

# nbn Special Access Undertaking Variation: Response to ACCC Draft Decision

## 50/20 Mbps cost certainty

June 2023





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# 1 Executive Summary

This submission responds to one of the key issues identified in the ACCC’s Draft Decision (**Draft Decision**) on the Special Access Undertaking variation lodged by **nbn** on 29 November 2022 (**November SAU Variation**).

This relates to the ACCC’s concern about the potential residual cost uncertainty faced by RSPs in respect of the 50/20 Mbps<sup>1</sup> service, which it expressed as *“the pricing model proposed in the SAU variation leaves open a very broad range of cost outcomes when using the standard 50 Mbps wholesale offer over this period, and it is unlikely that retailers could efficiently manage the residual cost uncertainty without further support from NBN Co”*.

In its Draft Decision, the ACCC encouraged **nbn** to further consider this issue, and put forward the option that **nbn** should ‘cap’ charges for the 50/20 Mbps service, such that *“...a service acquired under the 50 Mbps wholesale offer would not exceed the monthly cost of the residential grade 100 Mbps wholesale offer...”*. Further, the ACCC noted that **nbn** should be able to do so *“...in a way that would lead to the same revenue outcomes as if its CVC reporting proposal was to work as intended.”*<sup>2</sup>

**nbn** understands RSPs’ desire for greater price certainty for the 50/20 Mbps service and acknowledges the ACCC’s commentary that some RSPs may not be able to efficiently optimise their retail product portfolio due to system constraints. While **nbn** believes the commitments already offered in the November SAU Variation provide significant and sufficient price certainty to RSPs, **nbn** has considered how it can provide additional cost certainty in respect of 50/20 Mbps services, while maintaining revenue neutrality, as part of the updated SAU variation **nbn** intends to lodge in June 2023 (**Amended SAU Variation**).

To address the ACCC’s feedback, and to satisfy the revenue neutrality requirement recognised by the ACCC in its Draft Decision, this submission presents two options for consideration – **nbn**’s preferred ‘floor and ceiling proposal’, and an alternative ‘average cap’ option. **nbn** is seeking feedback on which of these new options should be incorporated into the Amended SAU Variation. Absent clear support from RSPs to proceed with either option, **nbn** will maintain its current proposal of providing tools and data RSPs need to make informed choices about cost management and product selection.

**nbn** is prepared to introduce a new cost certainty framework (**Floor and Ceiling Proposal**) that would apply to all Bundled TC-4 Offers (i.e., for TC-4 speed tiers of 50 Mbps or lower), where the charge for an individual AVC, and the CVC utilised by that AVC, would be calculated independently on a per service basis and capped at no more than the price of the 100/20 Mbps flat-rate offer (initially \$55 in FY24). To ensure a revenue-neutral outcome, individual AVCs would also have a ‘floor price’ set at the fixed bundle charge for each of these speed tiers. There would be no other changes to the proposed price points, including bundle charges, CVC inclusions, CVC overage charges and flat-rate charges as set out in the November SAU Variation. This new cost certainty framework would ensure that, regardless of the types of end-users RSPs acquire, the total wholesale cost of an individual 50 Mbps service would be constrained to be, at most, the flat-rate charge for 100/20 Mbps. **nbn** believes the Floor and Ceiling Proposal is consistent with the intended outcome of the ACCC’s proposal and delivers increased cost certainty for RSPs.

**nbn** acknowledges that the Floor and Ceiling Proposal represents a significant change from the current approach, and will have differential impacts on RSPs, dependent on their speed-tier mix and distribution of customer usage. However, it should deliver significant additional cost certainty overall, provide an integrated pricing framework across all Bundled TC-4 Offers, and accelerate the transition to AVC-only pricing, while still being revenue neutral across **nbn**’s portfolio of services below 100 Mbps speeds.

<sup>1</sup> Note: In this paper, **nbn** uses the terms “50/20 Mbps” or “50 Mbps” to collectively refer to the 50/20 Mbps services provided over Fibre, HFC and FTTC networks, the 25-50/5-20 Mbps services provided over FTTN and FTTB networks, and the Wireless Plus services provided over the Wireless network.

<sup>2</sup> Draft Decision, p. 46.



If such an approach was to be implemented, the additional reporting **nbn** is committing to provide to RSPs (including daily AVC utilisation reports and monthly plan matching reports) would not play as important a role as it would otherwise have done under the current pricing framework. However, **nbn** recognises that this reporting may still be valuable to RSPs as they seek to better understand end-users' behaviour, relative contribution to CVC overage and to identify opportunities for upsell. Accordingly, **nbn** still proposes to include a commitment in the Amended SAU Variation to provide such reporting to provide RSPs with increased transparency in relation to their customers.

While **nbn** considers that the Floor and Ceiling Proposal addresses concerns raised about potential cost uncertainty, we recognise that some RSPs may prefer a 'lighter touch' approach that still delivers improved cost certainty, but without the same degree of change to **nbn**'s wholesale pricing structure. An alternative option is therefore also described in this paper (**Average Cap Option**).

For completeness, **nbn** notes that, in response to the ACCC's SAU consultation paper in February 2023, Telstra proposed that **nbn** could provide additional cost certainty by imposing a per-service cap of \$53 on the cost of individual 50/20 Mbps services without other changes to the pricing framework, including to national pooling of bundled services. **nbn** estimates that if this was applied to the pricing construct in the November SAU Variation, Telstra's proposal would have a revenue impact on **nbn** of the order of \$220 million p.a. over the First Regulatory Cycle and is therefore not a commercially viable option for **nbn**. Instead, **nbn** believes that the Floor and Ceiling Proposal described in this paper addresses the concerns raised by Telstra and delivers the cost certainty it was seeking to achieve.

Finally, this submission and any further concessions made by **nbn** should be considered in the context of the package of commitments in the November SAU Variation which deliver significant improvements in cost certainty for RSPs, and that RSPs already have the tools they need to effectively manage any residual variable cost exposure at the margins. Amongst the improvements already delivered in the November SAU Variation and subsequent commitments made by **nbn** in its 24 March 2023 letter to the ACCC are:

- The shift to utilisation-based billing for CVC, rather than billing based on acquired capacity;
- Immediate removal of CVC TC-4 charging for services with download speeds of 100 Mbps or higher;
- Committed timeframes and price glidepath for removal of CVC TC-4 charging for all fixed line and fixed wireless services by 1 July 2026;
- Twice-yearly indexation of CVC TC-4 inclusions to reflect changes in usage; and
- The provision of additional data and reporting to assist RSPs self-manage and 'optimise' their cost base.<sup>3</sup>

In this submission, **nbn**:

- recaps the rationale for the 50/20 Mbps pricing structure in the November SAU Variation (Section 2);
- describes the two options – the Floor and Ceiling Proposal and Average Cap Option – that would deliver increased wholesale pricing certainty to RSPs in a revenue neutral manner for **nbn** (Section 3);
- describes the reporting **nbn** is committing to provide to RSPs to support them to actively manage and understand the utilisation of their customer base (Section 4);
- highlights the pricing certainty already committed to in the November SAU Variation which will continue to apply (Section 5); and
- explains **nbn**'s concerns with an alternative marginal pricing cap proposed by Telstra (Section 6).

