**TELSTRA CORPORATION LIMITED**

# Radiocommunications (Spectrum Licence Limits—850/900 MHz Band) Direction 2021

**Exposure draft consultation**

**Public submission**

## 24 May 2021

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# EXECUTIVE SUMMARY

Low-band spectrum is highly valued as it is a scarce resource and highly desired by mobile operators because of its good coverage in lower density population areas, and its in-building penetration in metro areas. The 850 MHz and 900 MHz licences sold in this auction will represent some of the highest value and most important long-term spectrum investment decisions made in Australia. Efficient investment in these licences will be critical for delivering the Government’s world leading digital economy ambitions and maximising customer experience outcomes over the 20 year licence term, especially in regional Australia. So it is essential the allocation limit decision is considered carefully to ensure that such investment is encouraged.

The proposed low-band allocation limit of 82 MHz for the 850/900 MHz auction is too restrictive and puts Australia’s digital growth ambitions at risk. It effectively leaves Telstra with less spectrum than we have today and insufficient room to meet the future needs of our customers, especially in regional areas where we are seeing net migration for the first time in the wake of COVID-19. This appears to be a significant change in policy which is concerning because policy to date has enabled Australia to have a leading mobile market with some of the best mobile services in the world. The proposal will undermine Telstra’s existing and planned investments, including in 5G, that are key to the digital economy, have a negative impact on competition in the mobile market and result in poorer outcomes for regional consumers and businesses.

To avoid these adverse outcomes, the allocation limit should be increased to a total of 102 MHz. Given the size of these impacts we also strongly disagree with the Office of Best Practice Regulation’s (OBPR) assessment that a regulatory risk impact statement (RIS) is not required. We will live with these decisions for decades and they will define the future prosperity of regional Australia — it is essential that a regulatory impact statement analysis is completed to properly inform the final decision.

## The proposed allocation limit will discourage investment by Telstra that is critical for achieving the Government’s digital economy ambitions

We have seen a fundamental shift in expectations for telecommunications services since the onset of the COVID-19 pandemic. There is an unprecedented demand for better coverage, services, and experiences at the same time as more people are migrating from metro to regional areas. 5G and other new technologies are also more capable than ever to deliver the coverage, services, and experiences that customers are seeking.

Telstra strongly supports the Government’s Digital Economy Strategy to grow Australia's future as a modern and leading digital economy by 2030. World class telecommunications services are fundamental to achieving this ambition and the Government needs to have policies that encourage investment in them. Telstra’s network covers approximately 1 million additional square kilometres when compared with the Optus and TPG networks. The overwhelming majority of the investment to achieve this coverage has been made since privatisation. As the largest geographic network with the most customers across Australia, investment in the capability of Telstra’s mobile network is pivotal to achieving Australia’s digital growth ambitions.

Telstra is committed to doing its part to ensure that Australia can meet the digital demands of a world leading digital economy and society, by continuing to invest in improving the coverage and performance of our mobile network throughout Australia and especially in regional Australia. We have already invested $3 billion over the last 5 years to end of June 2020 in regional Australia. This investment is

incentivised by our ability to compete vigorously with other mobile network operators on the quality of our mobile services, everywhere our customers need to use them in Australia.

Additionally, Telstra has been the biggest partner and co-funder of the Federal Government’s regional telecommunications programs. When the current round of the Mobile Black Spot Program is complete, we will have invested approximately $290 million and built over 880 sites.

Telstra’s regional investment relies on appropriate Government policy settings that enable us to gain access to sufficient spectrum to keep improving the quality of our network and services throughout Australia. The proposed low-band allocation limit of 82 MHz does not do this as it will leave us with less spectrum than we currently have access to in regional areas, even if we are able to acquire the maximum quantity possible. This represents a significant policy shift from previous allocation limit directions, as bidders in previous auctions have always been given the opportunity to maintain their existing holdings (i.e., in the worst case, exit the auction with no additional spectrum) or acquire additional spectrum. Such a policy shift would undermine the billions of dollars already invested in our mobile network, including the co-funding investments made by the Government and Telstra, and creates significant uncertainty for our future investment plans.

