



TELSTRA CORPORATION LIMITED

ALLOCATION LIMITS ADVICE FOR 850MHz EXPANSION BAND AND 900MHz BAND SPECTRUM ALLOCATION

Public submission

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EXECUTIVE SUMMARY

Telstra welcomes the opportunity to respond to the ACCC's consultation on its allocation limits advice for the 850 MHz expansion band and 900 MHz band allocation (**Consultation**). This 2x35 MHz¹ of low band spectrum is valuable for regional and in-building 4G and 5G mobile coverage. The approach taken to allocation limits is critical to ensure the spectrum is used efficiently to deliver pro-competitive outcomes for Australian consumers and businesses over the relevant licence term (at least 15 years from 30 June 2024).

To promote these outcomes, we believe the following approach to allocation limits should be adopted:

1. **An allocation limit set on any basis must allow all MNOs to bid for at least 2x15 MHz:** Such a limit will appropriately protect against the potential risk of monopolisation. At the same time, it will ensure that each of the mobile network operators (**MNOs**) can continue to meet customer demand and improve its market offerings, through the acquisition of larger contiguous low band holdings. In the likely event that only the MNOs bid at auction, it will also promote competitive auction tension, allowing price discovery so that the spectrum can move to its highest value use and reducing the risk of inefficiencies and forgone competitive and consumer benefits due to unsold or undervalued spectrum.
2. **It is not appropriate to include existing holdings in any limit:**
 - We are very concerned that including existing holdings in any allocation limit set could reduce, rather than enhance, competition in the downstream mobile market, especially if such limits are designed to reduce asymmetry between MNO holdings. No MNO currently holds a spectrum monopoly, and there is nothing inherently anti-competitive about asymmetric holdings. Indeed, asymmetric holdings support service differentiation - a well-recognised attribute of competitive markets.
 - When considering relativities between the holdings of different MNOs, it is MHz/service in operation (**SIO**) (across the range of bands) that matters to ensure each MNO can support the needs of its customers. MNOs need to be able to acquire sufficient spectrum to be competitive in meeting the ongoing demand from their existing customers and invest in enhancing their services to attract new customers. When viewed through the MHz/SIO lens, it is apparent that some MNOs are spectrum-rich, and arguably spectrum inefficient, relative to rivals who may have numerically higher holdings, as shown in the following table for metropolitan spectrum:

[c-i-c]
 - Assessments based on simply adding up MNOs' existing absolute holdings are therefore liable to result in competitively distortive and inefficient outcomes. Yet allocation limits by their nature involve spectrum acquisition restrictions in absolute terms, creating the risk of regulatory error when attempting to translate a MHz/SIO assessment into an absolute limit.
 - Incorporating existing 700 MHz holdings in the limits would also penalise operators for investments made in the original 700 MHz competitive processes, along with undermining the intent of the limits set in those processes and sending signals dampening future MNO investment incentives, to the detriment of downstream competition.

¹ Plus 2x1MHz of "downshift spectrum", which will be added to the lowest 900MHz lot, and which will need to be added to the allocation limit for any bidder acquiring this lot.



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- It would also fundamentally distort the market allocation process and competitive outcomes to the detriment of customers throughout Australia if existing regional 850 MHz holdings were to limit bidders in acquiring consistent national licences in the 900 MHz and 850 MHz expansion bands at auction.
3. **Allocation limits should not guarantee spectrum to any bidder.** Such guarantees or “set-asides” are unnecessary, distorting the market allocation process to the detriment of competition and consumers and should be rejected. To minimise harm in the event that this proposal still proceeds:
- Each MNO should be treated equally, with the option to acquire 2x5 MHz of 900 MHz spectrum.
 - Any “guaranteed” spectrum acquired by a bidder in the auction must be counted towards its allocation limit (the ACMA has indicated bidders with ‘set asides’ will have the option of declining that set-aside at the commencement of the auction).
 - The price paid for this spectrum should be the final unit price achieved at auction for the 900 MHz band.



01 Overview of key principles

1.1. Allocation limits must allow all MNOs to bid for at least 2x15 MHz

All carriers need to be able to acquire additional spectrum (through price-based allocation processes) to keep pace with customer data needs and to be able to continue improving their market offerings, thus promoting competition and benefits for consumers.

It is key to the continued competitiveness of the Australian mobile market and continued MNO investment in mobile infrastructure and latest technology for the benefit of all Australians that any auction allocation limit does not inadvertently impair the ability of larger operators to continue to compete effectively, to innovate, and to meet the ever growing bandwidth requirements of end-users over the course of the spectrum licence term (i.e. at least 15 years from 30 June 2024).

In the present case, there are also aggregation benefits (increased efficiency of network deployment the wider the channel deployed) to operators of being able to acquire multiple contiguous lots, with these benefits increasing for contiguous acquisitions of up to 2x15 MHz lots.²

We thus submit that there would be a material risk of constraining mobile competition and efficient network deployments to the detriment of end-users in the case of any cross-band limit which did not allow each of the three MNOs flexibility to acquire a minimum of 2x15 MHz of contiguous spectrum in the auction, should they seek it.