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<sup>3</sup> See **nbn**'s February 2023 submission in response to the Consultation Paper, p.14.

## 2 nbn’s proposed 50 Mbps pricing in the November SAU Variation is reasonable

### 2.1 nbn’s current 50 Mbps pricing balances multiple objectives

nbn considers that the effect of the 50/20 Mbps wholesale pricing proposed in the November SAU Variation has been overstated by a number of RSPs.<sup>4</sup> The effect of this pricing cannot be calculated simply from changes to the AVC charge, but also needs to account for changes to other pricing elements:

- the current AVC charge is \$45 per service per month (pspm), with a bundled inclusion of 2.65 Mbps of CVC pspm. CVC is currently charged on an as-provisioned basis, with no automatic indexation of inclusions for increased usage.
- the proposed AVC charge is \$50 pspm, with a bundled CVC inclusion of 2.5 Mbps pspm. CVC will be charged on as-utilised basis, with inclusions indexed at 50% of actual growth in usage, twice yearly.

The effect of this pricing on each RSP will depend on their currently provisioned and actual future CVC usage. Provisioned and actual usage varies between RSPs, which means that the eventual price for each RSP will be different. The average change across all RSPs as estimated by nbn is set out in Table 1 below.

As can be observed in Table 1, a key part of the pricing proposed in the November SAU Variation is to rebalance the AVC and CVC components to significantly increase cost certainty. The overage component on the 50 Mbps tier is expected to be around 1% of the industry’s ‘Average Combined Charge’ for that tier and to contribute less than 1% to nbn’s total TC-4 revenue in FY24.

**Table 1: Estimate of average 50 Mbps price change (pspm) – November SAU Variation**

Current approach	Value (as at Mar 2023)	Approach proposed in November SAU Variation	Value (as at Mar 2023)
A: Current fixed charge in Bundles discount	\$45.00	D: Proposed AVC charge	\$50.00
B: Average provisioned CVC capacity	3.1 Mbps	E: Average CVC utilisation	2.57 Mbps
C: Current inclusion of CVC in Bundles discount	2.65 Mbps	F: Proposed inclusion of CVC in Bundled TC-4 offer	2.50 Mbps
A+(B-C) x CVC overage charge: Current Average Combined Charge	\$48.60	D+(E-F) x CVC price: Estimated Average Combined Charge	\$50.56
<i>CVC component of charge</i>	<i>\$3.60</i>	<i>CVC component of charge</i>	<i>\$0.56</i>
<b>Change comparing Average Combined Charge</b>			
<b>4.0%</b>			

<sup>4</sup> In submissions to the ACCC making representations about the price effect of the change, only Telstra has applied the combined charge calculation correctly. Other RSPs have overestimated the impact of the price proposal on their average charge due to erroneous calculations – for example, by assuming that provisioned and utilised CVC will be the same.



**nbn** estimates that, under the November SAU Variation pricing, the likely change in the industry’s Average Combined Charge would be approximately 4.0% if the proposed 50 Mbps pricing was implemented today. This is substantially below the annual CPI increase of 7.8% reported in the December quarter. Importantly for cost certainty, the variable CVC component of the charge decreases substantially, on average, from around \$3.60 pspm to \$0.56 pspm based on March 2023 actuals. **nbn** expects this variable CVC component would reduce further following the introduction of the pricing proposed in **nbn**’s November SAU Variation as RSPs optimised their respective customer bases.<sup>5</sup>

The November SAU Variation pricing for the 50/20 Mbps tier balances multiple objectives, including:

- Minimising the expected level of overage to provide cost certainty to RSPs – **nbn** expects that for FY24 the Average Combined Charge of the 50 Mbps tier would be comprised of around 1% of overage.
- Providing a financial incentive for RSPs to upgrade heavier end-users to the AVC-only 100/20 Mbps tier. The \$55 wholesale price for 100/20 Mbps means that RSPs have incentives to actively engage with these end-users on whether their product selection is appropriate for their needs. Successful upsells in this cohort would reduce overage and lower the average cost of supply for remaining 50 Mbps tier services.
- Providing incentives to keep low usage customers on the **nbn** network – by attracting end-users with lighter usage, RSPs can benefit from CVC inclusions that offset overage from heavier-usage 50 Mbps customers or 25 Mbps customers (noting that 25 Mbps pricing has a much higher overage composition).

Further, **nbn** estimates that RSPs’ total TC-4 overage costs would comprise less than 5% of their total TC-4 costs in FY24-26, with the majority of overage costs expected to be generated on the 25 Mbps speed tier, which is designed to have a low fixed charge and high variable charge to cater to low usage customers.

The pricing in the November SAU Variation forms an integrated package that is designed to allow a balancing of objectives and promotion of desirable behaviours on the path towards the removal of CVC charging, as described further in section 5. The 50 Mbps pricing in particular needs to be considered in the context of the price reductions and shift to AVC-only pricing for high-speed tiers, the entry level pricing reset and shift towards the 25 Mbps. The 50 Mbps pricing proposal put forward by **nbn** in the November SAU Variation is designed to support these changes while preserving **nbn**’s ability to move towards cost recovery.

## 2.2 Reasonableness of **nbn**’s pricing should be assessed with regard to the pricing of all speed tiers

**nbn** recognises that it is tempting to analyse the merits of the pricing of each speed tier offering in isolation. However, taking such an approach overlooks that there are inter-dependencies between **nbn** offers, and that ultimately **nbn** is looking to provide incentives for RSPs and their customers to obtain services that will best meet their needs and is financially viable for RSPs to supply at the retail level.

### Pricing involves a balancing of objectives

The demand for **nbn**’s services is a function of the prices it sets across speed tiers, RSP positioning, customer willingness to pay, desired broadband experience as well as competition from other network providers. Prices should allow inexpensive entry points into fast broadband services. But this must be balanced against the objective of cost recovery, which can be promoted by charging more for faster and better-quality services. Over time, **nbn**’s expectation is that increasing willingness to pay will mean that customers will move up the value chain towards higher speed products.

<sup>5</sup> The price change estimate is an average across **nbn**’s customer base, and charges are expressed on an average pspm basis. This is not reflective of CVC charging practice, which allows for pooling of overage across all customers and TC-4 plans, so that an end-user with usage exceeding 2.5 or 2.65 Mbps will not necessarily produce an overage charge. Nor does this estimate account for wholesale plan optimisation by RSPs, which can lower the increase through shifting of higher speed users to 100/20 Mbps plans – which reduces average overage for remaining customers.

The pricing structure as a whole has been carefully designed (and monitored on an ongoing basis) to incentivise customers who use more data to move to higher-cost, higher speed plans; if that did not occur, customers may stagnate on a lower grade product that is not suited to their evolving needs, leading to poor customer experience and reduced product mix driven revenue growth for **nbn** which could ultimately lead to higher prices.

As **nbn** has previously explained,<sup>6</sup> this is consistent with the reasonableness criteria and the LTIE:

- While pricing CVC above the marginal cost of data is not ‘first best’ efficient, it facilitates a pricing approach that can maximise efficiency given constraints to maximising access as well as usage and to recover fixed and common costs.
- The pricing approach is non-discriminatory, promoting retail competition, and helps to overcome barriers for smaller RSPs through measures such as overage waivers and the move to utilised billing (as smaller RSPs typically have higher provisioning headroom).
- Seeking cost recovery is consistent with **nbn**’s legitimate business interests.