## The proposed allocation limit will harm customers, especially in regional areas

Access to sufficient low-band spectrum is a critical input to providing our customers with a quality service. A limit that leaves Telstra with access to less low-band spectrum in regional areas than it has today, let alone enough to meet expected growing regional customer demand over the next twenty years, is simply not enough. This will result in our regional customers suffering slower speeds and will also limit the potential of, and access to, 5G and other future technologies that we could otherwise offer to them with more spectrum. Investing in additional sites and towers to offset the lack of spectrum is not a commercially viable alternative in most of these areas due to the low population density.

We will end up with less low band spectrum per customer in regional areas than what we have today, and much less than what Optus and TPG will likely end up with. However, relying on Optus and TPG to use the spectrum they acquire to offer a better alternative solution is unlikely to be realistic for many regional customers, especially those outside major towns and in more remote areas. The proposed limit creates a high risk of poor customer outcomes in areas where Optus and TPG do not make the network investment needed to put this spectrum to use. This includes the many parts of regional Australia only covered by Telstra, typically outside the larger towns, where Optus and TPG have not invested. A higher limit would allow Telstra to continue to provide quality services in areas where it is the only provider prepared to invest in its network as well as allowing ample scope for Optus and TPG to buy additional low-band spectrum to support the expansion of their regional offerings. It is also key to making sure we can continue to compete vigorously to spur on greater customer benefits everywhere else in Australia.

## Increasing the allocation limit to 102 MHz will improve customer outcomes

To avoid the adverse outcomes of discouraging vital investment to support Australia’s digital economy, poorer regional customer experience, and reduced competition in the mobile market, we believe the proposed allocation limit for the auction must be increased. We recommend that the low-band (sub 1 GHz) limit be raised by 20 MHz to a total of 102 MHz, enabling Telstra to bid for up to 30 MHz of spectrum in both regional and metro areas.

This increased limit will still allow Optus and TPG to bid for the quantities of spectrum envisaged in the ACCC’s advice to the Minister, will encourage investment and competition in the mobile market, ensure

a fairer and more competitive auction and, most significantly, deliver better outcomes for regional customers.

## Increasing the limit will also reduce the risk the spectrum is sold below market value

History shows that more relaxed auction limits lead to more competitive auctions. This results in the best outcome for the Government as it ensures the spectrum is sold at true market value and means that those who most need the spectrum to continue to deliver the services customers need can acquire it.

If Telstra can only compete for a very small portion of the spectrum in the auction, there is a risk that some of it remains unsold and a much greater risk it will be sold at less than its full market value, considering that the main bidders are likely to be the mobile network operators. For every cent in unit price that that each spectrum lot sells at below value, the Government will forego $2.6 million in revenue. If all spectrum going to auction sold at 55c below value, the Government would lose $1 billion.

## The impacts of this decision are major and must be subject to a regulation impact statement

We strongly disagree with the Office of Best Practice Regulation’s (OBPR) assessment that this proposal only has minor impacts and a regulation impact statement is not required. The 850 MHz and 900 MHz licences sold in this auction will represent some of the highest value and most important spectrum in Australia. Efficient investment in these licences will be critical for delivering the Government’s world leading digital economy ambitions and maximising customer experience outcomes in regional Australia over the 20 year licence term. So it is essential the allocation limit decision is considered carefully to ensure that such investment is encouraged. The proposed allocation limit is too restrictive and will have a significant adverse impact on investment, customer outcomes and the digital economy, especially in regional Australia. It also represents a departure from previous policy decisions by effectively reducing the quantity of spectrum that a mobile network operator has access to.

For these reasons a decision on the proposed allocation limit is one of the most important telecommunications policy decisions this decade and must be subject to a robust regulatory impact analysis before the final decision is made.

## Other matters that need to be addressed

The proposed regional lot structure for the 850 MHz band and national lot structure for the 900 MHz band reduces the substitutability of this spectrum in the auction process. To ensure this spectrum remains substitutable as per the policy intent for allocation and to improve the utility of this spectrum, we remain of the view that both bands should be allocated as national licences. If not, they must be identically split.

In the event that set-asides are given to Optus and TPG, we believe ‘build’ or ‘coverage’ obligations must be applied to those ‘set aside’ lots. It would be a very poor policy outcome for this scarce spectrum to be allocated on a preferential basis on the basis of promoting service continuity, but then go unused, or partially unused, for the intended purpose for the duration of the licence term.