The spectrum licences on auction are optimised for mobile broadband, which the ACMA considers the highest value use of the spectrum³. It is possible only the three MNOs will participate in the auction, with potentially less value placed on some lots by some MNOs. Any allocation limit which does not allow each of the three MNOs flexibility to acquire a minimum 2x15 MHz of contiguous spectrum in the auction is thus likely to materially reduce competitive auction tension. This in turn would risk inefficiencies in the form of unsold, or undervalued hence under-utilised spectrum, limiting use of the spectrum to promote competition and deploy 4G and 5G in the downstream national retail mobile market, to the detriment of end-users and the public benefit.

This outcome can best be achieved through a simple 2x15 MHz acquisition limit (without regard to any existing holdings). This would prevent any potential for monopolisation, by limiting acquisitions to 43% of the auction spectrum⁴ – a threshold which is consistent with limits imposed in previous allocations. It would ensure there was no potential for monopolisation of total currently available sub-1GHz spectrum,⁵ although the relevance of such considerations is lower, given the potential for an additional 84MHz of sub-1GHz spectrum to become available for mobile in the 600 MHz band from as soon as 2026.⁶

² See ACMA, May 2020 Recommendation <https://www.acma.gov.au/consultations/2020-05/draft-spectrum-re-allocation-recommendation-850900-mhz-band-consultation-142020> (pp. 33; 23). See also ACMA, April 2019 Options Paper, p. 12 - <https://www.acma.gov.au/sites/default/files/2019-08/IFC-11-2019-Consultation-paper-Reconfiguring%20the%20900%20MHz%20band.docx>.

³ See ACMA, May 2020 Recommendation <https://www.acma.gov.au/consultations/2020-05/draft-spectrum-re-allocation-recommendation-850900-mhz-band-consultation-142020> (p 22)

⁴ I.e. 2x15 MHz out of the 2x35 MHz of spectrum to be made available at auction.

⁵ As no bidder acquiring up the limit would hold more than 45% of sub-1GHz spectrum held nationally or in metropolitan areas.

⁶ See *Media Reform Green Paper: Modernising Television Regulation in Australia*, November 2020. In the United States T-Mobile is using the 600 MHz band for 5G across the country.



Under any proposal to set a cross-band limit (with which we strongly disagree for the reasons set out below), achieving this outcome would require a limit of at least 2x25 MHz (if including 850 MHz holdings)⁷, or 2x45 MHz (if also including 700 MHz holdings)⁸.

1.2. It is not appropriate to include existing holdings in any limit

We are very concerned that including existing holdings in the allocation limits could reduce, rather than enhance, competition in the downstream mobile market, especially if such limits are designed to reduce asymmetry between MNO holdings. No MNO currently holds a spectrum monopoly, and there is nothing inherently anti-competitive about asymmetric holdings. MNOs compete over many factors including the extent, quality and depth of their network coverage, retail support and price and service inclusions. Service differentiation is a well-recognised attribute of competitive markets, and asymmetry of holdings can support this by allowing competing MNOs to meet the network requirements of different customer bases and traffic levels.

When considering relativities between the holdings of different MNOs, it is MHz/ (SIO) (across the range of bands) that matters to ensure each MNO can support the needs of its customers. MNOs need to be able to acquire sufficient spectrum to be competitive in meeting the ongoing demand from their existing customers and invest in enhancing their services to attract new customers. This includes meeting the larger capacity requirements of larger customer bases.

When viewed through the MHz/SIO lens, it is apparent that some MNOs are spectrum-rich, and arguably spectrum inefficient, relative to rivals who may have numerically higher holdings, as shown in the table in the Executive summary and our response to Question 9 in Attachment 1. **[c-i-c]**

Assessments based on simply adding up MNOs' existing absolute holdings are therefore liable to result in competitively distortive and inefficient outcomes - contrary to the ACCC's allocation limits assessment criteria and the government's policy objective in allocating the 850/900 MHz band. Yet allocation limits by their nature involve spectrum acquisition restrictions in absolute terms, creating the risk of regulatory error when attempting to translate a MHz/SIO assessment into an absolute limit.

Further, the asymmetry in the MNOs' existing 700 MHz holdings reflects each operator's deliberate choices in previous competitive processes, made within the bounds of competition limits recommended by the ACCC and adopted by the Minister in those processes. While still protecting against monopolisation of the 700 MHz band (and resulting in no MNO holding more than 44% of that band), the competition limits set for the 700 MHz band purposefully facilitated the opportunity for competitive differentiation between the MNOs, preferring this option to a 2x15MHz limit that would have resulted in more symmetric holdings, but a less competitive market outcome⁹. It would undermine the policy intent of these limits, set less than a decade ago, to now penalise operators who have prudently taken past opportunities to invest in the quality of their services, by setting allocation limits precluding them from continuing to do so through further sufficient spectrum acquisitions in the current auction.

Non-contiguous holdings of spectrum across multiple bands are also of less value than contiguous same-band allocations for use in downstream markets, with aggregation coming at a cost to the operator, being inherently less efficient, and with not all mobile handsets able to aggregate all available bands.¹⁰ An operator's ability to compete is therefore likely to be unfairly hampered relative to its rivals, if

⁷ Still ensuring no bidder could acquire more than 45% of this 2x55 MHz of spectrum.

⁸ Still ensuring no bidder could acquire more than 45% of this 2x100 MHz of spectrum.