### Customers are not forced to upgrade

**nbn** also wishes to respond to suggestions that **nbn**’s pricing approach is forcing consumers to buy services they don’t need, meaning services that exceed their requirements. In **nbn**’s view, this significantly understates the complexity of the pricing challenge, and overlooks the critical concessions on pricing that **nbn** has already made with respect to CVC charging.

**nbn**’s proposals are designed to ensure that consumers that use more data on its networks pay more. This is economically efficient so long as data use is correlated with willingness to pay, which in **nbn**’s experience is almost universally true. Moreover, in **nbn**’s experience, product knowledge for broadband among consumers is relatively low, and RSPs are in the ideal position to shape product choices. For example, **nbn**’s data indicates that a relatively high proportion of users regularly hit their speed limits and so could potentially benefit from plan upgrades; the practical effect of not upgrading is that customers will experience lower streaming quality, delays in content delivery and reduced network stability. Matching appropriate plans to consumer needs will lead to better consumer experience, and enable **nbn** to recover the efficient cost of upgrading the network in a way that is highly correlated to how customers use the network.

The pricing structure should therefore provide some incentives for RSPs and for end-users to upgrade in line with increasing usage and willingness-to-pay. For example, **nbn**’s proposal to provide for 50% indexation of inclusions means that RSPs will experience modest increases in costs from usage growth, encouraging them to move customers to higher speed-tier services with no CVC charging (but a higher AVC charge). It is also important to note that **nbn**’s pricing proposal in the November SAU Variation in no way ‘forces’ RSPs to migrate customers. Instead, it provides an incentive for RSPs to optimise their wholesale costs by engaging with their customers to assist with their product selection or ‘bestowing’ higher speeds onto customers to improve customer experience and improve the RSPs’ value proposition.

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<sup>6</sup> See for example expert reports prepared by Frontier Economics on the proposed pricing arrangements in June 2022 and December 2022.

## 3 nbn's Floor and Ceiling Proposal for Bundled TC-4 Offers will deliver greater cost certainty

### 3.1 Introduction

**nbn** considers the current 50 Mbps pricing proposal in the November SAU Variation to be a critical part of its objective to move towards cost recovery in the First Regulatory Cycle. Any potential changes to the 50 Mbps pricing to that proposed would need to be revenue neutral, and ideally require little system changes and be simple to implement.

**nbn** understands RSPs' desire for greater cost certainty for the Bundled TC-4 Offers and acknowledges the ACCC's commentary that some RSPs may not be able to efficiently optimise their portfolio, even with the tools and reporting due to system constraints. In response to these concerns, **nbn** is prepared to introduce a new pricing certainty framework that would apply to all Bundled TC-4 Offers, where the effective price of individual AVCs would be calculated independently on a per service basis and capped at no more than the cost of the 100/20 Mbps flat-rate offer (initially \$55 in FY24). To ensure a revenue-neutral outcome, individual AVCs would also have a 'floor price' set at the fixed bundle charge for each of these speed tiers. There would be no other changes to the proposed price points, including bundle charges, CVC inclusions, and flat-rate charges outlined in **nbn**'s November SAU Variation.

This new cost certainty framework – the 'Floor and Ceiling Proposal' – would ensure that, regardless of the types of end-users RSPs acquire on the Bundled TC-4 Offers, the total wholesale cost of an individual 50 Mbps service would be constrained to be, at most, the flat-rate charge for 100/20 Mbps. **nbn** believes this framework is consistent with the intended outcome of the ACCC's proposal and delivers cost certainty for RSPs.

This approach is consistent with **nbn**'s broader transition to AVC-only pricing structure, as the effective price of an individual 50 Mbps service will be constrained to be between \$50 and \$55 (in FY24), providing a more certain and smoother transition to AVC-only pricing by 1 July 2026, as already committed to in the November SAU Variation.

**nbn** acknowledges that the Floor and Ceiling Proposal is a significant change from the current approach, and will have differential impacts on RSPs, dependent on their speed-tier mix and distribution of customer usage. However, it does deliver significant additional cost certainty overall, provides an integrated framework across all Bundled TC-4 Offers, and accelerates the transition to AVC-only pricing, while still being revenue neutral across **nbn**'s portfolio of services below 100 Mbps speeds.

If the Floor and Ceiling Proposal is implemented, the additional reporting described in section 4 would not play as important a role as it would otherwise have done under the current pricing framework. However, **nbn** recognises that the reporting may still be valuable to RSPs as they seek to better understand end-users' behaviour, relative contribution to CVC coverage and to identify opportunities for upsell. Accordingly, **nbn** still proposes to include a commitment in the Amended SAU Variation to provide such reporting to provide RSPs with increased transparency in relation to their customers.

While **nbn** considers that the Floor and Ceiling Proposal addresses the concerns raised about potential pricing uncertainty, we recognise that some RSPs may prefer a 'lighter touch' approach that still affords a degree of cost certainty, but without the same degree of change to **nbn**'s wholesale pricing structure. An alternative option – the Average Cap Option – is provided at the end of this section that would deliver cost certainty in relation to the average charges faced by RSPs in respect of the 50 Mbps service, but within the same overall billing framework for Bundled TC-4 Offers reflected in the November SAU Variation.



### 3.2 Overview of Floor and Ceiling Proposal for Bundled TC-4 Offers

A key feature of the pricing already proposed in the November SAU Variation, which reflects the current TC-4 Bundles Discount already in market, is that there is national pooling of CVC inclusions and utilisation across all bundled services. This framework is designed to provide RSPs with a level of cost certainty *on average* across all services and does not address the cost impact of individual services acquired at the margins, as RSPs will be able to “draw down” on the overall pool of CVC inclusions across all of their bundled services.

As already discussed, this has led to concerns about the potential cost uncertainty generated by high-usage customers, and the desire to ‘cap’ the wholesale charge associated with them. While **nbn** believes that average cost is more relevant for RSPs than the cost of individual services, noting that RSPs acquire customers at scale rather than individually, we have developed a new approach which directly addresses the concerns raised. However, recognising that any such ‘capping’ would mean that higher utilisation would not be offset by the inclusions from lower-usage customers, in order to deliver a revenue neutral outcome, it is necessary to also make corresponding adjustment to low usage AVCs generating excess CVC inclusions. In practice, this means that a ‘floor’ price needs to be put in place in conjunction with the ‘ceiling’ price for higher usage customers. This framework replaces the existing CVC inclusion sharing arrangement that occurs between light and heavy users on the network, where light users generate excess CVC inclusions which offset the cost of additional usage from heavy users on the network, moving nbn closer to AVC-only where the two cohorts of customers face the same price.

The outcome of this approach for 50 Mbps services is shown in Figure 1 below.