# The proposed limit will jeopardise Australia’s digital economy ambitions and harm consumers

Spectrum in the 850/900 MHz band is a scarce and highly valuable public resource which will be used for the delivery of 5G and future generations of mobile services for decades to come, providing essential connectivity for our digital economy. The propagation characteristics of this low-band spectrum mean it is ideally suited to provide widespread deployment of 5G services in regional areas as well as being important for indoor coverage in metro areas. It is crucial the spectrum is allocated in a way that promotes vigorous competition in mobile services, incentivises investment in the rollout of 5G services across Australia and maximises the benefit of its use for the Australian community. The proposed allocation limit carries a significant risk of undermining these outcomes, especially in regional areas.

In particular, the proposed limit will result in Telstra having access to less low-band spectrum in regional areas than it does today. This will lead to a poorer customer experience for regional customers, while also undermining Telstra’s ability to invest in expanding and enhancing its regional network for the benefit of these customers, including the potential of new technologies such as 5G. These constraints will lessen Telstra’s ability to use the quality of its regional network as a point of differentiation and thus also reduce its ability to be a vigorous competitor in the mobile market.

## Telstra will be left with less regional spectrum

The Government’s current proposal would have the effect of reducing our spectrum holdings in regional Australia. Even if we are successful in acquiring spectrum up to the proposed limit, we will exit this auction with 6.8 MHz less spectrum in regional areas than we can access today. This is because our current nationwide 900 MHz apparatus licences will be cancelled (total of 16.8 MHz) and we can only bid for 10 MHz of additional regional spectrum under the proposed allocation limit.1 This outcome would leave us with no room to grow our capacity and enhance our services to meet the future needs of our regional customers—potentially for the next 20 years (the term of these licences).

The fact that Telstra, under the allocation limit proposed, will exit this auction with less spectrum in regional areas than it owns today is unprecedented in Australia—we are not aware of any previous auction where an incumbent user with an expected ongoing need for the spectrum would, by design, be forced to exit that auction on a best case scenario with less spectrum than what they owned prior.

## The proposed allocation limit will undermine our investment

Regional Australia depends on Telstra more than any other provider because of our significant historic and ongoing investment in building and upgrading our regional networks. We understand better than anyone the challenges of providing telecommunications services in regional Australia—we have been doing it for 150 years. We have already invested $3 billion over the last 5 years to end of June 2020 in regional Australia. We are the biggest partner and co-funder of the Federal Government’s regional telecommunications programs, including the following current examples:

1 The 2 MHz of 850 MHz downshift spectrum is purely intended to facilitate a ‘downshift’ of the existing 850 MHz band and create an interference guard space between it and the 900 MHz band. It is not intended to be ‘usable’ spectrum and in any event is only available to the purchaser of the bottom block of 900 MHz spectrum.

* Earlier this month we announced we would invest $150 million over the next 12 months to continue to improve networks in regional, rural, and remote Australia.2
* We also announced a $200 million co-investment fund aimed at enhancing and extending mobile coverage in rural and regional areas.3
* On top of that the Federal Government just announced the outcome of its Regional Connectivity Program in which Telstra was the only major provider to both win projects and commit its own funding to help fund $55 million of network upgrades.4
* After the latest fifth round of the MBSP has been completed, we will have invested approximately $290 million and built over 880 sites. This is more than two thirds of the total sites co-funded by Government under the Program since 2015. Our contribution to the program amounts to more than double the capital of the rest of the industry put together.

This investment relies on appropriate Government policy settings that give us the opportunity to gain access to sufficient spectrum to keep improving the quality of our network. The proposed low-band allocation limit of 82 MHz does not do this, as it will leave us with less spectrum than we currently have access to in regional areas, even if we are able to acquire the maximum quantity possible. This represents a significant policy shift from previous allocation limit directions, as bidders in previous auctions have always been given the opportunity to maintain their existing holdings or acquire additional spectrum. Such a policy shift would undermine the billions of dollars already invested in our mobile network and also creates significant uncertainty for our future investment plans.

For these reasons, we are very concerned the proposed limit of 82 MHz undermines our substantial existing investment commitment and discourages future investment by us. As explained below this would also reduce our ability to compete in the mobile market.

