of specific categories of expenditure are automatically deemed to be prudent including, for example, NBN Co's interim satellite solution and the Telstra and Optus arrangements. These largely reflect pre-existing NBN Co commitments which were entered into on a strict arms-length basis and subject to normal, robust commercial tensions.

The Module 1 prudency commitments are intended to complement the pre-existing expenditure efficiency incentives faced by NBN Co (as discussed in section 4 and also in section 6.9 below) and the extensive and rigorous cost control and transparency measures

[123] Synergies Economic Consulting, Advice on NBN Co Ltd's Special Access Undertaking, September 2012, paragraph 140.

which apply to NBN Co as a Government Business Enterprise (GBE), as well as the other accountability requirements placed specifically on NBN Co by the Government and the Parliament.

Taken together, NBN Co considers that it will face appropriately strong incentives to incur capex and opex on a prudent basis during the Initial Regulatory Period.

v Opex and capex – Subsequent Regulatory Period

In the Subsequent Regulatory Period, the ABBRR is calculated at the start of each Regulatory Cycle using forecasts of opex and capex. Module 2 sets out the requirements for these forecasts, which are to be based on the expected value of prudent and efficient expenditure, having regard to the following factors:

- NBN Co's NDRs (which NBN Co will continue to update and maintain in accordance with the design principles set out in clause 2D.8.2 and the updating provisions set out in clause 2D.8.3);
- NBN Co's level of expenditure in the previous Regulatory Cycle or (in the transition from the Initial to the Subsequent Regulatory Period) the 3 years prior to the date of the Replacement Module Application;
- The extent to which NBN Co's asset management and planning framework reflects best practice (capex only);
- Any relevant regulatory obligations, or changes to such obligations, applicable to NBN Co providing the services;
- Any other matters relevant to whether forecast expenditure reflects prudent and efficient costs; and
- Any amounts to be incurred in the deemed prudent categories from Module 1.

NBN Co will put forward opex and capex forecasts as part of each Replacement Module Application, and the ACCC will then review those forecast as part of the overall assessment of SAU variation.

The Module 2 opex and capex arrangements will provide financial incentives for expenditure efficiency that are in addition to ongoing incentives arising from the uncertainty over NBN Co's long term revenue sufficiency. The Module 2 incentives result from the ICRA being rolled forward using the ABBRRs as forecast at the start of a Regulatory Cycle – NBN Co will have a financial incentive to beat those forecasts over that cycle, while still meeting service level commitments.

vi Cost of capital

Across both Modules 1 and 2, the cost of capital is specified as a nominal vanilla WACC, but the WACC calculation and application are specified differently, reflecting in large part the different approaches to the calculation of the ABBRR (annual actual, versus 3 to 5 yearly forecast).

Module 1

For the Initial Regulatory Period, NBN Co has adopted a simple methodology for calculation of its return on capital, which defines the nominal vanilla WACC for each financial year by reference to the risk free rate plus a mark-up of 350 basis points.

The risk free rate is the prevailing mean annualised yield on Commonwealth Government Securities with a maturity of 10 years. For the purposes of calculating the ABBRR in a given year, the nominal WACC needs to be estimated for that year just prior to its commencement. Accordingly, NBN Co has adopted a moving average over the final 20 Business Days of the Financial Year preceding the Financial Year in which the nominal WACC is to be used.

Officer and Bishop reviewed NBN Co's approach to the cost of capital in the SAU and advised as follows.

> *In our prior report we concluded that it was "reasonable" to set a WACC based on the long term government bond rate plus a real margin and varying annually with the long term bond rate but it was important to recognise the risks associated with the approach.* [124]
>
> ...
>
> *The proposed changes [via the modular approach] will reduce these "margin risks" but not remove them. Given the challenge in quantifying the risks and recognising them as a cost to the business, we are of the view that the revised proposal should be a lower risk outcome.* [125]
>
> ...
>
> *Our conclusion from our review of other regulatory decisions is that the proposed WACC margin [relevant only to the Initial Regulatory Period] of 350 basis points is at the lower end of a reasonable range in the current environment:*
>
> - *The Telstra WACC risk margin has been quite stable at 343 basis points until recently when it has changed due to revision of the debt risk premium and the beta of equity;*

[124] Professor Bob Officer and Dr Steven Bishop, Report on WACC component of NBN Co's Special Access Undertaking, September 2012, paragraph 11.
[125] Ibid, paragraph 13.

- *Other regulatory determinations show volatility in the WACC risk margin with recent levels generally above both the Telstra WACC risk margin and the proposed 350 basis points for NBN Co. However the equity beta is higher, gearing is at 60% and the assumed debt rating is circa BBB; and*
- *The WACC risk premium will be variable rather than fixed over time.* [126]

...

Our best estimate of a current WACC risk margin for NBN Co. is circa 420 basis points. With the exception of the MRP [Market Risk Premium], our estimate over 10 years would accord with the approach taken in other regulatory decisions. We note that regulatory authorities have used 6% as an MRP (based on a 10 year risk free rate) however we are of the view that this does not reflect current economic circumstances and is not appropriate. If 6% is used rather than our estimate of 7% then the margin is circa 375 basis points. Given the estimation error around the estimates a 350 basis point mark-up would fall at the lower end of a reasonable confidence interval around this estimate. [127]

...

In our view it is appropriate to use the yield on 10 year CGS's as the estimate of the prevailing risk free rate in the calculation of the WACC however it is important that the market risk premium also reflect prevailing conditions. [128]

In view of the advice from Officer and Bishop, NBN Co submits that its methodology for calculation of the cost of capital in Module 1 is appropriate.

Module 2

For the Subsequent Regulatory Period, Module 2 provides that the nominal vanilla WACC is to be forecast for a Regulatory Cycle with reference to:

- the risks involved in providing the NBN Access Service, the Ancillary Services and the Facilities Access Service;
- a financing structure that meets benchmark standards as to gearing and other parameters for a similar going concern and reflects in other respects best practice;
- a cost of debt and a cost of equity (determined for the Regulatory Cycle using a well-accepted financial model, such as the Capital Asset Pricing Model) that meet benchmark standards as to efficient financing of equity and debt for a similar going concern, having regard where appropriate to past, present and expected future financial conditions.

[126] Ibid, paragraph 17.
[127] Ibid, paragraph 19.
[128] Ibid, paragraph 79.

This principled approach will allow for the value of the WACC, and the method used to estimate it, to be reassessed periodically.

Officer and Bishop also reviewed this aspect of the SAU, and supported the approach in Module 2, concluding that:

> *We agree that the return on capital for each Replacement Module should be estimated as a nominal vanilla WACC with reference to: the risks involved in providing the relevant services; a benchmark financing structure; and a cost of debt and a cost of equity (determined using a well accepted financial model such as the Capital Asset Pricing Model) that meet benchmark standards for efficient financing, having regard where appropriate to past, present and expected future financial conditions. The principle of using a nominal vanilla WACC as an opportunity cost of capital, estimated in this way, is consistent with practice in both commercial and regulatory environments. Current practice is to estimate the cost of equity using the CAPM and the cost of debt from current rates of appropriate maturity from the capital market. However this does not preclude the possibility of another method replacing or informing the CAPM.* [129]

vii Tax treatment

As with the WACC, the tax treatment is conceptually consistent between Modules 1 and 2, but the calculation and application are specified differently.

Module 1

In the Initial Regulatory Period, the Net Tax Allowance within the ABBRR is calculated in two steps.

First, tax payable for the year is calculated based on actual revenue for the year less opex, tax depreciation (for which purposes asset lifetimes may be different to those adopted for regulatory/accounting purposes but must be determined consistent with the requirements of the Australian Taxation Office), and interest expense. Interest expense is based on NBN Co's actual interest expense as recorded in its statutory accounts (this obviates the need for making an assumption about the percentage of debt funding)[130].

In calculating tax payable, any prior year tax losses are used to offset taxable profit before applying the prevailing corporate tax rate. Prior year tax losses are carried forward from year to year in nominal terms (without any indexing or compounding).

Second, if tax payable is positive then the effect of the pre-payment of personal income tax via dividend imputation is accounted for by calculating a net tax allowance that reduces the

[129] Ibid, paragraph 14.

[130] Given that the WACC will be set independent of NBN Co's actual funding arrangements, NBN Co will have every incentive to minimise its actual funding costs, so it is reasonable to assume that NBN Co's actual interest expense is efficient.

(gross) tax allowance by the gamma factor. This factor has been set to a value of 0.25, which is consistent with values set in a number of recent regulatory decisions.[131] [132]

Officer and Bishop reviewed this tax treatment in their report, and advised as follows.

> *Typically the tax savings for price determinations will be estimated using the opportunity cost of debt that is used in the estimate of the WACC to ensure a consistent forward view of cash flow estimates and the required rate of return. The proposed approach in the Initial Regulatory Period will lead to a mismatch in the tax savings calculated this way and those arising from using the opportunity cost of debt used to estimate the WACC. However it is challenging to estimate the magnitude and materiality of any error in advance. The error will be the difference between the opportunity cost of debt and the actual cost multiplied by the effective tax rate (gamma adjusted). It can be positive or negative. This will be immaterial until all tax losses are used.*
>
> *We are aware that the 0.25 [gamma factor] as used in the calculation of the net tax allowance is consistent with a recent decision made by the Australian Competition Tribunal ["ACT"] based on the most recent research available to it. We have reviewed this research and have no grounds for disagreeing with the decision, despite it being lower than our expectation. Given that the ACT provides an opportunity for AER decisions to be appealed we are comfortable with gamma being set in this way.* [133]

Based on NBN Co's most recent Corporate Plan, it seems unlikely that the tax treatment will be significant in the Initial Regulatory Period because NBN Co will incur significant losses in the first 11 years of its operation (from 2009/10), and NBN Co only expects to *start* using the brought forward tax losses for first time in 2020/21 (two year prior to the expiry of the Initial Regulatory Period). Given this, and the advice from Officer and Bishop, NBN Co submits that its proposed tax treatment is appropriate for the Initial Regulatory Period.

Module 2

For the Subsequent Regulatory Period, Module 2 provides that the tax allowance included in the forecast ABBRR must take into account:

- the tax rate to be used in estimating tax liabilities set equal to the corporate tax rate, as amended from time to time;
- estimated utilisation of dividend imputation credits;
- Annual Forecast Revenues;
- forecast tax deductible expenses;

[131] Australian Competition Tribunal, Application by Energex Limited (Gamma) (No. 5) [2011] ACompT 9, 12 May 2011, paragraph 42.
[132] Australian Energy Regulator, Final Distribution Determination, Aurora Energy Pty Ltd, 2012–13 to 2016–17.
[133] Professor Bob Officer and Dr Steven Bishop, Report on WACC component of NBN Co's Special Access Undertaking, September 2012, paragraphs 20-21.

- any tax loss carried forward consistent with prior year ABBRR calculations;
- taxation asset lifetimes for each Asset Type determined in a manner consistent with the requirements of the Australian Taxation Office; and
- tax depreciation applied in prior year ABBRR calculations.

This is not an exhaustive list of the factors that may be relevant to the future calculation of the tax allowance in the ABBRR, but is intended to provide appropriate guidance on some key matters that are important to ensuring that the tax allowance is calculated on a consistent basis between Modules 1 and 2, and also consistent with NBN Co's long term cost recovery.

This approach is consistent with comments by Officer and Bishop in their report:

> *The use of the nominal vanilla WACC means all taxation effects of financing are accounted for in the other components of the building block approach viz. the tax benefit of interest deductions is in the estimate of net cash flows whereby the statutory tax rate is adjusted to reflect the value of imputation tax benefits. Our assumption is that this consistency between the WACC definition and the definition of the building block components is adhered to.* [134]

viii Annual construction in progress allowance

Module 1

In the Initial Regulatory Period, the annual construction in progress allowance accounts for the financing costs associated with capex that has not yet been Placed in Service. These costs need to be separately accounted for because the capex that is included in the RAB does not include any allowance for interest during construction (calculated using the WACC or any other rate). The Annual Construction in Progress Allowance is calculated as the sum of: the nominal WACC multiplied by the value of Construction in Progress (CIP) at the start of the financial year; and half the nominal WACC multiplied by the movement in CIP between the start and end of the financial year. Expressed in this way, if the value of CIP increases over the year then this will result in a larger Annual Construction in Progress Allowance, and vice versa.

Module 2

In the Subsequent Regulatory Period, an annual construction in progress allowance is not specified in Module 2 for inclusion in the ABBRR, but such an allowance could be included, subject to satisfying the overall NPV=0 criterion.

[134] Ibid, paragraph 16.

ix Nominal regulatory depreciation

Module 1

In the Initial Regulatory Period, the Nominal Regulatory Depreciation allowance is calculated as the Nominal Straight Line Depreciation on the asset values in the start of year RAB less the CPI indexation of the start of year RAB for the current year.

This approach to calculating Nominal Regulatory Depreciation is consistent with standard Australian regulatory practice. For example, in the AER's Post Tax Revenue Model[135]:

- straight line depreciation is the default approach; and
- the adjustment for CPI indexation is also standard, and is made to avoid double counting of CPI effects, because it is a nominal WACC that is applied to the start of year RAB, and the roll forward of the RAB from one year to the next already includes an allowance for CPI indexation.

The asset lifetime for each Asset Type will be determined consistent with NBN Co's audited accounts. Asset Types must be defined such that all assets categorised into a single Asset Type have the same asset lifetime. Given that NBN Co is still in the process of rolling out the NBN, and there is as yet relatively little experience with some of the Asset Types, Module 1 makes provision for asset lifetimes to be changed over the Initial Regulatory Period, and the depreciation calculations are specified appropriately so that the prospective rate of depreciation can be increased or decreased, but with no change to the current (depreciated) value of the RAB.

Module 2

For the subsequent Regulatory Period, Module 2 provides that forecast nominal regulatory depreciation for year t is calculated as the forecast nominal straight line depreciation less the forecast annual CPI indexation of the opening value of the nominal RAB for year t, where:

- forecast nominal straight line depreciation is calculated as forecast real straight line depreciation multiplied by the Forecast Cumulative Inflation Factor for year t, estimated consistently with all other forecasts used in the Forecast Nominal ABBRR;
- forecast real straight line depreciation is the straight line depreciation applicable to the forecast opening real value of the Relevant Assets included in the RAB in the current Financial Year t, determined in regard to the real value of capex less Disposals as included in the RAB (or forecast to be included consistently with the RAB Roll Forward) for each Asset Type in each year since the Cost Commencement Date using the remaining life for each Asset Type; and

[135] Australian Energy Regulator, *Electricity Distribution Network Service Providers Post Tax Revenue Model Handbook*, 26 June 2008.

- the remaining life for each Asset Type is calculated based on an asset lifetime for each Asset Type determined in a manner consistent with NBN Co's audited accounts and the number of years since the relevant capex was incurred (or forecast to be incurred);

These principles are consistent with those applied in Module 1, but are expressed in a manner more suitable to forecasting the ABBRR for a 3 to 5 year Regulatory Cycle. The asset lifetimes used in this forecasting exercise would also be used for rolling forward the RAB during the Subsequent Regulatory Period so as to avoid the potential for arbitrary gains or losses from asset lifetime changes during the Regulatory Cycle.

x Initial Cost Recovery Account (ICRA)

Module 1

In the Initial Regulatory Period, for each year during the ICRA Period, Unrecovered Cost is calculated as the difference between the ABBRR and actual Revenue achieved.

For this purpose, Revenue is defined in Module 1 to be the revenue earned by NBN Co in connection with the Relevant Assets. Accordingly, all revenue earned by NBN Co in connection with the fibre, wireless and satellite networks and all revenue earned in connection with Ancillary Services and Facilities Access is used to determine whether, in any given year, there is an Unrecovered Cost or not.

Each year, the Unrecovered Cost is added into the ICRA. The previous opening balance of the ICRA has a nominal WACC applied to it, and is calculated as follows:

$$ICRA_{t+1}^{start} = ICRA_{t}^{end} = ICRA_{t}^{start} * \left(1 + WACC_{vanilla,t}^{nominal}\right) + Unrecovered\ Cost_{t}$$

This approach means that NBN Co will capitalise any initially unrecovered costs and compound these at the prevailing WACC for each year until they are recovered.

The ACCC has previously accepted a loss capitalisation approach very similar to the ICRA in the context of its 2011 decision to accept Australian Rail Track Corporation's (ARTC) Hunter Valley access undertaking - the following statement from the ACCC's Discussion Paper was reiterated in the final decision:

> *The intent of loss capitalisation is to allow under-recovery of economic cost for a period and then recovery of the relevant shortfall at a later date. In appropriate circumstances, loss capitalisation may therefore operate to facilitate investment in new assets where there is limited initial demand by allowing initial under-recovery of relevant costs in the expectation of 'making up' the shortfall when demand reaches an appropriate level. Loss capitalisation may not, of course, be the only method of encouraging investment in these circumstances, and the particular form of its implementation may require scrutiny.*[136]

[136] ACCC, ACCC HVAU final decision 2011, p. 44, quoting from the December 2010 Discussion Paper.

The ICRA mechanism is also supported by the June 2000 ACCC decision on the Access Arrangement lodged by AGL Pipelines (NSW) Pty Ltd for the Central West Pipeline[137].

Module 2

In the Subsequent Regulatory Period, the ICRA is still calculated each year, however, it is adapted to use forecasts of revenue, ABBRR and WACC in real terms, as determined at the start of each Regulatory Cycle. After conversion to nominal terms using actual CPI, the ICRA can be calculated at the end of each Financial Year in the same manner as discussed above.

The forecast of ABBRR used in the ICRA roll forward may also be amended as necessary following a tax change event.

Calculating the ICRA roll forward using forecast values creates added pricing and expenditure efficiency incentives. These incentives are discussed further in section 6.7 (in relation to pricing incentives) and section 6.9 (in relation to expenditure efficiency incentives).

xi Regulated Revenue

Once the ICRA is extinguished, the Building Block Revenue Period commences and the ICRA is no longer utilised in the SAU.

Module 1

In Module 1, during the Building Block Revenue Period NBN Co will constrain its actual revenues by reference to its Regulated Revenue, which is the sum of the ABBRR for that year and a Revenue Variation adjustment to account for the variance between actual revenue and Regulated Revenue in respect of the previous financial year[138].

NBN Co considers that the annual revenue cap approach included in the LTRCM is appropriate as a form of indirect price control, reflecting standard international and domestic regulatory practice[139].

For example, in 2006 the Australian Energy Market Commission, as part of a review of the rules which govern the regulation of electricity transmission revenue and pricing, stated that "*given the extensive network externalities and potential market power associated with the shared transmission network*", a revenue cap methodology using a building blocks

[137] ACCC, Access Arrangement by AGL Pipelines (NSW) Pty Ltd For the Central West Pipeline – Final Decision, 30 June 2000.

[138] Regulated Revenue and Revenue Variation are calculated in clauses 1F.5.1 and 1F.5.2 respectively of the SAU. To account for the timing difference between the occurrence of the (prior year) Revenue Variation and its adjustment in the (current year) Regulated Revenue, a nominal WACC adjustment is applied to the Revenue Variation. If the current year is the first year after the end of the Initial Cost Recovery Period, then the Carry Forward Revenue Adjustment (CFRA) is applied to the Regulated Revenue in that year (and there is no Revenue Variation adjustment). The CFRA accounts for any over-recovery that may occur in the final year of the Initial Cost Recovery Period as it is unlikely that the gap between Nominal Revenue and the ABBRR will exactly extinguish the ICRA.

[139] For example, electricity transmission in Australia, electricity distribution in Norway, water regulation in Australia and the UK.

approach "*is the appropriate form of regulation for prescribed transmission services at this stage of development of the National Electricity Market*".[140]

The ACCC has also endorsed the use of a revenue cap in parallel with the adoption of the loss capitalisation model in relation to the ARTC's Hunter Valley undertaking described above. The ACCC stated as follows:

> *In parallel to the underlying loss capitalisation model based proposal, ARTC's financial model places its Hunter Valley rail operations under an annual revenue cap. Under this approach, ARTC is permitted to increase prices in order to keep its revenue at a standard regulatory "building block" ceiling and must decrease prices to prevent revenue exceeding the standard regulatory building block ceiling unless they have unrecovered capitalised losses. ARTC also may, in certain circumstances, collect from access seekers additional charges after the end of the year to increase its revenue to the ceiling for the year, or be required to give access seekers rebates where its revenue over the year was above the revenue ceiling. As with the use of the loss capitalisation approach, the use of this form of annual revenue cap pricing significantly limits ARTC's risk by transferring demand risk to access seekers. The use of an annual revenue cap is consistent with prior regulation of the Hunter Valley Coal Network by IPART and is considered by the ACCC as likely to relatively efficiently allocate the demand risk to access seekers. The ACCC's preliminary view is that the use of the proposed annual revenue cap mechanism is likely to be appropriate for the HVAU (noting that the ACCC's concerns on pricing certainty raised in the Pricing Chapter still require addressing), as its use should: result in a relatively efficient allocation of risk; help ensure ARTC earns a return commensurate with the regulatory and commercial risk associated with its rail investments in the Hunter Valley; and facilitate efficient investment and use of infrastructure, thereby promoting effective competition in upstream and downstream markets.*[141]

Module 2

In Module 2, to fit in with the Regulatory Cycle, the Module 1 approach to the Building Block Period is changed so that NBN Co's entitlement to earn revenue is defined with respect to the forecast ABBRR over the Regulatory Cycle, evaluated in present value terms (and including the right to amend ABBR forecasts following a tax change event). This allows NBN Co greater flexibility in how it manages its pricing over the Regulatory Cycle, allowing for more stable and predictable pricing than otherwise.

Module 2 also provides for NBN Co to carryover revenue over or under recoveries during the Building Block Period from one Regulatory Cycle to the next.

[140] AEMC 2006, Draft National Electricity Amendment (Economic Regulation of Transmission Services) Rule 2006, Rule Determination, 16 November 2006, Sydney, p.40.
[141] ACCC HVAU draft decision 2009, pp. 477-8.

xii Compliance with revenue cap

During the Building Block Revenue Period, as noted above, NBN Co will be entitled to earn revenue as determined by the ABBRR (actual or forecast), and there is provision for carryover of over or under recovery.

In the last Regulatory Cycle of the SAU Term, Module 2 provides that NBN Co will not be entitled to earn and retain more than the relevant amount (in present value terms) for that Regulatory Cycle (together with any carried forward amounts). If NBN Co breaches this commitment then enforcement action may be taken against NBN Co under section 152CD of the CCA and appropriate orders made to ensure compliance by NBN Co with this clause.

NBN Co considers that these arrangements provide appropriate incentives for NBN Co to comply with the revenue cap during the Building Block Period.

6.9 Incentives for investment, expenditure efficiency and quality

Taken together, the SAU's price-related terms and conditions provide appropriate and balanced incentives for NBN Co in regard to investment, expenditure efficiency and quality. In their report, Ordover and Shampine explain the nature and strength of these incentives as follows.

In regard to incentives for investment:

> *In the Initial Regulatory Period, the Long Term Revenue Constraint Methodology with its Initial Cost Recovery Account is a credible form of rate of return regulation intended to guarantee an eventual return on NBN Co's investment. In the Subsequent Regulatory Period, the LTRCM continues to provide the opportunity for NBN Co to earn a return on investment, but also functions in part as a revenue cap based on a forecast of demand and costs. Because the cap is based on forecasts incorporating the allowed rate of return, it will provide appropriate incentives for investment (i.e., NBN Co's revenue cap will include the allowed return on previous and planned investment, which offers assurance that the investment will not be expropriated).* [142]
>
> *... based on our knowledge and experience, we can conclude that the general approach of using a credible long-term commitment to a rate of return acceptable to the investors is commonly used and a reasonable and effective means of encouraging durable sunk investment. Thus, <u>the proposed SAU is likely to engender investments in the National Broadband Network sufficient to obtain the specified network scope.</u> [Emphasis added]* [143]

[142] Expert Report of Janusz A. Ordover and Allan L. Shampine, September 24 2012, paragraph 25.
[143] Ibid, paragraph 26.

In regard to incentives for expenditure efficiency and quality:

> *The SAU has mechanisms in place to address both potential "gold plating" and potential under-provision of quality.*[144]

- On expenditure efficiency in particular:

> *... to encourage efficient development and operation of the network, the SAU includes a process for determining whether investments and expenses are "prudent." These requirements are explicit in the Initial Regulatory Period and implicit in the Subsequent Regulatory Period through the ACCC's approval of forecast spending through the replacement Module Application process.*[145]
>
> *As noted earlier, in the Subsequent Regulatory Period, the LTRCM functions as a revenue cap based on forecast demand and costs (although that cap will not be binding until after NBN Co recovers its initial investment), but NBN Co will bear at least some of the risk and rewards of demand and cost variations. Thus, if NBN Co can reduce costs more than forecast, it will reap the rewards, as with a price cap. This approach will provide similar incentives to price caps for reducing costs but will raise similar concerns with respect to quality. The proposed SAU can be expected to provide appropriate incentives to achieve an efficient level of costs associated with the construction and operation of the network and common and reasonable safeguards against overinvestment.* [146]

- On quality in particular:

> *... the SAU includes a set of price caps – the Reference Offers and Non-Reference Offers. ... Price caps are effective at providing incentives for firms to minimize costs. However, unlike rate of return regulation, they also raise concerns about quality, as cost reductions may reduce quality below the level consistent with the objectives of the regulator. The question then is how do the rate of return and price cap regulations interact. They may do so in two ways.* [147]
>
> *...*
>
> *If the price caps are not binding, then they are unlikely to raise concerns about reduced quality. If anything, as we noted above, rate of return regulation is associated with concerns about overprovision of quality, not underprovision. However, as discussed in section III, it is anticipated that in the Initial Regulatory Period NBN Co's allowable costs will exceed its revenues by many billions of dollars. NBN Co is allowed to carry forward the balance, but market risks remain, such as new entry or emergence of new technologies, and there is still some uncertainty in the long run about regulatory expropriation, so NBN Co has an incentive to reduce its costs in the short run in order to speed up the recovery process. That is, during the*

[144] Ibid, paragraph 29.
[145] Ibid, paragraph 29.
[146] Ibid, paragraph 30.
[147] Ibid, paragraph 31.

Initial Regulatory Period price caps and market realities limit NBN Co's annual revenues, not the rate of return structure, and NBN Co can increase its return in any year during the recovery period by reducing its costs. Furthermore, as discussed earlier, in the Subsequent Regulatory Period, the LTRCM functions as a revenue cap and should provide incentives similar to price caps for reducing costs but will also raise similar concerns with respect to quality. Therefore, the SAU includes an additional precaution to maintain quality – a requirement that NBN Co offer and maintain SLAs, including both service levels and service level rebates, which are a form of minimum quality standard. Such explicit quality requirements are a commonly observed and reasonable means of addressing concerns about quality.34 The proposed SAU is thus conducive to the maintenance of an appropriate level of quality in the supply of wholesale service to access seekers over the NBN. [Emphasis added][148]

However, if the price cap regulations become binding in the sense that they replace the LTRCM rate of return regulation, i.e., NBN Co would be allowed to earn higher revenues under the rate of return regulation than it is able to obtain given the price caps, then NBN Co would be unable to earn the rate of return called for under the LTRCM, thereby undermining incentives for investment. If this were to occur, NBN Co and the regulator would likely be compelled to revisit the provisions of the SAU, as the different measures would be in conflict with one another. NBN Co's ability to seek ACCC approval to vary the SAU to reflect market developments over time provides a necessary safeguard against such a situation, which in turn helps to ensure that incentives for investment in the network are sufficient to achieve the desired network scope.[149]

6.10 Uniform national pricing

A number of the price-related terms and conditions discussed in the preceding sections are reasonably necessary to achieve uniform national pricing, and accordingly are particularly important in the assessment of the SAU against the statutory criteria (as discussed further in Part C):

- Maximum Regulated Prices for the Reference Offers that do not vary by location or according to the network over which access is provided.
- Maximum Regulated Prices for the Non-Reference Offers and Other Charges that do not vary by location or according to the network over which access is provided.
- In the LTRCM:
  - The ICRA mechanism (as it applies in both the Initial Regulatory Period and the Subsequent Regulatory Period), which allows unrecovered costs (from all of NBN's networks) to be capitalised into one account and carried forward for future recovery (across all of NBN's networks). Without such a mechanism,

[148] Ibid, paragraph 32.
[149] Ibid, paragraph 33.

uniform national pricing would be unachievable because the prices that would result in the early years of the NBN would be unaffordable, leading to inefficiently low uptake and usage of the NBN with adverse implications for NBN Co's financial viability; and

- Once the ICRA is extinguished, a single revenue cap applies across all of NBN Co's networks and all locations. Alternative specifications, such as separate revenue caps for fibre, wireless and satellite would undermine uniform national pricing because of the significant differences in the average cost to serve an End User on each network. Under such an alternative, uniform national pricing could only be achieved by pricing wireless and satellite services down to the level of fibre services, with adverse implications for NBN Co's financial viability.