**Figure 1 - Pricing implications of Floor and Ceiling Proposal for 50/20 Mbps services**

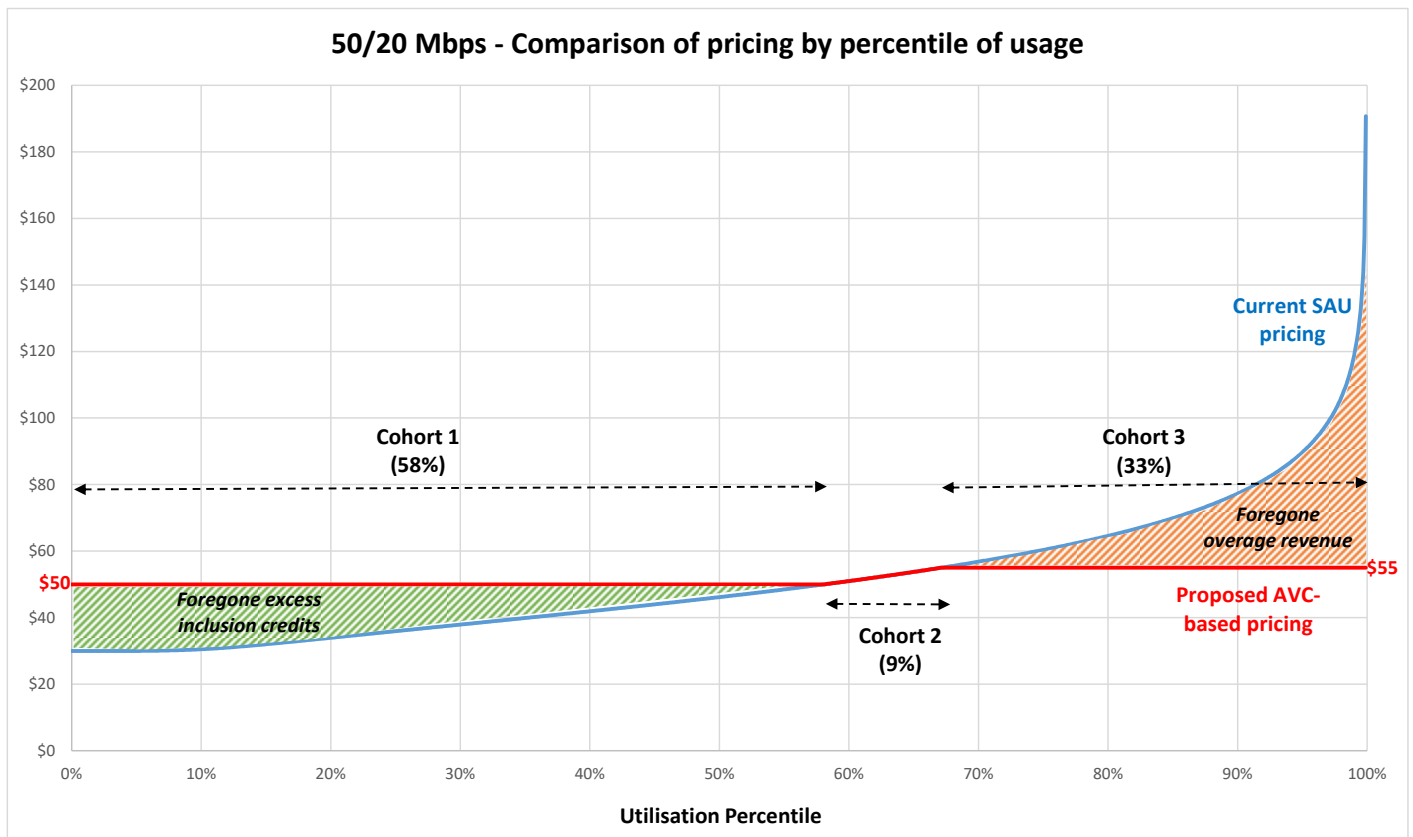
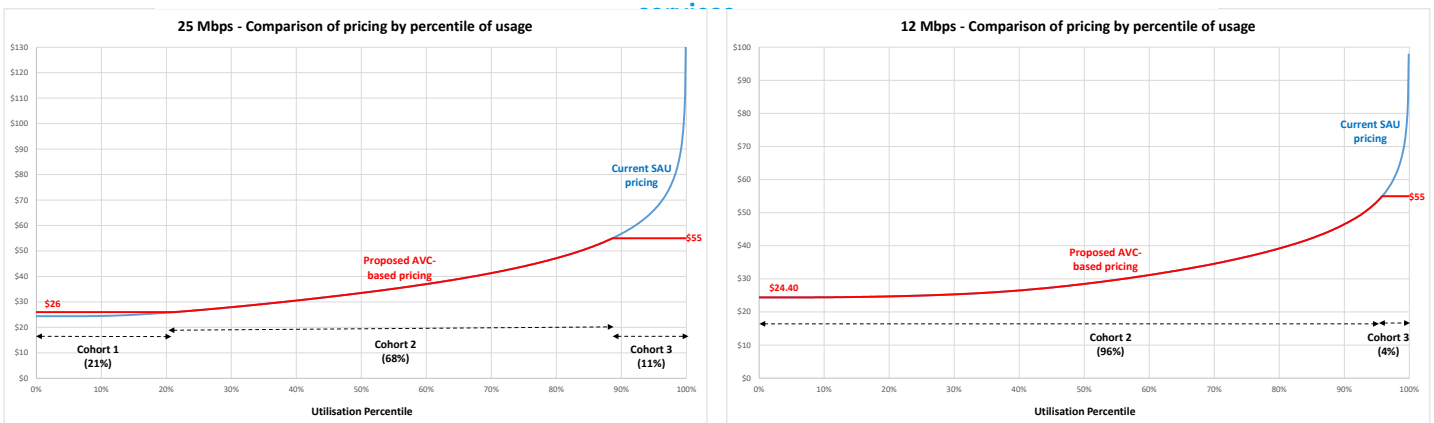


Figure 1 shows that, as at Price Transition Date, for 50 Mbps services with a peak utilisation of up to 2.5 Mbps (Cohort 1), AVCs would be charged at the ‘floor price’ of \$50, the current monthly fixed charge for the 50 Mbps service. For 50 Mbps services with a peak utilisation of 3.125 Mbps or more, which equates to an average charge of \$5 or more at \$8/Mbps

initially in FY24 (Cohort 3), AVCs would be capped at the ‘ceiling price’ of \$55 (the same as the AVC-only price for 100/20 Mbps services as at Price Transition Date). For the 9% of customers between Cohort 1 and Cohort 3 (Cohort 2), overage would be charged at \$8/Mbps/month – i.e., a variable charge between \$50 and \$55. As described in section 3.3 below, charges for each AVC would be established based on the peak utilisation of that AVC on a daily basis, with the resulting overall monthly charge for the service being based on the average of those daily charges. Thus, in the simple case where, over a 30-day month, an AVC had 15 days where its peak utilisation on any given day was less than 2.5 Mbps, and 15 days where its peak utilisation exceeded 3.125 Mbps, the total wholesale charge for that AVC for the month would be \$52.50.

The same approach would be applied to the 12 Mbps and 25 Mbps speed tiers, with the same ceiling price applied. Given the lower level of CVC inclusions for these Bundled TC-4 Offers, a much smaller proportion of customers would be in Cohort 1. As the monthly fixed charges are lower than the 50 Mbps service and utilisation levels are also lower, the proportion of AVCs on 12 Mbps and 25 Mbps that would benefit from the capped pricing is expected to be smaller, as illustrated in Figure 2 below.

