NBN Co Special Access Undertaking

Summary of industry working group outcomes

December 2021

Contents

1. Executive Summary

This report summarises matters discussed in working groups established to consider an appropriate regulatory framework for wholesale access to the NBN. We consider that this is timely as the current regulatory framework does not provide adequate protections to consumers or certainty to the industry.

The ACCC convened the working groups in the latter half of 2021 after NBN Co indicated that it intended to renegotiate its Special Access Undertaking (SAU). Industry and other interested stakeholders requested they be included in pre-lodgement discussions. ACCC Commissioners chaired the working groups, which representatives of NBN Co, its access seekers, and industry, consumer, and government bodies attended. We met on 17 occasions to discuss current and emerging issues, and to consider specific options to address these issues in a way that would promote the long-term interests of end-users (LTIE) under the new regulatory framework.

The overall conclusion reached in the working groups was that the NBN should move to a similar regulatory framework used in established utility businesses now that it has completed its rollout and is fully operational. This approach would assist in maximising the economic and social benefits of the significant public investment in the NBN.

We have identified five key outcomes that emerged over the course of the working groups which we consider would help guide the development of such a framework. The outcomes we have identified are:

- NBN Co has the opportunity to earn the minimum revenues it needs to meet its legitimate financing objectives, including to transition to a stand-alone investment grade credit rating.
- NBN end-users are protected from price shocks and from prices that are higher than necessary in later years.
- The regulatory framework provides incentives for NBN Co to operate efficiently and promote use of the NBN.
- NBN access seekers have greater certainty over the costs that they will face when using the NBN.
- There is a clear and robust quality of service framework so access seekers and end-users know what to expect from NBN services, including a review mechanism so that service standards remain fit for purpose.

The working groups made good progress in identifying options for the specific features of such a regulatory framework. However, the working groups were unable to find consensus on a number of matters, and informational limitations meant that some important matters were not fully considered.

The working groups have been valuable as a bridge towards a revised regulatory framework that can be acceptable to all stakeholders. NBN Co should be better placed to formulate a revised SAU that appropriately addresses the areas of importance to its customers while transitioning to meet its own business requirements. The discussions have also assisted representatives of government, consumer and industry bodies to contribute more effectively into the ACCC's consideration of any such undertaking that is lodged.

Our current expectation is that NBN Co will lodge a revised SAU for ACCC assessment by the end of February 2022. In the meanwhile, we will continue to engage with all stakeholders and further consider matters that have been identified in the working groups.

The ACCC would like to thank all working group participants for their significant contributions. We will continue to work closely with all stakeholders in 2022, both in the lead up to the lodgement of the revised SAU and throughout our consideration of it.

2. Background and context

2.1. The current NBN Co Special Access Undertaking

NBN Co's current SAU forms a key component of the regulatory framework governing price and other non-price terms on which NBN Co supplies wholesale services. The ACCC accepted NBN Co's SAU in 2013 following an extensive consultation and assessment process.[1] The SAU sets out the principles for regulating access to NBN Co's fibre, fixed wireless and satellite networks, and other related services, until June 2040.

Module 1 of the existing SAU operates until 30 June 2023. It contains regulatory terms covering the 'build-phase' of the NBN, while module 2 operates for the remainder of the SAU term and allows terms to be varied for specified regulatory periods. The long timeframe of the SAU alongside this modular structure was intended to balance regulatory certainty with the flexibility to change regulatory terms to suit market conditions. Other key elements of the SAU include service descriptions, a list of initial products and prices, and revenue and pricing constraints in the form of a modified building block model (BBM) and maximum regulated prices (MRPs). Additionally, the SAU contains a range of non-price terms such as product development and withdrawal processes, and reporting arrangements.

While the SAU provides the overarching framework, full contractual terms on which NBN Co provides wholesale services to its customers are set out in its wholesale broadband agreement (WBA). The WBA is negotiated every two years by NBN Co and access seekers, unless otherwise extended. The latest version (currently WBA4) is the standard form of access agreement (SFAA) that is published on NBN Co's website and available to all access seekers.

Although there are a number of ways in which NBN access terms may be established, commercial agreements such as the WBA are at the top of the *Competition and Consumer Act 2010* (CCA) regulatory hierarchy.[2] This means that, apart from statutory infrastructure provider standards and rules[3], WBA terms will override terms in regulatory instruments such as the SAU to the extent of any inconsistency. Likewise, SAU terms also override regulatory instruments such as ACCC access determinations to the extent of any inconsistency.

2.2. Why are we reviewing the Special Access Undertaking?

We commenced a review of the NBN regulatory framework in June 2021. We commenced this review, including convening the working groups, after NBN Co indicated it was seeking to renegotiate the SAU. The need for a review of the regulatory arrangements was also supported by a number of other relevant developments.

First, the current SAU only covers a subset of NBN access technologies. Services supplied over multi-technology-mix access technologies such as fibre-to-the-curb, fibre-to-the-node, fibre-to-the-building (FTTC/N/B) and hybrid fibre coaxial (HFC) are not covered by the current SAU. We expect NBN Co will submit a variation to the SAU in February 2022 to incorporate all NBN access technologies.

Second, we consider that NBN Co's product and pricing constructs have developed in ways that were not expected at the time the SAU was accepted and which deviates from some of its key intentions. Specifically, NBN Co's use of discounts and bundled offers as the primary means of establishing its products and pricing has led to increasingly complex pricing and

[1] The ACCC's final decision is available here, NBN Co's 2013 SAU proposal is available here.

[2] Sections 152AY, 152CBIA, 152CBIB and 152CBIC of the *Competition and Consumer Act 2010* (CCA).

[3] See section 152CBID of the CCA.

product constructs, long term pricing uncertainty for access seekers and circumvention of certain SAU protections around products and pricing.

We also consider the review to be timely given recent milestones in NBN Co's operating environment. In December 2020 the Minister declared the network fully rolled out and operational.[4] We also note that NBN Co is transitioning from the initial build phase to a steady-state phase, while the final migration of consumers to the NBN is near complete.

We are conscious that we are conducting this review having recently completed our inquiries into NBN Co's entry level pricing and wholesale service standards in November 2020.[5] While these inquiries implemented important new access arrangements under WBA4, these terms are due to expire in November 2022 unless otherwise extended. We note NBN Co's offer to extend WBA4 until the outcomes of the current review process are more certain, however we also consider it important for long term arrangements to be revised and established before WBA4 expires.

2.3. Industry roundtable and working groups

During 2021 we engaged NBN Co, broadband retailers, industry groups, consumer representatives and government in a collaborative and consultative review process.

In June 2021 we held an industry roundtable. At the roundtable, discussions centred on service quality, product structure and pricing. A key outcome of the roundtable was the formation of three working groups to discuss key issues in further detail.

Between August and December 2021, the ACCC held monthly working groups on NBN products and pricing, approaches to the BBM and the general regulatory framework. Each working group met five times. There were also additional sessions on the New Zealand framework by Grex Consulting and the cost of capital.[6] The key issues discussed by the working groups included:

- NBN products and pricing: volumetric and non-volumetric product constructs; price controls (price cap vs revenue cap); treatment of discounts; incremental costs of additional network capacity; and possible low-income product options (broader affordability policy proposals are also being considered by the Department and Australian Communications Consumer Action Network (ACCAN) outside of the working group).
- BBM: the principles to be applied for the opening values of the regulatory asset base (RAB) and accumulated losses; different building block models developed by participants; regulatory valuations; approaches to assessing expenditure and investments in the BBM; the opening balance and recovery of the initial cost recovery account (ICRA); the weighted average cost of capital (WACC); and transparency and reporting arrangements for BBM inputs.
- regulatory framework: the regulatory re-set process; other functions and powers that should be included in the SAU; dispute resolution processes; quality of service measures and related transparency and reporting obligations.

The final working group meeting was held on 9 December 2021. The ACCC found the workshops extremely useful and thanks all working group participants for their contributions.

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[4] Hon Paul Fletcher MP made the declaration on 11 December 2020.

[5] The final report to the inquiries is on the ACCC website.

[6] The agenda and discussion summaries of each working group are available on the ACCC website.

2.4. Purpose of this paper and next steps

This report summarises the matters discussed in working groups and the positions that were reached. It also summaries our views on key risks and unresolved issues that NBN Co should consider in developing its SAU variation.