7 Non-price terms and conditions

Key points

- Module 1 of the SAU covers a number of key non-price terms and conditions:
  - Rollout progress information;
  - POI rollout information;
  - Closure, relocation and introduction of new POIs;
  - Dispute Management, including detailed dispute management rules to apply where NBN Co and Customers have a dispute arising out of an AA;
  - Confidentiality and IPR; and
  - Risk Management.
- The approach to non-price terms and conditions is designed to ensure a clear and certain role for the ACCC via the regulatory recourse mechanism. In general, that mechanism can apply where a particular non-price subject matter is not addressed by the SAU and will provide Access Seekers with transparency and certainty on how any issues relating to such subject matter may ultimately be addressed.
- The non-price terms and conditions included in the SAU (committed to be included in any SFAAs) have been developed via comprehensive and detailed review and engagement with NBN Co's Customers during the CDP, as a result of which NBN Co has made significant and extensive amendments to the previous terms and conditions in accordance with industry feedback. As such NBN Co submits that the terms that will be incorporated into the SFAAs reflect an appropriate balance between NBN Co's and Access Seekers' interests.
- Non-price terms and conditions in the SAU will be reviewed in 2017-18 under the reviews set out in Schedule 1K of the SAU.
- The non-price terms and conditions relate to the Initial Regulatory Period. NBN Co has appropriate incentives to engage with Customers regarding the evolution of non-price terms and conditions in general throughout the term of the SAU. NBN Co does not believe it is possible, or appropriate, at this stage, to make longer term commitments in relation to non-price terms and conditions.
- NBN Co submits that the non-price terms and conditions appropriately meet the needs of Access Seekers, their End Users and NBN Co.

7.1 Summary of non-price terms and conditions

Schedule 1H of the SAU sets out non-price terms and conditions, including commitments relating to the releasing of information about the NBN rollout and providing information about POIs as well as key non-price terms and conditions of supply that NBN Co will commit to incorporating into any SFAA.

The non-price terms and conditions incorporated into the SAU have been developed via comprehensive and detailed review and engagement with NBN Co's Customers during the CDP. NBN Co released a number of position papers, held a number of multilateral workshops with Customers and made significant and extensive amendments to the previous terms and conditions in accordance with industry feedback. As such NBN Co is confident that the non-price terms and conditions incorporated into the SAU are appropriate given the level of engagement with Customers and the amendments NBN Co has made in response. The terms and conditions reflect an appropriate balance between the interests of NBN Co and its Customers.

In incorporating the non-price terms and conditions into the SAU, NBN Co has tried to ensure:

- The commitments are 'standalone' commitments that are not subject to extraneous documents; and
- there is a certain and clear role for the ACCC (if required) via the regulatory recourse mechanism in Clause 1B. Any non-price terms and conditions not covered by the SAU may be subject to the regulatory recourse mechanism in Schedule 1B (provided the terms and conditions in clause 1B.2 are met).

NBN Co notes that the non-price terms and conditions included in the SAU are reflective of NBN Co's current state of operational and commercial maturity. Those included are key for Customers and NBN Co, and those not included are likely to continue to develop in light of operational experience via ongoing engagement with Customers in various fora.

NBN Co recognises that non-price terms and conditions may require further refinements over time and as such NBN Co will carefully monitor the adequacy of the approaches committed to in preparation for the 2017-18 review of non-price terms and conditions as set out in Schedule 1K of the SAU.

NBN Co also highlights that although the non-price terms and conditions only relate to the Initial Regulatory Period, it does have appropriate incentives to engage with Customers regarding the evolution of non-price terms and conditions in general, and throughout the term of the SAU. As observed by Ordover and Shampine in their report:

> *Vertically integrated firms which supply both access and retail services may have an incentive to disadvantage access customers (e.g., raise rivals' costs). When prices are regulated, firms may attempt to disadvantage rivals through non-price terms. Here, however, NBN Co is not permitted to offer retail services. Such vertical separation is one means of aligning the incentives of the access provider and its customers and*

> *inducing higher levels of service quality. That is, all of NBN Co's revenues will derive from wholesale services. Since NBN Co's rate of return will be regulated, NBN Co can increase profits by increasing its volume of sales. Accommodating customers with respect to non-price terms can increase sales by increasing quality (and reducing quality-adjusted prices). Furthermore, to the extent that accommodating non-price terms will increase NBN Co's operating expenses, NBN Co will be able to recover those costs under the LTRCM and so is likely to accommodate such requests from customers as long as these expenditures are considered to be prudent. Thus, under the proposed SAU, NBN Co has incentives for effective engagement with its customers on the issue of the non-price terms of its services.* [150] *[Emphasis added]*

7.2 Rollout progress information

In order to ensure stakeholders are kept informed of the rollout of the NBN in a transparent manner, NBN Co commits in Clause 1H.2 to publish rollout plans describing where, when and to how many premises NBN Co plans to roll out the NBN, and weekly summaries of the premises passed by the NBN.

The commitment to provide this information in annual, quarterly and monthly plans which become progressively more detailed the closer it gets to the actual rollout, will benefit Access Seekers and Customers by providing greater visibility and certainty as to the progress of the rollout over time. This will equip Access Seekers and Customers in a transparent and non-discriminatory way to develop product and marketing plans and strategies, and by doing so promote competition and innovation in the market.

This will also give End Users visibility of when the NBN will be built in their area, so that they can make informed decisions with regards to their interim retail arrangements as well as decisions regarding the location of their homes and businesses.

To date, NBN Co has to date complied with the rollout information commitments in the SAU as follows:

- Since first publishing rollout information in October 2011, NBN Co has consistently provided an update to the Rollout Plan every month, with 12 releases as of 25 September 2012
- Four one-year-ahead views of when work will commence in an area (referred to as the 1-Year Construction Rollout Plan) have been provided on a quarterly basis
- In late March 2012, NBN Co released the 3-year Construction Rollout Plan, which details the areas that will commence construction up until 30 June 2015; and
- NBN Co also provides weekly updates to Access Seekers on the status of premises within the current footprint.

The SAU commitments in relation to rollout progress will not be incorporated into the SFAAs, because they are not contractual commitments and as such are more appropriately

[150] Ibid, paragraph 45.

contained in the SAU. The requirement in clause 6 of the SAU for the SFAAs to be aligned with the SAU will ensure that terms (if any) relating to rollout progress that may be included in the SFAAs are consistent with the commitments made in the SAU.

7.3 Points of interconnect

7.3.1 POI Rollout Progress

NBN Co recognises the significance of POI status for business planning by Access Seekers and Customers. Accordingly, the SAU provides for NBN Co to provide Access Seekers with information about the progress of the POI rollout. This also places all Access Seekers in the same position with respect to planning of the provision of services to End Users.

The SAU commitments in relation to POI Rollout Progress will not be incorporated into the SFAA, as they are not contractual commitments and as such are more appropriately contained in the SAU. The requirement in clause 6 of the SAU for the SFAAs to be aligned with the SAU will ensure that terms (if any) relating to POI Rollout Progress that may be included in the SFAAs are consistent with the commitments made in the SAU.

7.3.2 Closure, relocation and new Points of Interconnect

With the ACCC's approval, NBN Co is able to open new POIs, or close or relocate an Established POI.[151] In the case of opening a new POI and closing/relocating an Established POI, NBN Co must provide Access Seekers with at least 12 months prior notice of the event. In the case of the closure or relocation of a Temporary POI, NBN Co must provide at least 6 months prior notice to Access Seekers. The above process does not apply to emergency relocations or closures of POIs.

In order to seek approval for relocating or closing an Established POI or opening a new POI, NBN Co will provide the ACCC with a request to do so, and the ACCC will approve or reject the request within 60 business days of NBN Co's request. The ACCC is able to extend this period in certain circumstances, but if the ACCC does not make a decision within the requisite timeframe, NBN Co's request will be deemed to have been accepted. NBN Co believes it is appropriate to include this timeframe for an ACCC decision, including to provide NBN Co and Access Seekers with planning certainty. The period of 60 business days is sufficient for the ACCC to undertake any required consultation in relation to an NBN Co request.

NBN Co considers that conferring a power on the ACCC to approve NBN Co's decisions in relation to POIs will ensure that POIs are located appropriately.

The SAU commitments in relation to Closure, relocation and introduction of new POIs will be in addition to any commitments made in the SFAAs in relation to providing notice. The requirement in clause 6 of the SAU for the SFAAs to be aligned with the SAU will ensure that

[151] This commitment does not apply in relation to Temporary POIs, although the SAU includes a commitment to close the Temporary POIs.

terms (if any) relating to POIs that may be included in the SFAAs are consistent with the commitments made in the SAU.

NBN Co notes that section 151DB of the CCA sets out a process for the ACCC to make and maintain a list of POIs. NBN Co considers that the process outlined in clause 1H.4 of the SAU operates consistently with the ACCC's role under section 151DB of the CCA, by setting out a transparent process NBN Co and the ACCC must follow when NBN Co's initiates a request for POI closure or relocation requests.

Clause 1H.4.4 will require the ACCC to update the POI List to reflect any approved POIs under Clause 1H of the SAU. NBN Co considers it appropriate to include this clause to ensure that NBN Co's authorisation under section 151DA is maintained. Further this requirement on the ACCC is consistent with the ACCC's obligations under section 151DB of the CCA.

7.4 Dispute Management

7.4.1 Approach

NBN Co has sought to ensure that there is a robust, speedy, open and non-discriminatory process for the resolution of disputes that might arise between NBN Co and its Customers and for the implementation of dispute outcomes.

The SAU includes a set of Dispute Management Rules, which NBN Co commits to incorporating and maintaining in any SFAAs subject to any changes permitted under the SAU. The incorporation of these terms and conditions will provide NBN Co and Customers with certainty as to the process to be followed if a dispute arises in respect of their AAs.

NBN Co's non-discrimination obligation presents some unique challenges in the context of dispute resolution. This has driven the development of a bespoke set of Dispute Management Rules with some novel features:

- the process for resolving disputes (though not the resolution of the dispute itself) is managed and facilitated by an independent third party, the Resolution Advisor; and
- disputes can be designated as Bilateral Disputes or Industry Relevant Disputes. If the resolution of a dispute will, or is likely to, materially affect other Customers, those other Customers may apply to actively participate in the dispute resolution process (this is an Industry Relevant Dispute, and all other disputes are Bilateral Disputes).

The Dispute Management Rules in Annexure 1 to Schedule 1H will be reviewed in 2017-18 in accordance with Schedule 1K (discussed at section 8.2.1).

The sections below discuss some of the key aspects of the Dispute Management Rules.

7.4.2 Industry Relevant Disputes

The need for an NBN Co specific process to deal with Industry Relevant Disputes arises from NBN Co's non-discrimination obligation. Because NBN Co is required to not discriminate between Access Seekers, it is possible that the matters at issue in a dispute between NBN Co

and one Customer will have an impact on other Customers. In addition, if the outcome of a dispute is that NBN Co has to change either the terms of the SFAAs or its operational processes for the supply of services, then this is also likely to have an impact on other Customers.

In this context, it makes little sense for NBN Co to go through a separate dispute resolution process with each Customer in relation to the same issues. Apart from being time-consuming and expensive, it would make it virtually impossible for NBN Co to comply with its non-discrimination obligation. For this reason, the Dispute Management Rules set out the circumstances in which multiple Customers may become parties to one dispute with NBN Co. [152]

7.4.3 Dispute resolution forum

If NBN Co and a Customer have been unable to resolve a dispute through internal escalation and reached the point of referring it to formal dispute resolution, then they may see little value in mediation of the dispute, and prefer to go straight to resolution by a third party. If that is not the case, the SAU leaves it open to them to agree to mediate the dispute.

It is also open to NBN Co and the Customer to agree that a dispute should be resolved by an expert, for example an expert in technical or accounting matters.

In all other cases, the dispute (whether bilateral or industry-relevant) must be resolved by arbitration in accordance with the *Commercial Arbitration Act 2010* (NSW).

7.4.4 Conduct of arbitrations under the Commercial Arbitration Act 2010 (NSW)

NBN Co has selected arbitration as the default dispute resolution forum on the basis that it offers an efficient and effective solution which will enable the parties to a dispute to minimise as far as possible the amount of time, money and resources which need to be diverted from their core business.

These objectives are furthered by relying, as a general principle, on the procedural rules set out in the *Commercial Arbitration Act 2010* (NSW). These are independently developed, tried and tested and well-understood by the legal profession and the industry. The provisions of this legislation will apply to the conduct of any relevant dispute except where (in accordance with the legislation) the parties have agreed otherwise in the Dispute Management Rules.

[152] The general rationale and benefits of such broader customer engagement in a regulatory context is discussed in Appendix B.

7.4.5 Appointment and role of the Resolution Advisor and Pool members

It is in the interests of both NBN Co and Customers to ensure that key decision-makers in the process are independent and that the process is fair and transparent, to reduce the risk of decisions being appealed on procedural grounds. NBN Co has therefore devised a number of safeguards (including a role for the ACCC as discussed below) against bias and the appearance of bias, including a process for the nomination and appointment of one or more (independent) Resolution Advisors and a process for resolving disagreements about such appointments.

If NBN Co and Customers are not able to agree to the appointment of a Resolution Advisor then NBN Co will refer this decision to the President of the Institute of Arbitrators and Mediators (Australia) (IAMA) and request that he/she make that decision. One of the requirements before the President of the IAMA appoints a Resolution Advisor is to provide a written notice to the ACCC setting out the name and the terms of the proposed appointment of such persons. If the ACCC provides a written objection to the appointment within 20 Business Days of receiving written notice of the nomination, then that person will not be appointed as a Resolution Advisor.

When a dispute arises, the Resolution Advisor (or Resolution Advisors) will be responsible for appointing a panel of three independent arbitrators from a pool of arbitrators (the Pool) who will be responsible for the classification of the dispute as either an Industry Relevant Dispute or a Bilateral Dispute. A similar role to that noted above is provided to the ACCC in regard to the appointment of a member of the pool of arbitrators.

The ACCC is also provided an oversight role in relation to terminating the appointment of a Resolution Advisor or a member of the pool of arbitrators.

Under the Dispute Management Rules, NBN Co will maintain records of any payments made by NBN Co to a Resolution Advisor or member of the pool of arbitrators.

7.5 Confidentiality and Intellectual Property Rights

In light of stakeholder feedback received as part of the CDP and NBN Co's December 2011 SAU, NBN Co has significantly revised its terms and conditions relating to confidentiality and IPR for 'business as usual' activities, i.e. activities other than product development, under the SFAAs. Arrangements in relation to confidentiality and IPR were developed in the context of product development activities and the PDF processes (i.e. licensing arrangements were stripped out of the WBA, with NBN Co to negotiate licensing with Customers under their executed agreement and, also in response to Customer feedback, NBN Co included arrangements for Customers to identify IPR). NBN Co has adapted these arrangements into confidentiality and IPR arrangements to apply in the context of 'business as usual' activities under the SFAA.

Confidentiality and IPR aspects of product development in the context of the PDF are discussed at section 5.6(iv).

Annexure 2 of Schedule 1H sets out the terms and conditions in relation to confidentiality

and IPR, that the SAU commits to incorporating into any SFAAs and maintaining subject to any changes permitted in the SAU.

7.5.1 Confidential information

The key principle of the confidential information provisions is that a party may only disclose or use Confidential Information in accordance with the SFAA. In maintaining another parties' confidential information the recipient must exercise the greater of the degree of care that a reasonable person with knowledge of the confidential nature of the information would apply or the security or degree of care that it applies to its own confidential information of an equivalent nature.

The specific terms and conditions included in the SAU have also been developed in response to NBN Co taking into account industry feedback in relation the broad scope of NBN Co's disclosure rights in relation to confidential information including by:

- providing for an increased number of disclosure rights (e.g. disclosure to a regulator) to be made reciprocal to the extent this is appropriate and reasonable; and
- where possible, and while still allowing NBN Co to comply with its regulatory obligations and scope of required activities, narrowing the scope of NBN Co' disclosure rights.

7.5.2 IPR

In essence, the IPR regime outlined in Annexure 2 comprises an upfront intellectual property licence from NBN Co to Customers for the term of the signed agreement, a right to sub-licence NBN Co IPR and an Intellectual property warranty from NBN Co.

There is no granting of a Customer IPR licence to NBN Co for external use, and NBN Co may only use Customer IPR internally within NBN Co to the extent necessary for NBN Co to exercise its rights and perform its obligations under the SFAA and any SAU, excluding the PDF (defined as Permitted Use).

If NBN Co wishes to use a Customer's Materials for any other purpose, it will provide written notice to the Customer setting out the proposed use. The Customer will then have a 6 week timeframe to identify IPR (both the Customer's and third party), and also to indicate whether the Customer is prepared to enter into negotiations with NBN Co for the use of the Customer's IPR. If the Customer has indicated their willingness to enter into negotiations, the Customer and NBN Co will then commence commercial negotiations for a licence.

If Customers submit Material to NBN Co in which a third party holds IPR, then Customers must pay on demand to NBN Co the amount of any losses suffered by NBN Co arising out of or in connection with any Permitted Use of those Materials.

NBN Co submits that this approach provides for an appropriate and commercially workable balance between providing Customers control over their IPR and protecting NBN Co from IPR infringement claims.

7.6 Risk management and liability

Clause 1H.8 commits NBN Co to incorporating terms and conditions relating to risk management (Annexure 3) into any SFAAs and maintaining such terms in the SFAAs subject to the changes permitted under the SAU.

Annexure 3 of Schedule 1H sets out the risk management terms and conditions in relation to liability, indemnities, claims against certain persons, liability for downstream loss, insurance and Force Majeure Events. These terms have been developed collaboratively with CDP participants and have been revised substantially based on feedback provided by CDP participants in the course of 2011 and 2012.

The primary goal in developing terms and conditions for risk management and liability is to achieve an appropriate allocation of risk that is fair and reasonable and reflects the activities and responsibilities of NBN Co and its Customers, thereby providing certainty, clarity and transparency for all parties.

To this end, risk management and liability terms have been developed as a self contained regime or code. NBN Co considers that it is in the interests of both NBN Co and Customers to have a self contained, clear articulation of respective liability positions. A codified liability regime is an appropriate regime to give the parties certainty as to their scope of liability and to try and minimise the likelihood of becoming involved in litigation. NBN Co considers this is in the interest of all parties, given the inherent inefficiencies, expenses and delays associated with litigation.

Many of the potential benefits of codification in contract have been described in the recent Discussion Paper released by the Attorney General concerning codification of the contract law in Australia:

> *When the legal consequences of actions or omissions are clear and predictable, individuals and businesses have the information they need to make informed choices and to develop long-term plans. Legal certainty also has important economic benefits such as allowing contracting parties to allocate risk more efficiently. Greater certainty in the law lessens the likelihood of disputes arising or being escalated, reducing costs both for parties ....*[153]

This is particularly important to NBN Co at this point in the development of its activities.

[153] http://www.ag.gov.au/Consultationsreformsandreviews/Documents/Improving%20Australia%20s%20Law%20and%20Justice%20Framework%20-%20Contract%20Law%20Discussion%20Paper.DOC

8 Other terms and conditions

Key points

- The SAU contains a number of regulatory oversight commitments in Module 1, describing a mechanism by which terms set by the ACCC (in a manner consistent with the CCA, including the legislative hierarchy as set out in Part XIC of the CCA) are implemented in the SFAAs. Other relevant commitments include:
  - a multilateral SFAA forum; and
  - 2 year SFAAs with co-terminus end dates.
- No later than six months prior to 1 July 2018, NBN Co will undertake a review of a number of areas in the SAU including on:
  - the effectiveness of the multilateral processes in the SAU (i.e. the operation of the customer engagement process in relation to Network Changes, PDF Processes, Dispute Management Rules and the Multilateral SFAA Forum); and
  - various non-price related terms and conditions (i.e. non-price terms and conditions in Schedule 1H, service levels, operation of the regulatory recourse arrangements and reporting and compliance arrangements).

  The ACCC has a role in reviewing NBN Co's proposals in these areas, and will in certain circumstances be able to make its own decision on what arrangements should apply should it not accept NBN Co's proposal.
- The enhanced compliance regime in Module 1 enables the ACCC to have transparent and effective oversight of NBN Co's compliance with key cost recovery and pricing commitments in the SAU by requiring NBN Co to submit detailed annual reporting as well as through conferring powers on the ACCC to seek other additional information it may require.

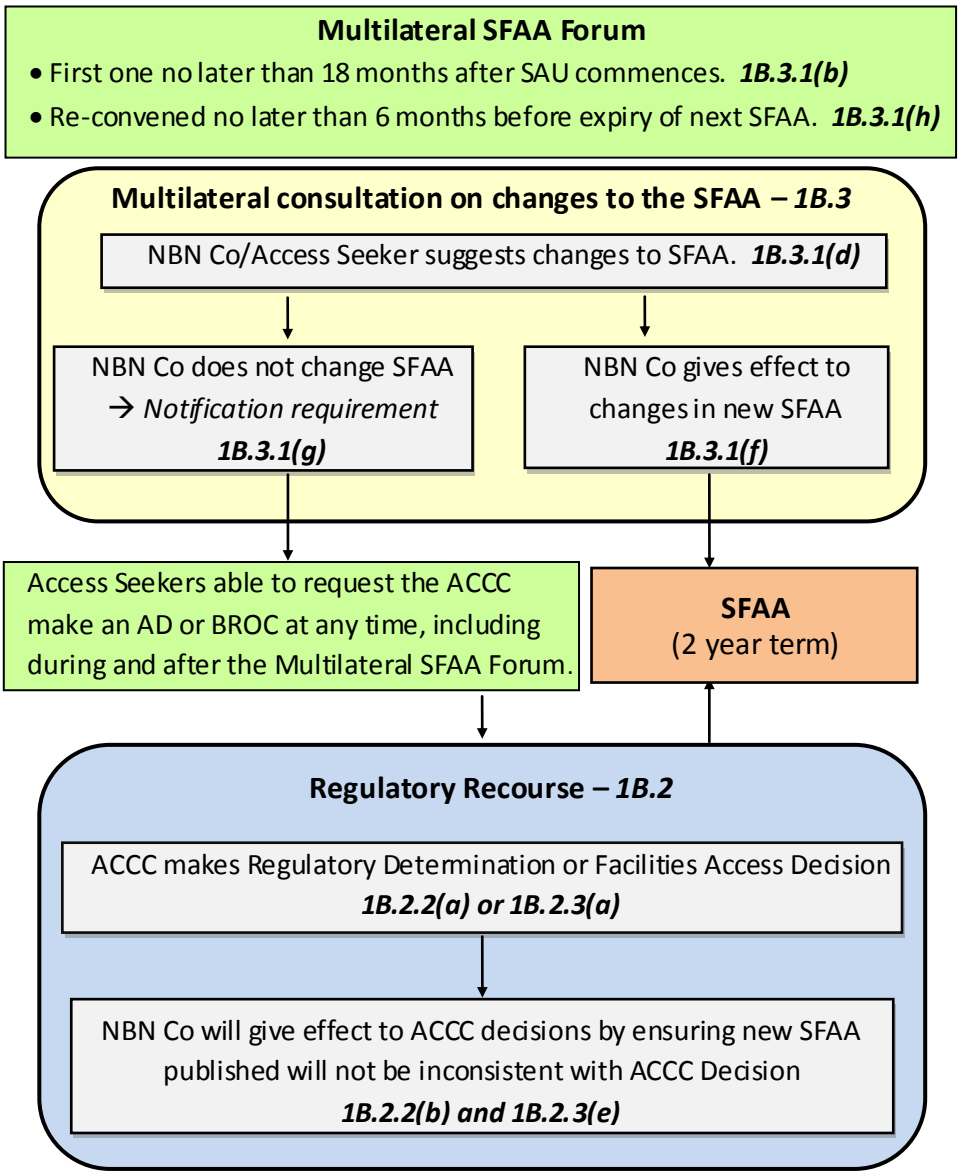
8.1 Regulatory oversight

An important aspect of the overall design of the incentive based modular SAU is the regulatory oversight commitments made in Schedule 1B of the SAU. NBN Co has considered and taken on board the feedback provided by both the ACCC and industry with regards to the role of the ACCC where NBN Co and Access Seekers are unable to reach genuine agreement on the terms and conditions of supply. Accordingly, NBN Co has included in Module 1 of the SAU a mechanism by which Access Seekers will be able to have recourse to regulated terms in a manner consistent with the legislative hierarchy set out in Part XIC of the CCA.[154]

As outlined above in section 4.1.2, NBN Co has adopted an integrated approach to regulatory oversight with a number of inter-related elements that operate together to provide an appropriate balance between ongoing certainty of arrangements and ensuring that NBN Co is responsive to the needs of its Customers for changes. The arrangements recognise the Government's policy intent of incentivising the use of commercial negotiations and agreements, but also incorporate commitments to include certain ACCC decisions into the SFAAs, a commitment to regularly convene a multilateral forum on the terms of the SFAAs, and a commitment that 2 year SFAAs will be available to Access Seekers to allow them to take advantage of ACCC decisions in a timely manner that also enables NBN Co to comply with its non-discrimination obligations.

[154]Legislative hierarchy as described in sections 152BCC, 152BDB, 152BDE, 152 CBIA, 152CBIB, 152 CBIC of the CCA.

Figure 8.1: Regulatory oversight arrangements



8.1.1 2-year co-terminus SFAAs

In acknowledging concerns expressed by the ACCC that NBN Co will expect Access Seekers to enter into long-term commercial agreements prior to regulated terms being established on matters that are contentious (i.e. prior to the ACCC regulatory recourse as described below in section 8.1.3), NBN Co commits in clause 1B.1.3(a) of the SAU to ensuring that any SFAA that is published includes an expiry date that is no longer than two years from the date the SFAA commences.

The effect of this approach is for all of NBN Co's Customers to have agreements that expire at the same time based on the 2-year co-terminus SFAA. As such, every agreement will expire at the same time and all Access Seekers will all have the ability to enter a new AA based on new published SFAAs.[155]

8.1.2 Pricing and regulatory oversight

Schedule 1B will not apply in relation to existing or new pricing of any Products, Product Components, Product Features, Ancillary Services, types of Facilities Access Service and Other Charges.

As discussed in section 6, an exception to this is the introduction of a price for a Reference Offer or an Other Charge associated with the supply of a Reference Offer that at the time of the SAU commencement is zero-priced. The price of such a Reference Offer or Other Charge will remain zero-priced unless NBN Co introduces a new price, at which point Access Seekers will be provided 3 months notice of the proposed change. If the ACCC makes an AD, BROC or Facilities Access Decision relating to the price within 3 months of the notification, then the new price will be as determined in the AD, BROC or Facilities Access Decision and it will serve as the Maximum Regulated Price in that year. NBN Co considers that this is an appropriate and reasonable approach because Access Seekers need to have certainty that the value inherent in the Reference Offers cannot be changed by NBN Co arbitrarily.

More generally, it is appropriate to exclude pricing from the regulatory recourse arrangements because the package of commitments made in the SAU and the wider legislative and regulatory framework in which NBN Co will operate ensure NBN Co has appropriate incentive to price efficiently (as discussed in detail in section 6).

8.1.3 Regulatory Recourse

In navigating to an appropriate position on regulatory recourse, NBN Co has had regard to Access Seekers' desire for recourse to the ACCC as well as the Government's policy intent of incentivising and promoting commercially agreed outcomes in the industry (as reflected in the CCA, with AAs being at the top of the legislative hierarchy). NBN Co considers that the regulatory recourse mechanism incorporated in Schedule 1B of the SAU provides for an acceptable position that reflects the right balance between these considerations.

Clause 1B.2.2(a) acknowledges that at any time the ACCC may make, vary or withdraw an AD or BROC that relates to the NBN Access Service or the Ancillary Services and that these instruments will have no effect to the extent to which they are inconsistent with the terms of the SAU, has the effect (whether direct or indirect) of discriminating between Access Seekers or is not otherwise compliant with Part XIC of the CCA (defined as a Regulatory Determination).

As with Regulatory Determinations for the NBN Access Service and Ancillary Services, Facilities Access Decisions under clause 1B.2.3 will provide an appropriate regulatory

[155] NBN Co is not precluded from including in the SFAA an option of agreeing to extend the term of a SFAA.

recourse role for the ACCC in relation to the Facilities Access Service as provided for in the SAU. As discussed in section 5.4, the terms and conditions relating to the Facilities Access Service are set out in the SAU in connection with the satisfaction of NBN Co's interconnection obligations under the CCA in relation to the NBN Access Service and Ancillary Services.

Clause 1B.2.3(a) confers a powers on the ACCC to make a decision in relation to the terms and conditions on which NBN Co must comply with obligations under section 152AXB(4) of the CCA in connection with the Facilities Access Service. A Facilities Access Decision must specify an expiry date that is no more than 5 years from the date on which the decision comes into effect and has no effect to the extent that the decision is inconsistent with the SAU, has the effect of (directly or indirectly) discriminating between Access Seekers, or is otherwise not compliant with Part XIC of the CCA or would have the effect of requiring NBN Co to engage in conduct that is inconsistent with NBN Co's authorisations under the CCA.[156]

The ACCC must also undertake consultation with NBN Co and any other persons the ACCC considers has sufficient interest in the matter before making a Facilities Access Decision and may consider any submissions before making its decision.