**Figure 2 - Pricing implications of Floor and Ceiling Proposal for 25 Mbps and 12 Mbps**



The rationale for including all Bundled TC-4 Offers within the scope of the Floor and Ceiling Proposal, including the same ceiling price (rather than applying it only to the 50 Mbps service) is:

- nbn and RSPs will have consistent billing arrangements over all Bundled TC-4 Offers, simplifying the implementation of the proposal.
- Limiting the new Floor and Ceiling Proposal to only the 50 Mbps service could adversely affect a minority of RSPs relying on excess inclusions from their 50 Mbps services to offset CVC overage costs on their 12 Mbps and 25 Mbps services. Consistent treatment across all the Bundled TC-4 Offers ensures that commercial impacts are balanced. Namely, the application of the proposal on 12 Mbps and 25 Mbps services is expected to result in a net wholesale cost reduction for RSPs.
- The primary concern expressed by RSPs has been in relation to cost uncertainty in respect of the 50 Mbps service, and the interaction of the 50 Mbps pricing with the 100/20 Mbps pricing. The same dynamics (albeit to a much lesser extent) are also applicable to 12 Mbps and 25 Mbps services, where very heavy-usage end-users at the margins could give rise to a much higher wholesale cost for RSPs than the 100 Mbps and above flat-rate offers.

nbn also notes that the Floor and Ceiling Proposal would continue to provide the opportunity for RSPs to offer retail broadband plans targeted towards low usage customers on 12 Mbps and 25 Mbps, as lower-usage end-users on these speed tiers will result in lower wholesale costs for RSPs over the First Regulatory Cycle, prior to the transition to AVC-only pricing for all speed tiers.

For clarity, we note that the floor and ceiling price outlined in this section will evolve with the bundled charges of the relevant offers and the 100/20Mbps flat rate charge in the first Regulatory Cycle.

### 3.3 Proposed approach to implementation of Floor and Ceiling Proposal

The Floor and Ceiling Proposal will result in a number of changes to the way in which services are billed by **nbn**. Some features will be similar to those proposed to be used to implement the pricing construct contemplated by the November SAU Variation, namely:

- On each day, **nbn** would identify the peak hour for each CSA and for each RSP;
- **nbn** would measure and report AVC utilisation during the peak hour;
- **nbn** would determine which CSAs are eligible for the overage waiver for each RSP. This means that should a CSA for a given RSP fall under the overage waiver threshold, no overage will be calculated for any bundled services in that CSA<sup>7</sup>.

However, to charge CVC overage on a per service basis, **nbn** would need to make changes to its billing systems to implement the new approach, including:

- **nbn** would no longer aggregate CVC utilisation and inclusions across all bundled services for a given RSP and perform a ‘pooled’ overage calculation.
- Instead, the CVC overage calculation would be performed for each AVC at eligible CSAs on a daily basis, defined as *Daily AVC Overage*. Daily AVC Overage for a given AVC on a Bundled TC-4 Offer must be greater than or equal to zero, and is the lesser of:
  - $(AVC\ Peak\ Utilisation - CVC\ Inclusion) \times Overage\ Charge$
  - Difference between the Bundle Charge for the relevant offer and the 100/20 Mbps flat-rate charge applicable on that day (e.g., in FY24, this will be \$5 for 50 Mbps, \$29 for 25 Mbps and \$30.6 for 12 Mbps speed tiers)
- **nbn** would sum the Daily AVC Overage across all relevant AVCs for a given RSP on a daily basis (total daily overage).

An RSP’s overage bill at the end of the month would reflect the *average* total daily overage amounts across the relevant days in that month (equivalent to pro-rating the overage charge on a daily basis at the AVC level). Note that AVC charges would still be processed in advance, consistent with the current billing framework and would be pro-rated if there were changes within a given month.

If this approach were to be implemented, **nbn** would endeavour to make further system details available to RSPs as soon as practicable.

**nbn** does not anticipate that there would be direct flow-on impacts to RSP systems as a result of the introduction of the Floor and Ceiling Proposal, however **nbn** understands that some RSPs may wish to implement supporting functions and systems for internal reconciliation purposes. RSPs electing to do this may find **nbn**’s proposed reporting framework outlined in section 4 helpful, particularly the daily AVC utilisation reports which form the basis of the daily AVC overage calculations.

This proposal would also need to be reflected in changes to the Amended SAU Variation, in particular to reflect the floor and ceiling price applicable for each Bundled TC-4 Offer and to update the calculation of the Average Combined Charge (**ACC**) that feeds into the SAU price controls. In particular, the approach in the November SAU Variation of measuring average utilisation of a given Bundled TC-4 Offer Group to determine the ACC for each Bundled TC-4 Offer would no longer be appropriate, given that CVC overage would be charged on a per service basis. The calculation of the ACC would need to be revised and based on the average Daily AVC Overage incurred by the AVCs in the relevant Bundled TC-4 Offer Group (after the application of the floor and ceiling mechanism). Some minor consequential definitional changes would also be required to the CVC inclusion adjustment mechanism.

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<sup>7</sup> Note that the overage waiver is a Waiver offered under **nbn**’s Wholesale Broadband Agreement and is not a feature of the SAU itself.

### 3.4 Alternative approach to providing cost certainty for 50 Mbps – Average Cap Option

As discussed above, **nbn** considers that the Floor and Ceiling Proposal described in section 3.2 substantially addresses concerns that have been raised in relation to cost uncertainty. **nbn** has also identified an alternative approach which could be implemented within the pricing framework in the November SAU Variation – the Average Cap Option. This would introduce a new commitment that would constrain the *average* wholesale cost of supplying 50/20 Mbps services for each RSP.

The commitment would place a cap on the maximum monthly average combined charge<sup>8</sup> payable by an RSP for the 50/20 Mbps Bundled TC-4 Offer. This would ensure that for each RSP, the average charge payable for their 50/20 Mbps services in each month would never exceed that of the flat-rate charge for the 100/20 Mbps (\$55 in FY24). If the average charge for 50/20 Mbps services exceeded this flat-rate charge over the course of a month, **nbn** would rebate back the difference in price between that average charge and the flat-rate charge to any RSPs in that situation. The Average Cap Option differs from the Floor and Ceiling Proposal in that it does not apply to *individual* services, but rather operates on the average charge each RSP faces when supplying 50/20 Mbps services to their end-users. The level of the cap would evolve in FY25 and FY26 to reflect any changes to the 100/20 Mbps wholesale price.

The Average Cap Option would ensure that, regardless of the differences between each RSP's usage characteristics and the industry average, or the types of customers RSPs acquire on the Bundled TC-4 Offers, the average cost of supply for 50 Mbps services would be constrained to be, at most, the flat-rate charge for 100/20 Mbps services. **nbn** believes the Average Cap Option also addresses the concerns expressed by RSPs and the ACCC, and improves cost certainty for RSPs regardless of their ability to optimise customer product selection, or to take advantage of the additional reporting described in section 4.

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<sup>8</sup> This monthly average combined charge for each RSP would be determined using the weighted average of the Access Seeker Daily Combined Charges across the days in the relevant month, weighted by the number of 50/20 Mbps services acquired each day.