We understand NBN Co is aiming to lodge the SAU variation formally in February 2022. NBN Co will need to address key issues for the SAU variation to be in a suitable state for consultation and ACCC assessment. In particular, the proposed SAU will need to ensure a long-term regulatory framework that is sustainable, promotes efficient outcomes and balances the interests of all stakeholders.

After NBN Co lodges its proposed SAU, the ACCC will publish it on its website for consultation. We expect to continue the strong engagement with stakeholders we developed over the working group process into the formal process. The CCA sets out the statutory criteria which the ACCC must apply to its assessment of the variation before it makes a final decision to accept or reject the proposed variation.[7] In broad terms, the ACCC must consider whether the variation is reasonable, having regard to whether the terms and conditions promote the LTIE and other reasonableness matters.

Attachment A to this report discusses the substantive issues raised in the working groups. For each issue, we describe the key matters raised and discussed within the working groups and our views on risks and unresolved issues that NBN Co should consider in developing its SAU variation.

The ACCC has been assisted through some aspects of the working group process by Grex Consulting. As part of this work, Grex Consulting presented on the regulatory framework applying to ultra-fast broadband in New Zealand including a comparison to the NBN arrangements. A version of the materials presented by Grex Consulting is available on the ACCC website.

[7] Section 152CBD(2) of the CCA.

3. Overview of matters considered and position reached

3.1. Key outcomes of a revised special access undertaking

Over the course of the working groups, a consensus formed around the outcomes that would be most important for the revised SAU to achieve a meaningful contribution to the LTIE. This is not to say that all parties agreed with all aspects of this list or that other issues were not presented.

All major aspects of the regulatory framework were discussed at the working groups. Overall, there was general agreement that NBN Co should transition to a similar regulatory framework as would apply to other established utility businesses now that it has completed its rollout and is fully operational. On specific aspects of the regulatory framework, the level of agreement among working group participants varied depending on the issue. On many issues working group participants were able to reach similar positions.

After considering the points raised in the working groups, we have identified five key outcomes that we consider would help guide the development of suitable a framework. These are discussed in the sections below. More detailed working group perspectives and ACCC comments are set out in Attachment A to this report.

Opportunity to earn sufficient access revenue

A suitable regulatory framework would provide NBN Co the opportunity to earn the minimum revenues it needs to meet its legitimate financing objectives, including transitioning to an investment grade credit rating.

We consider that significant reforms to the current arrangements for the initial cost recovery account (ICRA) will be required to realise such a regulatory framework, as the current arrangements would permit annual revenues significantly above what is required over the course of the SAU. Reform to the ICRA arrangements would also recognise the important benefits that the NBN has provided to Australia.

Once NBN Co can reach the point at which it can earn its annual revenue requirement (including an appropriate component of ICRA recovery), it will have sufficient revenue to finance new investments, operate the network efficiently and provide a suitable return to its shareholders. Hence, prices that are set to meet this revenue requirement are likely to promote efficient use of NBN services. This would also assist in maximising the economic and social benefits of the significant public investment in the NBN.

If the regulatory framework allows NBN Co to recover annual revenues that significantly exceed this amount, this is likely to lead to less efficient use of the NBN and reduce incentives for its efficient operation.

Protections from future price shocks

A suitable regulatory framework would protect end-users of NBN services from price shocks and from prices that track higher than needed in later years. This would involve recovery of future capital investments over the economic life of assets and minimal deferral of cost recovery to avoid significant price increases in the future. This in turn will require an appropriate depreciation profile to be adopted in the BBM and new provisions around how any ICRA is recovered in prices.

Incentives for efficient operation and efficient use

A suitable regulatory framework would provide strong incentives on NBN Co to operate more efficiently and promote use of the NBN. This would include price controls that provide incentives for NBN Co to promote use of NBN services and to tailor products that meet demand and customers' willingness to pay. The framework would also provide for ACCC scrutiny of operating expenditure and investments to check that end-customer demand is being met at an efficient cost.

More cost certainty over access costs for access seekers

A suitable regulatory framework would provide access seekers (i.e. retail service providers) with much more certainty over the costs that they will face when using the NBN. This will strengthen incentives for NBN Co's direct customers to invest in their own infrastructure and develop their product offerings. This would require consideration of alternative product and price constructs, particularly the application and level of volumetric charges; the role of price controls (including on specific price components); and reforms to the current practice of establishing product and pricing constructs through discounts. More robust demand forecasting would also assist in providing greater price certainty for access seekers.

Clear and robust quality of service framework

A suitable regulatory framework would include clear and robust quality of service measures. This would allow access seekers and end-users to know what to expect from their NBN services. Such a framework would also support the consideration of investments undertaken to maintain or improve service quality and allow proposed service standards to be checked so that they remain fit for purpose over time. These arrangements also include appropriate reporting and transparency measures.

Additionally, such a regulatory framework would provide a mechanism to quickly respond to emerging service quality issues as the unequal bargaining power that exists between NBN Co and access seekers could otherwise impede them being adequately addressed via commercial negotiations.

3.2. Overview of matters discussed in working groups

The following sections give a brief overview of each of the key issues that were discussed, some general comments on participant feedback, and some comments on the points of agreement and disagreement. More detailed perspectives provided in the working groups and ACCC comments on the issues are in Attachment A to this paper.

Using a standard regulatory framework to link efficient costs and price levels

The working groups proceeded from the understanding that a standard regulatory framework would apply to the NBN now that it has been declared to be fully built and operational. This is essentially an evolution of the existing approach that was contemplated when the initial SAU was accepted.

Under such a framework a revenue allowance is determined in advance for each regulatory period. This would be based on the agreed regulatory asset base and a detailed assessment of the capital and operating expenditures needed to efficiently deliver the appropriate quality and demand targets. This revenue allowance would then be translated into a set of prices that provide a reasonable opportunity to earn the allowable revenue should NBN Co realise the underlying efficiency and demand forecasts. In this way, the regulatory framework will establish a stronger link between the efficient costs associated with the NBN and the prices charged by NBN Co.

Regulatory periods would be for three to five years. This would allow the nature and scope of the framework to be adjusted in response to any significant market developments and for the various access commitments, including service standards commitments, to be periodically reset so that they remain fit for purpose. It would also balance the reasonable period for forecasting costs and demand against the stronger incentive properties offered under a longer regulatory period. The resets would be undertaken using a propose-respond model, where NBN Co would submit a proposal to the ACCC for assessment. The ACCC would either accept NBN Co's proposal or make a substitute determination. This approach ensures that regulated terms are settled in advance of each new regulatory period.

Setting efficient price levels from a building block model (BBM)

There was general agreement in the working groups that, after a period of transition, the level of pricing should be informed by the outputs of a BBM.

Once transitioned, a BBM approach will provide the opportunity for NBN Co to recover its efficiently incurred costs. It provides an allowance for operating expenditure, recovery of future capital investments over the effective economic life of the relevant assets, and an appropriate return on investments. Once this cost base is established, appropriate allocations between different services are made and demand forecasts are considered. This then determines overall price levels or a price path over a regulatory period, forming the basis for setting prices for individual service components and the form of price control.

The working groups discussed two building block models. NBN Co prepared the first, which focussed on different cost recovery profiles over the SAU period (to 2040) but only included indicative estimates for various parameter values. The access seekers prepared the second based on publicly available information, such as from related regulatory processes, corporate plans and financial accounts.

NBN Co also shared some indicative price outputs from an updated BBM which adopted different cost recovery profiles. However, NBN Co did not share this model with the working groups. Hence, while the working groups were able to discuss some matters of principle, they were unable to reach a consensus or assess the extent to which NBN Co had incorporated their views into its updated BBM.

Recognition of prior losses

NBN Co proposed to convert its accumulated losses to a financial asset that it would include in the BBM. This would allow NBN Co to draw down this amount in the form of an additional component to its annual allowable revenues.

The working groups identified that the value of the prior losses that were rolled into the BBM in this way would have a strong influence on the effectiveness of the revised regulatory framework given the very significant amounts potentially involved.

The working groups also considered various methods by which to establish the value of accumulated losses to be recognised under the revised SAU. These methods ranged from a detailed ex post efficiency review of the NBN (removing loss components that do not reflect the activities of an efficient commercial operator), to alternative values that would allow NBN Co to achieve financial objectives, including a stand-alone investment grade credit rating.

The working groups were not able to agree on which method should be pursued nor did they reach a view on what value would likely result.

Timetable for recovering costs

It became clear during the working groups that the timetable for recovering the BBM costs would also have very significant implications for the price levels it would deliver over time.