⁹ See Competition limits on the sale of digital dividend (700 megahertz) and 2.5 gigahertz spectrum: Regulation Impact Statement, p 9 -

https://ris.pmc.gov.au/?combine=spectrum&field_categories_tid=All&date_filter%5Bvalue%5D%5Byear%5D=&page=1

¹⁰ As an example, the lowest tier 4G devices sold today still only support a single band (at a time) so cannot aggregate spectrum.



it is unable to acquire spectrum to create larger contiguous holdings on the basis of its existing non-contiguous holdings in a different band – such as holdings of non-adjacent 700 MHz spectrum.

The existing 850 MHz holdings differ between metropolitan and regional areas. As the Consultation acknowledges, the economic returns from spectrum covering sparsely populated regional and remote areas are typically lower than in metropolitan areas¹¹. As the ACCC also acknowledges, it is competition in metropolitan areas that drives consumer prices in regional areas due to nationally consistent service offerings.¹²

We strongly support the ACMA's view that the 850/900 MHz spectrum on auction should be offered as a national licence, as this will make best technical and economic use of the 850/900 MHz band.

Given this context, it would be highly distortive of competitive outcomes and detrimental to consumers and the future rollout of 4G and 5G services in Australia if an MNO was to be limited in its ability to acquire nationally licenced 850 MHz or 900 MHz spectrum in the auction, on the basis of its regional holdings of 850 MHz spectrum. This risk is averted if the allocation limit does not include any existing holdings.¹³

In light of all of the above, we are therefore of the strong view that the MNOs' existing sub-1GHz holdings should not be determinative of the allocation limits set for the 850/900 MHz auction.

1.3. There should be no spectrum guarantees

It is integral to the ACCC's advice to the Minister on whether allocation limits should be imposed and if so what those limits should be, for the ACCC to consider whether any such limits should include a spectrum guarantee to any party (such as the Minister has indicated there may be grounds to do in the case of Optus and TPG, and has requested the ACCC to consider in the case of Telstra).

On our present understanding of the ACMA's plans, the guaranteeing (or "setting-aside") of one of the five available 2x5 MHz lots of 900 MHz auction spectrum to one or more of the bidders would operate so as to distort the competitive auction process; risk unfair advantage in downstream markets being conferred on the recipients; risk spectrum not going to its highest value use; risk fragmentation causing spectrum to go unsold or inefficiently utilised (especially if as proposed only the upper four 900 MHz band lots are designated for this purpose); and/or risk delays to 4G and 5G deployment by removing efficient incentives for MNO investment in these technologies.

It is thus Telstra's strong preference, which we have also shared with the Minister, that there should be no guarantee of spectrum made in favour of any operator and we believe this proposal should also be opposed by the ACCC on the same grounds. It is our firm belief that the auction bidding process subject to ordinary competition limits will naturally ensure that where the use of spectrum for purposes of service continuity is the more highly valued use, bidders valuing it for this purpose will secure it. We also note the ACMA has consistently found that employment of a lengthy transition window to the new configuration, as is now proposed, is a suitable option to mitigate risks to consumer service continuity.

In the event that the proposal for spectrum guarantees nevertheless proceeds, it is imperative the beneficiaries do not thereby obtain an unfair competitive advantage in the downstream national retail

¹¹ Consultation, p 9.

¹² Consultation, p 7.

¹³ In the event a sub-1GHz cross-band limit were to be set, this risk could only be avoided if only metropolitan holdings of 850 MHz were included in the limit. We note that the effect of regional 850 MHz holdings can be captured in a population weighted national equivalent 850 MHz holding. In Telstra's case, this would result in an equivalent holding of 2 x 11.4 MHz, which would need to be rounded to the nearest 5 MHz – so 2x10 MHz – the same as Telstra's metropolitan holdings.



mobile market – which could distort competitive outcomes to the detriment services, investment, innovation and the long-term interests of end-users. We believe the following approach must be taken to achieve this:

- To maintain a level competitive playing field between each of the three MNOs and in order support each MNO in maintaining service continuity for its customers, each MNO should be offered the chance to acquire one “guaranteed” 2x5 MHz lot in the 900 MHz band. Discrimination in favour of only some MNOs and not others should not be supported by the ACCC.
- Any “guaranteed” or ‘set-aside’ spectrum acquired by a bidder must be counted towards its allocation limit, in the same way as any other spectrum it acquires at auction.
- The price paid for any “guaranteed” spectrum acquired should be determined as the final unit price achieved at auction for the band in which the “guaranteed” spectrum is located (excluding any assignment bids, which are paid separately).
- The ACCC should advise against any proposal for “guaranteed” spectrum to be offered at the ‘starting’ or ‘reserve’ price, on competition grounds. This would be an unprecedented and extremely aggressive regulatory intervention, fundamentally distorting the market and utterly inconsistent with the proposition market forces should determine the highest-value use for spectrum.
- In the event that “guaranteed” spectrum is priced at anything less than the final unit price achieved at auction for the relevant band (excluding any assignment bids), equivalent downwards adjustments must be made to the final unit price payable by the other successful bidders in order to place all persons acquiring spectrum in the auction on a fair and even footing - noting that even a slight difference in price/MHz/pop can cause the price payable to differ by millions of dollars. The easiest way to do this is for the first non-guaranteed 2x5 MHz purchased (in either band) by any bidder¹⁴ to be sold at the same price as any guaranteed ‘set aside’ lot acquired by other bidders.

¹⁴ This should include any spectrum initially offered as a guaranteed ‘set aside’, but declined at the auction commencement.