## 4 SAU commitments to provide additional reporting to support RSPs

**nbn** is committed to supporting RSPs to ensure that they and their customers have access to information they need to make informed choices about product selection. An important aspect of that is enabling RSPs to identify consumers that could benefit from plan adjustments based on their level of usage.

**nbn** proposes to include, in its Amended SAU Variation, a commitment to provide daily and monthly AVC utilisation reports to RSPs.

### 4.1 Daily AVC utilisation report

The new daily AVC utilisation report will provide usage information for each AVC being supplied as part of a Bundled TC-4 Offer, including the utilisation peak hour and measured throughput during that peak hour for each day. This usage information will help RSPs more readily observe individual consumer usage behaviour and quantify their contribution to total average costs. A sample of the report is shown in Figure 3.

Figure 3 - Example of daily AVC utilisation report

Date	Access Seeker ID	BAN	POI Name	CSA	CSA ID	AVC ID	Speed Tier	CSA Peak Hour	AVC utilisation in CSA Peak Hour	AVC Peak Hour	AVC utilisation in AVC Peak Hour	Basic Bundled Offer (Y/N)
20230107	111111111	BAN1234	2ALB – ALBURY	Castle Hill	CSA000001234	AVC0000000000001	12/1	8:00:00 PM	0.050000	8:00:00 PM	0.050000	Y
20230107	111111111	BAN1234	2ALB – ALBURY	Castle Hill	CSA000001234	AVC0000000000002	12/1	8:00:00 PM	0.010000	7:00:00 PM	0.150000	N
20230107	111111111	BAN1234	2ALB – ALBURY	Castle Hill	CSA000001234	AVC0000000000003	25/5	8:00:00 PM	4.550000	8:00:00 PM	0.100000	

The daily AVC utilisation report will complement the wealth of information **nbn** already provides to RSPs on a monthly basis via the plan matching report.

### 4.2 Monthly AVC utilisation report

**nbn** intends to deliver the monthly AVC utilisation report, which will aggregate AVC utilisation data from the daily AVC utilisation reports, as an augmentation to the existing monthly plan matching report **nbn** already provides to RSPs. In addition to the new AVC utilisation information, the augmented report will include detailed network information in respect of each AVC along with information regarding potential upgrade capabilities within the **nbn**® network such as available TC-4 products based on technology and fibre upgrade options. The network information in respect of each AVC includes aggregate usage information in the form of Gigabytes downloaded per month, and whether consumers are bottlenecked by their bandwidth limit (measured by the number of times their utilisation reached the maximum bandwidth in each month). A sample of the report is shown in Figure 4.

Figure 4 - Example of monthly AVC utilisation report

Existing Information														New Information																
Identifiers and Address Information											Nbn upsell opportunities			Product Information			Usage & Utilisation Information													
NBN Location ID	AVCID	PRIID	Tech Type	State	Postcode	Suburb	Region	SAM ID	FSA ID	POIID	PCI Name	EE LMI Zone	50 FBC	NBN Business FibreZone	EE Category	RSP Order Reference	Active Service-TC4	Active Service-TC2	Active Service-TC1	Total Usage	Total Upstream Usage	Total Downstream Usage	TC4 Product Available CALR	TC2 Product Available CALR	Total Maxing Out	Downstream Maxing Out	Upstream Maxing Out	Average utilisation in AVC Peak Hour	Average utilisation in CSA Peak Hour	Voice only Days
LOC00000000X	AVC00000000X	PRI00000000X	FTTP	NSW	2756	WINDSOR	URBAN	2RCH-02	2RCH	2WIN	Windsor	CBD	Y	Y	A	AGL Bryan Germain ACC270823	'50/20			182.7	22.5	160.2	All	All	10	7	3			
LOC00000000X	AVC00000000X	PRI00000000X	FTTN	NSW	2337	SCONE	MAJOR RURAL	25CO-20	25CO	2TAM	Tamworth	Zone 1	Y	N	A	Tamworth CVC Migration	'50/20			253.9	13.2	240.7	'50/20	'10/10	0					
LOC00000000X	AVC00000000X	PRI00000000X	FTTB	NSW	2017	WATERLOO	URBAN	2RED-62	2RED	2CYS	City South	CBD	Y	Y	A	City South CVC Migration	'25/5			193.4	35.4	158	'50/20	'20/20	16	1	15			
LOC00000000X	AVC00000000X	PRI00000000X	FTTP	VIC	3030	POINT COOK	URBAN	3PCO-06	3PCO	3WER	Werribee	Zone 1	Y	N	B	Werribee CVC Migration	'100/40			1946.1	57	1889.1	All	All	5	5	0			

nbn considers it is reasonable to expect RSPs to conduct active customer management on a small number of services to ensure these customers continue to be served by plans that best meet their needs as their broadband usage behaviour evolves over time. This is especially important in a market where we know there is a significant product knowledge gap for many consumers around what broadband service they need to best support their individual needs, and how plan selection could impact their overall connectivity experience.

## 5 November SAU Variation provides cost certainty for RSPs

**nbn** considers that the ACCC’s analysis in the Draft Decision overstates the degree of residual cost uncertainty faced by RSPs under the pricing proposed in the November SAU Variation and understates the ability of RSPs to manage it. RSPs manage uncertainties with input cost factors on a daily basis across all their customers and set retail prices such that, on average, the services are profitable to supply.

**nbn** acknowledges that cost uncertainty for RSPs can also arise from **nbn** price changes, or from unexpected changes in CVC usage by end-users. The package of commitments in **nbn**’s November SAU Variation reduces both sources of uncertainty:

- Price changes are limited by a weighted average price control (WAPC) framework as described in section 5.1.
- Usage-related uncertainty is managed through CVC overage pooling (section 5.2), utilisation-based billing (section 5.3), automatic twice-yearly indexation of inclusions (section 5.1), the ability to optimise plan purchasing (section 5.5), and removal of CVC charges from higher speed tiers (section 5.4).

In addition, **nbn** notes that CVC usage growth has become more stable and predictable over time (section 5.6).

If the Floor and Ceiling Proposal described in section 3.2 is introduced via the Amended SAU Variation, all the pricing certainty measures contained in the November SAU Variation described in this section will continue to apply (with the exception of the CVC utilisation and inclusion pooling construct, which will be replaced by the Floor and Ceiling Proposal).

### 5.1 Price changes are limited by a price control framework

Price certainty for the 50 Mbps tier is enhanced under the November SAU Variation by a number of existing and new mechanisms which reduce the potential for prices and costs to increase. Three important mechanisms include:

- Moving to charge RSPs for utilised (rather than provisioned) CVC, which removes the forecasting risk for RSPs associated with CVC provisioning.
- Twice-yearly automatic indexation of CVC inclusions at 50% of actual growth, providing a predictable path of bundled inclusions.
- The committed reduction in CVC overage rates and its removal by 1 July 2026.