NBN Co will give effect to a Regulatory Determination or Facilities Access Decision by ensuring that any new SFAAs NBN Co publishes at the expiry of any existing SFAAs will be consistent with the Regulatory Determination and/or Facilities Access Decision. This commitment together with the commitment that any SFAA that is published by NBN Co will have a co-terminus two year term[157] will ensure that terms are incorporated into new SFAAs a maximum of 24 months after it comes into effect. NBN Co will not be required to give effect to any Regulatory Determination or Facilities Access Decision by amending any existing published SFAAs or any AAs.

As such, all Customers' AAs will have the same expiry date (regardless of commencement), and so all Access Seekers will have the ability to take up any regulatory terms in the SFAAs at the same time. NBN Co submits that this approach is appropriate as it will ensure that all Access Seekers are given access to regulated terms made by the ACCC at the same time regardless of when they sign their AA.

NBN Co recognises that giving effect to an AD/BROC in the SFAAs (depending on the level of specificity in the regulatory determination) may involve a degree of independent interpretation by NBN Co. However, given that the ACCC would be able to make a subsequent or varied AD, or a BROC specifying implementation of any initial regulatory determination, NBN Co will have an incentive to ensure its practical implementation of the initial regulatory determination was acceptable to Access Seekers, and consistent with the intent of any ACCC decision.

[156] The CCA provides NBN Co with an authorisation for specified conduct under section 151DA(2) of the CCA for the purpose of section 51(1) of the CCA. See section 3.4.2.

[157] Clause 1B.1.3 requires that NBN Co will be required to publish any SFAA with an expiry date that is not longer than 2 years after the date on which the SFAA commences.

8.1.4 Multilateral SFAA Forum

To facilitate NBN Co and Access Seekers reaching a set of mutually agreeable terms and conditions, as set out by the legislative framework in the CCA, clause 1B.3.1(a) of the SAU commits NBN Co to conducting a multilateral consultation forum (known as the Multilateral SFAA Forum) to engage with Access Seekers and Customers on possible future changes to the terms of the SFAAs. NBN Co will be required to convene the first Multilateral SFAA Forum no later than 18 month after the SAU commences, with an ongoing obligation to convene the forum at regular intervals.[158]

The purpose of the Multilateral SFAA Forum will include providing an open forum for identifying and prioritising issues associated with the SFAAs and working to develop multilateral resolutions to changes to the SFAAs.[159] The Multilateral SFAA Forum will be available to all Access Seekers irrespective of whether they have an AA with NBN Co.

While the forum will be available to Access Seekers to engage with NBN Co, Clause 1B.3.1(l) acknowledges that participation in the forum will not preclude NBN Co and Access Seekers undertaking bilateral consultation. Participation in the forum will also not prevent Access Seekers from requesting that the ACCC makes an AD or BROC in relation to any terms being negotiated and regulatory recourse (as discussed in section 8.1.3) applying.

NBN Co is permitted to make any changes to the SFAAs as NBN Co considers appropriate, including any changes arising from the Multilateral SFAA Forum, subject to clause 6 (alignment of the SFAAs and the SAU) and regulatory recourse. NBN Co will not be able to make any changes (under this clause) to the Dispute Management Rules (Annexure 1 of Schedule 1H), Confidentiality and IPR (Annexure 2 of Schedule 1H), Risk Management (Annexure 3 of Schedule 1H), PDF Processes (Annexure 1 of Schedule 1I) and service levels (Annexure 1 of Schedule 1J)[160], except with the ACCC's prior approval. These arrangements will be subject to a review in 2017-18 under Schedule 1K.

Clause 1B.3.1(f) commits NBN Co to incorporating any such changes into the new SFAAs published by NBN Co upon the expiry of the term of the existing SFAAs at the time. This approach works consistently with the regulatory recourse mechanism in clause 1B.2 and ensures that all new terms (whether it is via an ACCC decision or through the Multilateral SFAA Forum) will be available to all Access Seekers at the same time and within 24 months.

If NBN Co does not implement Access Seekers' suggested changes, NBN Co will notify Access Seekers and the ACCC of that fact no later than 4 months after convening a Multilateral SFAA Forum.

The creation of an open multilateral forum allows NBN Co to engage with Access Seekers in a multilateral setting which will ensure open and effective engagement with industry in

[158] Clause 1B.3.1(h) requires that NBN Co will convene another Multilateral SFAA Forum no later than 6 months prior to the expiry date of each version of the SFAA published under clause 1B.3.1(f).
[159] The general rationale and benefits of such customer engagement in a regulatory context is discussed in Appendix B.
[160] Other than in relation to the supply of new Products, Product Components, Product Features, Ancillary Services and types of Facilities Access Service introduced during the Initial Regulatory Period.

accordance with NBN Co's non-discrimination obligations. The forum will also promote commercial resolutions between NBN Co and industry whilst assisting the ACCC to identify terms and conditions on which it may consider it necessary to intervene via the making of a AD, BROC or Facilities Access Decision. NBN Co also considers that the ability for Access Seekers to seek, and for the ACCC to make ADs, BROCs or Facilities Access Decisions provides NBN Co with an incentive to engage productively with Access Seekers to reach mutually agreeable terms and conditions.

The effective operation of the Multilateral SFAA Forum will require all stakeholders committing to work constructively together.

The timeframes relating to the operation of the Multilateral SFAA Forum have been set with a view to ensuring that it will facilitate meaningful outcomes via the forum itself or to provide Access Seekers with the ability to seek regulatory recourse from the ACCC in a timely way. For example, convening the Multilateral Forum no later than 18 months after the commencement of the SAU will allow for both Access Seekers and NBN Co to have operational experience of how effectively the terms and conditions of the SFAAs are working. This will allow all parties to engage meaningfully in the Multilateral SFAA Forum to further refine terms, but in the absence of this occurring to any Access Seeker's satisfaction they will always have the opportunity to seek regulatory recourse from the ACCC and all resulting changes (whether via the forum or through regulatory recourse) will be implemented into the SFAAs that will be available to all Access Seekers at the same time.

8.1.5 Review of the operation of Regulatory Oversight

Given that the approach to regulatory recourse proposed by NBN Co is unique and developed at an early stage of NBN Co's operation, NBN Co considers it appropriate that the operation of the regulatory oversight provisions (including the operation of the Multilateral SFAA Forum) be reviewed during the course of Module 1. As such the operation of the regulatory recourse mechanism in clause 1B.2 and the multilateral SFAA Forum in clause 1B.3 will be reviewed in 2017-18 in accordance with the Schedule 1K of the SAU (discussed in section 8.2).

8.1.6 Regulatory Oversight arrangements in Module 1 only

Given the bespoke nature of the regulatory oversight arrangements, NBN Co considers that it is in the interests of all stakeholders to monitor how well the arrangements operate over Module 1, including any refinements made as a result of the 2018 review. This will provide stakeholders with the benefit of 'lived experience' of the effectiveness of the Module 1 arrangements to inform any mechanism that may be required over the latter 20 years of the SAU. A regulatory recourse clause may be included as part of a Replacement Module Application.

Further the regulatory recourse arrangements are formulated by reference to Part XIC of the CCA as it currently stands and NBN Co considers that it will be important to formulate any future regulatory oversight arrangements at future points in time taking into account the outcome of the review noted in section 8.2.2 as well as the evolution of Part XIC of the CCA,

including as a result of any policy reviews. [161]

8.2 Reviews

Schedule 1K of the SAU commits NBN Co to review various aspects of Module 1. NBN Co will be required to begin reviewing the following areas of the SAU no later than 6 months prior to 1 July 2018:

- Multilateral processes: including the operations of the customer engagement process (clause 1E.8), PDF processes (Annexure 1 of Schedule 1I), Dispute Management Rules (Annexure 1 to Schedule 1H) and the multilateral SFAA forum (clause 1B.3); and
- Various non-price related terms and conditions: Terms set out in Schedule 1H (except relating to Dispute Management), service levels (Schedule 1I), operation of the regulatory recourse arrangements (Clause 1B.2) and reporting and compliance arrangements (Schedule 1G).

Broadly, all of the reviews in Schedule 1K will involve NBN Co providing the ACCC with a review proposal containing proposed changes to the terms and conditions of the various areas of the SAU. The ACCC will then consider the reasonableness of the review proposal against a number of set review criteria and determine whether to accept or reject NBN Co's review proposal. If the ACCC accepts the review proposal NBN Co will implement the 'new terms and conditions' for the remainder of Module 1 in place of existing arrangements in the SAU. If the ACCC rejects NBN Co's proposal, NBN Co will be able to submit a new review Proposal which will once again be reviewed by the ACCC. If the ACCC rejects the new review proposal, the ACCC will be able to make a decision on the 'new terms and conditions' to be applied for the remainder of Module 1, in place of the existing arrangements in the SAU.

Given the bespoke and untested nature of some of the processes and terms and conditions referred to above (e.g. the regulatory recourse mechanism in Schedule 1B), NBN Co considers that it is appropriate for NBN Co to undertake a review of the effectiveness of these terms and conditions in the SAU and for the ACCC to have a key oversight role in shaping the ongoing terms and conditions offered for the duration of Module 1.

The following sections provide a discussion of the various reviews under Schedule 1K in further detail.

8.2.1 Review of NBN Co's engagement with Access Seekers

Clause 1K.2 of the SAU requires NBN Co to provide the ACCC with information in relation to the operation of the 'Multilateral Processes':

- the customer engagement process (Clause 1E.8);
- the PDF processes (Annexure 1 of Schedule 1I);

[161] Section 152EOA of the CCA provides that before 30 June 2014, the Minister must cause to be conducted review of the operations of Part XIC (and other areas).

- the Dispute Management Rules (Annexure 1 of Schedule 1H); and
- the Multilateral SFAA Forum (Clause 1B.3)

NBN Co is also required to provide the ACCC with an Engagement Proposal consisting of the changes NBN Co proposes in relation to the Multilateral Processes. All this information must be provided to the ACCC no later than 6 months prior to 1 July 2018.

Once this information is provided, Clause 1K2.2 confers a power on the ACCC to decide the extent to which the combined operations of all of the Multilateral Processes are resulting in the effective engagement between NBN Co and Access Seekers. Given this purpose, the SAU includes a number of factors the ACCC must have regard to, including:

- whether the Multilateral Processes are resulting in the development of new products for End Users in response to demand;
- whether the level of Access Seeker understanding of the Multilateral Processes provide for effective engagement;
- whether NBN Co and Access Seeker have devoted sufficient resources to participate in the Multilateral Processes;
- whether the Multilateral Processes provide for an appropriate balance between the interests of NBN Co, Access Seekers and end Users, having regard to the diversity of those interests and the need for trade-offs between those interests;
- whether Access Seekers are willing to engage with NBN Co through the Multilateral Processes;
- the level of consensus or disputation arising from the Multilateral Processes; and
- whether the Multilateral Processes are encouraging the economically efficient use of the NBN Co Network.

NBN Co submits that the above list of criteria is appropriate for assessing whether the processes are working effectively.

The ACCC will also be required to decide to either accept the Engagement Proposal (or parts of it) or reject the Engagement Proposal (or parts of it) because the ACCC considers that one or more of the Multilateral Processes require changes in a manner which is different to that proposed by NBN Co's Engagement Proposal, including the basis on which it is to be changed. The ACCC must provide reasons for its decision and publish the decision on its website. In making its decision the ACCC may consult with any person.

If the ACCC rejects NBN Co's Engagement Proposal, NBN Co will provide the ACCC with a New Engagement Proposal within 60 business days of the ACCC making its decision. The process outlined above will be repeated and the ACCC will accept or reject NBN Co's New Engagement Proposal.

To the extent that the ACCC rejects a New Engagement Proposal, the ACCC may make its own decision setting out changes to apply to the above Multilateral Processes from 1 July 2018 until the end of the Initial Regulatory Period. NBN Co will comply with any such ACCC decision made until the end of Module 1 of the SAU. Any decision made by the ACCC will have no effect to the extent it is inconsistent with any other term of the SAU, has the effect of discriminating (whether directly or indirectly) between Access Seekers or is not otherwise compliant with Part XIC of the CCA.

In addition to providing the ACCC with information relating to the operation of the Multilateral Processes, the ACCC is conferred a power to request NBN Co to provide any additional information that is reasonably required for the performance of the ACCC's review. NBN Co is required comply with any such request as soon as reasonably practical.

If the ACCC accepts either an Engagement Proposal or a New Engagement Proposal, then the proposal will take effect from 1 July 2018.

If the ACCC does not make a determination within 60 business days of receiving either an Engagement Proposal or a New Engagement Proposal then NBN Co's proposal will be deemed to be accepted by the ACCC and will take effect as described above.

All of the terms and conditions involved in this review relate to processes that require NBN Co to interact with its Customers and/or Access Seekers in order to make effective and appropriate decisions. As such, having the ACCC consider the combined operation of all of the Multilateral Processes and whether they are resulting in effective engagement is an appropriate review criterion.

NBN Co submits that the ACCC having the ability to seek information about the Multilateral Processes and make its own decision relating to future terms (if NBN Co's proposed engagement proposals are not acceptable) will provide NBN Co with incentives to carry out a thorough review of the operation of the Multilateral Processes to that point in time and submit a proposal that will ensure the continued effective engagement between NBN Co and Access Seekers.

The review mechanism for Multilateral Processes (including the key role played by the ACCC) will provide for a timely and well considered update to multilateral processes in the SAU to ensure the continued effective engagement between NBN Co and its Customers and/or Access Seekers for the duration of Module 1.

8.2.2 Review of non-price related terms and conditions, service levels and regulatory recourse and information

No later than 6 months prior to 1 July 2018, NBN Co will be required to provide the ACCC with a Non-Price Proposal containing the following:

- a set of non-price terms and conditions to amend or replace the non-price terms and conditions in Schedule 1H (excluding dispute management process which will form part of the review of NBN Co's engagement with the Multilateral Processes review discussed at 8.2.1.);
- a set of service levels to which NBN Co will commit to include in any SFAA to amend or replace the service level commitments described in Schedule 1J;
- a regulatory recourse mechanism to amend or replace the regulatory recourse mechanism described in Clause 1B.2; and
- regulatory reporting commitments to amend or replace the reporting commitments described in Schedule 1G.

Within 60 business days of receiving NBN Co's Non-Price Proposal, the ACCC will be required to decide whether to accept NBN Co's proposal (or parts) or reject the proposal (or parts) because the ACCC considers that changes to the terms should be made differently to what is proposed by NBN Co. The ACCC is required to provide reasons for its decision and may consult and consider feedback within anyone in making its decision as well as publish the decision on the ACCC's website, subject to confidentiality.

If the ACCC rejects NBN Co's Non-Price Proposal, then NBN Co will, within 60 business days after the ACCC's decision rejecting the proposal, provide the ACCC with a New Non-Price Proposal.

If the ACCC rejects NBN Co's New Non-Price Proposal, then the ACCC may make its own decision relating to the terms that would operate as non-price terms and conditions (excluding dispute management in 1H.5), service level commitments, regulatory recourse mechanism and regulatory reporting commitments from 1 July 2018 until the end of Initial Regulatory Period. The SAU provides for NBN Co to comply with any such ACCC decision. Any such decision has no effect to the extent that it is inconsistent with any other terms and conditions of the SAU, has the effect (whether direct or indirect) of discriminating between Access Seekers or is not otherwise compliant with Part XIC of the CCA.

If the ACCC accepts NBN Co's Non-Price Proposal or New Non-Price Proposal then the terms and conditions of the relevant proposal will take effect from 1 July 2018 and will replace the existing terms and conditions.

If the ACCC does not make a decision within the 60 business day timeframe specified, then NBN Co's proposal will be deemed to be accepted.

In considering whether to accept or reject NBN Co's Non-Price Proposal, the ACCC will have regard to the reasonableness criteria referred to in section 152AH of the CCA as well as the specific matters outlined below in relation to each of the non-price areas.

i Review criteria for non-price terms and conditions

When considering whether to accept or reject NBN Co's Non-Price Proposal in respect of non-price terms and conditions, the ACCC is required to have regard to the criteria referred to in section 152AH of the CCA and the following matters:

- the manner in which NBN Co has complied with the non-price terms and conditions in Schedule 1H of the SAU (excluding dispute management processes) from SAU commencement as the basis for assessing the manner in which NBN Co will be likely to comply with non-price terms and conditions in the Non-Price Proposal;
- good industry practice in comparable industries applicable to wholesale contracting in Australia; and
- comparable international standards applicable to non-price terms and conditions in circumstances substantially similar to NBN Co's circumstances.

NBN Co considers that the combination of the reasonableness criteria in Part XIC and specific criteria relating to past performance and industry practices will provide for a meaningful review of the non-price terms and conditions in Schedule 1H.

ii Review criteria for service levels

When considering whether to accept or reject NBN Co's review proposal with respect to service level commitments, the ACCC is required to have regard to the criteria referred to in section 152AH of the CCA and the following matters:

- the extent of NBN Co's compliance with the Service Levels incorporated into the SFAAs from the SAU Commencement Date as the basis for assessing the manner in which NBN Co will be likely to comply with the service levels in the Non-Price Proposal;
- the extent to which the Service Levels and Service Level Rebates have supported Customers meeting retail-level regulatory requirements; and
- comparable Australian and international standards applicable to service levels in circumstances substantially similar to NBN Co's circumstances.

NBN Co considers that in addition to the reasonableness criteria, it is appropriate that any review of service levels takes into account how well NBN Co's service levels proposed in the SAU have been supporting retail-level regulatory requirements, as well as using NBN Co's past performance in relation to its service level commitments as a basis for assessing future proposed service levels.

iii Review criteria for regulatory recourse mechanism

When considering whether to accept or reject NBN Co's review proposal with respect to the regulatory recourse mechanism, the ACCC is required to have regard to the criteria referred in section 152AH of the CCA and the following matters:

- the ability of Access Seekers to avail themselves of a regulatory recourse mechanism in a manner consistent with the legislative hierarchy (as currently described in sections 152BCC, 152BDB, 152BDE, 152 CBIA, 152CBIB, 152 CBIC) and the operation of any changes to the legislative hierarchy (including to the extent arising from a policy review under section 152EOA of the CCA).

Any revisions made to the regulatory recourse mechanism via the review process should be consistent with the legislative arrangements prevailing at the time of the review, and as such NBN Co considers it appropriate to review the regulatory recourse mechanism in Schedule 1B in accordance with prevailing legislation.

iv Review of regulatory information

When considering whether to accept or reject NBN Co's review proposal with respect to regulatory information the ACCC is required to have regard to the criteria referred in section 152AH of the CCA and the following matters:

- the effectiveness of the ACCC's ability to monitor NBN Co's compliance under this SAU.

The enhanced compliance regime in Schedule 1G has been incorporated into the SAU to ensure transparent and detailed monitoring of NBN Co's compliance with key commitments in the SAU. As such, any review of the effectiveness of this regime will need to have regard to how effectively the ACCC is able to monitor NBN Co's compliance with the SAU.

8.3 Regulatory Information

One of the key features of the SAU is the enhanced compliance regime contained in Schedule 1G of the SAU. NBN Co considers that the ACCC will have transparent and clear oversight over NBN Co's compliance with key cost recovery and pricing commitments in Module 1 of the SAU through commitments requiring NBN Co to submit detailed annual reporting as well as through conferring powers on the ACCC to seek additional information it may require.

The arrangements in the SAU are intended to operate until the expiry of Module 1, subject to a review as set out in Schedule 1K (discussed above in section 8.2).

8.3.1 Compliance information and reports

i Forecasts, actuals and variances

No later than 30 June prior to the commencement of each financial year, NBN Co will provide the ACCC with forecasts or estimates of a number of specified items including capex (by Asset Type) and opex, opening and closing values of the RAB and ICRA, and the ABBRR.

By 31 October after the end of each financial year, NBN Co will provide the ACCC with a report setting out actual cost information for the forecast information submitted prior to the start of the financial year, as well as information which sets out any material variances between the forecasts and actuals, including reasons for the variances.

If the Building Block Revenue Period commences prior to the expiry of Module 1, by 31 October after the end of financial year, NBN Co will also submit additional information relating to the Regulated Revenue and Revenue Variation.

In addition to the above, the ACCC will be conferred a power to request any additional information that may be reasonably necessary or required for the ACCC to assess NBN Co's compliance with commitments in Schedules 1E and 1F.

ii Expenditure and prudency compliance reporting

By 31 October of each financial year NBN Co will submit to the ACCC a report signed by its Chief Financial Officer (or his or her authorised delegate) setting out (for the previous financial year) the total amount of capex incurred by NBN Co in relation to each Asset Type and certifying that NBN Co has met its prudency requirements (including the specifics of the Prudent Design Condition and Prudent Cost Condition) in the SAU as well as that opex included in the ABBRR has been prudently incurred in accordance with the SAU. The ACCC may at any time request information it reasonably requires to assess NBN Co's compliance with expenditure reporting under clause 1G.2.1.

iii Procurement Rules compliance

By 31 October of each financial year NBN Co will submit to the ACCC a report signed by its Chief Procurement Officer (or his or her delegate) that NBN Co's Procurement Rules satisfy the requirements in clause 1E.4.2.

At any time, the ACCC may request further information from NBN Co that is reasonably necessary for the ACCC to assess compliance of the Procurement Rules with Clause 1E.4.2. NBN Co is required to comply with such a request.

iv Price compliance and reporting

By 31 October after the end of each financial year, NBN Co will submit to the ACCC a report signed by NBN Co's Chief Financial Officer (or his or her authorised delegate) certifying that in respect of the preceding financial year NBN Co has not exceeded the applicable Maximum Regulated Prices for the Reference Offers, Non-Reference Offers and Other Charges. NBN Co will also provide other information that NBN Co considers is reasonably necessary for the

ACCC to assess compliance by NBN Co with clauses 1C.3, 1C.4, 1D.3 and 1D.4 of the SAU.

At any time, the ACCC may request information from NBN Co, in relation to the report submitted by NBN Co, that is reasonably necessary for the ACCC to assess NBN Co's compliance with specified clauses relating to price compliance. NBN Co must comply with any such request.

Part C – SAU Assessment

9 Reasonableness of the SAU

Key points

- NBN Co has identified price-related terms and conditions in the SAU that are reasonably necessary for achieving uniform national pricing.
- In accordance with subsection 152CBD(5A) of the CCA, NBN Co submits that the ACCC cannot reject the SAU for a reason related to these terms and conditions of the SAU (because they are reasonably necessary to achieve uniform national pricing).
- In addition to supporting the achievement of uniform national pricing, the terms and conditions of the SAU promote the LTIE, by promoting competition, facilitating achieving any-to-any connectivity and encouraging efficient investment in and use of infrastructure as compared to the counterfactual of having terms of access set out via an AD and/or SFAAs alone. NBN Co submits that the regulatory certainty provided by the SAU strikes an appropriate balance between the interests of NBN Co and Access Seekers using the NBN Access Service and the Ancillary Services.
- NBN Co has lodged a number of reports by independent experts from Australia, the United Kingdom and the United States regarding key aspects of the SAU – each expert report provides substantial support for the SAU:
  - Professor Janusz Ordover and Dr Allan Shampine (Ordover and Shampine) – address the high level design of the SAU (including the 30 year term, modular structure and regulatory recourse arrangements in Module 1), the nature and strength of incentives for investment, expenditure efficiency, pricing, product development and withdrawal, service quality, and engagement with Customers on non-price terms, and the significance of NBN Co's wholesale only status and its broader context to simplifying the task of developing appropriate long term regulatory arrangements.
  - Synergies Economic Consulting (Synergies) – address the efficiency of the specific mechanisms set out in the SAU including the various elements of the LTRCM and pricing commitments made via the Reference Offers, Non-Reference Offers and Other Charges.
  - Professor Bob Officer and Dr Steven Bishop (Officer and Bishop) – address the specification of the WACC approach included in Module 1 (and associated tax treatments) and also address the WACC principles

set out in Module 2 for use in the subsequent 20 years of the SAU.

- Analysys Mason – address the prudency and efficiency of the initial design of NBN Co's fibre, wireless and satellite networks.

- NBN Co submits that the ACCC should be satisfied that the terms and conditions in the SAU are reasonable (in accordance with the statutory criteria set out in section 152AH of the CCA).

Under subparagraph 152CBD(2)(b)(ii) of the CCA, the ACCC cannot accept an SAU submitted by an NBN corporation unless it is satisfied that the terms and conditions specified in the SAU are reasonable. The following sections provide an assessment of the SAU against the statutory criteria in section 152AH of the CCA (which were previously described in section 3.2). This assessment also addresses the specific provisions in the CCA relating to uniform national pricing.

As NBN Co withdrew its December 2011 SAU prior to the ACCC making any draft or final decision on the SAU under Part XIC, this SAU will in effect be the first time that the section 152AH criteria in the CCA will be applied since the amendments to Part XIC of the CCA. NBN Co's wholesale only status combined with its commercial context mark it out as significantly different from the access providers that ACCC has been accustomed to regulating under Part XIC of the CCA over the last decade or more. As discussed further below, these differences are very important in assessing the likely performance and appropriateness of the regulatory arrangements set out in the SAU.

9.1 Promotion of the LTIE

In assessing whether the SAU promotes the LTIE, NBN Co submits that the relevant counterfactual for the analysis is a scenario in which there is there no SAU but the NBN proceeds in accordance with all current plans. In this scenario:

- although NBN Co's Product Components, Product Features and Ancillary Services would not become declared services via an SAU, declaration for current Product Components, Product Features and Ancillary Services would already have occurred via the publication of SFAAs on NBN Co's website[162]; and

- the ACCC may, but is not obliged to, at some point make ADs relating to some or all of the terms and conditions of access concerning some or all of the services declared via NBN Co's SFAAs[163].

[162] Pursuant to section 152ALA(8D) of the CCA

[163] Access determinations relevant to this scenario may also arise if a specified eligible service, to the extent to which the service is supplied, or is capable of being supplied, by NBN Co (whether to itself or to other persons), becomes a declared service pursuant to section 152ALA(8A).

Given that it is obviously not known what the nature, extent or timing of ADs will be in the counterfactual scenario, it is reasonable to assume that the factual scenario (with the SAU and SFAAs) will provide greater regulatory certainty with more consistency (through ex ante acceptance of the SAU) than may be possible via the alternative (potential ex post ADs and/or just reliance on the SFAAs).

NBN Co will discuss this counterfactual in the following sections to demonstrate that if the ACCC accepts the SAU it is likely to promote the LTIE to a greater extent than if the ACCC were to reject the SAU and terms and conditions of access were determined through a combination of SFAAs and ADs.

9.1.1 Promoting Competition

A preliminary step in assessing whether the terms and conditions of the SAU promote competition is to identify the relevant markets within which such competition will take place, although as outlined by the ACCC, it is sufficient to broadly identify the scope of the relevant markets likely to be affected.[164]

As NBN Co intends to offer a Layer 2 wholesale bitstream service supplied over NBN Co's fibre, satellite and wireless networks, NBN Co submits that the relevant markets are likely to be downstream markets where the NBN Access Service provides a key wholesale input for Access Seekers to supply Carriage Services or Content Services, such as voice telephony, high-speed broadband services, IPTV services and a range of other next generation services (e.g. e-health and telemedicine, high quality video conferencing, etc). In addition, some wholesale markets are also relevant, both in regard to wholesale aggregation and transmission backhaul. The relevant markets therefore include (but are not limited to):

- the retail markets for supply of:
  - fixed voice services;
  - fixed broadband services;
  - bundled voice and broadband services;
  - content services;
- the wholesale markets for supply of:
  - fixed voice services;
  - fixed broadband services;
  - bundled voice and broadband services;
  - content services; and
  - backhaul transmission services.

[164] ACCC, Inquiry to make final access determinations for the declared fixed line services – Final Report, July 2011, p. 19.

In considering whether competition will be promoted in these markets, subsection 152AB(4) of the CCA requires that the ACCC have regard to the extent to which the terms and conditions in the SAU will remove obstacles to end-users of listed services gaining access to listed services.

i Declared services and supply-related terms

The ACCC has previously noted that in order to promote competition, an SAU should provide for effective, non-discriminatory access by Access Seekers to particular Carriage Services.[165] In the context of FANOC's FTTN network the ACCC noted:[166]

> *The ACCC is of the view that effective access to an FTTN network would require the specification of a bitstream access service over the bottleneck portion of the network, at as low layer within the network as feasible, so as to give Access Seekers as much control as possible over their own customer traffic.*

NBN Co submits that the scope and the terms and conditions relating to the services included in the SAU (i.e. the NBN Access Service, the Ancillary Services and the Facilities Access Service in connection with the satisfaction of NBN Co's interconnection obligations in relation to the declared services) promote competition in a range of retail and wholesale markets (such as those for the supply of voice, broadband, bundled voice and broadband and content services) for the reasons outlined below.

The service descriptions of the NBN Access Service and Ancillary Services, and the details relating to the types of the Facilities Access Service, provides for all Access Seekers to have non-discriminatory access to a layer 2 wholesale bitstream service with flexibility and control over configuring services for their End Users. The component based product construct in the NBN Access Service will provide Access Seekers with the flexibility to configure capacity on the NBN Co Network as if it were the Access Seeker's own network thereby facilitating the ability to create alternative competitive service delivery models.

NBN Co's design of its products also allows for multiple Access Seekers to simultaneously provide retail and wholesale services to the same End User location – this effectively means that competition will be promoted between Access Seekers to provide services to End Users and service providers on a service-by-service or application-by-application basis.