The working groups heard proposals for different cost recovery profiles involving recovery of different amounts of the ICRA and adjustments to depreciation profiles, each of which would have the effect of deferring recovery of capital investments to future years.

The stated benefit of this approach is that it can help prevent short term price shocks to consumers. However, this approach poses the risk that future end-users of the NBN could pay much higher prices and contribute far more revenue than the operator of the NBN would require to fund its efficient investments and operations in those later years. This in turn would reduce the effectiveness of the revised SAU to continue to promote efficient outcomes. The working groups recognised that this risk would need to be effectively mitigated but did not settle on a possible approach to achieve this.

Return on government investment

The working group discussed whether the regulatory arrangements should reflect the government's position of seeking a less than commercial return on its equity investments when committing to the NBN project.

The case for making an adjustment to reflect this position involved greater flexibility for NBN Co to meet its original mandate without forcing higher prices on end-users. The case against such an adjustment is that, as a general principle, regulatory frameworks should provide a return on investment based on a benchmark efficient entity regardless of ownership.

Given the long-term nature of the undertaking, it would be unusual for the return on equity to be set with only a government investor in mind. However, it is open for an equity holder to forgo returns that the regulatory framework would notionally allow, recognising the significant economic and social benefits that the NBN has delivered.

Expenditure reviews to promote efficiency

The working groups discussed options for reviewing capital and operating expenditures. There was general agreement that NBN Co's future expenditures would be subject to more regulatory scrutiny than had occurred during the rollout.

The working groups concluded that it was important for all capital expenditures to be subject to an efficiency review so that only efficiently incurred capital expenditure (based on an assessment of the information available at the time the expenditure was incurred) could be admitted to the regulatory asset base.

The working groups also agreed that allowances for operating expenditures would also face greater ex ante scrutiny to set the allowances to efficiently deliver the service quality commitments.

Mechanism to consider government directed investment

The working groups heard a proposal for there to be a specific mechanism in the SAU for significant projects NBN Co undertakes at government direction. This would allow for the government to provide specific and transparent directions to NBN Co to undertake certain expenditures and allow the ACCC to take them into account.

The working groups considered that any mechanism for recognising government directions should still provide for ACCC review of the relevant expenditure so that the stated policy objective is developed and delivered in an efficient manner. The working groups also concluded that further consideration would be needed so that there was suitable public transparency over the nature and funding requirements of any such projects.

Other functions and powers to be contained in the revised SAU

The working groups discussed additional functions and powers that the revised SAU should contain to address matters that arise between regulatory resets and to support the SAU operating as intended over time. These include product development and withdrawal provisions, review mechanisms and processes to quickly resolve access problems.

The working groups suggested that the revised SAU should contain, as a minimum, those functions and powers contained in the original SAU. The working groups discussed whether the SAU should bolster the provisions to give access in a timely way as problems arise. The working groups heard but did not reach a position on whether the existing dispute resolution arrangements could serve that purpose, or whether this would need to be further developed by the inclusion of an adjudicator on technical service delivery issues.

Price structures and controls that provide more certainty over access costs

There was strong agreement that the SAU should require NBN Co to structure its mass market access prices to provide an appropriate level of certainty over the costs that access seekers, and end-users, are likely to incur when using the NBN. This would promote competition in downstream markets and protect access seekers and end-users from price shocks that could otherwise result.

In this regard, the working groups identified the ongoing role of volumetric charges and discounting practices as the most significant drivers of uncertainty over access costs that the SAU should address in the next regulatory period.

On the first of these, the working groups considered whether and, if so, the extent to which NBN access prices should retain a volumetric (or CVC) component. The working groups heard views ranging from abolition of these charges to their retention in a modified form. While there was general agreement that the use of volumetric charges should be reformed, agreement was not reached on the nature and form of those reforms.

In this regard, although there were some additional arguments in support of volumetric charges, the case for the retention of some volumetric CVC charges focused on supporting a greater diversity in the price and quality of NBN broadband services that access seekers could supply into retail markets. The working group also heard claims that applying volumetric charges on lower value products could push end-users to higher speed tiers. The case against retaining CVC was based on the considerable cost uncertainty that it has previously caused with an overage charge of $8/Mbps/month once demand outstripped the bundled CVC inclusions, and that the level of the CVC charge exceeded NBN Co’s costs.

There appeared to be support from the working groups to remove volumetric charges from higher speed TC-4 (best effort broadband) products from commencement of the next regulatory period with potential for other speed tiers to later move to AVC only pricing. There was however no agreement reached as to where the dividing line on such speed tiers should be drawn, or the level or form that the remaining volumetric CVC charges should take.

NBN Co outlined pricing reforms to apply until CVC was no longer a chargeable item. These included charging for peak daily utilisation of CVC (rather than provisioned CVC) and providing greater certainty over the value of CVC inclusions over time.

In addition to potential reforms of CVC pricing, the working groups heard concerns that the present structure of network-to-network interface (NNI) charges represented a considerable hurdle to smaller access seekers looking to build scale and/or expand into the supply of higher speed products. NBN Co indicated that it was considering pricing reforms to address this concern independent to the revised SAU.

On discounting, it was common ground that NBN Co’s current prevailing discounting practices were problematic due to the effective price changes that could occur on their removal. The working group agreed that the SAU would address this issue in the next regulatory period by NBN Co moving away from a discounting construct for its access bundles and instead making these the subject of directly specified prices that are subject to effective price controls. Further, the SAU would include specific suitable incentives and protections so that access charge discounting practices could not again become a source of material cost uncertainty for access seekers.

The working groups discussed different approaches for applying price controls to the various access products and price components. These ranged from the relatively light-handed approach of establishing binding price controls on nominated access products that would anchor prices more generally, to applying controls to an overall basket or sub-baskets of access products or price components, all the way to specifying maximum prices for each access product and price component. The working groups did not reach a clear consensus on which of these approaches should be used for the initial regulatory period. There was, however, relatively broad support among access seekers for an indicative weighted average price cap (WAPC) price control proposal and associated 'side controls' put forward by the ACCC.

Service standards and other quality measures

The working groups agreed that, once the transition period is complete, the capital and operating expenditures required to efficiently deliver the NBN should inform the allowable revenue amounts for each regulatory period. The working groups also discussed including in the SAU a baseline set of service standards including additional amended service quality commitments to those specified in the current commercial agreement (WBA4). Proponents of this approach suggested that the baseline service standards would be developed with customer expectations in mind. In this way service standards could support retail regulations or services which most end-users would otherwise expect to receive. For example, that end-users would have an effective path to resolution where they experience multiple drop-outs per day.

The working groups agreed to the development of an additional service standard to assure that the NBN transit network would remain uncongested. This additional standard is necessary due to the move towards AVC only pricing. However, the working groups were otherwise divided on whether the SAU process should consider other service standards or quality measures, with the alternative being to instead leave these to be developed via commercial negotiation.

Transparency mechanisms

The working groups agreed that transparency measures in the form of financial and operating metrics play an important role in strengthening incentives to operate efficiently and realise further improvements over time. That is, visibility over properly specified metrics would recognise successful efforts to reduce the cost and/or improve the quality of access. Conversely, these metrics could also identify areas where NBN Co could readily find further improvements.

The working groups also agreed that transparency measures should be established to provide assurance that NBN Co is not benefiting from its position in the mass market for broadband access in any competitive market segments that it has chosen to enter. These market segments currently comprise of services aimed at large enterprise customers, including enterprise (direct fibre) ethernet services, business satellite services and satellite mobility services.

The working groups agreed that it would be appropriate for the BBM to include any such services so that appropriate cost allocations could be made to them, and that they would be subject to an appropriate degree of financial reporting to show that these services were recovering the allocated costs.

The working group agreed that financial reporting should be set out clearly in the SAU. Some participants also considered that the scope and form of the various transparency metrics could be developed by way of a record keeping and reporting rule issued by the ACCC as an alternative to having these specified in a regulatory proposal that is submitted under the SAU.

Low-income measures

The working groups gave significant attention to identifying opportunities to better support low-income consumers to acquire NBN products that meet their needs. The working groups endorsed the development of such products while recognising there could be limits to the level of support that NBN Co could sustain under a cross subsidy model. That is, the more expansive the proposal and level of support required the more difficult it would be to achieve them without significantly higher prices for services used to supply other end-users. The working groups heard estimates of the level of cross subsidy that nominated proposals would likely require to remain revenue neutral for the NBN. The working groups ultimately reached the position that government was best placed to address this issue as government support could be required, and/or such low-income measures may be required more broadly.