Other general mechanisms that are designed to increase price certainty (or have that effect) include:

- A weighted average price control (WAPC) with side-constraints. The overall WAPC limits annual average price changes to no more than CPI initially (in essence, until **nbn** can achieve its building block costs), there is also an annual ‘greater of CPI or 5%’ restriction on the Flat Rate Offers and the Average Combined Charge of Bundled TC-4 Offers.
- A CPI cap on the entry level product (i.e., the 25 Mbps TC-4 speed tier in the first Regulatory Cycle) will act as an ‘anchor’ for price changes on the 50 Mbps TC-4 product via substitution effects.
- A Pricing Roadmap that sets out SAU Tariff List Prices for the coming Financial Year (Year 1 of the Pricing Roadmap) and indicative prices for two subsequent Financial Years. When publishing a Tariff List for the following year (Year 2), the TC-4 prices in that Tariff List are constrained in terms of how the relativities between those prices can differ from the relativities indicated in the Pricing Roadmap published previously.

## 5.2 Overage averaging allows RSPs to pool and share cost risks

The ACCC suggests that a wide spread of cost outcomes is likely under the proposal to retain CVC charging. This appears to overlook how overage charging works in practice. **nbn** considers it provides for considerable certainty for RSPs when they serve existing customers or acquire new customers.

In simple terms, when purchasing an AVC, RSPs will only pay for the amount of CVC that a customer consumes. **nbn** bundles a certain amount of CVC with an AVC. Where more CVC is utilised than is included, an overage charge arises. But overage is not charged on a per customer basis. Rather, overage is charged by **nbn** on a national basis for each RSP across all of its customers in aggregate. This means that:

- An end-user that uses relatively little CVC may produce ‘surplus’ CVC which can be used to offset the CVC usage of a higher demand end-user. For example, an RSP serving an end-user using an average of 3 Mbps of CVC for a 50 Mbps tier would not need to pay overage if it had another end-user using 1 Mbps of CVC.
- Offsetting of low- and high-usage customers occurs across all POIs (i.e., nationally). This means higher-than-average usage by an RSP’s customers in one part of **nbn**’s network can be offset by lower-than-average usage in another.
- Adding more customers would only influence CVC overage payable if it increased the average CVC usage across all users to exceed the average bundled inclusion (i.e., 2.5 Mbps x SIOs)

RSPs derive considerable benefits from averaging of this kind. CVC purchasing can be managed at a single point and the statistical likelihood of a small number of customers creating large CVC overage charges is very small.

To take the example cited by ACCC in the Draft Decision (footnote cited n81), noting that it is very unlikely customer acquisition at scale would exhibit significant skew from the average:

- Assume an RSP has 100,000 customers, with average CVC = 2.5 Mbps, meaning there would be no overage charge.
- Now assume the RSP acquires 2,000 new customers, all of whom are very high usage (in the top 2 percentiles), and averaging CVC usage of 15 Mbps per service. If these customers were billed in isolation, they would have an average combined charge of around \$150<sup>9</sup> –far above the industry average of around \$50.
- In total, this will increase the average CVC usage to 2.75 Mbps across existing and new customers. That will mean overage is now payable, with a bill of \$204,000 per month. That is a 4.0% increase per customer, and the CVC component of the RSP’s total monthly charge would be 3.8%.
- What this shows is that even in this most extreme example, the total cost to the RSP only increases by a relatively small amount. Of course, even in this situation, the RSP would also be better off simply serving the new customers with a 100/20 Mbps wholesale plan (optimising). This would cap the effective cost of servicing those customers at \$55 and raise the average cost per customer to \$50.10 – an increase of just 0.2%, whilst delivering significant improvement to those customers’ service experience.

## 5.3 The shift to utilisation-based billing facilitates greater cost certainty

During the transition period to AVC-only pricing for TC-4 services with download speeds of 50 Mbps or lower, **nbn** will reduce operational complexity for RSPs by only charging RSPs for the overage their customers actually use. This shift from charging for *provisioned* CVC TC-4 to charging based on *utilised* CVC TC-4 will help address concerns that the management of CVC provisioning represents significant complexity, risk and cost to RSPs. This measure will remove the forecasting risk for RSPs associated with CVC provisioning, which may improve their financial stability and reduce workload.

As with current arrangements, smaller and sub-scale RSPs are also protected from overage cost exposure via the overage waiver mechanism.

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<sup>9</sup> \$50 + (15-2.5) x \$8 = \$150, noting that it is highly unlikely for RSP to achieve such a skewed customer cohort in practice.



## 5.4 Removal of CVC for higher speed tiers

It is also important to note that following acceptance of the SAU variation, **nbn** will remove CVC charges for services with speeds 100 Mbps or higher. This is significant because data use and CVC requirements are higher for higher speed services, and the wider spread of usage for these speed tiers increases cost uncertainty for RSPs. **nbn**'s proposed changes to CVC mean that it, rather than RSPs, will bear the cost risk from higher-than-expected usage.

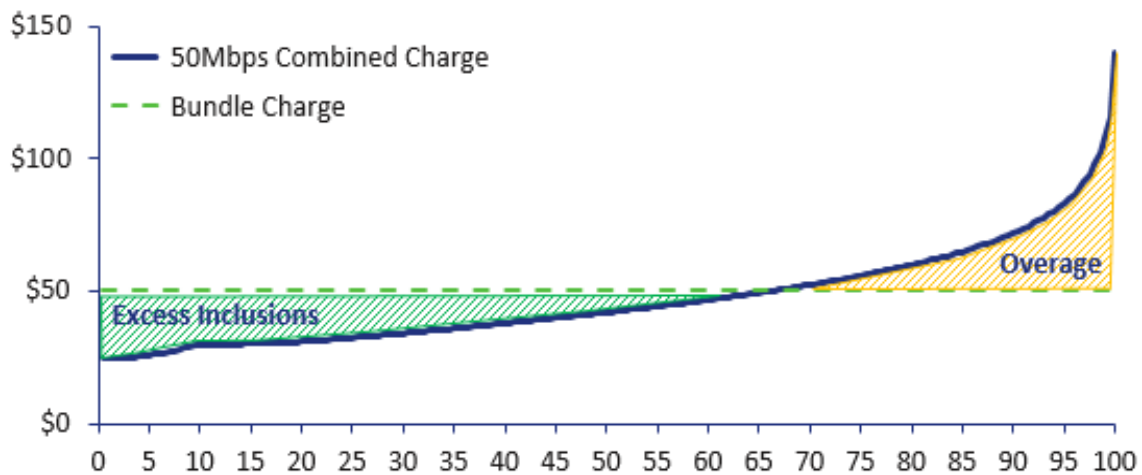
## 5.5 Overage can be reduced through plan optimisation by RSPs

With the proposed decrease in the 100 Mbps price and shift to AVC-only charging at \$55pm, RSPs will also be able to reduce their total **nbn** wholesale charges by moving their higher-use customers onto a 100 Mbps wholesale plan. This change will reduce overage for RSPs' remaining 50 Mbps customers. **nbn** encourages RSPs to pass the higher speeds on to end-users, either by upselling them to a higher value retail plan (improving end-user experience and potentially increasing retail margins) or bestowing the higher speed onto the customer with no additional charge (adding value and improving end-user experience).

The potential for RSPs to wholesale optimise is highlighted in the following figure, which shows the distribution of 50/20 Mbps customers and the CVC usage that (currently) would be cheaper to serve on a 100/20 Mbps plan.