Providing for functional (geographically-neutral and technology-neutral) service descriptions as well as a similarly functional description relating to the Facilities Access Service in conjunction with the location of POIs where contestable backhaul is available is likely to create an open and level playing field for competition at the retail level that is characterised by low barriers to entry, thus maximising the prospect of entry in all geographic areas. These

[165] ACCC, Assessment of Foxtel's Special Access Undertaking in relation to the Digital Set Top Unit Service - Final Decision, p.25.
[166] ACCC, Assessment of FANOC's Special Access Undertaking in relation to the Broadband Access Service – Draft Decision, December 2007, p.137.

same factors will also promote competition at the wholesale level, which will assist with keeping the barriers to retail entry as low as possible.

Service descriptions that are consistent across all access technologies, will allow Access Seekers to readily provide services across the entire country, expanding the range of competitive offerings that can be made available to End Users.

NBN Co submits that the supply related terms and conditions relating to the declared services and the Facilities Access Service in the SAU are likely to promote competition as compared to the counterfactual scenario because the terms and conditions set out in the SAU will provide an upfront and definite long-term commitment about the end to end service to be offered by NBN Co. This includes certainty in relation to the evolution of these services via commitments relating to product development and withdrawal over time as well as the maintenance of service levels, which are reinforced by the inclusions of Reference Offers that cannot be withdrawn during the period for which they apply (the Initial Regulatory Period in Module 1 and subsequent 3 to 5 year periods in Module 2).

In the FANOC Decision, the ACCC outlined that a Service Description addressing the minimum elements noted in the decision will promote the LTIE. NBN Co submits that the Service Description of the NBN Access Service and Ancillary Services as well as the description of the Facilities Access Service aligns with the requirements of the FANOC Decision to the extent applicable and therefore promotes the LTIE (see the analysis in section 5.2.10).

ii Price-related terms and conditions

In the context of NBN Co's objective of providing a long-term framework necessary for UNWP, NBN Co submits that the combination of Reference Offers, Non-Reference Offers and Other Charges (incorporating the Individual Price Increase Limit and the Initial Pricing Principles) and LTRCM will promote competition for the reasons set out below.

The ACCC has previously considered that a combination of specific initial prices and a pricing methodology to determine subsequent prices is an appropriate means to provide regulatory certainty on pricing matters to both the access provider and Access Seekers over a lengthy SAU. The ACCC considered that regulatory certainty is likely to promote competition.[167]

NBN Co submits that the Reference Offers (which specify Maximum Regulated Prices based around Basic Access Offers, an Enhanced Access Offer and a Standard Business Offer, as well as the CVC, NNI, Ancillary Services and Facilities Access Service elements necessary to deliver end-to-end services using those Access Offers, and which cannot be withdrawn for the term for which they apply) will provide regulatory certainty to both Access Seekers and NBN Co, thereby promoting competition in a range of retail and wholesale markets (such as those for the supply of voice, broadband, and bundled voice and broadband services).

[167] ACCC, Assessment of FANOC's Special Access Undertaking in relation to the Broadband Access Service – Draft Decision, December 2007, p.138.

These Reference Offers, together with the Non-Reference Offers and Other Charges as set out in the SAU, and incorporating the CPI-1.5% Individual Price Increase Limit, will also provide some degree of anchoring, for the duration of the SAU, to the prices of new Non-Reference Offers and Other Charges as introduced over time (and which will be subject to the Initial Pricing Principles as set out in the SAU in any event). As discussed in section 6.6, the initial price points adopted for the Reference Offers, Non-Reference Offers and Other Charges have been designed, amongst other things, to allow Customers to provide a smooth transition for End Users to the NBN.

Over time, the CPI-1.5% Individual Price Increase Limit will also serve to promote competition in a range of retail and wholesale markets (such as those for the supply of voice, broadband, bundled voice and broadband and content services), and will do so in a number of ways.

First, it will provide a degree of price stability and predictability that will facilitate Access Seekers making available retail and wholesale offers for longer contract terms. Such longer term offers are a key feature of how competition typically occurs in retail and wholesale telecommunications markets, with service providers offering greater value on contracts with longer terms. Second, the added certainty of the CPI-1.5% Individual Price Increase Limit will facilitate Access Seekers making investments in product and application development that will, in turn, promote competition in the markets they serve by expanding the range of consumer choice and scope of competitive activity.

In their report, Synergies emphasised the relationship between the degree of price certainty provided by the SAU, the willingness of Access Seekers to undertake complementary investments, and the outcome for NBN Co in terms of take-up:

> *NBN Co will be assisted in achieving its uptake targets by high levels of complementary investment by retailers and end-users in equipment and services. For the reasons set out in paragraphs 30 through 33, their willingness to make such investments, particularly if they are sunk, will depend upon a high degree of certainty over the price levels of the relevant wholesale service and its continued availability.*[168]
>
> ...
>
> *On that basis, the SAU can reasonably be expected to foster the necessary complementary investments, with commensurate productive efficiency gains in the use of the NBN Co's assets and innovation (i.e. dynamic efficiency) in retail services.*[169]

This is a point also highlighted in Ordover and Shampine's report:

> *Price uncertainty is a concern for making investment decisions. Consequently, the Reference Offers and Non-Reference Offers provide explicit assurances to potential*

[168] Synergies Economic Consulting, Advice on NBN Co Ltd's Special Access Undertaking, September 2012, paragraph 46.
[169] Ibid, paragraph 47.

> *customers that future prices for an extensive list of services will not exceed specified prices. The actual prices charged by NBN Co may be lower, but they will not be any higher than provided for in the SAU. This certainty will stimulate downstream incentives for investment and take-up of NBN Co's services.* [170]

More generally, the price-related terms and conditions in the SAU will, in NBN Co's context, promote competition by giving NBN Co appropriate incentives in regard to the development of downstream markets. As observed by Ordover and Shampine their report:

> *Because NBN Co is not a vertically integrated access provider and thus does not compete with its downstream customers, it will not have incentives to discriminate in an anticompetitive manner against its downstream customers. In addition, NBN Co is subject to explicit non-discrimination obligations. Overall, subject to the requirements of the Reference Offers and uniform national wholesale pricing, NBN Co will have incentives to price in a manner which encourages the development of downstream markets.* [171]

In parallel, the LTRCM will ensure that NBN Co's prices can, over time, recover no more than its prudently incurred costs (including an appropriate return on capital). This is consistent with the promotion of competition because NBN Co's prices will ultimately be set to recover its efficient costs of supply (but subject to the constraint of UNWP).

The modular approach to the SAU will ensure that key aspects of the SAU (in particular the Reference Offers) are updated so as to remain relevant over time, and also provides for oversight by the ACCC of key inputs to the LTRCM in the Subsequent Regulatory Period.

Due to NBN Co's mandate in respect of UNWP, which the SAU has been designed to support, there will be low barriers to service providers competing nationally, with particular benefits for competition for End Users served by the NBN Co's wireless and satellite networks.

NBN Co submits that the price-related terms and conditions in the SAU are likely to promote competition as compared to the counterfactual scenario. In the absence of the SAU, Access Seekers would not receive the level of upfront, regulatory certainty provided by the SAU nor in so definite a manner, about how NBN Co's pricing and service levels would evolve over time. The lack of certainty inherent in the counterfactual may affect Access Seekers' decisions to compete in relevant retail and wholesale markets (and if they do compete, how they compete), thereby negatively affecting competition.

iii Non-price terms and conditions

The SAU includes a number of key non-price terms and conditions that have been developed via extensive consultation with NBN Co's Customers during the CDP. NBN Co released a number of position papers, held a number of multilateral workshops with Customers and has made significant amendments to the previous terms and conditions in accordance with Customer feedback.

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[170] Expert Report of Janusz A. Ordover and Allan L. Shampine, September 24 2012, paragraph 39.
[171] Ibid, paragraph 40.

The ACCC has previously noted that an important benchmark in assessing whether competition will be promoted is the consistency of the proposed terms of access with the principle of non-discriminatory access between downstream suppliers of a service.[172]

In compliance with its statutory non-discrimination obligations, NBN Co has developed the non-price terms and conditions in the SAU with non-discriminatory access as a key objective, for example by incorporating:

- non-discriminatory notifications about POI rollout, relocations, additions and closures, providing Access Seekers important network information at the same time, thereby promoting competition by allowing them to compete on how effectively they utilise the information; and
- a Dispute Management approach that provides for a multilateral dispute resolution process (industry relevant disputes), ensuring all impacted Customers are provided a transparent and common resolution, resulting in being able to compete on how they manage outcomes.

Including non-price terms and conditions in Module 1, and allowing for a review in 2017-18, ensures that those terms included in the SAU are relevant for the period for which they apply. NBN Co may include non-price terms and conditions when it lodges Replacement Module Applications. NBN Co submits that there is no necessity or utility to commit now as to those future terms, but rather it is in the interests of both Customers and NBN Co to look at incorporating such terms once they have been developed through operational experience and ongoing engagement.

Non-price terms and conditions not included in the SAU (that is other than the non-price terms included in the SAU) will, during the Initial Regulatory Period, be subject to the regulatory recourse mechanism in clause 1B.2.

9.1.2 Any-to-any connectivity

The NBN Access Service and the Ancillary Services are Carriage Services that will be inputs into to an end-to-end service and as such NBN Co submits that the terms and conditions of the SAU will facilitate the objective of achieving any-to-any connectivity.

9.1.3 Economically efficient use and investment in infrastructure

A number of the price-related terms and conditions in the SAU are included because they are reasonably necessary for the achievement of uniform national pricing (see section 6.10). In any event, NBN Co submits that the price-related terms and conditions in the SAU will encourage the economically efficient use of and the economically efficient investment in infrastructure in a number of ways. These can be expressed in terms of the three standard components of efficiency (productive, allocative and dynamic).

[172] ACCC, Assessment of FANOC's Special Access Undertaking in relation to the Broadband Access Service – Draft Decision, December 2007, p.33.

The performance of the SAU in relation to each aspect of efficiency is discussed further below.

Productive efficiency

First, the prudency commitments operating as part of the LTRCM in Module 1 and the incentive arrangements operating in Module 2 will ensure that NBN Co has incentives to incur opex and capex in a manner that is consistent with achieving productive efficiency (thus minimising the costs associated with delivering the NBN Access Service, the Ancillary Services and the Facilities Access Services).

The Analysys Mason Report confirms the prudency and efficiency of NBN Co's initial network design across the fibre, wireless and satellite networks (as summarised in section C.2.2(ii) in Appendix C).

In addition, the report by Ordover and Shampine confirms that the SAU will provide an appropriate set of incentives in regard to productive efficiency [173], and maintenance of an appropriate level of quality[174]. Synergies reach essentially the same conclusions in their report[175].

In the context of its recent Determination on the Optus Arrangement, the ACCC has also noted the incentives for productive efficiency that arise from NBN Co's context – the constraint of long-term price controls combined with a significant up-front capital commitment, with cost recovery dependent on users migrating to higher speed services with higher data usage.

> *This creates incentives for NBN Co to keep costs to efficient levels and encourage take-up of higher speed services and greater usage. NBN Co's proposed pricing structures, particularly for data throughput charges, should also provide incentives for NBN Co to continuously upgrade the network to meet developing demand for those services.*[176]

Allocative efficiency

Second, NBN Co has adopted an overarching pricing strategy, reflected in the price-related terms and conditions, that balances the competing needs of encouraging and maintaining high rates of take-up of the NBN (through affordable AVC prices for entry and higher speed/functionality services) with high rates of usage of the NBN (through affordable CVC prices). Encouraging high rates of take-up and usage, while recognising the need for long term cost recovery, is particularly important from an allocative efficiency perspective because the NBN is subject to significant economies of scale and scope (as discussed in

[173] Expert Report of Janusz A. Ordover and Allan L. Shampine, September 24 2012, paragraphs 29-30.
[174] Ibid, paragraphs 31-33.
[175] Synergies Economic Consulting, Advice on NBN Co Ltd's Special Access Undertaking, September 2012, paragraphs 76, 182, 184.
[176] ACCC, Determination on Applications for Authorisation lodged by NBN Co Limited in respect of provisions of the HFC Subscriber Agreement entered into with SingTel Optus Pty Ltd and other Optus entities, 19 July 2012, p.iv.

section 6.1), willingness to pay for higher speed and functionality NBN services is expected to grow over time, and NBN Co will continue to face potential competition from some services delivered on other networks (such as 3G and 4G mobile and their successors) in respect of providing both voice and broadband services.

Ordover and Shampine observe in their report that NBN Co has appropriate pricing incentives, which will lead to efficient take-up and usage[177].

Third, the LTRCM will ensure that in the long term NBN Co's prices will be consistent (subject to UNWP) with recovering the efficient cost of supply. This will promote, consistent with achieving allocative efficiency, the efficient use of the NBN and complementary infrastructure (such as backhaul transmission) subject to the continued achievement of UNWP.

Synergies has confirmed the effectiveness of the various mechanisms of the LTRCM, in particular[178]:

- subject to the individual components operating effectively, NBN Co's building block approach;
- the RAB approach (based on actual costs);
- the prudency provisions for the Initial Regulatory Period;
- straight line depreciation;
- a loss capitalisation approach, as implemented through the ICRA;
- a single ICRA/RAB-based approach to cover all capex; and
- the inclusion of forecasts of revenue, demand and costs in a Replacement Module.

Officer and Bishop have also confirmed that:

- the WACC to be used in the Initial Regulatory Period is at the lower end of the reasonable range[179]; and
- the WACC principles to apply in the Subsequent Regulatory Period are consistent with practice in both commercial and regulatory environments[180].

Dynamic efficiency

[177] Expert Report of Janusz A. Ordover and Allan L. Shampine, September 24 2012, paragraph 36.
[178] Synergies Economic Consulting, Advice on NBN Co Ltd's Special Access Undertaking, September 2012, paragraphs 114, 127, 140, 188, 198, 219, and 79.
[179] Professor Bob Officer and Dr Steven Bishop, Report on WACC component of NBN Co's Special Access Undertaking, September 2012, paragraph 19.
[180] Ibid, paragraph 14.

Fourth, the LTRCM will encourage efficient ongoing investment by NBN Co in order to maintain and extend the NBN because NBN Co will be provided with an appropriate opportunity to recover its costs of supply over time (inclusive of an appropriate return on capital). This is supported by the findings of Ordover and Shampine in their report on the SAU[181].

Fifth, the specific pricing commitments (the Reference Offers, Non-Reference Offers and Other Charges, Individual Price Increase Limit, anti-circumvention commitments and Initial Pricing Principles) in the SAU, in combination with the LTRCM, will provide certainty to Access Seekers that should enable them to develop and implement medium to long term business models that are predicated on NBN based supply. Such business models should provide an appropriate rationale, consistent with achieving dynamic efficiency, for a range of infrastructure investment: by the Access Seeker in order to provide an end-to-end service based on NBN access; by NBN Co in undertaking investment to support the new applications that Access Seekers may have factored into their business models; and by investors in complementary infrastructure (such as backhaul transmission).

In their report, Synergies considered the various pricing commitments made in the SAU and concluded that they can reasonably be expected to deliver efficient outcomes.[182]

As noted in section 9.1.1(ii), both Synergies and Ordover and Shampine also consider that the SAU will encourage complementary downstream investment.

Sixth, customer engagement via the PDF will ensure that NBN Co is well informed about Customers' needs and views in regard to current use of the NBN and its future development. This will assist NBN Co in prioritising and directing its future investments in a manner consistent with achieving dynamic efficiency. The PDF should provide Customers with a better appreciation of NBN Co's future product development, which will assist Customers with making complementary investments and undertaking related business activities.

In addition to being well informed as a result of the PDF, NBN Co will have strong incentives to introduce new products that meet Customers' needs, as observed by Ordover and Shampine:

> *The nature of the industry makes it difficult to predict what new services may become desirable in the future. The ability of NBN Co to introduce such services at higher rates than existing services provides incentives for NBN Co to develop and offer such services in a timely fashion, while the provisions requiring maintenance and updating of the Reference Offers provide protection against NBN Co forcing customers to upgrade to those services from the basic access services currently intended to be provided by the NBN. The requirement that prices for new Non-Reference Offers decline in real terms at the specified rate (or faster) also provides*

[181] Expert Report of Janusz A. Ordover and Allan L. Shampine, September 24 2012, paragraph 26.
[182] Synergies Economic Consulting, Advice on NBN Co Ltd's Special Access Undertaking, September 2012, paragraphs 35, 36, and 76 to 78.

> *assurance for customers making investments in products and services relying upon those new Non-Reference Offers.*[183]

Separately, NBN Co also highlights that the modular structure of the SAU incorporates a number of review mechanisms and during the Initial Regulatory Period confers a number of powers on the ACCC. In the Subsequent Regulatory Period, there will be ACCC oversight via its assessment of the Replacement Module Applications lodged by NBN Co every 3 to 5 years, covering proposals in relation to the LTRCM, Reference Offers and service levels. NBN Co may also include other terms and conditions in its applications, which will also be subject to ACCC oversight at those times. These various mechanisms should ensure that the SAU's terms and conditions remain relevant and appropriate over the term of the SAU.

In relation to the specific matters that the ACCC must have regard to under subsection 152AB(6) of the CCA in determining the extent to which the terms and conditions of the SAU are likely to result in the achievement of the objective of encouraging the economically efficient use of, and economically efficient investment in, infrastructure, NBN Co submits the following. With regards to:

- whether it is, or likely to become, technically feasible for the services to be supplied and charged for – NBN Co is already supplying and billing for a number of products including: Fibre Product Release Broadband and Telephony released April 2011; Satellite Product Release Broadband released July 2011; and the Trial NBN Co Wireless Access Service first phase released February/March 2012. Furthermore, service providers are already providing End Users with NBN-based services;
- 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 – the LTRCM will provide NBN Co with an opportunity to recover its prudently incurred costs (inclusive of an appropriate return on capital), and the overarching pricing strategy reflected in the price-related terms and conditions accounts for the economies of scale and scope associated with the NBN. This is discussed above in relation to both allocative and dynamic efficiency; and
- the incentives for investment in the infrastructure by which the services are supplied and any other infrastructure by which the services are, or are likely to become, capable of being supplied – as discussed above in relation to dynamic efficiency, the SAU will encourage efficient ongoing investment by NBN Co in order to maintain and extend the NBN.

NBN Co submits that the above considerations support the SAU achieving the objective of encouraging the economically efficient use of, and economically efficient investment in, infrastructure.

In the counterfactual scenario of having terms and conditions determined via SFAAs and/or ADs, the economically efficient use of and investment in relevant infrastructure is likely to be encouraged to a lesser extent because both Access Seekers and investors in infrastructure

[183] Expert Report of Janusz A. Ordover and Allan L. Shampine, September 24 2012, paragraph 43.

that supports the NBN (such as competitive backhaul) would not receive as much certainty up front, nor in so definite a manner, as afforded under the SAU, about how NBN Co's pricing would evolve over time.

9.1.4 Conclusions on promotion of long-term interests of end-users

As set out above, the declared services and supply-related terms, and both the price and non-price terms and conditions of the SAU will promote the LTIE by promoting competition in relevant retail and wholesale markets, facilitating the objective of achieving any-to-any connectivity and encouraging the efficient investment in and use of infrastructure.

The counterfactual scenario of having terms and conditions determined via SFAAs and ADs is likely to promote the LTIE to a lesser extent because it is unable to provide as much certainty up front, nor in so definite a manner, as is provided under the SAU and SFAAs. This lack of certainty inherent in the counterfactual implies adverse consequences for the objectives of promotion of competition and encouraging efficient use of and investment in infrastructure when compared to the likely outcomes under the SAU.

9.2 Legitimate business interests of service provider

NBN Co submits that that the 30 year modular undertaking will account for NBN Co's legitimate business interests by providing NBN Co with a degree of commercial flexibility, within clearly outlined constraints, to account for evolving technology, applications and demand and to achieve an appropriate return on its investment in the NBN. Consistent with this, in regard to the relevant terms and conditions of access, the SAU necessarily and appropriately limits the nature and scope of possible future regulatory intervention (and with it the possibility of regulatory error arising from any such intervention).

The service descriptions for the NBN Access Service and the Ancillary Services are also in NBN Co's legitimate business interests, because they provide regulatory certainty regarding the scope of services covered by the SAU. In particular, the SAU allows for NBN Co to develop and offer a range of specific products that fit under the broad service descriptions, but is protected from having to offer every conceivable variant of such products that fall within those broad service descriptions (which would be prohibitively expensive and unworkable).

The price-related terms and conditions in the SAU are designed to be consistent with NBN Co's legitimate business interests in that they provide:

- the opportunity for NBN Co to recover its prudently incurred costs over the long term (inclusive of an appropriate return on capital) – this is a result of the LTRCM, which incorporates the ICRA mechanism for carrying forward initially unrecovered costs for recovery in later years, inclusive of a rate of return (determined via the WACC approaches as specified in Modules 1 and 2) ; and
- the limited pricing flexibility that NBN Co needs in order to have the opportunity to recover its costs having regard to the need to account for evolving technology, applications and demand over the 30 year term of the SAU – this is a result of the

Reference Offers, Non-Reference Offers and Other Charges (including the CPI-1.5% Individual Price Increase Limit).

The SAU does not exhaustively cover all non-price terms and conditions which will be included in the SFAAs, but it does cover those which NBN Co anticipates will be of key importance to its Customers and those that have been included have been developed with extensive consultation with Customers.

In determining which non-price terms and conditions to include, NBN Co has had regard to the approach taken by the ACCC in developing the 2008 Model Non-price Terms and Conditions, which was to:

> *focus on those terms and conditions of access that could be expected to have a material bearing on a service provider's business and hence the range, quality and price of services offered to end-users.* [184]

NBN Co considers that this is consistent with the ACCC's view that this criterion requires an assessment of the broader commercial interests of the service provider in conducting its own business affairs. An access provider should not be unduly compromised in the conduct of its own legitimate business interests simply because it has an obligation to provide access to its service.[185]

Other non-price terms and conditions will be included in NBN Co's SFAAs. These terms have also been developed in consultation with Customers via the CDP. Having these terms in the SFAAs will provide NBN Co with the opportunity to operate its business with the flexibility required to adapt to changes in the industry and market environment by evolving its business operations over the term of the SAU. However NBN Co's legitimate business interests will be balanced with the interests of Access Seekers through the regulatory oversight mechanisms that will apply in the Initial Regulatory Period.

NBN Co submits that the key non-price terms and conditions included in the SAU are appropriate to provide for NBN Co's legitimate business interests whilst also taking into account the interests of Access Seekers.

9.3 The interests of persons who have rights to use the declared service

The interests of persons who have rights to use the declared service include Access Seekers being able to compete for End Users on the basis of their relative merits. That is, terms and conditions that favour one or more service providers over others and thereby distort the competitive process may harm the interests of Access Seekers or potential Access Seekers.[186]

NBN Co submits that its approach to implementing the NBN Access Service (specifically by utilising Product Components and Product Features) will promote the interests of all Access

[184] ACCC Final Determination – Model Non-price Terms and Conditions, November 2008, p.4
[185] Ibid, p.38.
[186] ACCC, Assessment of FANOC's Special Access Undertaking in relation to the Broadband Access Service – Draft Decision, December 2007, p.38.

Seekers by providing them with flexibility and control over how they configure services for their End Users, thereby allowing them to compete based on their relative merits.

NBN Co submits that the supply-related and price-related terms and conditions of the SAU promote the interests of Access Seekers on a non-discriminatory basis by providing certainty as to: NBN Co's service level commitments; the starting prices for a broad range of services (the Reference Offers, Non-Reference Offers and Other Charges); availability of Reference Offers for the term for which they are specified to apply (the Initial Regulatory Period in Module 1 and subsequent 3 to 5 year periods in Module 2); the maximum increases in NBN Co's prices over time (the CPI-1.5% Individual Price Increase Limit); the Initial Pricing Principles; and the long term revenue cap that will constrain, in any event, NBN Co prices to recover no more (on an expected NPV basis) than NBN Co's prudently incurred costs, including an appropriate return on capital (the LTRCM).

In relation to non-price terms and conditions, NBN Co submits that the terms included in the SAU are a product of extensive consultation with Customers and represent significant amendments by NBN Co in light of Customer feedback. For example, as noted in section 7.5, the terms and conditions relating to intellectual property and confidentiality were significantly updated to address Customer concerns in relation to the scope of NBN Co's rights in respect of Customer Intellectual Property and to disclose confidential information.

The non-price terms and conditions in the SAU also promote the interests of Access Seekers by:

- being expressed in a non-discriminatory manner;
- providing for a robust, speedy, open and non-discriminatory process for the resolution of disputes that might arise between NBN Co and its Customers, as well as a defined process for implementing disputed outcomes;
- ensuring effective, transparent and non-discriminatory notification is provided and consultation is undertaken with Access Seekers where a particular event affects an Access Seeker's business interests. For example NBN Co has committed to:
  - publishing annual, quarterly and monthly rollout plans describing where, when and to how many premises NBN Co plans to roll out the NBN. This will equip Access Seekers, in a transparent and non-discriminatory way, with the ability to develop product and marketing plans and strategies;
  - providing timely information about POIs (additions, relocations, closures and rollout); and
- setting out risk management and liability terms as a code that promotes the interests of Access Seekers by providing them with a self contained and clear articulation of their position, thereby providing them with certainty as to the scope of their liability to try and minimise the likelihood of becoming involved in litigation.

Non-price terms and conditions that will be in the SFAAs (i.e. not in the SAU) have also been

developed through the same process in the CDP. NBN Co submits that an appropriate and reasonable balance is achieved by affording NBN Co and Access Seekers the flexibility to amend and further develop these terms in the SFAAs, while protecting the interest of Access Seekers by providing for ACCC oversight (via regulatory recourse) on these terms.

NBN Co submits that for the reasons as described above, the non-price terms and conditions included in the SAU and the regulatory recourse mechanisms available in relation to those not included strikes an appropriate balance between NBN Co's interests and those of Access Seekers.

9.4 The direct costs of providing access to the declared service

As a wholesale only provider specifically established by the Government to provide layer 2 wholesale bitstream services, NBN Co submits that its direct costs of providing access to the NBN Access Service and the Ancillary Services, together with supplying the Facilities Access Service in connection with the satisfaction of NBN Co's interconnection obligations, comprise all of the costs captured by the LTRCM over the course of the SAU (rather than just those in any one year).

The LTRCM:

- recognises operating and capital costs on an actual basis during the Initial Regulatory Period (subject to meeting certain prudency requirements) and on a forecast basis during the Subsequent Regulatory Period;
- incorporates both network costs, relating to the construction, operation and maintenance of the fibre, wireless and satellite networks, and non-network costs, relating to activities such as product development and sales, information technology, finance and administration; and
- provides a mechanism (the ICRA) for carrying forward initially unrecovered costs at an appropriate return on capital for recovery in later years.

9.5 Safety and reliability

NBN Co submits that it has designed its price-related terms and conditions (discussed in section 6) to ensure that it has the opportunity to recover its prudently incurred costs (inclusive of an appropriate return on capital), enabling NBN Co to maintain the safety and reliability of the operation of its network.

NBN Co submits that the description of the declared services and supply-related terms and conditions, the non-price terms and conditions and the other terms and conditions as set out in the SAU are consistent with the operational and technical requirements necessary for the safe and reliable operation of the NBN and do not form barriers to effective access to the NBN.

9.6 Economically efficient operation of the network

NBN Co submits that the terms and conditions set out in the SAU will lead to the economically efficient operation of the NBN and also of networks operated by other infrastructure owners (such as backhaul providers). The reasons for this are the same as those discussed in section 9.1.3 with regards to encouraging economically efficient investment in and use of network infrastructure.

9.7 Other considerations relevant to reasonableness

Subsection 152AH(2) of the CCA states that the consideration of reasonableness is not limited to the factors outlined in subsection 152AH(1) (discussed in the preceding sections).

Accordingly, NBN Co submits that the following matters are relevant considerations the ACCC should take into account when determining whether the terms and conditions of the SAU are reasonable:

9.7.1 Statement of Expectations

In the Statement of Expectations the Government has provided two directions to NBN Co that are particularly relevant considerations for assessing the reasonableness of the SAU.

- In relation to coverage, speed and technology mix:

  The Government expects that NBN Co will design, build and operate a new NBN to provide access to high speed broadband to all Australian premises. The Government's objective for NBN Co is to connect 93 per cent of Australian homes, schools and businesses with fibre-to-the-premises technology providing broadband speeds of up to 100 megabits per second, with a minimum fibre coverage obligation of 90 per cent of Australian premises.

  All remaining premises will be served by a combination of next generation fixed wireless and satellite technologies providing peak speeds of at least 12 megabits per second.[187]

- In relation to UNWP:

  charge Access Seekers uniformly for services across its network for all technologies and for the basic service offering.[188]

9.7.2 Cost control and prudency measures

Separate to any prudency commitments made under the SAU and the expenditure efficiency incentives already recognised by the ACCC in its authorisation of the Optus arrangement[189],

[187] Statement of Expectations from shareholder Ministers, 17 December 2010, p.1.
[188] Statement of Expectations from shareholder Ministers, 17 December 2010, p.7.
[189] ACCC, Determination on Applications for Authorisation lodged by NBN Co Limited in respect of provisions of the HFC Subscriber Agreement entered into with SingTel Optus Pty Ltd and other Optus entities, 19 July 2012, p.iv.