02 Expected use of and demand for the 850/900 MHz bands

The bands proposed to go to auction are part of a number of sub-1GHz bands that have been internationally harmonised for mobile broadband services. The ACMA has determined that mobile broadband is the highest value use for this spectrum and has optimised it for this purpose.¹⁵ Given the propagation characteristics of the 850/900MHz bands (facilitating relatively wide coverage areas), to ensure the spectrum can be used most efficiently, and importantly to avoid unusable “dead-zones” required to manage interference, we support the ACMA’s current expressed preference to offer both bands in nationwide lot configurations.¹⁶

Telstra accordingly agrees with the ACCC that the most likely use for both bands will be for the provision of mobile services and that demand for this spectrum is likely to come from the MNOs.¹⁷ As was the case for the 2013 and 2017 auctions of low-band spectrum in the 700 MHz band, it is likely that demand will come exclusively from the MNOs.¹⁸

We also agree with the ACCC that the 850 MHz and 900 MHz bands are suitable for the deployment of any generation of mobile technology, including 4G and 5G.¹⁹

We do not expect material ongoing usage for 3G services.²⁰ The ACCC’s present allocation limits advice pertains to spectrum which will not become available for reallocation for another 3 ½ years, i.e. from 30 June 2024, and it is important to keep this deferred commencement period in mind when considering the “short term” impact of any limits. By the time this spectrum becomes available for reallocation after 30 June 2024, Telstra will have shut down our 3G network, and we expect the number of 3G devices and 4G non-VOLTE enabled devices remaining in the customer base of the other MNOs to be limited.

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¹⁵ See ACMA, May 2020 Recommendation <https://www.acma.gov.au/consultations/2020-05/draft-spectrum-re-allocation-recommendation-850900-mhz-band-consultation-142020> (p 22)

¹⁶ ACMA, May 2020 Recommendation <https://www.acma.gov.au/consultations/2020-05/draft-spectrum-re-allocation-recommendation-850900-mhz-band-consultation-142020> (p 27)

¹⁷ Cf Consultation, p 5.

¹⁸ See <https://www.acma.gov.au/auction-summary-700-mhz-residual-lots-2017>.

¹⁹ Consultation, p 5.

²⁰ Consultation, pp 5-6.



03 State of competition in the relevant downstream mobile market

Telstra agrees with the ACCC that the key relevant downstream market impacted by the approach to allocation limits is the national retail mobile services market, which is a market for similar but differentiated services.²¹ Australia's retail mobile market is competitive and open, with competition between the three MNOs over many factors including the extent, quality and depth of their network coverage, retail support and price and service inclusions. This delivers strong benefits to consumers, including increased value in mobile plans and falling prices, high levels of ongoing investment²² and ever improving coverage.

While the description of the Australian retail mobile market in the Consultation focuses on the present state of available services, it is important to keep in mind that the spectrum to which the ACCC's advice pertains will not become available for reallocation until after 30 June 2024. The relevant period for considering the impact of any allocation limits on competition, investment, technology deployment and the long-term interests of end-users is thus the 15-year period²³ commencing only as from 30 June 2024.

Telstra is already progressively re-farming part of our 3G spectrum for use to deploy 5G services, and we will shut-down our 3G network in mid-2024. Thus, while the Consultation is correct that current 5G network footprints are still limited by comparison with 3G and 4G network footprints today, this picture will look materially different over the period 2024-2039, when the licences will be in effect. In particular, we expect to see MNOs focussing almost entirely on 5G services competition and a markedly lower importance of 3G services, even in the short term during the initial part of the licence period.

We therefore disagree with the suggestion in the Consultation that the allocation of spectrum in the 900 MHz band is likely to have any material ability on the ability of Optus or TPG to compete in the mobile services market in the short term, as a result of the impact on their ability to continue to operate 3G services²⁴. We submit that fair and open access by all MNOs to all of the additional low-band spectrum should be made available through the auction (without guarantees or "set-asides" over any parts). This will allow every MNO the opportunity to invest in supporting a range of different user needs throughout Australia, including improved quality of existing services and access to new 5G technology, as well as service continuity for legacy technologies in appropriate cases. This in turn will be the best way to promote vigorous competition in the mobile market and optimal end-user outcomes across Australia's different geographic areas in the short, medium and longer term.

The time horizon for the ACCC's assessment is also important when considering the availability to the MNOs of alternative sub-1GHz spectrum to the 2x35 MHz to be auctioned. In particular, the potential for an additional 84 MHz of sub-1GHz spectrum to become available for mobile use in the 600 MHz band from as soon as 2026²⁵ suggests it would be preferable to adopt a less restrictive approach to any limits imposed in the present 850/900 MHz auction. This will allow maximum benefits from the acquisition of larger contiguous lots to flow through to end-users as a result of the current process in the short term, with the opportunity remaining for bidders who may not acquire their target holdings in this auction to acquire substantial amounts of alternative sub-1GHz spectrum subsequently.

²¹ Consultation, pp 7-8.

²² See e.g. the findings in ACCC, Communications Market Report 2019-20, December 2020 at pp 1; 3; 5; 16: 31-39 - <https://www.accc.gov.au/publications/accc-telecommunications-report/accc-communications-market-report-2019-20>

²³ Potentially up to a 20 year period, under the amended RadComms Act, which will come into force in June 2021.

²⁴ Cf Consultation, p 8.