Figure 5 - Usage profile on the 50 Mbps tier, February 2023

**Distribution of existing 50Mbps users and marginal prices**



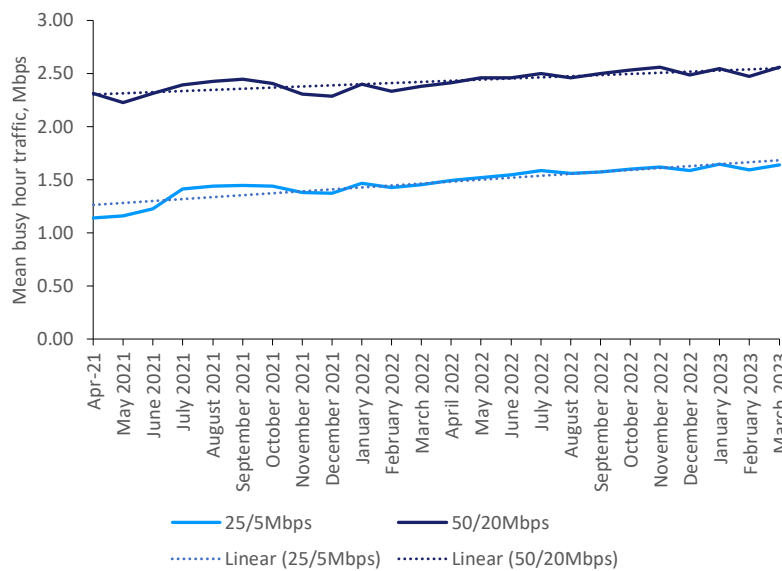
This figure suggests that, in principle, RSPs would benefit from moving around 25% of their customers onto a 100/25 Mbps wholesale plan. However, this is only a snapshot of a single month's data, and **nbn** considers it unlikely that customers would meet this threshold in all months. **nbn** would therefore expect RSPs to focus any wholesale optimisation activity to services that consistently use more data. Analysis by **nbn** indicates this is possible; based on usage data collected in October 2021:

- over 85% of users in the top six usage percentiles remain in the top six for at least six out of the next twelve months, and
- more than half of users will remain in the top six usage percentiles for at least eleven out of the next twelve months.

## 5.6 CVC usage growth is stable and predictable

In addition to the increased pricing certainty delivered by the November SAU Variation, **nbn** notes that the degree of cost uncertainty faced by RSPs has been further reduced in recent years. In part, this is a function of larger numbers of end-users, which increases the size of RSPs’ CVC pool and reduces the marginal effects of customer acquisition. A further factor reducing uncertainty is that the growth rate in data usage has stabilised over the last few years, including since the end of COVID-19 lockdowns. Figure 6 shows the growth in utilised CVC for the 50 Mbps tier and 25 Mbps tier, which each follow a stable, linear growth path. This pattern can be observed not just for industry average usage, but also for individual RSPs. Once an RSP reaches scale (i.e., more than a few thousand services), average usage across its customers exhibits a similar trajectory, with a stable and predictable trend over time.

**Figure 6 - Usage profile on 50 Mbps and 25 Mbps over a recent 24-month period**



## 6 50/20 Mbps price caps proposed to date would make nbn materially worse off

### 6.1 Residual concerns on 50 Mbps pricing

In response to the ACCC's SAU consultation paper in February 2023, Telstra submitted that a cap should be placed on the cost of individual 50 Mbps services if prices are allowed to increase:

*If NBN Co is enabled to increase the price of the 50/20 plan to \$50 + overage and expects heavy users to migrate to 100/20 plans, then there must be protections for end users whose NBN lines cannot support 100/20 speeds.*

*These customers would be protected if NBN were to cap the overage cost per customer on the 50/20 plan to \$3. In this case the maximum cost of supplying any customer on a 50/20 plan would be \$53, and the cost of the 100/20 plan would be \$55.*

By referring to a cap on “cost of supplying any customer”, this proposal would appear to involve capping the maximum overage contribution to \$3 per service and a maximum monthly cost per customer of \$53 per month – equivalent to capping maximum billable CVC bandwidth per service at 2.875 Mbps in FY24, without any further changes to the pricing framework proposed in the November SAU Variation.

In its Draft Decision, the ACCC expressed similar views and encouraged **nbn** to consider a \$55 price cap via a billing arrangement whilst maintaining revenue neutrality:

*We consider that an alternative means to provide cost certainty that NBN Co should also consider is to update its billing system to apply a cap on the combined AVC and CVC charge for a service acquired under the 50 Mbps wholesale offer. Such a billing rule could operate so that a service acquired under the 50 Mbps wholesale offer would not exceed the monthly cost of the residential grade 100 Mbps wholesale offer (i.e. initially \$55 per month).<sup>10</sup>*

The following section explains why the proposal put forward by Telstra would not be revenue neutral for **nbn**.

### 6.2 Telstra's proposal to cap marginal pricing at \$53 reduces nbn revenue and adds pricing complexity

Telstra's proposal as expressed would, in practice, cause a large revenue loss to **nbn**. A \$53 cap under the current billing arrangement on “the maximum cost of supplying any customer”<sup>11</sup> would affect every customer that uses more than (initially) 2.875 Mbps, as the cost of 0.375 Mbps overage plus AVC is equivalent to \$53 per service. This means the proposal would, in fact, affect around 25% of 50 Mbps tier customers or around 1.2 million services.

Telstra's proposal of capping marginal prices for heavy users (equivalent to capping their billable usage) would substantially disrupt the pricing balance. Without any further adjustments to the charging framework (i.e., removing national pooling and billing AVCs independently), the effects would be:

- To substantially reduce the average CVC usage of the 50 Mbps tier customers, as the “excess” usage of high-usage customers would effectively be excluded from the calculation of the average CVC utilisation. As shown in Figure 5 above, the distribution of usage is skewed significantly towards high-use customers, and therefore the exclusion of even a relatively small percentage of customers can materially change the average utilisation calculated. The average CVC usage of remaining customers would be below the current level of bundled inclusions. These excess inclusions would then be available to offset overage on the 25 Mbps, which has minimal CVC inclusions.

<sup>10</sup> ACCC draft report, p. 46.

<sup>11</sup> Telstra Submission to the ACCC Consultation Paper, 17 Feb 2023, p. 22.



- **nbn** estimates that all forecast overage revenue would be lost (~\$220M p.a.). Given there would be no offsetting expected increases to AVC revenue, this loss would significantly affect **nbn**'s forecast financial outcomes for FY24-26.
- The price premium between the 50 Mbps and 25 Mbps tiers would widen from around \$15 to ~\$24 (without overage, the Average Combined Charge of 25 Mbps would drop from ~\$35 to \$26). This jump in price premium would make 25 Mbps tier services more attractive and therefore likely produce downward movements in **nbn**'s speed tier mix (with potential for more revenue loss).

To address the revenue gap that would be created by Telstra's proposal under the current charging framework, **nbn** would need to rebalance pricing on the 25 Mbps tier, raising fixed charges and inclusions. This would deliver marginally higher cost certainty to RSPs but make it more difficult to offer value plans for lower-usage consumers – a particular area of concern for **nbn** and other stakeholders. **nbn** is in the process of developing a lower-usage capped plan; however, this plan is not yet in market and would not be implemented in time to stem volume losses.