Attachment A: Key messages from NBN regulatory framework working groups

Issue	Key outcomes from working groups	ACCC comments
Form of the regulatory framework	• The working group discussed how to best transition NBN Co towards a more traditional regulatory framework suitable for an established utility business. • It was common ground that the SAU should be effective in driving efficiency improvements while providing NBN Co with a fair opportunity to earn an appropriate return on efficient investment (while recognising that it would be open for the government to forgo some of its previously deferred equity returns so as to reduce the revenue requirement that NBN Co will need to recoup from broadband users in future). • There was also consensus on a number of features of the regulatory model to be embedded in the SAU: (1) the SAU should cover all of NBN Co's listed services (although there could be variability in how different types of services were dealt with in the SAU); (2) the operative provisions of the SAU should be reset at regular intervals, with the first such reset to be scheduled earlier than would be the case for future periods recognising forecasting uncertainty; (3) each reset should review forecast revenues and expenditures along with other elements of the building block model (BBM), and update price and quality commitments; (4) there should be a clear separation between NBN Co's mass market, or "core", services on the one hand, and the services that it supplies into competitive market segments (such as its enterprise ethernet, business satellite and satellite mobility services) on the other. • On some issues there was less consensus, with a recurring issue being whether the nature of NBN Co's business could require a more bespoke regulatory model. • There were three important design principles that could not be resolved during the working groups. (1) Whether	• Many of the positions that the working groups reached were as expected and appear to be an appropriate basis for NBN Co to develop its proposed SAU variation. • NBN Co should be transitioning to a robust regulatory framework that is largely aligned with what would apply to a utility business, including the use of a BBM and detailed reviews of expenditures, revenues and demand. • The regulatory framework should have regard to the context of the NBN. However, the NBN does lend itself to using a BBM to link prices to efficient costs in a similar way to other regulated utilities. An SAU that omitted some key features of a traditional regulatory framework, including providing appropriate incentives, would not be in the LTIE. • It will be very important to get the ground rules that apply to the regulatory reset process correct, so they remain effective for the duration of the SAU. • In this regard, a key focus of each reset will be to update the BBM, to determine the allowable revenue amount based on the BBM for the upcoming regulatory period, and for this revenue amount to translate into regulated prices with appropriate regulatory controls. The form of regulatory control is discussed below. Service standard commitments should be considered as part of this process. They should also be supported by appropriate transparency and reporting measures. • An assessment of competition in the market should inform each reset process. This will assist in determining the scope and nature of regulation that should apply. • The reset process should also lead to genuine commitments that will be effective in driving efficiency, promoting competition and supporting good outcomes for end-users. Consequently, it will be essential that each reset establish operating commitments that are appropriately calibrated to lead to those outcomes. • A price control that will sit materially above the effective prices expected in the market, or service level commitments that are subject to significant conditions or limitations, could not meet this requirement. • The SAU should provide the ACCC with the powers and functions it needs to ensure the SAU continues to operate as intended. • Finally, in assessing any SAU that is proposed, the ACCC would likely closely consider the extent to which costs are being disproportionally imposed on future users and reach a view on whether this would be reasonable and/or give rise to other market problems. For

Issue	Key outcomes from working groups	ACCC comments
	the principal form of regulatory control should take the form of a revenue cap or take the form of a weighted average price cap. (2) What the opening balance of the loss account should be given the very significant losses that NBN Co has incurred to this point and forecasts to continue to incur until FY2026. (3) Related to the previous principle, whether the timing at which capital costs should be recognised for regulatory purposes should be adjusted to match with the revenue profile NBN Co has forecast. This includes consideration of the approach to depreciation and the loss account.	example, whether this will lead to under-utilisation of the NBN as end-users switch off or select lower quality service offerings.
Regulatory reset process	• NBN Co indicated it will propose a replacement module process to provide the function of regulatory resets through until the SAU expires in 2040. • NBN Co proposes to have the ability to lodge 'replacement module applications' as variations to the SAU, which the ACCC would review according to the statutory criteria for SAU variations. • NBN Co proposes that each replacement module would set out detailed methodologies for establishing NBN Co's forward looking annual building block revenue requirement for a set regulatory cycle. • NBN Co proposes that each replacement module would be consistent with high-level rules and principles established upfront to apply between replacement modules/regulatory periods (including fixed principles). • NBN Co proposes that this would be a propose-respond model, where NBN Co submits a proposal to the ACCC and if the ACCC rejects the proposal, it can make a substitute determination. • NBN Co has proposed that the scope would cover: a review of forecast ABBRR, ex-post review of capex, revenue constraints with an 'unders and overs' 'mechanism and a review of other terms. • NBN Co is proposing 3,4 or 5 year regulatory periods for the resets, which would be determined in advance of	• The replacement module process could be an appropriate way to establish a regulatory reset process, depending on the drafting of the SAU. • We would review the need for ongoing regulatory resets beyond 2040 prior to the expiry of the SAU. An assessment of competition in the market will determine what an appropriate future regulatory framework would look like. • The criteria for assessing replacement module applications proposed by NBN Co would be whether the application is reasonable and in the LTIE, in accordance with the statutory criteria. This is appropriate. • The overarching SAU should only include very high level principles, with detail to be determined in the regulatory resets. This would allow for greater flexibility to respond to changes in the future. • A propose-respond model is appropriate. Under such a model, the ACCC substitute determination should cover all matters relevant to that regulatory reset and not be limited to specific matters. • The revenue constraint with an 'unders and overs' mechanism is of concern (discussed below) because it does not create the right incentives to maximise the use of the NBN. • There would be benefits associated with incorporating service standards into the regulatory resets. It is important for access seekers and end-users to measure the service that they are paying for. • The proposed length of regulatory cycles is appropriate. As a general principle, the length of regulatory period should consider the strength of incentives it creates and the degree of uncertainty associated with forecasts. The option of 3,4 or 5 years would allow for a shorter regulatory period for the first cycle and then longer regulatory periods in the future. Other

Issue	Key outcomes from working groups	ACCC comments
	each regulatory cycle. • Other stakeholders provided limited comments on the replacement module process proposed by NBN Co.	regulated utilities in Australia generally have a regulatory cycle of 4 or 5 years.
Quality of service delivery / service standards and the SAU	• The current SAU does not set non-price terms or service delivery standards. • During the working groups it was proposed that the regulatory framework provide a well-defined quality of service linked to the price outcome of the BBM and that the SAU incorporate a baseline set of standards with additional quality of service elements to those under WBA4. The baseline would be comprehensive but not preclude others being defined, either commercially or in other regulatory/legislative instruments. • In the alternative, NBN Co proposed that SAU prices refer to existing WBA4 service delivery levels and that changes continue to be made via WBA commercial negotiations, recognising that these may also be influenced by regulatory processes (for example, government SIP determinations or ACCC powers). Any associated future costs would also be taken into account by the BBM (approaches to ensuring efficient expenditure and investment is discussed below).	• Commercial negotiations under the current regulatory framework have tended to result in slow progress on RSP service delivery related concerns. While WBA4 includes significant improvements this is, at least in part, the result of the ACCC's three year inquiry into wholesale service standards. • The unequal bargaining power that exists between NBN Co and RSPs means that commercial negotiations are unlikely, by themselves, to provide for changes that NBN Co does not support. As a result, the ACCC has a role in providing oversight in the review of service standards. • The SAU should therefore incorporate a baseline set of standards and provide a review mechanism to ensure that they remain fit for purpose. • Baseline terms in the SAU could reduce scope for disagreement in the WBA process, set a baseline for assessing expenditure associated with service improvements and give some additional certainty to industry about ongoing service quality. • The first reset baseline would likely align with the service standards in WBA4 given that it has only recently been entered into by NBN Co and RSPs. For future regulatory periods, the baseline would be reviewed under the SAU reset process. The WBA could also continue to set the processes under which the SAU baseline is delivered and any additions to the baseline. • The baseline could be a comprehensive set list of standards or refer to WBA4 and fill in the gaps where necessary. Additional quality of service elements proposed in the working groups require further consideration although they appear to be beneficial for consumers.
Service delivery transparency and reporting obligations	• The SAU does not contain any service delivery related reporting obligations. • Access seekers suggested additional reporting requirements and transparency measures to provide visibility of NBN Co's performance against metrics that directly impact the customer experience and assist RSPs with customer service queries. • Although the additional reporting requirements were originally proposed to be part of an SAU baseline set of	• NBN Co provides considerable operational information to RSPs under specific commitments given under WBA4, or voluntarily. However, access seekers identified certain operational datasets in this process that are not yet made available in this way. • Similarly, some reports are also made available on NBN Co's public website, e.g., high level customer experience metrics and reports on rollout progress and an address look up table. • Despite this, there is not yet a comprehensive public reporting requirement that could provide stronger incentives on NBN Co to operate more efficiently in terms of financial or quality improvement. Taking NBN Co's proposed reporting commitments into account, there also does not appear to be equivalent reporting for many of the proposed additional reporting