²⁵ See *Media Reform Green Paper: Modernising Television Regulation in Australia*, November 2020. Cf the Consultation at p 9, which incorrectly suggests that there is currently no foreseeable allocation of another low band.



04 Current spectrum holdings and need for allocation limits

4.1. Allocation limits must allow all MNOs to bid for at least 2x15 MHz

Spectrum is a finite, much sought after, costly resource. MNOs have strong incentives to maximise spectrum utility and usage for any spectrum they acquire, and there is absolutely no evidence, and never has been any evidence, that any MNO would seek to hoard 850/900 MHz spectrum acquired in the auction for anti-competitive purposes. The Government has also recently published a green paper on the potential to free up an additional 84MHz of sub-1GHz spectrum for mobile in the 600MHz band.²⁶ Even without allocation limits (or spectrum guarantees for any operator), there is thus the potential for each of the MNOs (and/or any other bidder placing a higher value on the spectrum) to win 850/900 MHz spectrum in the auction.

However, Telstra appreciates that allocation limits are a widely used regulatory tool to ensure there is no risk of monopolisation by any one bidder. In the event that it is determined to impose allocation limits for this purpose in the present auction, Telstra recommends a simple 2x15 MHz auction spectrum acquisition limit, ignoring existing holdings, representing 43% of the total 2x35 MHz to be auctioned²⁷.

Such a limit will ensure that no single bidder is able to obtain a majority of the auction spectrum. It would also have the effect of ensuring no MNO held more than 45% of the current available sub-1GHz spectrum,²⁸ before considering the potential for additional 600 MHz spectrum to become available in the near future.

It is key to the continued competitiveness of the Australian mobile market and continued MNO investment in mobile infrastructure and latest technology for the benefit of all Australians that any auction allocation limit does not inadvertently impair the ability of larger operators to continue to compete effectively, to innovate, and to meet the ever growing bandwidth requirements of end-users over the course of the spectrum licence term (i.e. out to at least 2039). We submit that this would be a material risk in the case of any cross-band limit which did not allow each of the three MNOs flexibility to acquire a minimum of 2x15 MHz of contiguous spectrum in the auction.

By contrast, a 2x15 MHz auction spectrum acquisition limit (without regard to existing holdings) will ensure that all bidders are able to maximise the aggregation benefits flowing from larger contiguous holdings of 850 MHz and 900 MHz spectrum, and that all MNOs can achieve optimal aggregation benefits from larger contiguous lots.²⁹ All carriers would thus be able to acquire additional spectrum to be able to continue improving their market offerings. At the same time, due to the potential for demand to exceed supply in the case of three or more bidders, the prospects of competitive auction tension will be promoted and the ability for MNO service differentiation through their spectrum acquisition strategy maintained. These factors combined will reduce the risk of inefficiencies in the form of unsold, or undervalued hence under-utilised spectrum, and maximise the prospects for the spectrum to be used to promote competition and deploy 4G and 5G in the downstream national retail mobile market, in the best interests of end-users and to the public benefit.

²⁶ See Media Reform Green Paper: Modernising Television Regulation in Australia, November 2020.

²⁷ Plus 2x1MHz of "downshift spectrum", which will be added to the lowest 900MHz lot, and which will need to be added to the allocation limit for any bidder acquiring this lot.

²⁸ 45% of sub-1GHz spectrum held nationally or in metropolitan areas.

²⁹ See ACMA, May 2020 Recommendation <https://www.acma.gov.au/consultations/2020-05/draft-spectrum-re-allocation-recommendation-850900-mhz-band-consultation-142020> (pp. 33; 23). See also ACMA, April 2019 Options Paper, stating that "Mobile network operators have increasing returns to scale between 5 MHz and 10 MHz holdings, and therefore larger contiguous blocks are public welfare enhancing" (p. 12) - <https://www.acma.gov.au/sites/default/files/2019-08/IFC-11-2019-Consultation-paper-Reconfiguring%20the%20900%20MHz%20band.docx>.



Under any proposal to set a cross-band limit (with which we strongly disagree for the reasons set out below), achieving this outcome would require a limit of at least 2x25 MHz (if including 850 MHz holdings)³⁰, or 2x45 MHz (if also including 700 MHz holdings)³¹.

4.2. It is not appropriate to include existing holdings in any limit

Telstra notes the Minister's request for advice on the ACCC's views on the merits of applying allocation limits that take into account existing holdings in all sub-1GHz bands and the ACCC's preliminary view that existing MNO holdings in the 700 MHz and 850 MHz bands are relevant in assessing what allocation limits should be applied to the allocation in the 850 MHz expansion band and 900 MHz band.³²

Telstra does not believe the MNOs' existing sub-1GHz holdings should be determinative of the allocation limits set for the 850/900 MHz auction.

Australia's mobile market is competitive and open. To the extent that there is asymmetry in the current holdings of the MNOs, there is nothing inherently anti-competitive about this – in fact, service differentiation is a well-recognised attribute of competitive markets. In particular, the asymmetry in the MNOs' current low-band holdings largely reflects the historical spectrum investment decisions of each MNO – freely made and entered into in past allocations.