NBN Co is subject to a range of existing legislative, Parliamentary and regulatory controls that are already in place and which apply to NBN Co (including as a GBE). These are more fully described in section C.4 in Appendix C.

As a result of these pre-existing cost control and prudency measures, NBN Co is already subject to intense scrutiny of its opex and capex decision making. This means that the prudency commitments in Module 1 of the SAU, while effective, are complementary to a raft of other measures.

NBN Co submits that these cost control and prudency measures are relevant considerations for assessing the reasonableness of the SAU and notes that, looking ahead to a time when NBN Co may be privatised, the Subsequent Regulatory Period would be well underway before any such privatisation is likely to occur. In view of this, NBN Co will at that time face the expenditure efficiency incentives created via the periodic setting of the ABBRR on a forecast basis for 3 to 5 year periods, which will be coupled with the regulatory oversight of the ACCC's assessment of those forecasts, with the ability for them to impose their own in certain circumstances.

9.8 Consideration of terms reasonably necessary to achieve uniform national pricing

NBN Co has identified a number of price-related terms and conditions in the SAU that are reasonably necessary for achieving uniform national pricing – see section 6.10. In accordance with subsection 152CBD(5A) of the CCA, NBN Co submits that the ACCC cannot reject the SAU for a reason related to these terms and conditions of the SAU (because they are reasonably necessary to achieve uniform national pricing).

9.9 Terms and conditions of the SAU are reasonable

The ACCC has previously outlined that it is the terms and conditions of the SAU as whole that must be taken into account in assessing the reasonableness of the SAU[190]. In the FANOC Decision, the ACCC's approach to assessing reasonableness took into account not only the effect of individual terms and conditions but also the way in which the terms and conditions interact with each other and the effect they would have or are likely to have on relevant interests and matters.[191]

As discussed in the above sections, the terms and conditions of the SAU promote the LTIE, by promoting competition, facilitating achieving any-to-any connectivity and encouraging efficient investment in and use of infrastructure as compared to the counterfactual of having terms of access set via ADs and SFAAs. NBN Co submits that the more definitive regulatory certainty provided by the SAU strikes an appropriate balance between the interests of NBN Co and Access Seekers using the NBN Access Service and the Ancillary Services.

[190] ACCC, Assessment of FANOC's Special Access Undertaking in relation to the Broadband Access Service – Draft Decision, December 2007, p.31.
[191] ACCC, Assessment of FANOC's Special Access Undertaking in relation to the Broadband Access Service – Draft Decision, December 2007, p.135.

Taking into account all of the relevant considerations as discussed above, including the specific provisions in the CCA regarding uniform national pricing, NBN Co submits that the ACCC should be satisfied that the terms and conditions of the SAU reasonable.

10 Compliance with legislative requirements

Key points

- The SAU complies with all relevant legislative requirements – it includes:
  - terms and conditions relating to compliance with the Category B SAOs and sets an expiry for the SAU
  - terms and conditions that are consistent with the Category B SAOs and are reasonable; and
  - specified conduct in relation to listed activities that will promote the LTIE.
- Every term and condition in Modules 0 and 2 (collectively) is a fixed principles term and condition with a nominal fixed period ending at the end of the SAU term with a number of qualifying circumstances. NBN Co submits that the fixed principles term and condition, its nominal fixed period and qualifying circumstances are appropriate.

10.1 Summary

For completeness, NBN Co has prepared the following checklist in respect of compliance with the specific legislative requirements applying to NBN Co's SAU. Further discussion in relation to consistency with the Category B SAOs, specified conduct in relation to listed activities and fixed principles is provided in the following sections.

Table 10.1: Compliance with specific legislative requirements applying to NBN Co's SAU

Compliance requirement	Legislative Provision	Clause in the SAU complying with requirement	Discussion in submission
Undertakes to comply with the Category B SAOs	Subsection 152CBA(3A) requires that the SAU must state that, in the event NBN Co supplies or becomes capable of supplying the declared service, NBN Co: (a) agrees to be bound by the obligations referred to in section 152AXB, to the extent that those obligations would apply to NBN Co in relation to the service if the service were treated as a declared service; and (b) undertakes to comply with the terms and conditions specified in the undertaking in relation to the obligations referred to in section 152AXB.	See Clauses 1.1 and 1.2 of the SAU.	See section 10.2.

Compliance requirement	Legislative Provision	Clause in the SAU complying with requirement	Discussion in submission
Expiry of SAU	Subsection 152CBA(6) requires that an SAU contains an expiry time.	Clause 3.2 of the SAU notes that the SAU expires on 30 June 2040.	See section 4.3.1
Extension of term of the SAU	Subsection 152CBA(9) states that an SAU may provide for the submitter of an SAU to extend or further the expiry of an SAU so long as: (a) the extension or further extension is approved by the ACCC; and (b) the undertaking sets out criteria that are to be applied by the ACCC in deciding whether to approve the extension or further extension.	See Clause 7.3 of the SAU	See section 4.3.1
Consistency with the Category B SAOs	Subparagraph 152CBD(2)(b)(i) requires the ACCC to be satisfied that the terms and conditions set out in the SAU would be consistent with the Category B SAOs, to the extent that those obligations would apply to an NBN corporation in relation to the service, as if the service were treated as an active declared service under subsections 152AL(8A), 152AL(8D) or 152AL(8E).	The terms and conditions in the SAU are consistent with the Category B SAOs.	The ACCC should be satisfied that the terms and conditions in the SAU are consistent with the Category B SAOs. See Section 10.2
Reasonableness of terms and conditions	Under subparagraph 152CBD(2)(b)(ii), the ACCC cannot accept an SAU submitted by an NBN corporation unless it is satisfied that the terms and conditions specified in the SAU are reasonable.	The terms and conditions in the SAU are reasonable.	The ACCC should be satisfied that the terms and conditions in the SAU are reasonable (in accordance with the statutory criteria set out in section 152AH of the CCA). See Section 9.

Compliance requirement	Legislative Provision	Clause in the SAU complying with requirement	Discussion in submission
Specified Conduct in relation to listed activities	Paragraph 152CBD(2)(cb) of the CCA, the ACCC cannot accept the SAU unless it is satisfied that the conduct specified in relation to listed activities (subsection 152CBA(3C) will promote the LTIE in markets for listed services.	See Schedule 1I of the SAU	The ACCC should be satisfied that specified conduct relating to listed activities in Schedule 1I of the SAU promotes the LTIE in listed markets. See Section 10.3.
Appropriateness of Fixed Principles	Under subsection 152CBD(4), the ACCC must refuse to accept the SAU if the ACCC considers that: (a) Fixed principles term or condition should not be a fixed principles term or condition; (b) Notional fixed period should not be what NBN Co has specified; (c) The Qualifying circumstances specified in the SAU should not be qualifying circumstances; or (d) The SAU does not provide for qualifying circumstances that the ACCC considers should be qualifying circumstances.	See Clause 5 of the SAU.	The ACCC should accept the SAU as NBN Co has specified an appropriate fixed principles term and condition with an appropriate notional fixed period and qualifying circumstances. See section 10.4.

In its consideration of the SAU, subsection 152CBD(5A) of the CCA prevents the ACCC from rejecting an SAU for a reason that concerns price-related terms and conditions that are reasonably necessary to achieve uniform national pricing of eligible services supplied by NBN Co. Such a price-related term or condition would be excluded from the ACCC's consideration of whether the terms and conditions of the SAU are consistent with the Category B SAOs and are reasonable.

10.2 Consistency with the Category B SAOs

In accordance with paragraph 152CBA(3A)(a) of the CCA, clause 1.1 of the SAU states that, in the event that NBN Co supplies, or becomes capable of supplying, the NBN Access Service and Ancillary Services (whether to itself or to another person), NBN Co agrees to be bound by the Category B SAOs referred to in section 152AXB of the CCA, to the extent those obligations would apply to NBN Co in relation to the NBN Access Service and Ancillary Services if those services were treated as declared services.

In complying with paragraph 152CBA(3A)(b) of the CCA, clause 1.2 of the SAU states that in

the event that NBN Co supplies, or becomes capable of supplying, the NBN Access Service and Ancillary Services (whether to itself or to other persons), NBN Co undertakes to comply with the terms and conditions specified in the SAU in relation to the Category B SAOs referred to in section 152AXB of the CCA.

Subparagraph 152CBD(2)(b)(ii) of the CCA states that the ACCC must not accept an SAU from NBN Co unless it is satisfied that the terms and conditions of the SAU are consistent with applicable Category B SAOs set out in section 152AXB of the CCA. The Category B SAOs are discussed in section 3.1.

In the absence of a specified approach to assessing consistency with the SAOs, the ACCC has noted that it finds it useful to adopt an approach where it:

- identifies those SAOs that would be applicable to a particular access provider; and
- assesses whether the terms and conditions proposed by the SAU would be consistent with the applicable SAOs.[192]

In its final decision on Foxtel's SAU, the ACCC held that 'consistency' with regards to SAOs does not appear to demand complete correspondence with the thing in question, but rather it is a level of conformity.[193] The ACCC has also previously stated that the assessment of consistency with SAOs may involve a consideration of whether the terms and conditions of an undertaking "raise any inconsistencies with the SAOs".[194] Where the terms and conditions are found not to be inconsistent with the SAOs, the ACCC is likely to regard the terms and conditions of the SAU as being consistent with the applicable SAOs.[195]

Further, the ACCC also stated that undertakings are likely to intrude upon or limit, at least to some extent, the obligation to supply that would otherwise be established by the SAOs. The ACCC's task is to assess the extent to which the terms and conditions limit the SAOs in order to determine whether those terms and conditions are so limiting as to be not consistent with the obligations sets out in the SAOs. That is, the ACCC recognises this assessment as a question of degree.[196]

NBN Co submits that in accordance with subparagraph 152CBD(2)(b)(ii), the ACCC should regard the terms and conditions of the SAU as being consistent with applicable SAOs because:

- the terms and conditions of the SAU are 'consistent' with the Category B SAOs in that they conform to NBN Co's obligations under section 152AXB, by providing

[192] ACCC, Final Decision: the Optus 2007 Undertaking in relation to Domestic Terminating Access Service, November 2007, p.45.
[193] ACCC, Final Decision: Assessment of Foxtel's Special Access Undertaking in relation to the Digital Set Top Unit Service, March 2007, p.134.
[194] ACCC, Assessment of FANOC's Special Access Undertaking in relation to the Broadband Access Service – Draft Decision, December 2007, p.144.
[195] ACCC, Final Decision: Hutchison's undertakings with respect to the supply of its Mobile Terminating Access Service (MTAS), June 2006, p.95.
[196] ACCC, Final Decision: Assessment of Foxtel's Special Access Undertaking in relation to the Digital Set Top Unit Service, March 2007, p.136.

Access Seekers with supply of the declared services, and by permitting interconnection. To this end NBN Co has incorporated terms and conditions in relation to the Facilities Access Service in connection with the satisfaction of its interconnection obligations in relation to the NBN Access Service and Ancillary Services;

- there are no terms and conditions in the SAU that are inconsistent with applicable SAOs and as such the terms and conditions of the SAU are likely to be consistent with applicable SAOs; and
- whilst there may be terms and conditions in the SAU that may place appropriate conditions upon the manner in which the Category B SAOs will be complied with, they do not amount to limits on the consistency with applicable SAOs.

10.3 Specified conduct

As outlined in section 3.5, in accordance with subsection 152CBA(3C) of the CCA, the SAU may state that NBN Co will engage in specified conduct in relation to a number of related activities. If such conduct is specified in the SAU, then in accordance with paragraph 152CBD(2)(cb) of the CCA, the ACCC cannot accept the SAU unless it is satisfied that the conduct specified will promote the LTIE of carriage services or of services supplied by means of carriage services.

Schedule 1I of the SAU, Product Development and Withdrawal (including Annexure 1 relating to PDF Processes), specifies conduct NBN Co will undertake in developing products including conduct relating to developing new eligible services, enhancing declared services and giving information in relation to those activities. For example, Schedule 1I specifies that NBN Co will produce and publish up-to-date roadmaps of products which are under development and also consult and communicate with Customers about the development of new product offerings via the PDF Processes. NBN Co considers that this conduct may fall within the scope of subsection 152CBA(3C) described above.

NBN Co submits that specified conduct in Schedule 1I of the SAU will promote the LTIE by:

- promoting competition by providing all Access Seekers with non-discriminatory and transparent access to information about product development. This will provide all Access Seekers with the ability to compete on how they utilise such information, for example competition through product innovation.
- facilitating the objective of any-to-any connectivity by facilitating, to the extent that the specified conduct is relevant, the development of products that will be used as wholesale inputs for end-to-end services; and
- Encouraging efficient use of and investment in infrastructure by providing Access Seekers with:
  - an opportunity to participate in a structured product development process so as

to obtain certainty around future investment decisions; and

- timely and sufficient information relating to product development, so as to make informed decisions about Access Seekers' business models and products, leading to efficient investment by both NBN Co and Access Seekers in the development and application of new technology.

10.4 Fixed Principle

NBN Co has designated all of the terms and conditions in Module 0 and 2 to be a fixed principles term and condition (the Fixed Principle).

The notional fixed period for the Fixed Principle will be from the SAU Commencement Date until the end of the SAU Term. NBN Co submits that the specified notional fixed period meets the requirements in subsection 152CBAA(3) of the CCA. Given these terms are fundamental to the overall objective of the SAU (as discussed below), NBN Co considers that the ACCC should be satisfied that the notional fixed period for the Fixed Principle is appropriate.

The qualifying circumstances to attach to the Fixed Principle include the ACCC being satisfied that there is not a manifest and material error in the fixed principles terms and conditions; and information on which the fixed principles terms and conditions was based was not false or misleading in a material respect. These qualifying circumstances are based on the ACCC's final ADs on Telstra's fixed line services.[197] NBN Co considers that these qualifying circumstances are appropriate for the Fixed Principle specified.

The terms and conditions in Module 0 and 2 are intended to apply either for the duration of the SAU or from year 10 until the end of the SAU term. Ordinarily, the acceptance of an SAU would provide an access provider with certainty of the 'rules of the game' until the expiry of the SAU, however, to achieve the appropriate balance between certainty and flexibility NBN Co has designed the SAU such that NBN Co's is periodically required to submit Replacement Modules (in effect variations to the accepted SAU) to refresh the terms and conditions of access in accordance with the conditions prevailing at those times.

Any variations to an accepted SAU are required to be assessed by the ACCC as an entirely 'new' SAU, which in the case of NBN Co submitting Replacement Module Applications will create a level of uncertainty with regards to already accepted terms and conditions in Module 0 and 2. Therefore to ensure that the focus of the variation assessment in relation to Replacement Modules is contained to the content of those modules, NBN Co considers it appropriate to specify the terms that have already been accepted (i.e. terms and conditions in module 0 and 2) as a fixed principles term and condition, which will provide NBN Co with certainty that the SAU variations it is required to submit in later years will not be rejected for a reason that concerns the already accepted terms and conditions.

NBN Co considers that this approach will also simplify the ACCC's assessment process of the SAU variation by narrowing the scope of the ACCC's future assessments of an already

[197] ACCC varied Final Access Determinations No.1-6 of 2011.

accepted SAU to any new terms and conditions submitted as part of the Replacement Module and variations to existing terms. The assessment of SAU variations containing fixed principles terms or conditions is discussed at section 3.7.

Appendices

A. Service levels regime – Module 1

Key points

- NBN Co has developed service levels following consultation with its Customers, to address concerns they have raised.
- In particular, the service level metrics provided in the SAU address Customer concerns around connection timeframes, lack of certainty in service levels, ability to manage regulatory obligations, ongoing improvement in service levels, and appropriate rebates regimes.
- NBN Co has developed service levels for connection timeframes that reflect the service readiness and location of premises that are consistent with delivering a good End User experience, and which will evolve over time.
- Assurance and appointment service levels have been developed to support performance standards under the CSG Standard.
- A new 'Accelerated Connections' queue has been established to assist Customers with meeting their downstream regulatory obligations under the CSG Standard in respect of connections.
- NBN Co will monitor and manage network faults that affect multiple End Users and follow pre-determined processes and procedures to manage them that reflect the impact and urgency of the fault.
- Reporting will provide Customers with transparency in respect of NBN Co's performance against its service levels.
- NBN Co must remedy any failure to meet service levels (except for Operational Targets) through either performing corrective action or paying commercial rebates.
- Commercial rebates apply should NBN Co fail to meet End User Connection service levels or the Enhanced-12 Fault Rectification service level.
- NBN Co will continue to consult with Customers to improve its service levels, and as the network matures, NBN Co will continue to provide Customers with improved service levels.

This appendix provides further detail in regard to the following aspects of the Module 1 service level commitments:

- development of service levels in response to Customer feedback;
- the service levels framework;
- the service levels remedies framework; and
- reporting measures.

A.1 Development of service levels in response to Customer feedback

NBN Co developed the service level commitments in Schedule 1J (and in particular the Service Levels Schedule) in direct response to Customer feedback.

Over the past six months, through the CDP process, NBN Co has consulted extensively with Customers in regards to a number of key issues, including service levels. However, the consultation has not ended. On 19 September 2012, NBN Co launched the new Service Levels Schedule (Schedule 1J), in respect of which NBN Co is currently consulting with Customers in order to release an improved Service Levels Schedule in the short term.

The service level commitments in Schedule 1J appropriately address Customers' requirements, across a number of areas (as set out below), and NBN Co will continue to evolve its service level regime in consultation with Customers over the next two years with a view to implementing further improvements at regular intervals.

- **Customers expressed concerns around the connection timeframes** – NBN Co has prioritised delivering greater service levels for End User connections. NBN Co has proposed improved connection timeframes, including a new accelerated queue for accelerated connections that Customers can request in respect of certain premises;
- **Customers expressed concerns that there were too many 'unknowns' in service levels** –NBN Co understands that without having certainty regarding the quality of the upstream service, Customers cannot assess the service quality of the downstream service that they will provide. NBN Co has revised its service levels regime to take account of this fact, and provide for greater certainty on the End User experience. NBN Co considers that simplified definitions and factors in the revised framework, and improved service levels will, in effect, help lift the veil on the "unknowns" of the NBN, and enable Customers to provide greater certainty in respect of the downstream quality of service. Notwithstanding this, NBN Co notes that it is still in the nascent stages of development, and therefore its network and systems capabilities do not allow NBN Co to introduce absolute service levels in all areas. As such, NBN Co has provided a number of non-binding Operational Targets.
- **Customers expressed concerns that NBN Co's part in helping manage downstream regulatory obligations was unclear** – NBN Co understands Customers' liability to End Users in respect of the CSG, and therefore, NBN Co has developed measures to assist

Customers with meeting their downstream CSG obligations. NBN Co recognises that managing the End User experience is of high importance, particularly to ensure a smooth service migration from legacy networks to the NBN, and in particular, where End Users are not connected to the copper network or who are connected to the copper network but are not supplied with, or are not capable of being supplied with, a telecommunications service using the copper network. As such, NBN Co has created the Accelerated Connections queue where, for specified premises, Customers can submit End User connection requests to be accelerated (this can be used where a connection is to be used as an input for a downstream CSG service). Further, NBN Co will continue to pay CSG compensation claims where NBN Co's failure to achieve a Metric has contributed, wholly or partly, to the Customer being unable to meet its downstream CSG obligations. NBN Co will work collaboratively with Customers in the management of CSG obligations.

- **Customers stated that NBN Co should demonstrate its intention to evolve** – As the network matures, NBN Co will continue to improve its overall performance and provide Customers with greater certainty on service levels. NBN Co has developed a roadmap for the next three years, which it will continue to refine in consultation with Customers. From this roadmap, a number of targets have been introduced into the Service Levels Schedule, but which NBN Co will endeavour to meet as Operational Targets in the rest of 2012 – 2013. Such targets demonstrate NBN Co's intention to evolve so as to meet and exceed Customer expectations in the coming years.
- **Customers expressed concerns that NBN Co had no appropriate rebates regime** – The Service Levels Schedule includes a commercial rebates structure that demonstrates NBN Co's commitment to meeting the new service levels. These rebates will, in addition to compensating the Customer for NBN Co failing to meet a service level, incent NBN Co to meet its service levels, and continue to identify opportunities for improving its service.

A.2 Service levels framework

A.2.1 Connection service levels

i. End user connections (connection of Access Components)

Connection service levels are categorised according to:

- the Service Class[198] of the premises; and
- the geographical location of the premises.

The Service Class will be based on the extent to which NBN Co has deployed certain elements of the network in respect of a premises, which indicates the readiness of connecting a service at that premises.

At the time of ordering a product, a Customer will have the ability to determine the relevant Service Class, and the relevant service level. This provides the Customer with greater certainty in respect to the timeframes for connection at that premises, which will enable the Customer to better manage its End User's expectations in terms of connecting an NBN service.

The geographical location categories relevant to connection timeframes are as defined by the Australian Bureau of Statistics based on the size of the community in a particular location: Urban (10,000 or more people); Major Rural (2,501 to 9,999 people); Minor Rural (201 to 2,500 people); and Remote (communities that are not urban or rural). The clear nature of these categories should enable Customers to know exactly what connection timeframes will apply in respect of an End User in a particular location.

The timeframes in the Service Levels Schedule align with what Customers have told NBN Co during the consultations will lead to a good End User experience for service connections. For example, the timeframes are broadly less than 20 Calendar Days. These connection timeframes will provide greater certainty to Customers in respect of the service that they will receive and improve the connection timeframes within which a Customer will be able to connect a downstream service for the End User at the relevant premises.

NBN Co proposes to provide timeframes for an End User connection depending on the year of service, as set out in Tables A.1 and A.2.

[198] Service Classes 0-6 are defined in Annexure 1 of Schedule 1J of the SAU.

Table A.1: Connection timeframes, remainder of 2012 and 2013

Service Class of Premises / Location of Premises	NFAS				NWAS		
	Service Class 3	**Service Class 2**	**Service Class 1**	**Service Class 0**	**Service Class 6**	**Service Class 5**	**Service Class 4**
Urban Area	1 business day	14 business days	14 business days	N/A	1 business day	14 business days	N/A
Major Rural and Minor Rural Areas	1 business day	19 business days	19 business days	N/A	1 business day	19 business days	N/A
Remote Area	1 business day	19 business days	19 business days	N/A	1 business day	19 business days	N/A

Table A.2: Connection timeframes, 2014

Service Class of Premises / Location of Premises	NFAS				NWAS		
	Service Class 3	**Service Class 2**	**Service Class 1**	**Service Class 0**	**Service Class 6**	**Service Class 5**	**Service Class 4**
Urban Area	1 business day	9 business days	9 business days	N/A	1 business day	9 business days	N/A
Major Rural and Minor Rural Areas	1 business day	14 business days	14 business days	N/A	1 business day	14 business days	N/A
Remote Area	1 business day	19 business days	19 business days	N/A	1 business day	19 business days	N/A

Further, NBN Co will provide faster connection timeframes in respect of:

- Accelerated Connections; and
- Priority Assistance[199] connections.

NBN Co has recognised that there is a need to accelerate requests for new connections for premises that are not connected to the copper network or which are connected to the copper network but are not supplied with, or are not capable of being supplied with, a telecommunications service using the copper network. The Accelerated Connection queue is also aimed at assisting Customers to manage their downstream regulatory CSG obligations by submitting requests for the CSG-eligible services as an Accelerated Connection.

NBN Co will provide connections within:[200]

- 4 business days in an Urban Areas;
- 9 business days for Major Rural Areas; and
- 14 business days for Minor Areas respectively.

The number of appointments in the Accelerated Connection queue will be capped at 10%[201] of the total number of End User connections ordered by a Customer in respect of a CSA.

In respect of Priority Assistance timeframes, NBN Co will provide the following connection timeframes:

- Urban Areas, Major Rural Areas and Minor Rural Areas – within 24 hours of order acknowledgement; and
- Remote Areas – within 48 hours of order acknowledgement.

NBN Co expects to achieve 90% or more of End User connections for NBN Co Customers in accordance with the above (applicable) service levels in any calendar quarter. Within this measure, NBN Co expects to perform 100% of all Priority Assistance End User connections within the above timeframes in any calendar quarter.

ii. Service provider connections (connection of Connectivity Components)

The proposed Connectivity Component service levels are substantially unchanged from the service levels in the current WBA, as set out in Table A.3.

[199] 'Priority Assistance' has the meaning given to that term in Industry Code ACIF C609:2007 - Priority Assistance for Life Threatening Medical Conditions.

[200] Note: Fibre services will not be supplied in Remote areas, and so connection timeframes are not specified.

[201] NBN Co will rely on Customers for accurate forecasts in order to allot appointments for the purpose of calculating the 10%. Details of forecasting that Customers are required to provide NBN Co with are included in the Service Levels Schedule in attached to Schedule 1J of the SAU, and which will be further explained in the NBN Co Operations Manual.

Table A.3: Connectivity Component connection service levels

Activity	Service level	Performance Objective
CVC activation	5 business days	90% of all activations
NNI group activation	15 business days	90% of all activations

A.2.2 Service experience service levels (assurance and appointments)

i. Kept appointments

For kept appointments, that is the arrival time of the NBN Co technician attending an End User premises for the purpose of connecting a service (or fault rectification), the range of kept appointment service levels are intended to support the performance standards under the CSG Standard and are largely consistent with the current WBA.

Table A.4: Kept appointment service levels

Appointment	Timeframes	Class	Performance Objective	Measurement
Initial confirmed connection appointments kept End-user premises connection appointment (Performance Objective)	NBN Co to attend a premises between two particular times of day that are not more than four hours apart – NBN Co personnel is present at the premises within **15 minutes of the end of the period**	1 and 2	90% of all appointments	Quarterly
	NBN Co to attend a premises between two particular times of day that are more than four, but not more than five, hours apart - NBN Co Personnel is present at the premises **within the period**			
Second confirmed connection appointments kept (Operational Target)	N/A	1 and 2	95% of all appointments	Quarterly
Rescheduled connection appointments end-user premises connection appointments (Operational Target)	N/A	1 and 2	<5% of all appointments	Quarterly

Appointment	Timeframes	Class	Performance Objective	Measurement
Initial confirmed fault rectification appointments kept (Performance Objective)	NBN Co to attend a premises between two particular times of day that are more than four, but not more than five hours - NBN Co Personnel is present at the premises **within the period**	1 and 2	90% of all appointments	Quarterly
	NBN Co to attend a premises located in a Minor Rural Area or Remote Area between two particular times of day that are more than four, but not more than five hours apart where the NBN Co Personnel must travel a long distance to keep the appointment - NBN Co Personnel is present at the premises within the period or not later than **45 minutes after the end of the period**			
Rescheduled fault rectification appointments (Operational Target)		1 and 2	<5% of all appointments	Quarterly

ii. Modifications

NBN Co is committed to evolving its service levels, and so has committed to shortening the timeframes for modifications over time.

The proposed modification timeframes are set out in Table A.5 below.

Table A.5: Modification service levels

Component	2012	July 2013	2014	Performance Objective
Access Component Modifications[202]	1 business day (Performance Objective) E.g. place order before 5pm today completed by 5pm next business day	1 business day Non binding operational target: 8 business hours E.g. order placed by 2pm completed by 11 am next business day	1 business day Non binding operational target: 6 business hours E.g. order placed by 12 noon completed by 4pm same day	90% of all modifications (only relating to the 2012 '1 business day' Performance Objective Metric)
Connectivity Component Modifications[203]	5 business days			90% of all modifications

For disconnections, NBN Co expects to perform 90% of all Access Components disconnections for Customers within 1 business day.

iii. Multicast service levels

For multicast, NBN Co expects to perform:

- 90% or more of all multicast domain activations for Customers within 10 business days;
- 90% or more of all service impacting multicast domain modifications for Customers within 5 business days; and
- 90% or more of all non-service impacting multicast domain modifications for Customers within 5 business days.

[202] Access Component Modifications: a change to the bandwidth, traffic class profile, UNI allocation and disconnection at the request of the Customer, to an existing AVC and associated UNI, including modifying the associated multicast feature.
[203] Connectivity Component Modifications: change to the bandwidth, traffic class profile, S-TAG allocations, associated NNI Group ID (where not service impacting) and disconnection.

iv. Facilities access service levels

The proposed service levels for facilities access order processing[204] are set out in table A.6.

Table A.6: Facilities access service order processing service levels

Activity	Service Level
Allocation and set-up of rack space for NBN Co co-location, installation of NBN Co ODF Termination Point and installation of cross connects	10 business days
Allocation and set-up of rack space for NBN Co co-location and installation of NBN Co ODF termination point (which does not involve installation of cross connects)	10 business days
Installation of NBN Co ODF termination point and installation of cross connects (which does not involve allocation and set-up of rack space for NBN Co co-location)	2 business days
Installation of cross connects (which does not involve allocation and set-up of rack space for NBN Co Co-location or installation of NBN Co ODF termination point)	2 business days
Allocation and set-up of rack space for NBN Co co-location (which does not involve installation of NBN Co ODF termination point or installation of cross connects)	10 business days
Installation of NBN Co ODF termination point only (which does not involve allocation and set-up of rack space for NBN Co co-location or installation of cross connects)	2 business days

NBN Co expects to complete processing of 90% or more of all facilities access service orders for all Customers in accordance with the above service levels in any calendar quarter.