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	standards, proponents agreed that the ACCC could consider them outside of the SAU under the NBN services in operation record keeping and reporting rules (RKR). • In response NBN Co proposed to include service delivery reporting commitments in the SAU variation and first reset. Some of the commitments reflect reporting which NBN Co already does under WBA4 or on its dashboard. Others, such as planned outage reporting, are new. While these reporting commitments seek to address the matters raised by other participants, differences remain in relation to reporting metrics and reporting frequency. • Participants suggested that there be no duplication of reporting obligations under the SAU and RKR.	requirements. • NBN Co would likely have most data. However, the provision of some requested datasets such as near to real time data on congestion levels would likely require more investment. • Data transparency is a common feature of economic regulation. Additional reporting obligations would likely encourage better service delivery; and inform commercial negotiations and regulatory decisions. Congestion data on contended links would also enable RSPs to better manage customer services and respond to their queries. • Regulated reporting measures could be incorporated into the SAU (to complement the baseline set of service standards); or be considered by the ACCC in establishing a new record keeping and reporting rule under Part XIB. • Should they be included in the SAU, we would expect a comprehensive set of reporting measures, and network information to be made publicly available. We would also expect for reporting measures to be reviewed in every reset. • It could be more appropriate for the ACCC to collect performance metrics and similar information via an RKR, noting that this would require a nexus between the information sought and promoting competition in a relevant market, as well as the reporting being proportionate to the scale of the benefits. • In this way, the SAU could better focus on setting out a framework to promote efficient decisions on access seeker requests for operational information (i.e. congestion data). For instance, having access to a well-defined request and escalation process (see below). Specific change projects could be considered under a further SAU reset process should these not be progressed appropriately through the SAU framework and commercial negotiations.
Dispute resolution processes	• Some access seekers proposed changes to the current dispute resolution clauses in the SAU to provide a more independent process. • Under proposed changes, the SAU would include an independent telecommunications adjudicator similar to that established under Telstra's structural separation undertaking (SSU). • The independent adjudicator would provide a low-cost, timely (1-2 months) independent review of disputes on supply arrangements, including terms that are considered to be 'unfair' or to have an unfair outcome.	• The WBA is complex and difficult for the smaller RSPs to negotiate. Operational issues also tend to become apparent in the delivery of services, often in a piecemeal fashion, and not at the time of negotiating the WBA. • There are provisions that allow for mediation, expert determination or panel arbitration of non-billing disputes, although these processes have never been used. • It appears that some working group participants are seeking to broaden the scope of dispute resolution in relation to supply arrangements. There may be benefit in clarifying or extending the scope of the current dispute resolution arrangements to cover such matters. • Any change to the scope of the WBA panel arbitrator would need to ensure that the process does not re-open WBA negotiations.

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	• NBN Co considered proposed changes to be unnecessary given the existing independent dispute resolution regime, which it considered to be fit for purpose.	• However, there may be room to consider rules that could allow more opportunity for access seekers to raise matters periodically.
Other powers and functions to be included in the SAU	• NBN Co proposed the following general powers for the ACCC: pricing new products; revenue neutral price review; ex-post assessment of capex in excess of forecasts; cost pass throughs; service level costs; product withdrawal; consideration of competitive services; information requests and resolution advisor under the dispute resolution process. • Other working group participants noted that the price review mechanism needs to ensure it is appropriate for the new pricing arrangements. • Other participants noted that they would require further detail on how the powers and functions would work to provide meaningful comments.	• Most of the general powers and functions listed by NBN Co exist in the current SAU, others will be part of the regular reset process rather than separate reserve powers for the ACCC. • The ACCC should retain powers relating to pricing of new products, product withdrawal and information requests. • The price review mechanism will need to take account of the new pricing and regulatory arrangements. We do not envisage that price review would be bound by a revenue neutrality constraint, at least in the transition period, although other limitations may be appropriate to achieve an outcome in the LTIE. • Consideration of competitive services, cost pass throughs, service level costs and ex-post assessment of capex are discussed below.
Opening regulatory values and incorporating ICRA into revenue constraint.	• Many participants highlighted the initial cost recovery account (ICRA) as a significant source of concern and an issue that we must address in the revised regulatory arrangements. • Participants noted that a major shortcoming of the existing SAU is that until the ICRA is extinguished, there is no contemporaneous link between NBN Co's prices and its annual building block revenue requirement. • Concerns were raised that NBN Co would be unlikely to recover its ICRA within the foreseeable future, which will create significant uncertainty about future price levels and prevent any possibility of a meaningful revenue constraint applying during the SAU term. • Some participants argued that opening values for the ICRA and the regulatory asset base (RAB) should reflect a value representing costs of an efficient commercial network operator. They advocated for either removing or significantly reducing the ICRA balance to achieve this.	• Once NBN Co is able to earn enough revenue to recover its building block revenue requirement and meet relevant financing objectives, NBN Co will be able to finance new investments and operate the network efficiently. Prices based on this revenue amount will likely promote efficient use of NBN services. This would assist in maximising the economic and social benefits of the significant public investment in the NBN. If the regulatory framework allows NBN Co to recover significantly above this amount, this is likely to conflict with these objectives. • The NBN has provided significant social and economic benefits. By reducing the ICRA balance customers will be better able to afford to use the NBN to realise the potential benefits. A reduction in the ICRA balance could reflect a portion of those wider benefits. • The current ICRA arrangement is a material shortcoming that should be reformed as part of the revised SAU. The ICRA interacts with other parts of the regulatory framework and will be a key factor in price levels over the term of the SAU. • Given the current ICRA balance and its treatment under the existing SAU, we consider NBN Co will not be able to draw down its ICRA balance to zero over the term of the SAU. Without changes to the regulatory arrangements, this means that there will be no constraint on revenues and there will be no clear link between prices and costs as determined by the

Issue	Key outcomes from working groups	ACCC comments
	They also supported further changes to the treatment of ICRA to facilitate a binding revenue constraint. • Significant reforms to the regulatory arrangements would be needed to establish such a constraint. • NBN Co indicated that in order to meet key financial objectives, such as meeting debt obligations and achieving an investment grade credit rating, it would need to recover some of the ICRA balance between 2023 and 2040. Setting allowable revenues on the building block revenue requirement alone would be insufficient for meeting these objectives. • NBN Co noted that the current SAU contains fixed principles relating to the RAB and ICRA. The fixed principles limit the ACCC's ability to reject an SAU variation for reasons concerning these matters. NBN Co also argued that all historical expenditure and investments reflect government policy and were prudent and efficient. • NBN Co presented a model showing scenarios for recovering different amounts of the current ICRA balance between 2023 and 2040. NBN Co proposed that from 2023, an ICRA recovery component would be added to the building block revenue requirement to establish the revenue control. NBN Co proposed this ICRA recovery component would be small initially but would increase over the remaining term of the SAU. • In addition to the proposed ICRA recovery profile, NBN Co also presented on an alternative depreciation profile, that would defer recovery of capital costs to later in the SAU period. • Several RSP participants developed and presented an alternative building block model. This model establishes separate cost bases for commercial and non-commercial costs, with regulated prices for core services based on the commercial cost base.	BBM. This will result in significant price uncertainty for industry over the long term. • A fixed principle is in place under the current SAU regarding the ICRA. Specifically, the fixed principle provides for the ICRA balance at the end of module 1 (at 30 June 2023) to become the opening ICRA balance for module 2. However, the fixed principle only has implications for the ACCC's decision making in respect of the fixed principle. It does not prevent NBN Co from proposing an alternative to the fixed principle. • Subject to being financeable, once NBN Co reaches a point when it can recover its annual building block revenue requirement, this should be sufficient for it to operate the network efficiently, invest in the network and to ensure its efficient use. Any additional revenue NBN Co receives above this amount will represent recovery of previous losses and/or costs of maintaining the ICRA and is not required for operational or financing purposes. We consider the pursuit of all previous losses could conflict with promoting efficient use of the NBN. • NBN Co has legitimate financing objectives and may need to recover some of its existing ICRA balance to meet these. We understand meeting these objectives is one of the core assumptions underpinning forecasts NBN Co has provided to the working group. However, NBN Co has not provided a detailed explanation on how these forecasts support their financing objectives. We expect that further supporting information from NBN Co on this matter will be supplied. • At a practical level, there is significant uncertainty about the extent to which NBN Co will be able to recover its ICRA balance over the long term. The implications of an unsustainable ICRA balance include the inability to establish a meaningful and sustainable long term revenue constraint, future price uncertainty and the potential for inefficient by-pass of the NBN. We also consider an unsustainable ICRA and the associated uncertainty could create significant issues following any privatisation of the NBN. • In order to avoid ongoing uncertainty about recovery of past losses and future price levels, to provide appropriate incentives on NBN Co for efficient operation and investment, and to promote efficient use our preference is for the revised arrangements to result in no ICRA recovery once NBN Co has been given the opportunity to achieve an investment grade credit rating. • We recognise that any significant reforms of the ICRA will interact with NBN Co's objectives of providing a return on investment to government on a whole-of-project basis. As required by the statement of expectations that the Minister has given to the ACCC, we will work with the Department and NBN Co to seek a sustainable outcome that balances cost recovery objectives with promoting efficient use of the NBN.
Approaches to ensuring	• Participants agreed that the new arrangements should	• An ex-ante model to expenditure assessments like those used in other established network