## The proposed limit will reduce competition in the mobile market

The approach to the allocation limit for this auction represents a significant policy departure from light- touch regulation that has underpinned Australia’s mobile services being some of the best in the world. Such intervention carries a material risk of distorting the competitive dynamics in the mobile market and causing poor customer outcomes, by reducing Telstra’s incentives and ability to improve network coverage and differentiate its offer through the quality of its mobile service. Most particularly, this decision will harm Telstra’s future ability to compete in the national mobile market by providing high quality services throughout Australia.

Fuelled by our network investment, Telstra currently competes with other MNOs on its network quality. The ACCC has previously found mobile networks that differ from each other in terms of coverage, technology and quality provide more choice for consumers and more competitive tension between

2 Telstra, *Telstra announces $200 million co-investment fund to extend and enhance coverage in regional Australia*, Media Release, 4 May 2021. Available at: [https://www.telstra.com.au/aboutus/media/media-releases/telstra-coinvestment-fund-2021.](https://www.telstra.com.au/aboutus/media/media-releases/telstra-coinvestment-fund-2021)

3 Ibid.

4 Department of Infrastructure, Transport, Regional Development and Communications, *Regional Connectivity Program—funded projects*, 23 April 2021. Available at: [https://www.communications.gov.au/documents/regional-connectivity-program-funded-](https://www.communications.gov.au/documents/regional-connectivity-program-funded-projects) [projects](https://www.communications.gov.au/documents/regional-connectivity-program-funded-projects)

operators.5 Unsurprisingly, it found that the importance of network reliability, depth of coverage, and service quality to customers has contributed to Telstra’s position in the national mobile market.

The proposed auction limit will stop Telstra from being able to bid for the low-band spectrum we need to keep providing high quality mobile services. The position is especially stark in regional areas, where low- band spectrum is very important for efficiently carrying customer data over the long distances that need to be covered in these areas. Investing in additional sites and towers to offset the lack of spectrum is not a commercially viable alternative in most of these areas due to the low population density.

The proposed limit, by not even giving us the opportunity to access as much low-band spectrum as we can today, will result in our regional customers suffering slower speeds and will also undermine the business case for 5G and other future technologies - such as 6G - which will clearly need more spectrum. This will further exacerbate the digital divide for connectivity between regional and metropolitan areas in Australia. In a decade’s time, we run the risk of people living in metropolitan areas enjoying 6G, while people in regional Australia are still on 3G and 4G.

The proposed limit is also insufficient to allow us to meet the expected growth in demand for new services over the 20 year period of the licences in metropolitan areas.

The ACCC’s advice to the Minister6 has considered disparity of holdings as a constraint on ability to compete. But it has not adequately considered the (forward looking) sufficiency of holdings for all operators to support competition in quality of service for the next twenty years. The focus of its analysis appears to be entirely on Optus being able to acquire more low-band spectrum.

It is notable that the ACCC’s advice did not expressly consider the competition implications of a sub- 1GHz “low-band” limit higher than 80 MHz (such as a limit of 90 MHz or 100 MHz) which would still provide Optus (and TPG) with a very reasonable opportunity to acquire additional low-band spectrum and protect against the risk of monopolisation, but which would not have the chilling impact on investment and competition of the current proposal that forces Telstra’s regional holdings to be reduced. Given the major impacts of this decision, we consider it imperative that these options are transparently considered in a robust regulatory impact analysis before a final decision is made.

## Regional customers will be worse off

Mobile coverage and quality of service are vital issues for consumers and businesses in regional, rural, and remote areas of Australia. This is especially so as our primary industries such as agriculture, mining, and forestry, along with other industries that support them such as transport and logistics, will become increasingly reliant on 4G/5G mobile connectivity. The same can be said for our tourism operators and government service delivery.

This auction will allocate scarce low-band (sub-1GHz) spectrum that is vital for supporting regional investment in upgraded mobile technologies (e.g. 5G), and to enhance and grow mobile services to meet future customer needs out to 2044. The need is especially pronounced in regional areas, where large areas need to be cost effectively covered at the same time as we see pandemic-related growth in regional Australian hubs and increasing working-from-home arrangements. The ABS recently reported

5 ACCC, *Domestic mobile roaming declaration inquiry – Final Report* (October 2017), available at: [https://www.accc.gov.au/regulated-infrastructure/communications/mobile-services/domestic-mobile-roaming-declaration-](https://www.accc.gov.au/regulated-infrastructure/communications/mobile-services/domestic-mobile-roaming-declaration-inquiry-2016/final-report) [inquiry-2016/final-report.](https://www.accc.gov.au/regulated-infrastructure/communications/mobile-services/domestic-mobile-roaming-declaration-inquiry-2016/final-report)