Further, different MNOs have different spectrum capacity requirements they need to meet through their spectrum holdings – to be competitive in meeting the ongoing demand from their existing customers and enable them to invest in enhancing their services to attract new customers. This includes meeting the larger capacity requirements of larger customer bases. **[c-i-c]**

It would be especially harmful to include existing 700 MHz holdings in any limit:

- From a policy and incentives perspective, it is important to acknowledge that the asymmetry in the MNOs' current 700 MHz holdings reflects each operator's deliberate choices in previous competitive processes³³, made within the bounds of competition limits recommended by the ACCC and adopted by the Minister in those processes. The competition limits set for the 700 MHz band purposefully facilitated the opportunity for competitive differentiation between the MNOs, preferring this option to a limit that would have resulted in more symmetric holdings, but a less competitive market outcome³⁴. It would undermine the policy intent of these limits, set less than a decade ago, to now penalise operators who have prudently taken past opportunities to invest in the quality of their services, by setting allocation limits precluding them from continuing to do so through further sufficient spectrum acquisitions in the current auction. It would be a particularly perverse outcome if an MNO, having declined to purchase additional low-band spectrum twice previously, is given yet more preferential opportunities to acquire spectrum which, if declined for a third time, would potentially deny that spectrum to other bidders who may value it more highly.

³⁰ Representing 45.5% of this 2x55 MHz of spectrum.

³¹ Representing 45% of this 2x100 MHz of spectrum.

³² Consultation, p 10.

³³ In the 2013 700 MHz auction, Optus could have purchased 2x25 MHz of spectrum but chose to purchase 2x10 MHz. Similarly, Telstra could have purchased 2x25 MHz of spectrum but chose to purchase 2x20 MHz. In the residual 700 MHz auction in 2017, Optus could have purchased 2x10 MHz of spectrum but declined to purchase any. Hence any low-band asymmetry that exists is a function of deliberate investment decisions by auction participants, within a policy framework that supported the ability for such choices to be made.

³⁴ See Competition limits on the sale of digital dividend (700 megahertz) and 2.5 gigahertz spectrum: Regulation Impact Statement, p 9 -

https://ris.pmc.gov.au/?combine=spectrum&field_categories_tid=All&date_filter%5Bvalue%5D%5Byear%5D=&page=1



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- The 700 MHz band is also not immediately adjacent to the 850 MHz expansion band and 900 MHz band being auctioned. Non-contiguous holdings of spectrum across multiple bands are of less value than contiguous same-band allocations for use in downstream markets. If MNOs holding 700 MHz spectrum are limited in their ability to acquire larger contiguous holdings of 850/900 MHz spectrum on the basis of their non-contiguous 700 MHz holdings, their ability to compete is therefore likely to be unfairly hampered relative to rivals not holding such spectrum (and who made previous deliberate investment decisions as to how much 700 MHz spectrum they wanted).

It would also be especially harmful to include regional 850 MHz holdings in any allocation limit. As the Consultation acknowledges, the economic returns from spectrum covering sparsely populated regional and remote areas are typically lower than in metropolitan areas³⁵. As the ACCC also acknowledges, it is competition in metropolitan areas that drives consumer prices in regional areas due to nationally consistent service offerings.³⁶ Given this context, it would be highly distortive of competitive outcomes and detrimental to consumers and the future rollout of 4G and 5G services in Australia if an MNO was to be limited in its ability to acquire nationally licenced 850 MHz or 900 MHz spectrum in the auction, on the basis solely of its regional holdings of 850 MHz spectrum. This risk is averted if the allocation limit does not include any existing holdings, as per Telstra's recommendation.³⁷

For clarity, we do not support the setting of different allocation limits in metropolitan and regional areas. A uniform national approach would be consistent with the national scope of the downstream retail mobile market as well as the past approach taken to the setting of limits in the 700 MHz sub-1GHz auctions, and we are concerned that the setting of differing limits would be practically unworkable if the ACMA proceeds with its current preferred approach of auctioning the 850 MHz expansion band and 900 MHz spectrum in nationwide geographic lots.

³⁵ Consultation, p 9.

³⁶ Consultation, p 7.

³⁷ In the event a sub-1GHz cross-band limit were to be set, this risk could only be avoided if only metropolitan holdings of 850 MHz were included in the limit. We note that the effect of regional 850 MHz holdings can be captured in a population weighted national equivalent 850 MHz holding. In Telstra's case, this would result in an equivalent holding of 2 x11.4 MHz, which would need to be rounded to the nearest 5 MHz – so 2x10 MHz – the same as Telstra's metropolitan holdings.



05 Allocation limits should not guarantee spectrum to any bidder

On our present understanding of the ACMA's plans, the guaranteeing (or "setting-aside") of one of the five available 2x5 MHz lots of 900 MHz auction spectrum to one or more of the bidders would:

- distort the competitive auction process;
- risk unfair advantage in downstream markets being conferred on the recipients;
- risk spectrum not going to its highest value use;
- risk fragmentation causing spectrum to go unsold or inefficiently utilised (especially if as proposed only the upper four 900 MHz band lots are designated for this purpose); and/or
- risk delays to 4G and 5G deployment by removing efficient incentives for MNO investment in these technologies.

Market-based allocation is demonstrated to facilitate efficient spectrum allocation by ensuring the available spectrum is allocated to those bidders who value it most, hence who are likely to put it to the use with the highest social and economic value³⁸ Any proposal to guarantee spectrum to an operator is inherently liable to distort this market-based process, risking harm to competition and the best interests of end-users and should thus be opposed by the ACCC on the above grounds.