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efficient expenditure and investment	include an ex-ante model with periodic assessment of expenditure forecasts. Participants also generally agreed that the ACCC should be able to apply a standard efficiency test to all NBN Co's propose proposed operating and capital expenditure. • This represents a change to the arrangements from the approach to date, which has involved an ex-post review of expenditure. Expenditure is currently required to meet a set of prudency conditions, which is weaker than a standard efficiency test. • NBN Co proposed to continue with the model set out in the current SAU for module 2. Under this model, NBN Co would include expenditure forecasts for a regulatory cycle as part of its replacement module application. The ACCC would then assess the application under the Part XIC criteria. Based on this assessment, the ACCC can either accept the application or determine a substitute amount. • NBN Co argued the ACCC must take government requirements into account. This is to ensure it can still recover costs that may have otherwise failed the efficiency test but NBN Co is still required to spend to achieve the government requirement. RSPs argued for appropriate transparency on government obligations and the ACCC's treatment of these obligations. • Participants expressed a range of views on ex-post reviews of capital expenditure in establishing the opening RAB for a regulatory cycle. NBN Co presented a model similar to the current module 2 model, where capital expenditure is only subject to ex-post review if it exceeds the approved forecast. Other participants noted the importance of appropriate ACCC scrutiny of expenditure to ensure inefficient expenditure does not flow through to prices.	industries is appropriate. We also agree the ACCC should apply a standard efficiency test to operating and capital expenditure forecasts rather that a framework requiring expenditure to meet prudency conditions. • The current module 2 arrangements, which NBN Co is proposing to adopt, would require us to assess operating and capital expenditure forecasts in accordance with Part XIC criteria. This would require us to be satisfied the forecasts promote the LTIE (including efficient use and investment) having regard to matters such as NBN Co's direct costs, NBN Co's legitimate businesses interests and interests of NBN Co's customers. We consider this is an appropriate foundation for applying a standard efficiency test. • For expenditure resulting from government obligations, it would be appropriate for the ACCC to take into account explicit and clearly specified directions from the government to NBN Co on defined projects. In this case, the ACCC would focus its expenditure assessment on whether the expenditure or investment was made in the most efficient and cost-effective manner given the requirement by government. • Such government directions would need to be explicit and clearly defined. For this reason, it would not be appropriate for expenditure relating to a more general policy objectives to be exempt from ACCC efficiency assessment. Further, government directions should be made publicly available so the directions and ACCC consideration of them are transparent. • NBN Co should consider what arrangements it can put into a revised SAU around the ACCC's assessment of expenditure related to government obligations. We will also work closely with the Department on actions they may need to consider to facilitate these arrangements. • On ex-post reviews of capital expenditure, our preference is to subject all capital expenditure to ex-post review notwithstanding the approved forecast. This approach will provide the best incentives on NBN Co for efficient capital investments and will provide good discipline around asset management and planning. We would also be willing to consider additional SAU provisions to provide some more structure around how we would conduct the ex-post reviews.
Treatment of costs and revenues from different	• Several participants raised the need for appropriate cost allocation and ring-fencing measures on the costs and revenues from different services. This is to ensure	• Services NBN Co supplies in competitive market segments should be treated differently to core regulated services.

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services.	revenues from NBN Co's 'core' regulated or residential services do not cross-subsidise services NBN Co provides in competitive market segments. Enterprise ethernet services and business satellite services are examples of services supplied in competitive markets. • NBN Co noted that under its legislative framework every service it provided is regulated but recognised the need to treat some services differently. • NBN Co has proposed to implement a cost allocation framework that allocates between core services and competitive services. This would form part of the replacement module process and as such could be reviewed before each regulatory cycle and subject to ACCC assessment.	• Specific prices or price control arrangements for competitive services are not required, but more light handed regulation may be appropriate depending on the extent and nature of competition that exists at the time. • Appropriate cost allocation would ensure cross-subsidies towards competitive services do not occur. It is important that allocation of costs to competitive services should include an appropriate share of joint and common costs to ensure these are not borne entirely by core regulated (i.e., residential services). • It is appropriate to review competitive conditions before the start of each regulatory cycle and to consider any emerging competitive segments and appropriate cost allocations. For these reasons, we consider NBN Co's proposal to have this issue considered periodically as part of the replacement modules is reasonable.
Transparency and reporting of financial and forecast information	• Participants proposed reporting obligations and transparency with regards to the information that supports the inputs into the initial BBM, and ongoing updates of the BBM. Access seekers argued that such disclosure would enable stakeholders to effectively participate in the price-setting process, and to test the efficiency of costs and forecast expenditure against network quality performance. • Participants also argued that NBN Co should disclose how it translates the BBM outputs into actual prices for core products to improve transparency, certainty, and consistency in price-setting processes.	• NBN Co should provide and make available information to the level of detail that supports their proposals for each regulatory cycle. This would include demand forecasts, details of expenditure proposals and details of cost allocations to specific services. NBN should also provide information in as transparent a way as possible to ensure an effective regulatory process. • NBN Co should provide the information identified by participants. There should also be broader disclosure for an actual reset. • Overall we consider that publication of financial and forecast information would promote higher levels of accountability by NBN Co as would the reporting of NBN Co's compliance with regulatory controls.
Overarching principles for NBN Co's products and pricing to meet the LTIE and other criteria	• The working group developed some key principles for the pricing of NBN access services. At a high level these included that prices need to be based on what is best for end-users overall, are based on efficient costs and cost allocations, are relatively stable and certain, enable a diversity of retail offers in the market and encourage efficient use of the network. • It was postulated that access prices consistent with the proposed framework principles would have a minimal volumetric charge component, with fixed and common	• The principles articulated by the working group are appropriate as they are directed to the legislative criteria for acceptance of the SAU. However, there are expected to be nuances and trade-offs when applying them formally to the assessment of the SAU. • Given that the working group developed the principles with the legislative criteria for acceptance of the SAU in mind, NBN Co's SAU pricing proposal will ultimately need to reflect such principles in order to be accepted. • It is not yet clear whether NBN Co will adopt a key preference of the working group consistent with the principles, being lower volumetric charging across the board. Instead, NBN Co indicated it would move to the removal of CVC charging for AVC speeds of 100