NBN Co will perform facilities access service order completion in accordance with the service levels set out in Table A.7.

[204] This is NBN Co's acceptance or rejection of Customer's order in respect of a type of Facilities Access Service.

Table A.7: Facilities access service order completion

Activity	Service Level (where Aggregation Node Site is located in an Urban Area)	Service Level (where Aggregation Node Site is located outside of an Urban Area)
Allocation and set-up of rack space for NBN Co co-location, installation of NBN Co ODF termination point and installation of cross connects	20 business days	20 business days
Allocation and set-up of rack space for NBN Co co-location and installation of NBN Co ODF termination point (which does not involve installation of cross connects)	20 business days	20 business days
Installation of NBN Co ODF termination point and installation of cross connects (which does not involve allocation and set-up of rack space for NBN Co co-location)	10 business days	15 business days
Installation of cross connects (which does not involve allocation and set-up of rack space for NBN Co co-location or installation of NBN Co ODF termination point)	5 business days	10 business days
Allocation and set-up of rack space for NBN Co co-location (which does not involve installation of NBN Co ODF termination point or installation of cross connects)	20 business days	20 business days
Installation of NBN Co ODF termination point (which does not involve allocation and set-up of rack space for NBN Co co-location or installation of cross connects)	10 business days	15 business days

NBN Co expects to complete 90% or more of all facilities access service orders for Customers in accordance with the above service levels in any calendar quarter.

v. Fault rectification service levels

NBN Co propose to provide the following service levels for fault rectification (Table A.8).

Table A.8: Fault rectification service levels

Fault	Fixed without internal plant work or attendance at premises and no damage to facilities	Urban	Major/ Minor Rural	Remote	Performance Objective
End user fault (excluding Enhanced-12 faults and priority assistance faults)	By 3:00pm on the next business day	By 3:00pm on the next business day	By 1:00pm on the 2nd business day	By 11:00am on the 3rd business day	95% of faults (excluding enhance-12 faults and priority assistance faults)
					100 % for priority assistance faults
Network Fault	Network Restoration targets apply based on severities. See Table A.9 (Severity Matrix).				80% of all network faults in 2013 95% of all network faults in 2014

vi. Network faults and monitoring

NBN Co operates a Network and Service Operations Centre (NSOC) that monitors events and alarms that occur in the network, monitoring normal operation and detecting and escalating exception conditions. The NSOC is responsible for handling problem, incident, escalation and change management. Should network faults occur that affect multiple End User services, the NSOC has pre-determined processes and procedures to manage these circumstances.

NBN Co does not propose to assign specific fault rectification service levels to the CVC and NNI product components which are shared between multiple End Users. Instead NBN Co will reflect the impact and urgency associated with an outage via the following response and restoration times for network outages.

Table A.9: Network Fault priority / severity matrix

Incident Priority Matrix			Urgency			
			4 – Low	**3 – Medium**	**2 – High**	**1 - Critical**
			Incidents with no impact to systems functionality or service to End Users.	Incidents which do not significantly impair the functioning of the system and do not significantly affect services to End Users	Incident severely affecting systems usage service levels to End Users and billing. Impacts less than Severity	Incident which renders critical systems or functionality unusable. Very high End User impact for multiple instances
Impact	Minor/ Localised	• Minor service / performance impact • No business impact, workaround	4	3	3	2
	Moderate/ Limited	• Small numbers of end-users impacted. • Degraded service performance but still processing within service specification constraints. • Bypass available to mitigate Service Impacts	4	3	2	2
	Significant/ large	• Multiple services impacted by application/system/infrastructure outage • Degraded Service Levels or able to perform only minimum level of services. • It appears cause of incident falls across multiple technology areas • Low/medium risk of potential service impact.	3	3	2	1
	Extensive/ widespread	• High risk of business impact. Loss meets critical business threshold. • Unable to meet service levels • Application/system/infrastructure – multiple services affected	2	2	1	1

NBN Co expects to perform:

- for the rest of 2012 and 2013, 80% of network fault response and rectifications; and
- for 2014, 90% of network fault response and rectifications,

within the timeframes as set out in Table A.10.

Table A.10: Network fault service levels

Incident Priority	Response Time	Frequency of updates	Restoration
1	30 Minutes	Hourly	8 hours
2	60 Minutes	Every 2 Hours	12 hours
3	2 Hours	Every 4 Hours	20 hours
4	4 Hours	Every 6 Hours	28 hours

NBN Co will provide expedited assurance to support a downstream Priority Assistance service that is provided by a Customer using the NBN.

NBN Co will rectify Priority Assistance Faults in accordance with the following timeframes (Table A.11).

Table A.11: Priority Assistance Fault Rectification service levels

Type of Priority Assistance (Fibre) Fault	Service Level for Fault Rectification
premises located in an Urban Area or Rural Area	24 hours after trouble ticket acknowledgement occurs
premises located in a Remote Area	48 hours after trouble ticket acknowledgement occurs

NBN Co will work closely with Customers to provide this service and should it become aware that it is likely not to meet the timeframe, NBN Co will notify Customers as soon as practicable after NBN Co becomes aware of that circumstance.

vii. Enhanced Fault Rectification timeframes

NBN Co will supply the "Enhanced-12 Fault Rectification service level" to facilitate customer demand for enhanced timeframes for fault response and rectification. The Enhanced-12 Fault Rectification timeframes are as follows:

Table A.12: Enhanced-12 Fault Rectification service levels

Service Levels	
Location of premises	**Enhanced-12 Fault Rectification**
Any location if the Enhanced-12 fault can be rectified without external or internal plant work or NBN Co attending the premises (including where caused by an administrative by NBN Co if that error that does not involve damage to a facility)	12 Operational Hours[205]
Urban Area (other than Enhanced-12 faults described in row 1)	12 Operational Hours
Major Rural Area and Minor Rural Area (other than Enhanced-12 faults described in row 1)	26 Operational Hours
Remote Area (other than Enhanced-12 faults described in row 1)	40 Operational Hours

NBN Co expects to perform 80% or more of all Enhanced-12 End User fault rectifications for NBN Co Customers in accordance with the above service levels, in any quarter calendar of the rest of 2012 and 2013, and 95% of all Enhanced-12 End User fault rectifications for Customers in accordance with the above service levels, in any quarter calendar of the rest of 2014.

viii. Network performance and availability

If NBN Co, acting reasonably, considers that more than 70% of a Shared Network Resource[206] is being utilised, and the 70% utilisation threshold has not been exceeded due to a one-off event or breach of the NFAS Fair Use Policy[207], NBN Co will, within 15 business days after the occurrence of these events, make the necessary changes to the NBN Co Fibre Network to return the utilisation of the Shared Network Resource to below the 70% utilisation rate.

Further details of how NBN Co calculates this service level is set out in the Service Levels Schedule in Annexure 1 to Schedule 1J of the SAU.

[205] Operational Hours are extended hours that apply to the Enhanced-12 fault rectification, between 7am and 9pm every calendar day.
[206] Those parts of the NBN Co Fibre Network that are used to supply the NFAS in traffic class 4 (PIR) in a contended manner, including NBN Co's transit backhaul network.
[207] NBN Co's Fair Use Policy is described in section 4.4 of the NFAS Product Description of the WBA Product Catalogue.

ix. Network platform availability

The target for the overall network availability in respect of the NBN Co Fibre Network and the NBN Co Wireless Network will be 99.90%. This is a non-binding target. Further details of how NBN Co calculates this service level is set out in the Service Levels Schedule in Annexure 1 to Schedule 1J of the SAU.

x. NBN Co Platform Interfacing Service

NBN Co will provide the Platform Interfacing Service in accordance with the targets as set out in Table A.13.

Table A.13: Platform Interfacing Service service level targets

Period	Service Level Target
2012	95% availability per calendar quarter
2013	97% availability per calendar quarter
2014	99% availability per calendar quarter

Further details of how NBN Co calculates this service level is set out in the Service Levels Schedule in Annexure 1 to Schedule 1J of the SAU.

A.3 Service levels remedies framework

In the Service Levels Schedule, NBN Co must remedy its failure to perform a service level in one of two ways:

- performing corrective action; and
- paying commercial rebates.

A.3.1 Corrective Action

Under the corrective action requirements, NBN Co is required to take action to, in effect, 'put right a wrong' in respect of its commitment on service levels. The corrective action obligation results in NBN Co continuing to look for ways to improve its performance.

If NBN Co fails to achieve a Service Level, Service Level Target or Performance Objective Metric[208], then on request from a Customer, NBN Co will investigate the failure and advise the Customer of the cause of that failure. As a result of such an investigation, NBN Co will advise the Customer of a plan to take action to correct the cause of the failure, and notify the Customer of the corrective action that has been taken.

NBN Co expects to, through its investigations, determine ways in which it can address any failures that contribute to the failure to meet a service level, and develop ways in which it

[208] Customers cannot request Corrective Action in respect of an Operational Target at this stage.

can improve its overall performance. Such a requirement will effectively act as a corrective tool for NBN Co's performance that will enable NBN Co to continue to improve its network.

A.3.2 Commercial remedies

The introduction of commercial rebates for failure to meet specific service levels demonstrates NBN Co's strong commitment to meeting and improving on its service levels. NBN Co will provide commercial rebates for failing to meet:

- End User Connection service levels; and
- the Enhanced-12 Fault Rectification service level.

These commercial rebates will provide financial incentives to NBN Co to continue to perform to a high standard. NBN Co will also continue to consult with Customers on the development of further commercial rebates for other service levels within the current service levels framework as well as those in the service levels roadmap.

i. Commercial rebate for failure to meet End User connection service levels

NBN Co will calculate the End User connections commercial rebate by determining whether or not NBN Co has achieved a specified 'Reference Performance' in accordance with the relevant 'Credit Amount' calculated quarterly. NBN Co will calculate these rebates based on the accuracy of Customers' forecasts.

The forecasting measure has been introduced to assist NBN Co in managing its workforce resources. In turn, these forecasts would enable NBN Co to improve customer experience by better managing its workforce. Similarly, the forecasts will enable Customers to better manage their demand and End User experience.

NBN Co will calculate the amount of the service level in accordance with the following formula:

$$\begin{aligned}\boldsymbol{Connections\ Rebate\ Amount} \\ &= \boldsymbol{Credit\ Instances} \times \boldsymbol{Unit\ Credit\ Amount} \times \boldsymbol{Forecast\ Factor} \\ &- \boldsymbol{CSG\ Contribution\ Paid}\end{aligned}$$

NBN Co will calculate Credit Instances in accordance with the following formula:

$$\boldsymbol{Credit\ Instances} = (\boldsymbol{Reference\ Performance} - \boldsymbol{Actual\ Performance}) \times \boldsymbol{Total\ Connections}$$

- Reference Performance means:
  - in respect of each quarter of 2012 and 2013, 80%; and
  - in respect of each quarter of 2014, 90%.

- **Actual Performance** means the percentage of all End User connections in service classes 1 and 2 supplied by NBN Co to Customers under the WBA in the relevant quarter in accordance with the End User connection service levels.
- **Total Connections** means the total number of End User connections in service classes 1 and 2 supplied by NBN Co to Customers under the WBA in the relevant quarter.
- **Unit Credit Amount** is $20.
- NBN Co will calculate the **Forecast Factor** in accordance with the rules in Table A.14.

Table A.14: Forecast Factor rules

Variation between Aggregated Forecast and Total Connections	Forecast Factor
< ±15%	1
Between ≥ ±15% and ≤ ±30%	0.5
> ±30%	0

- **Aggregated Forecast** means in respect of a quarter, the aggregate of each of the Most Recent Monthly Forecasts for each month in that quarter.
- **Most Recent Monthly Forecast** means the End User connection forecasts for each CSA most recently provided by Customers to NBN Co in respect of the relevant month.
- **CSG Contribution Paid** means, in respect of a Quarter, any amount paid or credited by NBN Co to a Customer under or pursuant to:
  - Section 27 of the Service Levels Schedule; or
  - section 118A of the *Telecommunications (Consumer Protection and Service Standards) Act 1999*,

  during the calendar quarter.

ii. Commercial rebate for failure to meet Enhanced-12 Fault Rectification Service Levels

When NBN Co fails to meet the Enhanced-12 service levels, NBN Co will pay Customers:

- in respect of the first occasion in a month (i.e. the billing period), an amount equal to the whole of the Enhanced-12 Fault Rectification service level recurring charge for the ordered product for that month; and
- in respect of the first occasion and each subsequent occasion, for each full hour in

excess of the Enhanced-12 Fault Rectification service level during which the Enhanced-12 Fault is not rectified, an amount equal to 20% of the sum of the recurring charges which apply in relation to the supply of the relevant affected UNI and AVC in respect of that month:

- including any recurring charges for the supply of an MAVC, UNI-D or UNI-V; but
- excluding the Enhanced-12 Fault Rectification service level recurring charges and any credit amount(s) that apply in respect of the relevant affected UNI or AVC.

The maximum Enhanced-12 service level rebate payable in any month, across all occasions, is 100% of the sum of the recurring charges for the affected UNI and AVC, in addition to the monthly charge for the Enhanced-12 Fault Rectification service level

A.4 Reporting measures

Under the Service Levels Schedule, NBN Co will provide Customers with a report, regarding NBN Co's performance of each activity associated with each service level metric, 20 business days after the end of the calendar month or the calendar quarter (as applicable). This report will provide Customers with raw data in respect of NBN Co's performance against the relevant activity for the relevant period.

Such reports will enable Customers to have visibility of NBN Co's performance as Customers will have the ability to measure NBN Co's performance against each activity. Further, the reports will assist Customers with determining whether or not they are entitled to claim any rebates from NBN Co.

To provide such reporting, NBN Co is committed to implement and operate internal measurement and monitoring tools to assess the performance of its network. Further, NBN Co is committed to engaging an independent auditor to review the general accuracy of the measurement and monitory tools at least once during the term of the next WBA (two years). In turn, NBN Co will notify Customers of the results of such an independent audit. These audits will provide Customers with greater visibility of NBN Co's internal processes in relation to achieving its commitments around service levels.

If a Customer is not satisfied that NBN Co's performance reports are generally accurate, the Customer will have the right to make a specific data enquiry in respect of the performance reports that NBN Co has provided to the Customer. NBN Co is required to respond to such a request within 10 business days (or longer, if notified to Customers). If a Customer is not satisfied of the outcome of an enquiry, the Customer can submit a dispute in accordance with the Dispute Management Rules (as set out in Annexure 1 to Schedule 1H).

B. Customer engagement

Key points

- As part of a broader regulatory scheme, customer engagement allows market participants to make optimal decisions. It provides superior benefits to Customers over inappropriately targeted regulation and is generally preferred by those who participate in the process (including regulatory agencies).

B.1 Introduction

NBN Co has relied heavily on customer engagement in developing its initial products and prices together with its SFAA terms and conditions. This is evident in the range of product and pricing papers released by NBN Co, consultation processes (involving submissions, forums, bilateral and multilateral discussions), and the Contract Development Process used to develop the new WBA.

Consistent with this ongoing approach, several aspects of the SAU also rely on customer engagement to a significant degree:

- Endorsement of Network Changes under the prudency arrangements in the Initial Regulatory Period;
- The PDF forming part of the commitments relating to Product Development and Withdrawal in both the Initial and Subsequent Regulatory Periods;
- Dispute Management Rules which make provision for multilateral processes in certain circumstances in the Initial Regulatory Period; and
- The Multilateral SFAA Forum in the Initial Regulatory Period.

The purpose of this Appendix is to provide some background on the general rationale and benefits of customer engagement within a regulatory context. NBN Co has had regard to the benefits of customer engagement in formulating the SAU.

In general, a regulatory model that expands the space in which market participants can arrange their own commercial relationships to the extent possible delivers superior outcomes to one in which a regulator supplants the role of market participants in shaping the market[209].

The benefits of customer engagement are discussed further below and include:

- Addressing information asymmetry;
- Vertical co-ordination and flexibility of outcomes;

[209] See J Doucet and S Littlechild, *Negotiated Settlements: The development of legal and economic thinking* (2006), 1 <http://www.eprg.group.cam.ac.uk/wp-content/uploads/2008/11/eprg0604.pdf>

- Efficiency of process; and
- Increased satisfaction of all parties.

B.2 Information asymmetry

Customer engagement seeks to address the issue of information asymmetry. To the extent participants are satisfied with information exchange as a basis for negotiating an outcome, the information on which market outcomes are based, substantially reflects normal information exchange in a well-functioning market. To the extent the participants are unable to agree an outcome, if the regulator has to intervene it gains the benefits of the information exchange which occurred through negotiation as a basis for identifying the disparate and conflicting interests that need to be resolved by reference to required policy outcomes in legislation.

B.3 Vertical co-ordination and flexibility of outcomes

Customer engagement allows a wholesale provider to better co-ordinate services with the needs of its customers. There are numerous examples of this benefit as it relates to discrete regulatory areas[210]:

- In North America, gas transmission providers and their customers have negotiated changes to asset deprecation, fixed periods for agreed rates, conditions that would automatically require renegotiation and revenue and profit-sharing above certain thresholds. Many of these novel and fine-grained measures would be unavailable to regulators.[211]
- In Florida, one regulated entity agreed that rather than building contingency costs for weather damage into its rates, it would be allowed to levy special fees should they become necessary.[212]
- German airports (and UK airports to a lesser extent) were able to share risks of traffic uncertainty with airlines, incentivising both to increase traffic and decrease volatility in traffic fluctuations. The airports were also able to negotiate the details of risk thresholds and amount of profit/revenue shared according to local conditions and amend those variables when local conditions required. These flexibilities may not be available to a regulator which generally sets prices at set intervals and has to attempt consistency across regulated entities.[213]

[210] Littlechild, Regulation, Over-Regulation and Deregulation (Occasional lecture at University of Bath, 2008) <http://www.bath.ac.uk/management/cri/pdf/Occasional_Lecture_22.pdf>
[211] Littlechild, The Process of Negotiating Settlements at FERC (2011) <http://www.eprg.group.cam.ac.uk/wp-content/uploads/2011/01/EPRG1105_revised-version-May-2011.pdf>
[212] Littlechild, The Bird in Hand: stipulated settlements and electricity regulation in Florida (2007) <http://www.eprg.group.cam.ac.uk/wp-content/uploads/2008/11/eprg0705.pdf>
[213] Littlechild, German airport regulation: framework agreements, civil law and the EU Directive (2010) <http://www.eprg.group.cam.ac.uk/wp-content/uploads/2010/10/Littlechild3Oct20101.pdf>

- In all cases, the parties had the benefit of longer term certainty, consultation and risk-spreading. This is in contrast to a regulator-imposed outcome, where the regulator is often constrained by its legislative powers and mandate.

One expert summarises the benefits as follows:

> *[W]hen the regulator makes the decisions, everyone loses something, and parties have no control over what they lose. In the negotiation process, each party chooses which among the many points it is willing to lose in order to gain something else. Although this may sound like a distinction without a difference, in fact, the trade-offs arrived at voluntarily are much more stable and effective. Negotiated settlements are actually more democratic because all parties participate in the decision. As a result the terms are more likely to be implemented with enthusiasm and effectiveness than if they had been imposed from above by a regulator. Furthermore, in an atmosphere of trust and negotiation, more information is freely shared, with the result that more comprehensive solutions can be developed.* [214]

In a broader sense, time, effort and money is more productively invested in the process of negotiation as compared with a regulatory dependence model. Professor Stephen Littlechild, who has written extensively on customer engagement models, puts it thus:

> *Experience with greater customer involvement in other jurisdictions, including ex post regulation as applied in the Australian airport sector, is that companies and customers get to know more about each others' preferences and abilities to provide services. Moreover, relationships within the industry improve. Instead of spending time and money to knock down the arguments of the other side, efforts are devoted to finding mutually advantageous ways forward.'* [215]

Negotiated settlements work when market participants are able to structure the whole of scope of matters which are the subject of the customer engagement processes. This can be contrasted this with a transitional experience of the Canadian NEB. The NEB accepted a negotiated settlement between a transmission provider and its customers in general, but did not accept the negotiated rate of return (which it deemed too high). The settlement fell apart.

[214] See J Doucet and S Littlechild, Negotiated Settlements: The development of legal and economic thinking (2006) at p 11 quoting G Palast, et al Democracy and Regulation: How the public can govern essential services (2003) at 96 (http://www.eprg.group.cam.ac.uk/wp-content/uploads/2008/11/eprg0604.pdf).

[215] Littlechild, Consumer involvement, ex post regulation and customer appeal mechanisms (Ofgem RPI-X@20 Web Forum 29 November 2009) at p 11 (http://www.eprg.group.cam.ac.uk/wp-content/uploads/2009/12/Consumer-involvement-ex-post-consumer-appeal-29-Nov-09-eprg.pdf).

B.4 Efficiency of process

US state regulators originally began using negotiated settlement, or 'stipulations', as they are known in some jurisdictions, to clear a backlog of regulatory decisions. One state regulatory commissioner noted that although stipulations can be an ad hoc process in his jurisdiction they did 'reduce the time, expense and hostility typical of the traditional rate case.' [216]

There is evidence that in some circumstances negotiated settlements can take longer than traditional regulatory processes. However, even in those cases:

- participants generally report a better outcome and feel the time spent is productive and not wasted; and
- the regulatory processing time is far shorter, for example in Canada, regulatory processing times have been cut by between one and two thirds.

In North America, where regulatory decisions were traditionally subject to annual reviews negotiated settlements are also required less frequently – 3 to 5 years on average.

There is some evidence that the flexibility and holistic outcomes offered by negotiated settlements are even more important to participants than the cost savings of an efficient process.

B.5 Increased satisfaction for all parties

In each regulated industry in which the customer engagement model is available, participants have shown a strong preference for negotiated outcomes.

Some of the following features may help explain, at a high level, this popularity. Customer engagement models can:

- be used by market participants to create incentives tailored to the regulated firm;
- endorse expenditure with a link to improved QoS with measurements to verify improvements;
- result in agreed terms for infrastructure expansions that all market participants can 'own' and shape;
- include processes for the provision of information and arrangements for monitoring; and
- allow participants to seek remedial actions in some instances where performance of the regulated firm has been inadequate.

[216] Ibid, 6 quoting from LA Helman, 'Rulemaking in lieu of ad hoc case-by-case adjudication: automatic adjustment clauses, the New Mexico experiment' in J R Foster et al (eds), Regulatory Reform: The state of the regulatory art; emerging concepts and procedures (1984) 148-53.

In summary:

> *…They focus on the issues and outcomes that the parties themselves find most important ... The resulting efficiency improvements have yielded significant price reductions along with higher profits.* [217]

Even where customer engagement models have had teething problems or been affected by external issues (like the CAA's constructive engagement and Argentina's public contest, respectively), parties have preferred them to traditional regulation and continued using and refining them.

B.6 Conclusion on customer engagement benefits

Customer engagement allows market participants to make optimal decisions. It provides superior benefits to customers over inappropriately targeted regulation and is generally preferred by those who participate in the process (including regulatory agencies).

While there are some potential shortcomings of the model, it is better, in practice, than competing models that place an over-reliance on a regulator, placing burdens on it to make decisions without the benefit of market participants' information.

[217] Littlechild, Stipulations, the Consumer Advocate and Utility Regulation in Florida, 2006, p 34 (http://www.ofgem.gov.uk/Networks/rpix20/ConsultReports/Documents1/User%20participation%20Ofgem%2028%20March%202009%20-%20final.pdf)

C. Prudency commitments – Module 1

Key points

- In the Initial Regulatory Period covered by Module 1, NBN Co will establish a RAB and ABBRR based on its actual prudently incurred costs. This will establish a long term revenue cap on its operations.
- NBN Co provides commitments in Module 1 of the SAU that ensure that the costs it incurs, and the processes it uses to incur those costs are prudent – that is, the costs and processes are necessary, effective, efficient and aligned with NBN Co's and its Customers' interests. NBN Co has drawn on established approaches to prudency in other regulated industries to develop these commitments and adapted them to reflect the specific objectives set for NBN Co and NBN Co's structure and operating context.
- In relation to capex, NBN Co must satisfy the Prudent Cost and Prudent Design Conditions. In summary, this means that NBN Co commits to only recover costs which are incurred in a manner consistent with certain prudency measures and constraints, including:
  - that NBN Co designs, constructs and engineers its networks in accordance with the Network Design Rules (NDRs), which will be considered by the ACCC as part of its consideration of the SAU;
  - processes in relation to the prudency of the design of future investment in, and changes to, the NBN over the term of the SAU, including engagement with NBN Co's Customers on future product development; and
  - NBN Co's commitment to procurement processes, including competitive tendering and other forms of procurement practices.
- Recognising that NBN Co has been directed by Government to undertake delivery of certain capabilities in specific timeframes, and needs to build a new network, NBN Co has identified a number of categories of capex which should be deemed prudent, and included in the RAB.
- In relation to opex, NBN Co commits to certain key rules applicable to assessing opex as prudent, including the requirement that third party opex be subject to the same competitive tendering and procurement processes that are applicable to capex.
- These measures are in addition to the significant cost control, reporting and transparency measures that apply to NBN Co as a GBE, as well as the Government, Parliamentary and other requirements which NBN Co is subject to.

C.1 Introduction

Module 1 contains an approach to determining NBN Co's RAB and ABBRR that is based on NBN Co's prudently incurred actual costs. This is different to the approach in Module 2, which is based on a standard utility regulation approach and uses 3 to 5 year forecasts of opex and capex (subject to review by the ACCC) as the basis for the ABBRR, and uses actual capex to roll forward the RAB. The different approach adopted in Module 1 reflects the fact that NBN Co is building an entirely new network to satisfy a number of objectives (as set out in the Statement of Expectations) and that in all the circumstances it is likely to be unworkable to apply the standard utility regulation approach.

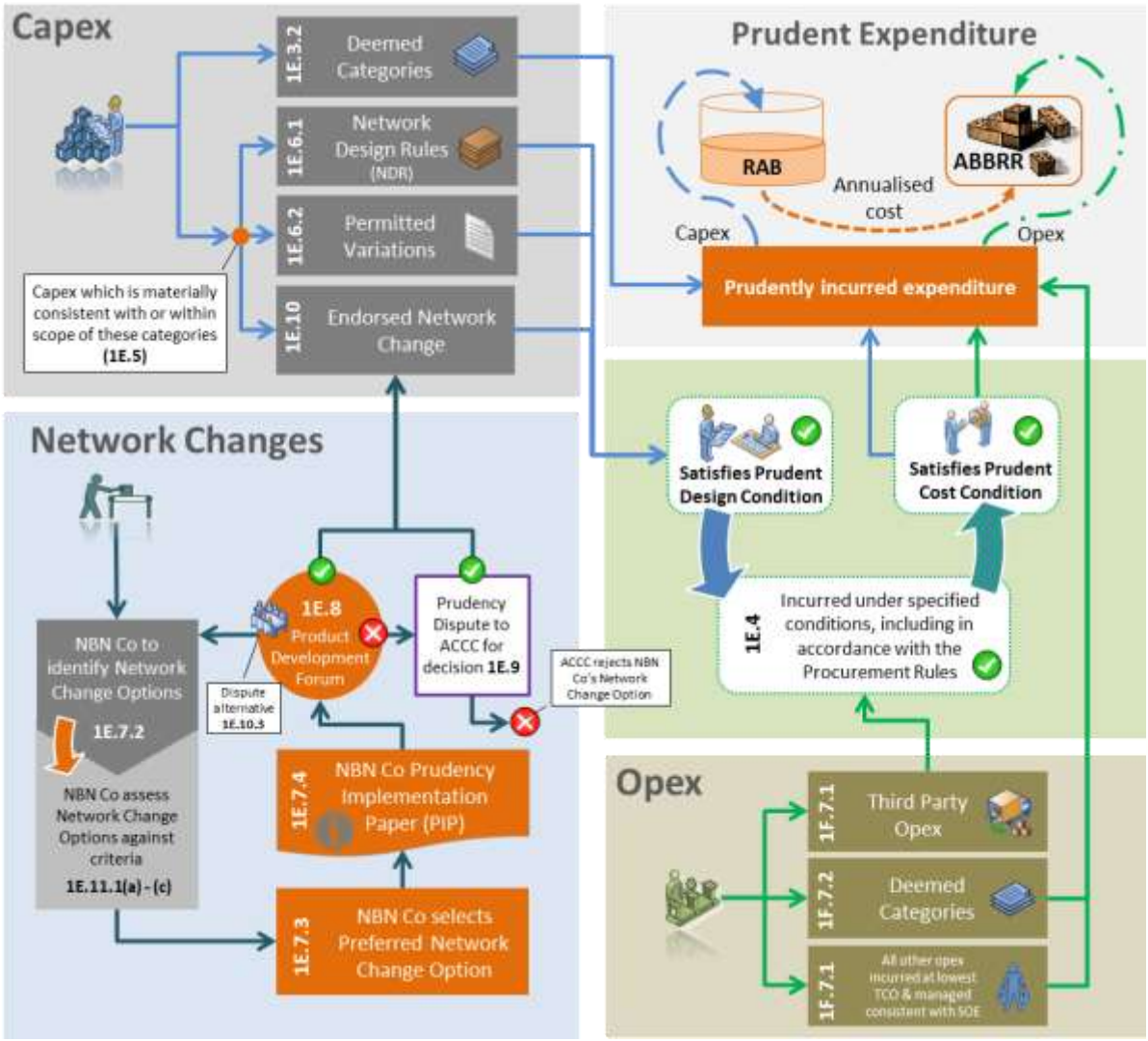
Given the necessity of using actual costs in the ABBRR in Module 1, NBN Co has developed a comprehensive set of commitments (as depicted in Figure C.1 below) that are designed to ensure that capex and opex will only be factored into the RAB and ABBRR where it has been prudently incurred.