Further, while we respect and support the importance of end-user service continuity, it is our firm belief that the auction bidding process subject to ordinary competition limits will naturally ensure that where the use of spectrum for purposes of service continuity is the more highly valued use, bidders valuing it for this purpose will secure it. We also note the ACMA has consistently found that employment of a lengthy transition window to the new configuration, as is now proposed through the reallocation date of 30 June 2024, is a suitable option to mitigate risks to consumer service continuity – without the need to use spectrum guarantees for this purpose. This view is validated through Telstra's own experience to date of progressively exiting our legacy 3G services.

In the event that it is nevertheless determined to proceed with the proposal for spectrum guarantees, it is imperative that the beneficiaries of any such "guaranteed" spectrum do not obtain an advantage on price or other terms for the acquisition of this spectrum, relative to other bidders and especially to their MNO rivals in the downstream national retail mobile market. Otherwise, the natural competitive balance in this market could be harmed, along with investment, innovation and the long-term interests of end-users. We believe the following approach must be taken to achieve this:

- To maintain a level competitive playing field between each of the three MNOs and in order support each MNO in maintaining service continuity for its customers, each MNO should be offered the chance to acquire one "guaranteed" 2x5 MHz lot in the 900 MHz band. Discrimination in favour of only some MNOs and not others should not be supported by the ACCC.

³⁸ We note in this regard the ACCC did not support the ACMA's hybrid option (involving an administrative allocation of 2x5 MHz of 900 MHz spectrum to each of the MNOs) as it would not achieve the highest value use of the spectrum – whereas an auction would provide an opportunity to test the market's demand for and value of this spectrum band, delivering better outcomes for consumers – see <https://www.acma.gov.au/consultations/2019-08/reconfiguring-900-mhz-band-consultation-112019#submissions>



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- Any “guaranteed” or ‘set-aside’ spectrum acquired by a bidder at auction must be counted towards its allocation limit, in the same way as any other spectrum it acquires at auction.
 - The price paid for any “guaranteed” spectrum acquired should be determined as the final unit price achieved at auction for the band in which the “guaranteed” spectrum is located (excluding any assignment bids, which are paid separately).
 - The ACCC should advise against any proposal for “guaranteed” spectrum to be offered at the ‘starting’ or ‘reserve’ price, on competition grounds. This would be an unprecedented and extremely aggressive regulatory intervention, fundamentally distorting the market and utterly inconsistent with the proposition market forces should determine the highest-value use for spectrum.
 - In the event that “guaranteed” spectrum is priced at anything less than the final unit price achieved at auction for the relevant band (excluding any assignment bids), equivalent downwards adjustments must be made to the final unit price payable by the other successful bidders in order to place all persons acquiring spectrum in the auction on a fair and even footing - noting that even a slight difference in price/MHz/pop can cause the price payable to differ by millions of dollars. The easiest way to do this is for the first non-guaranteed 2x5 MHz purchased (in either band) by any bidder³⁹ to be sold at the same price as any guaranteed ‘set aside’ lot acquired by other bidders.

³⁹ This should include any spectrum initially offered as a guaranteed ‘set aside’, but declined at the auction commencement.



ATTACHMENT A: Answers to specific questions

1. What are the likely intended use for spectrum in the 850MHz expansion band and the 900MHz band?

This spectrum in these bands is defined by the 3GPP standards for 3G, 4G and 5G mobile. We expect the highest value use of this spectrum during the expected tenure of these licences (2024-2039/44) to be 4G, 5G and future generations of mobile technology.

2. If you intend to use the spectrum for mobile services:

(a) Do you intend to acquire spectrum in the 850MHz expansion band or the 900MHz band or both?

[c-i-c]

(b) How much spectrum do you want to acquire?

[c-i-c]

(c) How are you planning to use any spectrum you acquire? Is there likely to be any difference in how you will use the spectrum in metropolitan areas and regional and remote areas? Please also comment on the extent to which the acquisition would support deployment in 4G and 5G services.

As noted above, spectrum in these bands have 3GPP definitions for 3G, 4G and 5G use. We expect the highest value use of this spectrum during the expected tenure of these licences to be 4G, 5G and future generations of mobile technology. Telstra has committed to shutting down its 3G network in mid-2024. We expect winning bidders will deploy 4G and/or 5G radios using these bands.

3. What are the relevant downstream markets for the purpose of assessing the impact of the 850/900MHz allocation on competition?

Adopting a purposive approach to market definition, we consider the downstream national retail mobile services market to be the key relevant market in which the allocation of the 850/900MHz spectrum licences is likely to impact on the ACCC's assessment criteria.

4. Are there likely to be future relevant markets that have not been identified?

For the purposes of the ACCC's advice to the Minister on the 850/900MHz spectrum allocation, we do not believe that there are any additional relevant markets the ACCC should identify in its analysis.

5. Do you have any comment on the state of competition in the national mobile services market or other relevant markets that you consider should be taken into account? What do you think are the key competition issues arising from the 850/900MHz allocation in these markets?

Yes. See our comments in sections 3, 4 and 5 of this response above.



6. How would the allocation of the 850/900MHz band impact investment in regional and remote Australia?

Low band spectrum is important because its propagation characteristics mean its signals travel long distances. Accordingly, these bands will be important for further deployment of 4G and 5G services in regional and remote areas, as well as for indoor and outdoor coverage in metropolitan areas.