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	costs recovered from non-volumetric charges, and price relativities between speed tiers based on end customer willingness to pay. • Concerns were raised about any rebalancing of prices that made lower speed tiers relatively more expensive. • NBN Co was receptive to many of the principles agreed by the working group but tended to place greater emphasis on ensuring revenue sufficiency to underpin its longer term financial sustainability.	Mbps and above. This seems to be driven largely by revenue sufficiency concerns, in not wanting to drive low usage end customers to competing networks by increasing their AVC charges and in helping to create a pathway for end customers with higher usage requirement to transition to more expensive AVC only higher speed offers. • NBN Co has, however, proposed product changes at the entry level. These changes include a new cheaper voice only offer and enabling the price of the 25/5 Mbps product plus the costs of current CVC usage to be bought for under $35 per month in line with the ACCC's previously stated wholesale target price for the 12/1 Mbps broadband product. However, the latter is accompanied by an approximate $4 per month increase in the cost of an entry level broadband service (of 12/1 Mbps) compared to its actual existing cost. NBN Co also assumes the same CVC usage for the 12/1 Mbps product will carry over to the 25/5 Mbps product when in practice it could prompt an increase. Ultimately customers will choose whether to continue with their NBN service based on their total price, not only AVC or CVC.
Current and alternative product and pricing constructs	• RSPs expressed concerns throughout the working groups that the current price construct introduces significant risks to their costs to supply services via the NBN. This is due to supply costs increasing at a significant rate once bundled CVC inclusions are used, together with the uncertainty and timeframes associated with any update to the inclusions. Charging CVC based on capacity provisioned instead of capacity utilised added to this risk due to uncertainty in timing of significant demand side events such as the distribution of software updates. • RSPs presented two alternatives. The first was a non-volumetric price construct that removed CVC charges altogether (although it remained as a product element that the RSP would still order). This construct would need to deal with support for a basic level of connectivity to the NBN at a low access price via development of specific products that are tailored to the needs of those end-users. Most RSPs appeared to favour this construct. • The second proposal retained CVC pricing but proposed a CVC price that falls with the amount of CVC that is dimensioned per AVC. This is similar to the dimension-based pricing model that NBN Co has previously offered, except it would provide a more continuous price path and provide additional flexibility for RSPs to choose	• Addressing the current concerns over cost uncertainty would promote competition in the retail market and deliver better end-customer outcomes. This is because it would lower barriers to entry, allow RSPs to improve their retail offers and reduce the potential for demand side shocks (such as have been observed over COVID lockdowns) impacting retail price or quality. • Reforming the product and pricing construct is a direct means by which to address the current uncertainty that surrounds cost to supply over the NBN. Without appropriate reform it would fall entirely to the price or side controls that are established in the SAU to moderate cost uncertainty. • The price of CVC overage is a significant source of cost uncertainty. Each of the product constructs that RSPs presented to the working groups could significantly reduce cost uncertainty, as each would eliminate or significantly reduce exposure to significant cost increases as CVC capacity per AVC increases over time. More particularly, each would reduce the marginal cost of adding more CVC per AVC from its current level of $8/Mbps/month to (or towards) $0. • Charging for CVC is unlikely to provide an efficient price signal that could promote more efficient investment in the NBN. This is because most of the network costs involved are localised whereas the charges are applied on a nationally consistent basis. Consequently, another measure would be required to moderate localised demand (should any in fact be required to allow for more efficient network upgrades). In any event, the current CVC overage price is significantly above the claimed long run marginal cost estimates that NBN Co provided to the working group. • Hence the case for retaining CVC charges appears to turn on whether this makes a material

	the level at which they dimension their services. The benefits of this model compared to the non-volumetric proposal were its ability to support additional retail product diversity and assist RSPs, particularly smaller RSPs, to use the NBN and compete for both low and high bandwidth customers. • RSPs were also of the view that to the extent CVC charges were to remain in some form (which most of them did not favour) then these charges should not exceed the efficient cost of provisioning additional network capacity to meet forecast demand. • NBN Co presented estimates (in $/Mbps/month) that had been drawn from a long run marginal cost study that it prepared. This study included the costs of adding more capacity in the transit network, which is used to supply all end-customers on the NBN, and also to address localised bottlenecks in its access networks. A substantial share of the increase in costs appeared to relate to some of its access networks rather than the transit network. • NBN Co also indicated that it saw CVC charges as important to it generating revenue more efficiently. That is a CVC price model would provide additional flexibility to bring forward additional demand, as compared to an AVC only price model, for a given revenue requirement. NBN Co noted that it would find it more difficult to support low use end-customers on the network under an AVC only construct. Hence it did not consider that the CVC charge should align with the cost of supplying CVC.	contribution to more efficient use of the NBN, and/or whether there are viable alternatives to support low use customers on the network without a CVC charge.

NBN Co proposed product and pricing construct	• NBN Co also presented its views on the product and pricing construct that it considered would address its objectives while responding to concerns that the RSPs had expressed. The key features were:
	  • AVC only pricing for speed tiers of 100 Mbps and above
	  • For 50 Mbps and below speed tiers:
	    • more frequent formula-based adjustment of CVC
		• The pricing proposal put forward by NBN Co to the working group process is similar to one of the three options it presented in June 2021 in its initial SAU pricing consultation. Two notable exceptions to this, which seem to be reflective of working group feedback, are the new cheaper voice offer and the alignment of 25/5 Mbps and 12/1 Mbps broadband pricing.
		• NBN proposed a number of the specific adjustments to its pricing model to reduce cost uncertainty to some extent. These could be steps in the right direction. However, it appears that these steps could moderate but not overcome the underlying issues stemming from retention of CVC charges.
		• The immediate issue that was unresolved during the working group related to the proposal

	inclusions in what would remain a product bundle of AVC and chargeable CVC once inclusions were used • no change to the effective CVC overage price but this would cease to be offered under a discount from the current price cap, and would be charged on an as utilised basis • no additional charges should an RSP exceed a nominated CVC utilisation threshold (as a proportion of CVC provisioned). • NBN also outlined a plan to rebalance charges for services that are supplied over its 12 Mbps and 25 Mbps speed tiers, to reduce the access charge for voice only retail services, and align AVC charges for 12 Mbps and 25 Mbps speed tier that were used for a broadband service (at a price that was above the current 12 Mbps AVC charge). • The annual price movements allowed for each of the price points would be subject to CPI style caps to apply on a "use it or lose it" basis, and the extent of discounting would be limited in various ways. • RSPs provided some feedback to NBN Co on this product and pricing construct when it was presented. They did not see how the retention of CVC charges for the 50 Mbps plan could assist in keeping low use customers on the network, nor how the CVC charges could materially assist in more efficient pricing for higher use customers on the speed tier. • RSPs also noted it was not possible to provide detailed comments as only indicative price points had been disclosed which had not yet been linked back to the efficient cost measures derived from a building block model. • A smaller RSP expressed concerns that the dual construct model would need to deal with additional operating complexity, and that there was considerable risk in transition that the CVC pricing (inclusions and overage) might not be appropriately adjusted to reflect that more generous CVC inclusions on high-speed tiers	for the 50 Mbps speed tier. There would appear to be considerable merit in NBN Co simplifying the price construct to AVC only for this speed tier from commencement of the SAU, as it has proposed to do for the 100 Mbps and higher speed tiers. • Should NBN Co retain CVC charges for some speed tiers there will be a significant number of subsidiary issues to get right including: • the rate table to apply to the CVC overage charge (including whether this should be dimension based), and the level of the charges to encourage RSPs to provision CVC to efficiently meet end-customer demand • the measures to militate against the impact of demand shocks such as observed over the COVID restrictions • the measures to avoid any additional operating complexity from a dual pricing model • managing the transition so that the CVC pricing is of like-for-like effect as when higher tier CVC entitlements could be shared across all AVCs before overage costs began to accrue. • While reform of the NNI charges can be flowed through to end-users on a commercial basis, the changes should be reflected in the regulatory proposal to be submitted with the SAU.