These prudency commitments are intended to complement the significant expenditure efficiency incentives already faced by NBN Co as a result of its commercial context (investing significant capital up front in the expectation of significant, but uncertain, growth in take-up of higher access speeds and network usage – as discussed in section 6) and the various cost control and transparency measures that NBN Co is subject to as a Government Business Enterprise (GBE).

The following sections describe in more detail:

- The capex prudency commitments particularly in relation to the prudent design condition and prudent cost condition;
- The opex prudency commitment; and
- The role of existing cost controls and transparency measures that exist for NBN Co in addition to the Module 1 commitments.

Figure C.1: Overview of the Module 1 prudency model



C.2 Prudency of capital expenditure

For capex to be considered to be prudently incurred by NBN Co and therefore able to be included in the RAB, it must either *have been* prudently incurred, or in a category of capex that has been *deemed* to be prudently incurred. For capex to be prudently incurred, NBN Co must satisfy the following two conditions:

- the **Prudent Design Condition**, which sets out the conditions NBN Co must satisfy in relation to the prudent design of the existing network design and future Network Changes; and
- the **Prudent Cost Condition**, which sets out the conditions NBN Co must satisfy when incurring capex, principally in the form of compliance with procurement rules.

It should be noted that NBN Co's prudency approach in Module 1 does not rely on ex ante regulatory approval of capex forecasts or any ex post reviews of capex. NBN Co believes that

compliance with the Prudent Design Condition and the Prudent Cost Condition places appropriate controls on NBN Co's capex. Further, NBN Co is subject to significant transparency requirements through its status as a GBE and other measures described in section C.4 below. However, NBN Co will provide forecasts of its capex and opex to the ACCC in addition to actual capex and opex figures, to assist the ACCC's assessment of NBN Co's compliance with the Module 1 prudency commitments.

The following sections address:

- the categories of expenditure that are deemed to be prudently incurred;
- the initial network design scope and Permitted Variations to it;
- the changes to the network design, including the role of customer endorsement and the ACCC's role in dealing with disputes; and
- the approach to procurement.

C.2.1 Categories of expenditure deemed to be prudently incurred

NBN Co considers that some capex should be deemed to be prudently incurred, and hence not required to be specifically subject to the Prudent Design Condition and the Prudent Cost Condition. The categories of deemed capex relate primarily to initial or interim arrangements that NBN Co has already entered into, as well as the arrangements that it has negotiated with Telstra and Optus.

The following categories of deemed prudent capex are defined in the SAU:

- **Interim satellite solution.** NBN Co is required to deliver this solution under the Statement of Expectations as follows[218]:

  > *In the interim, the Government expects NBN Co to explore options to bring forward a suitable satellite solution to ensure the availability of improved satellite broadband services for regional Australia, eventually replacing the existing Australian Government Australian Broadband Guarantee program.*

  NBN Co has entered into arm's length agreements with Optus and IP Star in relation to the supply of interim satellite services.

- **Interim transit arrangements.** Interim transit arrangements have been put in place by NBN Co to enable the supply of NBN services to Temporary POIs, modularised FANS and associated backhaul transmission. These interim arrangements were put in place to facilitate the first release trial services on mainland Australia as well as to provide connectivity to Greenfields developments.

- **Telstra and Optus arrangements.** The Telstra and Optus arrangements were negotiated over many months on an arms' length basis. As described in NBN Co's

[218] Statement of Expectations, 2010, p.4.

submission to the ACCC in relation to Telstra's Structural Separation Undertaking[219], the Definitive Agreements with Telstra enable NBN Co to migrate End Users to the NBN faster, support the delivery of UNWP, reduce NBN Co's cost and time to deploy its network, reduce cost uncertainty and avoid inefficient and socially wasteful duplication of infrastructure. NBN Co anticipates that a number of these benefits will also result from its arrangements with Optus, namely faster migration of End Users to the NBN and facilitation of UNWP.

- **Tasmania Tri-Area expenditure.** NBN Co has incurred capex on building the NBN in three areas in Tasmania which serve Smithton, Scottsdale and Midway Point. This expenditure has been incurred primarily to trial service delivery and deployment processes for future network deployment.

- **First Release Trial Sites.** NBN Co has incurred capex on building the NBN in five areas in mainland Australia (parts of Brunswick (Vic), Townsville (Qld), Armidale (NSW), Minnamurra and Kiama Downs (NSW) and Willunga (SA)). This expenditure has been incurred in order to trial deployment processes in different geographic conditions to develop and refine solutions for future network deployment.

- **Third Party Funded Changes.** In some circumstances, third parties (End Users, developers, local governments etc) may be prepared to fund extensions to the NBN beyond the footprint originally designed by NBN Co. NBN Co notes that a similar arrangement is in place in relation to the ARTC Hunter Valley Access Undertaking[220].

- **Capex incurred prior to the SAU Commencement Date:** In addition to the specific categories identified above, which relate to initial construction in particular locations, clause 1E.2.3 provides for all capex incurred from the Cost Commencement Date to the SAU Commencement Date to be included in the RAB. This ensures that the RAB reflects NBN Co's actual prudently incurred costs. Although the prudent cost and prudent design conditions cannot operate until the SAU is accepted, NBN Co has nonetheless been subject to significant expenditure efficiency incentives arising out of its commercial context, and the significant transparency and cost control measures described in section C.4. In view of these pre-existing incentives, NBN Co considers that deeming of past capex is an appropriate approach in the circumstances.

[219] NBN Co's submission to the ACCC in relation to section 577BA of the Telecommunications Act 1997, provided in August 2011.Available at: http://www.accc.gov.au/content/item.phtml?itemId=1004007&nodeId=5248e382a4028e38dc7cb3cfbcbfe670&fn=NBN%20Co%20public%20submission%20in%20relation%20to%20s.577BA%20of%20the%20Telecommunications%20Act%201997.pdf

[220] Clause 10 of the 2011 ARTC HVAU, which covers User Funded Options. Located at: http://www.accc.gov.au/content/item.phtml?itemId=994059&nodeId=8618718497a3928a40b2787119876b90&fn=ARTC%202011%20Hunter%20Valley%20Access%20Undertaking%20signed.pdf

C.2.2 Initial network design and Permitted Variations

NBN Co will satisfy the Prudent Design Condition in respect of capex incurred in connection with the design, engineering and construction of the NBN when it is materially consistent with the NDRs, subject to the Permitted Variations described below. NBN Co is still then required to satisfy the Prudent Cost Condition in relation to such capex.

i. Initial network design

NBN Co has set out the detailed network design requirements in the NDRs, which were submitted with the SAU and are publicly available.

Module 1 requires that the NDRs satisfy the 'baseline' design scope set out in clause 1E.6.1 of the SAU, which is derived from the Statement of Expectations.

The Statement of Expectations provides that:

> *The Government expects that NBN Co will design, build and operate a new NBN to provide access to high speed broadband to all Australian premises. The Government's objective for NBN Co is to connect 93 per cent of Australian homes, schools and businesses with fibre-to-the-premises technology providing broadband speeds of up to 100 megabits per second, with a minimum fibre coverage obligation of 90 per cent of Australian premises. All remaining premises will be served by a combination of next-generation fixed wireless and satellite technologies providing peak speeds of at least 12 megabits per second.*[221]

In order to achieve the Government's Statement of Expectations, NBN Co's network design is intended to enable the NBN to meet the following objectives:

- minimise cost for the fibre, fixed wireless and satellite coverage objectives;
- deliver the NBN Co product requirements;
- meet the network availability criteria required for NBN Co's service level agreements;
- ensure network asset lifecycles meet minimum objectives;
- maximise re-use of existing infrastructure; and
- provide a clear path for technology upgrade and 'future proofing'.

Given that the NBN will be delivered using a mix of FTTP, wireless and satellite technologies, a key design objective has also been to optimise the boundaries between these network technologies in order to deliver the maximum End User experience within reasonable capital and opex constraints.

[221] The Statement of Expectations, 17 December 2010, p.1.

These design objectives are implemented through a detailed network design which is summarised in the NDRs.

ii. Prudency and Efficiency of initial network design

Analysys Mason have reviewed the prudency and efficiency of NBN Co's design of its fibre, fixed wireless and satellite networks and advised that NBN Co's design of each of these networks reflects an efficient and prudent network design. In reaching this view, Analysys Mason provided specific views on a number of technology, architecture and infrastructure decisions made by NBN Co including the following:

NBN Co's fibre network: [222]

- The choice of Ethernet as a layer 2 protocol is both efficient and prudent as it aligns with global standards and is a proven technology.
- NBN Co's adoption of a centralised GPON architecture is both prudent and efficient as it represents the best choice of architecture from long-term cost-management, network scalability and flexibility perspectives.
- NBN Co's network design is prudent from a resiliency perspective.
- The choice of ribbon technology for fibre cables is both efficient and prudent
- NBN Co's proposed end-to-end service availability target of 99.9% is prudent from a network design perspective, having regard to the geography of Australia.
- NBN Co's decision to re-use Telstra's infrastructure is considered to be prudent from an operational perspective.
- The approach to the architecture and features provided on the Network Termination Device is prudent, as it will allow simultaneous delivery of multiple applications and services by multiple service providers.
- NBN Co's overall provisioning of fibre in the local fibre network is prudent.
- NBN Co's approach to pre-build the final drop is efficient and prudent, given the current level of broadband penetration and the deal between NBN Co and Telstra.
- The decision to implement Fibre Distribution Hubs using street cabinets is a prudent choice.
- The design of the distribution fibre network is prudent, as it allows for different levels of protection to be implemented.
- NBN Co's design and architecture for the transit network is prudent.

[222] Analysys Mason, Review of the efficiency and prudency of NBN Co's fibre, wireless and satellite network design, 26 September 2012, section 1.1.

- The fibre network design is likely to have a sufficient upgrade path to meet the reasonably anticipated requirements of Access Seekers and End Users for bandwidth over the next 30 years. Analysys Mason found no bottlenecks in the choice of technology or design of the physical network that would mean the network cannot be upgraded in terms of bandwidth or functionality.

NBN Co's fixed wireless network: [223]

- NBN Co's decision to deploy a TD-LTE solution is efficient and prudent as it is being adopted by major operators around the world, creating economies of scale.
- NBN Co has followed a rigorous and best-practice planning methodology to design the wireless access network.
- The development of a core wireless network based on 3GPP standards is prudent, as it will ensure inter-operability of different vendors' equipment, and is also efficient due to the large global volumes of equipment based on this standard.
- The use of the same POIs for the wireless and fibre footprints will reduce infrastructure duplication and will be more efficient than using separate POIs. The same is true for the transit network.
- NBN Co's decision to use microwave technology in the last mile is prudent for the short to medium term, as it represents the best choice in consideration of bandwidth requirements and costs.
- The fixed wireless network design is future-proofed as it uses standardised technology with a clearly defined roadmap, which is also supported by major mobile network operators worldwide and is backed by most equipment vendors. The wireless core network is based on fibre technology, which provides sufficient scalability to accommodate future demand.

NBN Co's satellite network: [224]

- The decision to purchase high-throughput satellites is efficient given the amount of capacity required, and prudent given the track record of commercial high-throughput satellites in orbit.
- Given the expected number of users in certain spotbeams, it is efficient for NBN Co to procure two satellites. It is also more prudent to procure two satellites rather than one.
- Having procured two satellites, it is both efficient and prudent to place them in separate orbital positions.

[223] Ibid, section 1.2.
[224] Ibid, section 1.3.

- NBN Co has prudently made four applications for orbital positions, and appears to have proceeded efficiently with co-ordination activities.
- NBN Co's beam coverage plan is efficient.
- It is efficient and prudent to construct nine primary gateway locations with a tenth gateway for disaster recovery, and that the complex decision on the location of gateways has proceeded efficiently and prudently.
- The CPE design is efficient, and its selection of supplier is prudent.
- NBN Co's approach to dimensioning the terrestrial links is efficient and prudent, and the initial capacities proposed are reasonable.

Analysys Mason also found that NBN Co has adopted a prudent and efficient methodology to determine the boundary between premises served by fibre and those served by fixed wireless. They found that NBN Co's methodology ensures that a maximum number of End Users are covered by the FTTP network, while at the same time not resulting in disproportionate costs for NBN Co in the relevant circumstances.

iii. Permitted variations from initial network design

NBN Co has sought to provide certainty by setting out its design in the NDRs. However, NBN Co will also need an appropriate degree of flexibility to improve and alter the design of the NBN as the network is being rolled out.

NBN Co has preserved a limited and appropriate degree of flexibility through the NDRs themselves. Module 1 also provides for Permitted Variations from the NDRs, as expressly described in clause 1E.6.2. All capex incurred with respect to any Permitted Variations is still required to meet the Prudent Cost Condition, and would also be subject to the more general oversight described in section C.4 below.

It should also be noted that the design, engineering and construction of any Permitted Variation is subject to the objective of being achieved for the lowest total cost of ownership. This is intended to prevent unnecessary costs being incurred when there are Permitted Variations from the NDRs.

Some of the Permitted Variations relate to improvements to the design above the baseline established by the NDRs. For example, a design change which improves performance but results in the same or lower total cost of ownership is a Permitted Variation.

Other categories of Permitted Variations include where changes to the design are necessary to establish and maintain the quality, reliability and security of the network. Changes required in connection with a force majeure event are also allowed. These categories afford NBN Co the necessary degree of flexibility to maintain an appropriate baseline design.

Module 1 also provides for Permitted Variations when required to comply with the Statement of Expectations, or any legal, policy, regulatory or administrative requirement, or as specifically required by the Shareholder Ministers. In addition to appropriately

recognising NBN Co's need to be able to meet its legal obligations, this provision recognises NBN Co's role in implementing Government policy during the rollout and migration period.

The list of Permitted Variations includes variations in respect of which the estimated capex incurred is likely to be less than the Minor Expenditure Limit of $100 million (indexed to CPI). NBN Co considers this provision to be proportionate in the context of the estimated rollout capex for the NBN of $35.9 billion.

Module 1 also provides that capex on certain urgent and unforeseen network issues that require changes should be considered to be a Permitted Variation. In a project the size of the NBN, which involves the construction of an entirely new network over a number of years, urgent and unforeseen changes may be required, and some flexibility is necessary so that the project can progress in a timely fashion. It is important to note that expenditure within this category must satisfy certain stringent conditions (specified in clause 1E.6.2(a)(ix)) – the event or circumstances giving rise to the variation, change or enhancement cannot have been reasonably foreseeable and a failure to address the change has to be likely to materially adversely affect the safe and reliable operation of the NBN or products supplied over the NBN. A similar exception applies under the regulatory investment test for electricity transmission businesses in Australia.[225] NBN Co is required to notify the ACCC of any such changes that are required in relation to urgent and unforeseen issues within 6 months of becoming aware of the issue, including the expenditure associated with it.

iv. Capex Forecast Information

NBN Co notes that clause 1G.1.2 requires NBN Co to provide capex forecasts to the ACCC by Asset Type. This information is not used to establish the level of capex that is included in the calculation of the RAB, but rather is included to provide the ACCC with an additional set of information it can consider when it reviews NBN Co's compliance with the Module 1 prudency commitments. Thus, for example, if actual capex deviates significantly from the forecast amount for any type of asset, this may be an aspect of NBN Co's compliance that the ACCC chooses to seek additional information on.

C.2.3 Customer endorsement of future Network Changes

i. Network Changes

An important aspect of the Module 1 prudency commitments relates to the manner in which NBN Co is to incur capex on future Network Changes. A Network Change relates to a variation, change, augmentation or enhancement to the design, engineering or construction of the NBN that falls outside the scope of the NDRs and does not fall within any of the deemed categories described in section C.2.1 above and is not a Permitted Variation.

[225] AER, Regulatory investment test for transmission application guidelines, Final, June 2010, p. 6. Available at, <http://www.aer.gov.au/content/item.phtml?itemId=737903&nodeId=9b856178bc08a9524113e75f129901fe&fn=Final%20RIT-T%20application%20guidelines%20(June%202010).pdf>

NBN Co recognises that over the first 10 years of the SAU, Network Changes are likely to be required as technology develops. Module 1 provides that Network Changes are subject to a process involving endorsement by Customers, with the ACCC having a role in resolving any prudency disputes that are raised.

NBN Co will prepare an assessment of each valid Network Change Option for implementing the desired change and the associated costs of each solution. In assessing the Network Change options, NBN Co will undertake its analysis in accordance with the factors set out in clause 1E.11, and follow the procedures described in clause 1E.7 in selecting the preferred Network Change Option, as summarised in the table below:

Table C.1: NBN Co's selection of Network Change Options

Factor	Description
Identified need	Identified Need is the reason why NBN Co has proposed the Network Change (e.g. to deliver higher bandwidth services in response to Customer demand).
Assessment of the Network Change Options **(Clause 1E.11)**	A Network Change Option: ▪ must meet the Identified Need; ▪ must be economically and technically feasible; ▪ must be able to be implemented in sufficient time to meet the timelines identified by the PDF; and ▪ must be considered to be a viable option having regard to specified factors, such as the Total Cost of Ownership, the economic life of assets, NBN Co's long term planning, resource requirements, operational and technical complexity, likely effect on demand of existing and future products. When assessing Network Change Options, NBN Co must: • consider and identify the market benefits of the options; • consider and estimate the Network Change costs associated with each option, including capex, opex and compliance costs; • identify appropriate methods for evaluating the benefits and costs of the options, including appropriate sensitivity analysis.
Selection of Network Change Option **(Clause 1E.7)**	When selecting its preferred Network Change Option, NBN Co: ▪ may select the option that it considers will maximise the Net Economic Benefit (market benefits less Network Change costs) were it to take place as compared to it not taking place; ▪ may select an alternative option which it considers is reasonable, provided that NBN Co provides an assessment of the material difference between this option and the one that maximises Net Economic Benefit and the reasons for that assessment.

NBN Co notes that many of the key elements of the Module 1 process for Network Changes are similar to the 'regulatory investment test' that applies to electricity transmission

network service providers (TNSPs) under Chapter 5 of the National Electricity Rules, and which is specified in more detail in guidelines issued by the Australian Energy Regulator[226].

ii. Net Economic Benefit Test

The Net Economic Benefit test included in Module 1 is an economic cost benefit analysis which is used to assess and rank different Network Change Options.

The Net Economic Benefit test is intended to promote efficient investment in network infrastructure and ensure greater consistency, transparency and predictability in NBN Co's investment decision making.

The test provides for the Net Economic Benefit to be determined, in respect of each Network Change Option, by reference to the market benefits associated with that option less the costs associated with that option.

iii. Prudency Implementation Paper

On completion of its initial assessment as outlined above, NBN Co must prepare a document that summarises the options available for the Network Change and NBN Co's preferred Network Change Option. This 'NBN Prudency Implementation Paper' must also include a summary of the assessments undertaken by NBN Co and the estimated capex and opex to be incurred in respect of each option.

In the event that NBN Co's preferred Network Change Option does not maximise the Net Economic Benefit, the prudency implementation paper must also include NBN Co's assessment of any material difference between its preferred option and the option that does maximise the Net Economic Benefit and the reasons for selecting that alternative option. The paper will also include a high level summary of any changes required to the NDRs.

The prudency implementation paper is the vehicle NBN Co will use to gain external endorsement for its preferred Network Change Option. This endorsement must first be sought from NBN Co's Customers, and if a dispute is raised in relation to the Network Change preferred by NBN Co, the ACCC is conferred the power under the SAU to resolve that dispute.

If NBN Co is successful in obtaining Customer or regulatory endorsement for its preferred Network Change Option, the option will have satisfied the Prudent Design Condition. NBN Co will still be required to satisfy the Prudent Cost Condition (discussed below).

iv. Customer endorsement processes

NBN Co will invite Customers to make submissions on the prudency implementation paper for the proposed Network Change. In addition, NBN Co may consult with Customers through any other means as contemplated by the PDF Processes.

[226] AER, Regulatory investment test for transmission application guidelines, Final, June 2010.

NBN Co must make such amendments to the prudency implementation paper as it considers reasonable, taking reasonable account of all submissions and representations. Upon completion of the consultation period, NBN Co will publish an updated prudency implementation paper in respect of its preferred option and notify Customers of the period within which objections can be lodged with NBN Co (which must be at least 20 business days).

NBN Co sees considerable benefit in engaging with Customers on Network Changes instead of relying solely on the ACCC to decide on the merits of any such change. NBN Co's Customers are large, sophisticated telecommunications service providers, and are well placed to form a view on the prudency of a proposed Network Change. Including a role for customer endorsement in the Network Change process may therefore, appropriately, obviate the need for the ACCC to make decisions about Network Changes in most cases. This is consistent with the discussion of the general benefits of customer engagement in the making of certain decisions by an access provider as part of a broader regulatory scheme (see Appendix B).

v. Prudency Disputes

Module 1 includes a dispute resolution process in the event that Customers do not endorse NBN Co's preferred Network Change option (a Prudency Dispute).

Under this process, if one or more Customers raise an objection to NBN Co's preferred Network Change Option and NBN Co is satisfied that the option is prudent having regard to the criteria in clause 1E.11 and NBN Co wishes to proceed with the preferred Network Change Option, then NBN Co must, within 60 business days, notify the ACCC of the objection.

The ACCC will then determine whether the conditions exist for a dispute, and if so, commence its assessment of the prudency dispute. If the ACCC does not find that these conditions exist, then NBN Co's preferred network option will be deemed to be endorsed.

Once a prudency dispute is on foot, the ACCC will conduct a formal consultation process, inviting submissions from Customers who have joined the prudency dispute. NBN Co and Customers will have a 30 to 40 day period to make submissions, after which the ACCC must award its decision within 50 business days following receipt of submissions.

The ACCC must accept NBN Co's preferred Network Change Option if that option maximises the Net Economic Benefit, unless the ACCC reasonably considers that an alternative Network Change Option (whether considered by NBN Co or not, including no change) would maximise the Net Economic Benefit and those benefits materially exceed the Net Economic Benefit of NBN Co's preferred option. However, if NBN Co has not chosen the option that maximises the Net Economic Benefit, a different test applies. The alternative test provides for the ACCC to only endorse the Network Change Option if:

- NBN Co's preferred Network Change Option meets the Identified Need;
- there is a greater economic benefit associated with the Network Change Option chosen by NBN Co compared with the situation where no option is implemented; and
- the design scope of the NBN Co's preferred Network Change Option is not materially different from that which a prudent operator in NBN Co's position would consider to be reasonable.

C.2.4 Procurement approach

i. Introduction

NBN Co's approach to procurement and cost control was summarised in the 2011-13 Corporate Plan. NBN Co's procurement strategy carries the responsibility for providing the best commercial outcomes from expenditure made in support of NBN Co's overall strategy. Best commercial outcomes are evaluated considering all relevant costs, benefits and risks on a whole of life basis (best value for money, using total cost of ownership).

NBN Co's procurement strategy is anchored on proven principles. These principles serve two purposes:

- to guide the detailed activities of NBN Co and focus on the correct outcomes; and
- to demonstrate alignment to the essential probity, transparency and value requirements articulated by the Department of Finance and the Australian National Audit Office (ANAO). See further discussion in section C.4 below regarding a summary of the cost controls and transparency measures applicable to NBN Co.

ii. Prudent Cost Condition

The Prudent Cost Condition is the second condition that must be met by capex (and third party opex) for such expenditure to be considered to have been prudently incurred, except where such expenditure is *deemed* to have been prudently incurred

Accordingly, capex which is incurred in fulfilling the initial network design in accordance with the NDRs or future Network Changes is required to satisfy the Prudent Cost Condition.

The Prudent Cost Condition requires NBN Co to satisfy certain requirements when it incurs costs in undertaking all activities connected with the design, construction and engineering of the NBN for those costs to be considered to have been prudently incurred. The principal means by which NBN Co must incur capex and third party opex in order to satisfy the Prudent Cost Condition is through a competitive tendering and procurement process. There are a number of additional ways in which NBN Co may satisfy the Prudent Cost Condition, which provides some flexibility but ensures that such expenditure will be incurred prudently.

iii. Competitive tendering and procurement processes

In Module 1, NBN Co's Procurement Rules are required to contain a competitive tendering and procurement process that satisfies certain conditions described in clause 1E.4.2. In summary, these conditions relate to the efficiency objective sought to be achieved, together with the process by which NBN Co will award tenders and manage awarded contracts.

Expenditure that is incurred in accordance with a competitive tendering and procurement process that accords with these conditions is considered to have been prudently incurred.

iv. Other means of incurring costs prudently

While the competitive tendering and procurement process is considered to be the main basis upon which NBN Co will incur costs, some flexibility is required to give effect to NBN Co's procurement strategy in a manner that would still fulfil the requirement that NBN Co prudently incurs costs.

These conditions include expenditure incurred:

- in accordance with an appropriately managed contract variation process;
- on arm's length terms;
- in an open and competitive market (e.g. a commodity market);
- in order to comply with legal, policy, regulatory or administrative requirements, or requirements of the Shareholder Ministers;
- as considered appropriate by the Chief Executive Officer of NBN Co where one or more of the following criteria applies:
  - there is only one potential supplier;
  - the terms offered by the supplier are exceptionally advantageous;
  - the expenditure falls within a reasonable range of benchmarks; or
  - the NBN Co CEO considers it is in the best interests of the company to incur such costs with that particular supplier or in the particular circumstances having regard to the lifetime cost of acquisition and operation of the assets involved.

NBN Co notes that some of the concepts incorporated in these conditions are similar, but not limited, to concepts which are used in the Commonwealth Procurement Rules (e.g. commodity markets and exceptionally advantageous acquisitions[227]).

v. Regulatory support for NBN Co's approach

The Module 1 approach with the Prudent Cost Condition (in particular, the regulator pre-approving certain procurement processes) is similar to that accepted by the Queensland

[227] Commonwealth Procurement Rules, July 2012 at p.28.

Competition Authority in relation to the Dalrymple Bay Coal Terminal (DBCT) Undertakings (2006 and 2010).[228]

Under both the 2006 and 2010 undertakings[229], DBCT Management may determine costs of expansion of the terminal via a tender process. The QCA is required to be satisfied that the tender process:

- is in accordance with good industry practice;
- will generate an efficient and competitive outcome
- will avoid conflict of interest or collusion amongst tenderers;
- is prudent in the circumstances of the capacity expansion project; and
- will avoid unreasonable expenditure to contact variation claims.

The QCA accepted that:

> *Provided that tenderers are selected and awarded in accordance with the approved tender process, the QCA will accept the awarded contract amounts into the regulated asset base.*[230]

Furthermore, in accepting the 2006 undertaking, the QCA stated:

> *The Authority's decision also sought to facilitate the regulatory approval of expansion costs by providing for the Authority to approve, upfront, a tender process for expansion works and to accept the costs which are the result of an approved tender process into the regulated asset base.*
>
> *The aim of this tender process is to generate efficient expansion costs while at the same time introducing more certainty into a streamlined regulatory approval process for capital expenditure.*[231]

C.3 Prudency of operating expenditure

Clause 1F.7 of the SAU describes the Module 1 prudency commitments applicable to NBN Co's opex.

Opex will be considered to have been incurred on a prudent basis:

- if NBN Co ensures that opex is incurred:

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228 http://www.qca.org.au/files/DBCT%202006%20Draft%20Access%20Undertaking_Decision%20Jun06.pdf and http://www.qca.org.au/files/P-2010dbctdau-QCA-FinalDec-DBCT2010DAU-0910.pdf

229 Note that there was no substantive change to the approach to this issue between the 2006 and 2010 undertaking, and the 2010 decision did not re-consider the issue.

230 QCA Decision to accept Dalrymple Bay Undertaking, June 2006, p. 20.

231 QCA Decision to accept Dalrymple Bay Undertaking, June 2006, pp.18-19.

- in a manner that seeks to achieve value for money and the lowest total cost of ownership; and
- NBN Co otherwise controls opex in accordance with the Statement of Expectations and other legal, policy, regulatory or administrative requirements or as required by the Shareholder Ministers relating to procurement by NBN Co; and

▪ if, in respect of Third Party opex, NBN Co incurs the expenditure in compliance with the prudent cost condition that applies to capex.

In addition, as with capex, there are a number of deemed prudent categories for opex (as described further below).

C.3.1 Lowest Total Cost of Ownership and value for money approach

NBN Co employs a lowest total cost of ownership and value for money approach in its procurement decisions. As NBN Co stated in its Corporate Plan for 2011-13 in relation to its procurement strategy:

> *Best commercial outcomes are evaluated considering all relevant costs, benefits and risks on a whole of life basis (best value for money, using total cost of ownership).*[232]

Total cost of ownership has been developed in the information communications technology sector as a means of assessing the total costs (both direct and indirect costs, covering both capital and opex) on a whole-of-life basis associated with a particular project.