Given the propagation characteristics of the 850/900MHz bands, to ensure the spectrum can be used most efficiently in all parts of Australia, and importantly to avoid unusable “dead-zones” required to manage interference, we strongly support the ACMA’s current expressed preference to offer both bands in nationwide lot configurations.⁴⁰

7. Should existing spectrum holdings in sub-1 GHz bands (i.e. 700MHz and 850MHz bands) be considered in any assessment of allocation limits? Please provide evidence and reasons for your view.

No. See further details in sections 1 and 4 of this response. See also our answer to question 9 below.

8. Should existing spectrum holdings in bands other than the sub-1 GHz bands be considered in any assessment of allocation limits? Please provide evidence and reasons for your view.

We do not believe that any allocation limits which are set for the current auction should include any existing holdings, for the reasons set out in the body of this submission. As to the relevance of the MNOs’ existing holdings more broadly, see our answer to question 9 below.

9. If the ACCC were to consider existing spectrum holdings in its assessment of possible allocation limits, what factors do you think would need to be considered?

Firstly, these holdings must be accurately represented. Importantly in this respect, the Consultation⁴¹ misrepresents Telstra’s holdings in the 850 MHz band by displaying Telstra’s and TPG Telecom’s regional 850 MHz band holdings instead of their metropolitan holdings. The more accurate way to display the holdings is based on metropolitan holdings. The population split (based on 2016 Census populations) is as follows:

- 5 major capitals: 16,741,196
- Rest of Australia: 6,606,652 (28.3% of national)

The population weighted national equivalent MHz of Telstra’s 2x10 MHz of metropolitan holdings and 2x15 MHz of regional holdings in the 850 MHz band on this basis is 11.4 MHz paired. Rounded to the nearest 5 MHz (the size of the proposed auction lots), this is 2x10 MHz – i.e. the same as Telstra’s metropolitan holdings.⁴²

Secondly, the correct metric to use for such an assessment is not total MHz of holdings, but the relative holdings between the MNOs on a MHz/SIO basis. When viewed through that lens, it is apparent that other MNOs are indeed spectrum-rich, and arguably spectrum inefficient.

⁴⁰ ACMA, May 2020 Recommendation <https://www.acma.gov.au/consultations/2020-05/draft-spectrum-re-allocation-recommendation-850900-mhz-band-consultation-142020> (p 27)

⁴¹ Consultation, Figure 1, p 5.

⁴² Rounded down to nearest 5 MHz is involves the same process as was used in 3.6 GHz auction where some existing holdings were not integer multiples of the offered lot sizes



[c-i-c]

10. Are there grounds to guarantee Telstra 2x5MHz of spectrum in this allocation? Please provide evidence and reasons for your view.

As outlined in the main body of our submission, Telstra does not accept that guaranteed access to spectrum is necessary or desirable, or that ‘set-asides’ are a solution to an ill-defined problem. However, if guarantees are being provided, to maintain a level competitive playing field between each of the three MNOs and in order support each MNO in maintaining service continuity for its customers, each MNO should be offered the chance to acquire one “guaranteed” 2x5 MHz lot in the 900 MHz band. Discrimination in favour of only some MNOs and not others should not be supported by the ACCC.

11. Do you think that allocation limits are necessary for the 850/900MHz allocation? Relevantly, would allocation limits be promote competition and encourage investments in regional and remote areas of Australia?

See sections 1 and 4 of our response above.

12. If so, what do you think the appropriate allocation limits should be? Do you think different allocation limits should apply to metropolitan and regional areas? How would the application of these allocation limits affect the downstream relevant market?

See sections 1 and 4 of our response above.

13. Are there other factors that you consider the ACCC should consider in assessing the possible allocation limits to apply?

As explained in the body of this response, we consider it to be integral to the ACCC’s advice to the Minister on whether allocation limits should be imposed and if so what those limits should be, for the ACCC to consider whether any such limits should include a spectrum guarantee to any party (such as the Minister has indicated there may be grounds to do in the case of Optus and TPG, and has requested the ACCC to consider in the case of Telstra).

On our present understanding of the ACMA’s plans, the guaranteeing (or “setting-aside”) of one of the five available 2x5 MHz lots of 900 MHz auction spectrum to one or more of the bidders would operate so as to distort the competitive auction process; risk unfair advantage in downstream markets being conferred on the recipients; risk spectrum not going to its highest value use; risk fragmentation causing spectrum to go unsold or inefficiently utilised (especially if as proposed only the upper four 900 MHz band lots are designated for this purpose); and/or risk delays to 4G and 5G deployment by removing efficient incentives for MNO investment in these technologies.

Market-based allocation is demonstrated to facilitate efficient spectrum allocation by ensuring the available spectrum is allocated to those bidders who value it most, hence who are likely to put it to the use with the highest social and economic value⁴³ Any proposal to guarantee spectrum to an operator is inherently liable to distort this market-based process, risking harm to competition and the best interests of end-users and should thus be opposed by the ACCC on the above grounds.

⁴³ We note in this regard the ACCC did not support the ACMA’s hybrid option (involving an administrative allocation of 2x5 MHz of 900 MHz spectrum to each of the MNOs) as it would not achieve the highest value use of the spectrum – whereas an auction would provide an opportunity to test the market’s demand for and value of this spectrum band, delivering better outcomes for consumers – see <https://www.acma.gov.au/consultations/2019-08/reconfiguring-900-mhz-band-consultation-112019#submissions>