	could no longer be shared across all AVCs. • In response NBN noted that there could be potential to revisit the point at which it would make available AVC only pricing over time or otherwise fine tune its proposal. • An RSP raised the issue of the structure of NNI charges, indicating that the current jump in cost between a 1Gbps and 10Gbps NNI was prohibitively expensive for smaller RSPs. NBN Co indicated that it was looking to alter these charges on a commercial basis.	
Specification of minimum quality of service or performance associated with particular products/prices so that consumers get what they pay for and to take costs out of the supply chain through simplified processes (includes FTTN specific service performance issues)	• Working group participants sought firm commitments around maximum speeds and quality measures and associated service assurance standards, with a particular focus on the current approach of only providing a broad speed range for FTTN services. • They also were keen for the SAU to contain quality of service specifications and other measures to encourage efficient investment especially under AVC only pricing. • NBN Co has indicated it proposes to introduce new commitments in the SAU requiring it to take corrective measures (within a 3 week timeframe) when utilisation of an aggregation network shared network element exceeds 95% and to provide reporting relating to instances where this threshold is breached and associated remediation plans, along with general remediation reporting. NBN Co said that in practice it would plan network augmentation before the 95% threshold. • It has also signalled including commitments in the SAU to provide for reporting on the performance of the network covering areas including network capability, congestion, outages, service faults, recurring faults and right first-time installations.	• NBN Co is proposing to make a number of quality commitments in the SAU in response to issues raised in the working group. However, NBN Co has not responded in detail on addressing the FTTN measures other than to suggest that it could be costly to remediate the FTTN so that it supports the service quality that consumers have selected. • Public transparency over FTTN quality is a minimum response to the issues. NBN Co could also establish a network investment and service improvement program for FTTN consumers in return for retaining its current price parity for products provided using its FTTN technologies and other access technologies. This would be similar to an approach that Ofcom took with BT that led to investments in less competitive areas. (Further background can be found in pages 39 to 41 of the Grex Consulting presentation to the Product & Pricing Working Group). NBN Co could propose this in its initial regulatory proposal. Other actions that NBN Co could take include implementing product and pricing changes that align maximum prices with service speeds, including a regulated minimum service standard with respect to recurring drop-outs and associated remediation program for affected consumers. • If NBN Co does not address these issues as part of the SAU, the ACCC could look to develop detailed public reports as part of a record keeping rule to give visibility over the quality of products provided using FTTN technologies. • We are concerned that NBN Co has selected an easy to meet port utilisation threshold of 95% of shared network elements as a basis for taking remedial action, having indicated that it would be likely to plan such action at thresholds lower than this. It will also operate on an ex-post rather than a pre-emptive basis. We note for example that Chorus in New Zealand operates on the basis of a pre-emptive, 90% threshold of Chorus ports. (Further detail on this mechanism is set out in pages 14, 16 and 33 to 35 (inclusive) of the Grex Consulting presentation to the Product & Pricing Working Group). We welcome the proposed inclusion of other reporting metrics, but note that only the outages and recurring faults metrics are new, with the others already reported on under the WBA. NBN Co should undertake further work on both the scope and level of the metrics. We consider that regulatory oversight of these metrics is desirable either via the SAU or a record keeping rule process.

Form of regulatory control	• There seemed to be broad support among RSPs for ACCC's illustrative proposal of an annual weighted average price cap (WAPC) derived from the building block ARPU for non-competitive services, side controls covering: an up-front tariff approval process; maximum permitted price increases; specific CVC (as applicable) and anchor product controls; measures to protect RSPs and end customers from price movements arising from using discretionary prolonged discounts instead of permanent lower prices. • Another WAPC proposal put forward by a working group participant included anchor product regulation of the most popular product tier (50/20 Mbps) and specified limits on pricing relativities between speed tiers (although the latter is a second order issue at most). • NBN Co has signalled a preference for a revenue cap given concerns about downside demand risk. NBN Co proposes that it would supplement the revenue cap with individual product price caps. It has also flagged a mechanism whereby longer term discounts would need to be converted to SAU prices and take on relevant price increase obligations.	• A binding regulatory control on NBN Co is necessary to protect customers from excessive pricing, to encourage efficient use of and investment in the network and to improve certainty for RSPs and end customers. • Annual individual product price caps, a WAPC, a revenue cap or a hybrid arrangement that are based on the annual revenue allowance derived from the BBM are alternative means of achieving these outcomes. However, they have some fundamentally different incentive properties, even if, in the case of the WAPC and revenue cap, similar side controls are used to try and apply to achieve similar pricing outcomes. • Under a pure revenue cap, if demand is lower than expected future prices can be increased (via an 'unders' mechanism) in order to meet the revenue target. This means that over time NBN will earn the specified revenue irrespective of use of the network. With a WAPC, NBN would earn more revenue for selling more than forecast and earn less revenue for selling less than forecast. Accordingly, a revenue cap can dull incentives to outperform revenue expectations via increased output and also to encourage a reduction in output to lower any variable costs and thereby maximise profits. A revenue cap can be tweaked to achieve a future pricing outcome more similar to that under a WAPC by limiting the amount of the 'unders or overs' that can be recouped in future. • The ACCC prefers a WAPC over a revenue cap because it provides stronger incentives on NBN Co to meet or outperform its demand forecasts and thereby promote the use of the NBN, both in terms of the number of connections and utilised bandwidth (to the extent that there is a CVC component). It also provides for more flexibility to adjust prices to achieve efficient pricing outcomes than is likely to be available under individual product price caps. • NBN Co has indicated a preference for a revenue cap given concerns about downside demand risk. This would give it the option of being able to increase its future prices to meet its forecast revenue expectations. It is also proposing to introduce individual product price caps for all products covered by the SAU that could potentially limit its flexibility to change its prices within a regulatory period more so than under a WAPC. • Two issues feeding into whether to allow NBN Co to operate under a revenue cap rather than a WAPC are the robustness of NBN Co's current demand forecasts plus the expected level of demand risk faced by NBN Co looking further ahead. Current demand forecasts are based on NBN Co Integrated Operating Plan (IOP) forecasts that were prepared for NBN Co's annual corporate planning exercise. These will require additional consideration to ensure they are suitable for regulatory purposes, including that they incorporate more recent market developments that suggest reduced connections and bandwidth demand. • NBN Co has advised that the next IOP forecast will not be available until early next year until after it lodges the SAU, but before we make a decision to accept or reject it. Consequently, there is potential for demand risk to be addressed to some extent by rebasing the new forecasts that will become available.

		• Looking further ahead, it does seem evident that NBN Co is facing further down side demand risk from similar factors that make the current IOP forecasts look optimistic, but these could resolve or become more predictable over time. These include the growing impact of 5G fixed wireless competition and new advances in video compression technology. This is not to say there could also be a bandwidth hungry application that could drive demand growth in the opposite direction at some stage, but there does not appear to be anything immediately evident on the horizon. • In the face of lower than expected demand for NBN services, it is not evident that the appropriate response would be to increase prices. Moreover, this situation might be best avoided if effort is made by NBN Co to develop better demand forecasts to underpin its revenue expectations and pricing proposals. • On the matter of side controls to apply under the WAPC, we expect that NBN Co would need to list its annual prices for the regulatory reset period in advance but have the opportunity to modify these with sufficient prior notice so long as they met the overall cap and other side constraints. • There would be relatively generous price increase limits on individual product prices relative to the overall cap limit designed to protect customers from large price shocks from rebalancing of prices. • There should be tighter individual product price controls on an entry level product to ensure end-user accessibility and on the CVC price given its importance to access seeker cost certainty in combination with the potential high variability in demand for aggregation bandwidth. The entry level product control will also serve as an anchor on the price increases of higher speed tier products given the absence of strong individual controls on these products. We favour an AVC product anchor at the entry level is favoured as experience suggests if a higher tier product is used, lower tier products are increased in price close to the anchor. • Limitations on the use of discounts are necessary to stop discounts becoming the default pricing structure and causing uncertainty by creating a price increase overhang. We therefore envisage permitting discounting within a year, but that the discounted prices do not count as price reductions for the purpose of allowing other prices to increase under the WAPC. Longer term discounts would form part of the pricing structure and associated pricing constraints.
Low-income products/measures	• Proposals put forward by participants included low-priced basic products such as a low-cost basic connectivity product; support for a pre-payment/flexible on-off connection that would allow consumers to control their spend while still accessing the network; and low-income subsidies/rebates for eligible consumers on	• We support low-cost measures that NBN Co can take to make more affordable products available to RSP end customers. • To this end, NBN Co is proposing to introduce a cheaper voice only product as part of its SAU service offering. An appropriately price-controlled entry level broadband product can also be regarded as a component in delivering affordable NBN services to low income (and

	plans up to the 100/20 Mbps speed tier. • Working group participants recognised that ideally government would fund more expansive options rather than a cross-subsidy from access prices. The Department and ACCAN are collaborating on a policy proposal for broader low-income support outside of the SAU process. • NBN Co provided analysis that suggested the costs of comprehensive low-income subsidies would be substantial (including the subsidy and extra delivery costs).	other) customers. • NBN Co has developed on a commercial basis an on/off broadband service for RSPs that wish to use this to offer services to low-income customers. We would be receptive to this product being included in the SAU. • Aside from these initiatives, we are supportive of more comprehensive low-income initiatives such as product subsidies to be funded by direct government subsidy rather than NBN access prices for other customers given the substantial costs involved. Nevertheless, were the government to issue a specific directive to NBN Co to deliver further initiatives via cross-subsidy this would require our consideration under the SAU.