The total cost of ownership approach allows different options to be assessed based on a holistic approach to costs. In some cases, an option may involve higher capex and lower opex; with other options involving lower capex and higher opex.

The assessment of lowest total cost of ownership involves looking at the total costs, which may lead to the selection of an option which involves lower or higher opex, but with a 'trade-off' against other costs, such as higher or lower capex (as the case may be). Consequently, a lowest total cost of ownership approach may not, in every given situation, lead to the lowest possible opex outcome, but would still result in value for money when viewed against the totality of capex and opex over the life of the asset.

C.3.2 Consistency with Statement of Expectations

The Statement of Expectations contains a number of statements which require NBN Co to incur costs in a particular manner or which require NBN Co to provide reporting about costs (e.g. in its Annual Report). Given this, it is appropriate for such requirements to be considered as part of the assessment of opex prudency in Module 1.

[232] NBN Co, Corporate Plan 2011-2013, p.57.

C.3.3 Third Party Operating Expenditure

In relation to Third Party opex on goods or services provided by a third party to NBN Co), NBN Co will be required to satisfy the Prudent Cost Condition that applies in respect of capex. Accordingly, NBN Co will be required to incur Third Party opex in accordance with a competitive tendering procedure, through an arm's length negotiation or by satisfying one of the other conditions relevant to the Prudent Cost Condition.

C.3.4 Deemed categories of Operating Expenditure

In addition to the deemed categories that apply to capex, the deemed categories of opex include opex incurred in connection with urgent and unforeseen changes and force majeure events, or as specifically imposed on NBN Co by law or the Shareholder Ministers (see clause 1F.7.2). This is consistent with the approach to Permitted Variations to the NDRs for these two categories.

C.3.5 Opex Forecast Information

NBN Co notes that clause 1G.1.2 requires NBN Co to provide opex forecasts to the ACCC. This information is not used to establish the level of opex that is included in the calculation of the ABBRR, but rather is included to provide the ACCC with an additional set of information it can consider when reviewing NBN Co's compliance with the prudency commitments. Thus, for example, if actual opex deviates significantly from the forecast amount, this may be an aspect of NBN Co's compliance that the ACCC chooses to seek additional information on.

C.4 Role of existing cost control and transparency measures

C.4.1 Introduction

Separate to prudency commitments in Module 1, NBN Co is already subject to a high degree of oversight via existing legislative, Parliamentary and regulatory controls, and is subject to many cost transparency measures. A number of specific measures are described in more detail below and include the following.

- NBN Co is a GBE, incorporated under the *Corporations Act 2001 (Cth)* as a company limited by shares. It is a wholly-owned Commonwealth company operating under the *Commonwealth Authorities and Companies Act 1997*. The Commonwealth's interest in NBN Co is represented by two Shareholder Ministers – the Minister for Finance and Deregulation and the Minister for Broadband, Communications and the Digital Economy.
- As a result of its status as a GBE, NBN Co is subject to significant reporting requirements, which include (amongst other things) that it must provide to Government on a regular basis an Annual Report, Corporate Plan, Statement of Corporate Intent, Interim Reports, Quarterly Progress Reports, and must also observe disclosure requirements related to Continuous Disclosure, Significant

Events, General Disclosure and Business Case Proposals.

- NBN Co is also required to develop Accounting Separation arrangements consistent with the Statement of Expectations;
- NBN Co is incorporated under the Corporations Act 2001, and has committed to developing governance structures having regard to the ASX Corporate Governance Principles and Recommendations.
- The company is audited by the ANAO. It submits its annual report and other documents to the Australian Securities and Investments Commission, as required under the *Corporations Act 2001 (Cth)*.
- NBN Co is highly accountable to the public through Parliamentary oversight. Its annual report and certain other documents are tabled in the Parliament. During the financial year 2010-2011, NBN Co senior executives appeared before four Parliamentary Committees, answering 358 questions[233]. In 2011-12, a further 399 questions on notice were answered by NBN Co.
- On 11 June 2011, NBN Co also became subject to the *Freedom of Information Act 1982*, with limited exemptions.

Copies of NBN Co's significant public documents can be accessed on NBN Co's website - www.nbnco.com.au. These documents include the Annual Reports for 2008/09 to 2010-2011, the Corporate Plans for 2011-2013 and 2012-2015 and the Statement of Corporate Intent 2011-2013.

NBN Co's activities are also regulated under the NBN Companies Act, the *Telecommunications Act 1997* and the CCA.

NBN Co submits that these existing measures place significant controls on the company's costs.

C.4.2 Government Business Enterprise requirements

NBN Co is a GBE, prescribed under the Commonwealth Authorities and Companies Regulations 1997. The Department of Finance and Deregulation, through the Government Businesses Advice Branch (GBAB), provides advice to the Australian Government relating to its GBEs.

On 11 October 2011 the GBAB released the Commonwealth GBE – Governance and Oversight Guidelines (GBE Guidelines)[234]. The GBE Guidelines apply to GBEs that are wholly-owned Commonwealth companies, such as NBN Co[235]. These revised GBE Guidelines

[233] NBN Co Annual Report 2010-2011, p.19.
[234] http://www.finance.gov.au/publications/governance-arrangements/docs/GBE_Guidelines.pdf
[235] The GBE Guidelines is a General Policy Order for the purposes of sec 48A of the Commonwealth Authorities and Companies Act 1997 (Cth). NBN Co must comply with General Policy Orders that are expressed to apply to it (sec 43 of the Commonwealth Authorities and Companies Act 1997 (Cth)).

were informed by recommendations from GBE boards, shareholder ministers, departmental officials and professional bodies. They took effect immediately and complement the *Commonwealth Authorities and Companies Act 1997* (Cth), as part of the overall governance framework for GBEs.

The main features of the Commonwealth's relationship with its GBEs are stated at Part 1.5 of the GBE Guidelines as follows:

> *a. a strong interest in the performance and financial returns of the GBE;*
>
> *b. reporting and accountability arrangements that facilitate best practice governance and active oversight by the Commonwealth; and*
>
> *c. action by the Commonwealth in relation to the strategic direction of its GBEs where it prefers a different direction from the one proposed.*

Requirements relating to the mandate and objectives of a GBE generally are set out in Parts 1.8 to 1.12 of the GBE Guidelines. The principal objective, set out at Part 1.18, provides as follows:

> *A principal objective for each GBE is that it adds to its shareholder value. To achieve this it is required to:*
>
> *a. operate efficiently, that is, at minimum cost for a given scale and quality of outputs;*
>
> *b. price efficiently;*
>
> *c. earn at least a commercial rate of return, given the obligations in (a) and (b) above to price and operate efficiently.*

Shareholders Ministers are required to set clear objectives for their GBEs that take account of the Government's mandate for those GBEs. On 20 December 2010, NBN Co's Shareholder Ministers issued a Statement of Expectations setting out the Australian Government's policy objectives in relation to the NBN and directing NBN Co in respect of the conduct of certain aspects of its business.

In relation to the Government's NBN Co mandate and objectives, the Statement provides:

> *The Government's vision for NBN Co is that it operates as a commercial entity. NBN Co has been established as a wholly-owned GBE, with the intention that at an appropriate time, NBN Co will raise debt on its own behalf.*[236]

[236] Statement of Expectations 2010, p.2.

Further, NBN Co is required to add shareholder value in its operations, with a view to at least meeting the financial targets agreed by its Shareholder Ministers in NBN Co's corporate plans[237]. Part 4.8 of the GBE Guidelines provides:

> *Setting appropriate financial targets aims to:*
>
> *a. ensure that GBEs operate and price their goods and services efficiently; and*
>
> *b. provide an environment for GBEs which is competitively neutral with the private sector.*

C.4.3 Reporting and other cost transparency requirements

i. Annual reports

The directors of NBN Co are required to provide an annual report to their Shareholder Ministers in accordance with the requirements of section 36 of the *Commonwealth Authorities and Companies Act 1997 (Cth)*[238].

As a Commonwealth company incorporated under the *Corporations Act 2001 (Cth),* NBN Co must also comply with the requirements of Chapter 2M of the *Corporations Act 2001 (Cth)* in relation to the preparation of annual financial statements and the auditing of such statements and their lodgement with the corporate regulator.

NBN Co must provide its Shareholder Ministers with a copy of its financial report, directors' report and auditor's report, in a form as required under the *Corporations Act 2001* (Cth) for the financial year, within 4 months after the end of the financial year.

The Shareholder Ministers must table the documents in each House of the Parliament as soon as practicable after receiving them.

Additional requirements of an annual report are set in the GBE Guidelines. Part 3.13 of the GBE Guidelines provides:

> *GBEs should include comments on performance against the financial and non-financial expectations outlined in the SCI relating to that financial year.*

Further, the Department of Finance and Deregulation is currently reviewing the Commonwealth Authorities and Companies (Report of Operations) Orders 2008 with a view to implementing similar requirements for Commonwealth companies. At this stage, draft orders have been published for consultation only.

NBN Co has prepared Annual Reports for 2008-2009, 2009-2010 and 2010-2011. These documents can be accessed on NBN Co's website.

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[237] Part 3.7 of the GBE Guidelines.

[238] Section 79 of the NBN Companies Act also contains obligations in relation to the provision of financial statements, but will only apply to NBN Co if it ceases to be a wholly-owned Commonwealth company and until the end of NBN Co's majority interest sale date.

ii. Corporate Plans

NBN Co is required to prepare corporate plans in accordance with section 42 of the Commonwealth Authorities and Companies Act 1997 and Regulation 6AAA of the Commonwealth Authorities and Companies Regulations 1997[239].

Usually the corporate plans and subsequent updates, reports or supplementary information of GBEs are confidential to the Shareholder Ministers, their advisers and departments. However, in NBN Co's case, a public version of its first corporate plan was released on 20 December 2010, with the public version of its second corporate plan being released on 8 August 2012.

Corporate plans must be prepared at least once a year and cover a period of at least 3 years. Plans must be given to the responsible Shareholder Ministers. The responsible Shareholder Ministers must be kept informed about significant changes to the plan and matters that arise that may significantly affect the achievement of the objectives of the plan.

Details of the matters which must be included in the corporate plan of a wholly-owned Commonwealth company are set out in Regulation 6AAA of the Commonwealth Authorities and Companies Regulations 1997. These matters are summarised at Part 3.3 of the GBE Guidelines:

> *The corporate plan must .... include details of the following matters (so far as they are applicable):*
>
> *a. the objectives of the GBE;*
>
> *b. assumptions about the business environment in which the GBE operates;*
>
> *c. the business strategies of the GBE;*
>
> *d. the investment and financing programs of the GBE, including strategies for managing financial risk;*
>
> *e. financial targets and projections for the GBE;*
>
> *f. the dividend policy of the GBE;*
>
> *g. non financial performance measures for the GBE;*
>
> *h. community service obligations of the GBE and the strategies and policies the GBE is to follow to carry out those obligations;*
>
> *i. review of performance against previous corporate plans and targets;*
>
> *j. analysis of factors likely to affect achievement of targets or create significant financial risk for the GBE or the Commonwealth;*

[239] Section 82 of the NBN Companies Act reiterates these legislative provisions, but only applies to NBN Co if it ceases to be a wholly-owned Commonwealth company and until the end of NBN Co's majority interest sale date.

k. price control and quality control strategies for goods or services supplied by the GBE under a monopoly; and

l. human resource strategies and industrial relations strategies.

Section 41 (1) of Commonwealth Authorities and Companies Act 1997 requires the directors of NBN Co to give the Finance Minister such supplementary information, reports and documents in their corporate plan, as requested.

Part 3.3b of the GBE Guidelines provides:

The supplementary information required is (unless otherwise agreed in writing):

a. details of the broad mandate of the GBE, (including a summary of core activities that are in line with existing core competencies, and proposed non-core activities that require new competencies to be developed), together with a summary of those functions that may require its retention as a government owned GBE;

b. an estimate of the current commercial value of the Commonwealth's investment in the GBE and how that value was assessed, with the expectation that a discounted cash flow methodology would be used as the valuation basis, unless otherwise agreed by the Finance Minister;

c. financial projections, to be prepared in the same format as the progress and final report and consisting of profit and loss statement, balance sheet and cash flow statement;

d. capital expenditure projections linked to the physical assets of the GBE (where material), its business objectives and acquisition, maintenance and disposal plans;

e. cash flow (liquidity) projections;

f. a summary of the GBE's risk management policies, material risks and strategies for managing these risks...; and

g. proposed borrowing(s)...

Part 3.3c of the GBE Guidelines requires GBEs to incorporate targets for certain minimum key performance indicators across a five-year period (two prior and three forward years), in their corporate plans. If appropriate, results are to be reported against in progress reports as outlined in the table set out below part 3.3c (KPI Measures). Part 3.3d of the GBE Guidelines states that the Shareholder Ministers may propose and agree other indicators that are relevant to the measuring of the performance of the GBE, to be included in the corporate plan prior to the Shareholder Ministers approving the plan.

On 17 December 2010 NBN Co presented its first Corporate Plan 2011-2013 to the Government. A public version of the document was published on 20 December 2010. The

plan sets out a comprehensive overview of the way NBN Co intends to fulfil its obligation to design, build and operate the NBN and achieve the Government's objective of providing high speed broadband for all Australians. This document can be accessed on NBN Co's website.

On 8 August 2012, NBN Co's Corporate Plan for 2012-2015 was published. This provided an update on NBN Co's status, deployment forecasts, financial performance indicators and incorporated the implications of the agreements with both Telstra and Optus.

iii. Statement of Corporate Intent

Each year the directors of NBN Co and their responsible Shareholder Ministers must agree a Statement of Corporate Intent, which will be a public document.

Parts 3.7 to 3.9 of the GBE Guidelines set out the requirements in relation to the content and form of a Statement of Intent (SCI). Part 3.8 provides:

> *The SCI is a brief, high level, plain English document that is to be no more than five pages expressed in terms of programs or outcomes. It is an integral part of the corporate plan, but does not include commercially sensitive information. A SCI would normally contain a business description and mission statement, corporate vision, objectives, values of the GBE, statement of accountability (including reporting obligations) and selected key indicators of financial and non-financial performance.*

The SCI must be tabled in the Parliament within fifteen sitting days following the start of the next financial year. It must be published on NBN Co's website as soon as practicable after this date. The Shareholder Ministers may agree to a later tabling, by informing the Parliament.

On 11 October 2011 NBN Co's Statement of Corporate Intent 2011-2013 was tabled in Parliament. This document can be accessed on NBN Co's website.

iv. Interim reports

The Finance Minister may require the directors of NBN Co to prepare interim reports for 3, 6 or 9 month periods of a financial year.

Interim reports must include a report on operations, financial statements and a report prepared by the Auditor-General. Interim reports must be given to the responsible Shareholder Ministers within 2 months after the end of the period covered by the report.

The Shareholder Ministers must table an interim report in each House of Parliament as soon as practicable.

v. Keeping Shareholder Ministers informed

The directors of NBN Co must keep their Shareholder Ministers generally informed about the operations of the company and its subsidiaries. There are also specific requirements to notify certain significant events, where these arise outside of the normal corporate planning cycle.

vi. Continuous disclosure

The GBE Guidelines recommend that GBEs adopt an approach similar to the continuous disclosure requirements of the ASX listing rules. Part 3.19 of the GBE Guidelines provides:

a) *Should a GBE become aware of any information that may have a material effect on its value and/or performance, that information must be provided immediately to the Shareholder Minister(s).*

b) *Directors are required to provide such other information in relation to the GBE's operations as the Shareholder Minister(s) require(s), within the time limits set by the Minister(s).*

c) *Where there are two Shareholder Ministers, all correspondence and reports from GBEs should be sent to both Ministers simultaneously. Whilst Shareholder Ministers will consult in relation to all correspondence, they may decide that, in relation to some matters, one of the Ministers will correspond on behalf of both Ministers.*

d) *The Shareholder Minister(s) may consult with the Prime Minister and/or Treasurer about any material matter (as defined above) affecting the value of the GBE and provide copies of corporate plans, progress reports and correspondence on other major matters to the Prime Minister and/or the Treasurer for possible comment.*

vii. Significant events disclosure

Section 40 of the *Commonwealth Authorities and Companies Act 1997* (Cth) requires the directors of NBN Co to immediately provide written particulars to their responsible Shareholder Ministers of certain significant events. These events include forming a company or significant partnership or joint venture, acquiring or disposing of significant shareholdings or businesses and commencing or ceasing a significant business activity.

While it is expected that most proposals for significant business initiatives would be documented and notified as part of the normal corporate planning cycle, Part 3.22 of the GBE Guidelines provides that where urgent initiatives arise outside of this process, notification must be prior to entry into the event. Such events would include new business ventures, major contracts and capital raising proposals.

viii. General disclosure

Section 41 of the Commonwealth Authorities and Companies Act 1997 (Cth) requires the directors of NBN Co to keep their responsible Shareholder Ministers generally informed about the operations of NBN Co and its subsidiaries and to provide such reports, documents and information in relation to their operations as requested.

ix. Disclosure of business case proposals

Part 3.23 of the GBE Guidelines sets out requirements in relation to the content and format of business case proposals, that are submitted to Shareholder Ministers as part of the corporate plan process or as an urgent initiative. While NBN Co may agree a different approach with their Shareholder Ministers, the general requirements are as follows.

> *GBEs should distinguish between business cases that relate to core business and those that relate to non-core business. The threshold dollar value for consultation for proposed non-core business opportunities will be lower than that for core business opportunities and are to be agreed in consultation between the board and the Shareholder Minister(s) as part of the annual corporate planning process.*
>
> *As a minimum, business cases should address the following:*
>
> *a. the rationale for the project and an explanation of how it fits into the GBE's corporate strategy;*
>
> *b. cost, anticipated return (net present value), the effect on shareholder value and some measure of the project's risk;*
>
> *c. key assumptions around revenue and costs (including base case, scenarios and sensitivity analysis), plus key risks and mitigation strategies;*
>
> *d. proposed funding strategy;*
>
> *e. the impact on the GBE's capital structure and credit rating (if applicable);and*
>
> *f. expected outcome, and impact on future dividends.*

x. Quarterly Progress Reports

The Chair of NBN Co's Board is required to provide confidential quarterly progress reports to the Shareholder Ministers by 31 August (for June quarter), 11 November (for September quarter), 11 February (for December quarter) and 11 May (for March quarter) of each year. The Shareholder Ministers may comment on the progress report within 45 days of its receipt.

Parts 3.10 to 3.12 of the GBE Guidelines set out the minimum requirements for such progress reports -

> *a. analysis of the GBE's quarterly and year-to-date performance against corporate plan forecasts for the corresponding period, including detailed*

analysis of revenue and expense (including capital expenditure) performance for the period and explanations for deviations from corporate plan forecasts;

b. financial statements, the format of which is approved by the Finance Minister;

c. analysis of the GBE's performance against its broader corporate plan objectives (such as its KPIs and operational performance targets/forecasts where relevant) including any major achievements during the period along with explanations for any changes to strategies;

d. commentary on any emerging issues and risks or changes to risk factors that might have a material impact on performance. Details of strategies for managing any material risks that were not identified in the corporate plan should also be provided;

e. a clear statement of the GBE's outlook for the rest of the financial year in terms of meeting its full year re-forecast outturn, key risks and opportunities arising and management plans; and

f. commentary on progress in meeting CSOs (where relevant).

C.4.4 Accounting separation

NBN Co is also implementing the requirement in the Statement of Expectations to:

> *...design its corporate systems to achieve appropriate internal accounting separation arrangements covering assets and costs but not revenues for the treatment of its passive (physical infrastructure), active (electronics) and connectivity [transit] business activities.*[240]

To achieve this requirement, NBN Co has committed to:

- establish internal accounting systems to separately identify the Access Network assets and costs as either:
  - **passive** (i.e. assets which are either physical non powered elements over which network data travels or intangible rights to provide a carriage service over these assets); or
  - **active** (i.e. assets that are powered devices which enable the transmission of network data over passive network elements); or
  - **transit assets** (i.e. assets that provide connectivity from the Point of Interconnect (POI) up to the DWDM equipment in the Fibre Access Node inclusively at the boundary of Access Networks);

[240] Statement of Expectations from shareholder Ministers, 17 December 2010, p.10. NBN Co was originally requested to commence reporting on these arrangements in the 2010-2011 financial year; subsequently changed to the 2011-2012 financial year.

- establish a reporting framework and annually report to the DBCDE, with the report also being provided to the ACCC.

C.4.5 Corporations Act and ASX recommendations

In addition to the GBE requirements, NBN Co is incorporated under the Corporations Act 2001. The general conduct of NBN Co's directors is subject to the provisions of the Corporations Act 2001.

NBN Co has committed to developing its governance structures and processes having regard to the ASX Corporate Governance Principles and Recommendations[241].

The ASX Corporate Governance Principles and Recommendations provide detailed commentary to address issues including, safeguarding integrity in financial reporting, making timely and balanced reporting and recognising and managing risk.

C.4.6 Performance audits

The Auditor-General for the Commonwealth may conduct a performance audit of NBN Co, or of any of its subsidiaries, if the Shareholder Ministers or the Joint Committee of Public Accounts and Audit requests the audit[242]. A performance audit is a review or examination of any aspect of the operations of a person or body[243], and is conducted by the ANAO. As described on the ANAO website[244], a performance audit can include an examination of one or more of the following:

- economy (minimising cost)
- efficiency (maximising the ratio of outputs to inputs)
- effectiveness (the extent to which intended outcomes were achieved)
- legislative and policy compliance.

As soon as practicable after completing the report on an audit of NBN Co, or of any of its subsidiaries, the Auditor-General is required to:

- cause a copy of the report to be tabled in each House of the Parliament;
- give a copy of the report to the Shareholder Ministers; and

[241] http://asx.ice4.interactiveinvestor.com.au/ASX0701/Corporate%20Governance%20Principles/EN/body.aspx?z=1&p=-1&v=1&uid=

[242] Section 17(2) of the Auditor-General Act 1997 (Cth). The authority of the Joint Committee of Public Accounts and Audit is provided for under the Public Accounts and Audit Committee Act 1951 (Cth). The purpose of the Joint Committee of Public Accounts and Audit is to hold Commonwealth agencies to account for the lawfulness, efficiency and effectiveness with which they use public monies.

[243] Section 5 of the Auditor-General Act 1997 (Cth)

[244] http://www.anao.gov.au/~/media/Uploads/Documents/About%20the%20ANAO%202011.pdf

- give a copy of the report to a director or senior manager of NBN Co, or its subsidiary (as the case may be)[245].

The Auditor-General may also give a copy of, or an extract from, the report to any person (including a Minister) who, or anybody that, in the Auditor-General's opinion, has a special interest in the report or the content of the extract[246].

C.4.7 Parliamentary committee oversight

The NBN Co Annual Report 2010-2011 states that during the reporting year, NBN Co senior executives appeared before the following four Parliamentary Committees, answering 358 questions:

- Senate Standing Committee on Environment and Communications;
- Joint Committee on the NBN;
- House of Representatives Committee on Infrastructure and Communications; and
- Regional Telecommunications Independent Review Committee.

In 2011-12, the number of questions on notice answered by NBN Co was 399, reflecting the ongoing parliamentary oversight of NBN Co's activities.

Senate Standing Committee on Environment and Communications

The Senate Standing Committee on Environment and Communications comprises a legislative committee, whose purpose is to deal with bills referred by the Senate, the estimates process and to oversee the performance of departments, including their annual reports, and a references committee whose purpose is to deal with all other matters referred by the Senate.

NBN Co has appeared at Senate Estimates hearings 3 times in calendar year 2010, 3 times in calendar year 2011 and two times to date in 2012. In the 2011/12 financial year NBN Co was asked 328 questions on notice which it has either answered or is in the process of answering.

Joint Committee on the NBN

The Joint Committee on the NBN was established in March 2011, to inquire into the rollout of the NBN project until the NBN is operational. It is chaired by Robert Oakeshott MP (Independent, Lyne, NSW).

The Parliament and NBN Co's Shareholder Ministers meet every six months on the following issues[247]:

[245] Section 17(4) of the *Auditor-General Act 1997* (Cth)
[246] Section 17(4A) of the *Auditor-General Act 1997* (Cth)
[247] *Resolution of Appointment - Joint Committee on the National Broadband Network*, as passed by the House of Representatives on 1 March 2011 and the Senate on 3 March 2011.

- *the rollout of the NBN, including in relation to the Government's objective for NBN Co Limited:*
    - *connect 93 per cent of Australian homes, schools and businesses with fibre-to-the- premises technology providing broadband speeds of up to 100 megabits per second, with a minimum fibre coverage obligation of 90 per cent of Australian premises; and*
    - *service all remaining premises by a combination of next-generation fixed wireless and satellite technologies providing peak speeds of at least 12 megabits per second;*
- *the achievement of take-up targets (including premises passed and covered and services activated) as set out in NBN Co.'s Corporate Plan released on 20 December 2010 as revised from time to time;*
- *network rollout performance including service levels and faults;*
- *the effectiveness of NBN Co. in meeting its obligations as set out in its Stakeholder Charter;*
- *NBN Co.'s strategy for engaging with consumers and handling complaints;*
- *NBN Co.'s risk management processes; and*
- *any other matter pertaining to the NBN rollout that the Committee considers relevant.*

On 31 August 2011 the Committee tabled its first report – 'Rollout of the National Broadband Network - First Report'[248]. In relation to reporting requirements, the Committee recommended as follows -

> *The committee recommends that the NBN Co together with the Department of Broadband, Communications and the Digital Economy, commencing for the first quarter 2011-2012, provide a six-monthly report on the progress of the rollout of the National Broadband Network, using established Key Performance Indicators and performance measures, no later than three months before the committee is due to report to the Parliament.*

NBN Co has subsequently provided its first and second Performance Reports to the Committee, which have been published in the second and third reports by the Committee.

NBN Co has appeared before the Committee 4 times in calendar year 2011, and been asked 61 questions on notice. To date, in calendar year 2012, a further 19 questions on notice have been asked.

[248] http://www.aph.gov.au/house/committee/jcnbn/report.htm The Committee tabled its second report on 24 November 2011.

House of Representatives Committee on Infrastructure and Communications

The House of Representatives Standing Committee on Infrastructure and Communications conducts inquiries into matters referred to it by the House of Representatives or a Minister of the Commonwealth Government. The Committee was established on 29 September 2010. On 25 August 2011 the Committee tabled its report on the inquiry into the role and potential of the NBN entitled Broadening the debate[249].

Regional Telecommunications Independent Review Committee

The Regional Telecommunications Independent Review Committee is established under the Telecommunications (Consumer Protection and Service Standards) Act 1999 to regularly review telecommunications services in regional and remote areas and to assess whether important new service advancements are delivered equitably.

The 2011–12 Regional Telecommunications Independent Review Committee released its report on 23 May 2012, and the Government provided its response on 23 August 2012. This report reviewed telecommunications services in regional, rural and remote parts of Australia with particular regard to initiatives that will enable regional communities to participate in, and realise the opportunities of, the digital economy.

C.4.8 Freedom of Information Act 1982

On 11 June 2011 NBN Co became subject to the Freedom of Information Act 1982 (FOI Act), with limited exemptions. These exemptions relate to national security, law enforcement and public security, material obtained in confidence, Cabinet documents and other matters set out in the FOI Act. In addition to these general exemptions, Parliament has determined that documents relating to NBN Co's commercial activities are also exempt from the operation of the FOI Act. Similar exemptions operate for other GBEs.

Part 2 of the FOI Act requires certain GBEs to establish an Information Publication Scheme (IPS). The IPS provisions outline obligations to provide the public with access to information regarding the operations, activities and other matters of a GBE.

NBN Co has published an IPS Plan which explains how NBN Co intends to implement and administer its publication scheme.

Section 8(4) of the FOI Act outlines the obligations on Government entities to identify and publish information for proactive release. NBN Co has identified a series of documents that it has proactively released. These documents can be accessed on NBN Co's website.

In April 2012, the Commonwealth Attorney General commissioned Mr Stuart Morris, QC, to undertake a review into the operation of the FOI Act at NBN Co. This report was tabled on 16 August 2012, with Mr Morris finding that:

[249] http://www.aph.gov.au/house/committee/ic/NBN/report.htm

> *In my view, NBN Co. has not only fulfilled its lawful responsibilities under the FOI Act, but also has achieved a high standard in its administration of the Act.*[250]

C.4.9 Conclusion on cost controls and transparency

Although Module 1 includes a range of prudency commitments that NBN Co has to meet in order for capex and opex to be included in the RAB and ABBRR, these commitments are intended to complement the significant expenditure efficiency incentives already faced by NBN Co as a result of its commercial context (investing significant capital up front in the expectation of significant, but uncertain, growth in take-up of higher access speeds and network usage) and the various cost control and transparency measures as discussed above. Taken together, NBN Co has every incentive to incur costs prudently.

[250] *Review of NBN Co. Limited compliance with FOI*, June 2012, available at: http://www.ag.gov.au/Consultationsreformsandreviews/Documents/ReviewofNBNCoLimitedcompliancewithFOI.pdf