6 ACCC, *Allocation limits advice for the 850/900 MHz spectrum allocation* (March 2021), available at: [https://www.accc.gov.au/regulated-infrastructure/communications/mobile-services/spectrum-competition-limits/request-for-](https://www.accc.gov.au/regulated-infrastructure/communications/mobile-services/spectrum-competition-limits/request-for-advice-850-900-mhz-spectrum) [advice-850-900-mhz-spectrum.](https://www.accc.gov.au/regulated-infrastructure/communications/mobile-services/spectrum-competition-limits/request-for-advice-850-900-mhz-spectrum)

record rates of migration from capital cities to regional areas (net migration of 42,971 people to regional areas in just the past year—equivalent to the entire population of Orange or Tamworth).7

As the largest geographic network with the most customers across Australia, the performance of Telstra’s mobile network is pivotal to meeting the data needs of regional Australia so as to deliver on Australia’s digital growth ambitions. Regional Australia depends on Telstra more than any other provider because of our significant historic and ongoing investment in building and upgrading our regional networks. Our competitors are noticeable by their significantly smaller regional footprints and own investment track record. Their minimal take up of the MBSP and RCP programs indicates they have limited interest in investing in regional Australia outside regional centres.

The reduction in regional low-band spectrum available to Telstra under the proposed limit will limit our ability to invest in the growth and enhancement of our network over the next 20 years to meet the future needs of our customers including access to new mobile technologies such as 5G. With less low-band spectrum, given the growing demand for data, consumers and businesses who depend on Telstra will, over time, receive slower speeds and more congestion.

Investing in additional mobile sites and towers to offset the reduction in spectrum is often not a realistic option for most regional areas where due to the low population density and it would not be economic to make such an investment.

We also observe that the proposed limit is likely to result in Optus and TPG acquiring most of the spectrum on offer. Indeed, they allow Optus to buy **all** of the spectrum at this auction, except for the spectrum ‘set aside’ for TPG. Given our competitors’ track record for investment in regional Australia, there is a high risk that the spectrum they acquire will not be used in many parts of regional Australia or at least not for some time. If they do not invest in the 1 million square kilometres that are only covered by Telstra then customers in this area will be much worse off—those customers will end up with a poorer outcome from Telstra and will not have access to any alternative from Optus or TPG.

Increasing the allocation limit so that Telstra has sufficient opportunity to acquire additional low-band spectrum to keep delivering quality services to the regional customers who may need to continue to rely on our network investments over the next twenty years avoids this risk—at no cost to the ability of Optus and TPG to invest in an expanded regional offer should they so choose.

## High risk that spectrum will be sold at less than its true market value

If Telstra can only compete for a very small portion of the spectrum in the auction, there is a risk some of it will go unsold, and a much greater risk that it would be sold at less than its real market value. For every cent in unit price that that each 2x5 MHz spectrum lot sells at below value, the Government will forego

$2.6 million in revenue. If all spectrum going to auction sold at 55c below value, the Government would lose $1 billion.

This is not a theoretical risk. The residual 700 MHz auction, held in March 2017, was competitive between at least two bidders. The reserve price was set at $1.25/MHz/pop, but the final price of the 2x10 MHz lot was $2.80/MHz/pop—a premium of $1.55/MHz/pop. Translated across the full 2x35 MHz of spectrum being sold in this auction, this would represent approximately $2.8 billion in revenue.

7 <https://www.abs.gov.au/statistics/people/population/regional-internal-migration-estimates-provisional/latest-release>

Any spectrum that is unsold would be a very unsatisfactory outcome, especially in terms of it not being used to deliver benefits to consumers and business, but also the loss of a fair return to Government for the asset.

History shows that less restrictive auction limits lead to more competitive auctions and a proper, market- based process of price discovery. This results in the best public outcomes, as it ensures the spectrum is sold at true market value, which imposes a discipline on the owner of that spectrum to utilise it efficiently and obtain a return on that investment, and means that those who most value the spectrum to continue to deliver the services customers need acquire it.

# The allocation limit needs to be increased to 102 MHz

To address the risk of the negative outcomes of the proposed limit, as explained above in section 1, we recommend an increase to the limit on bidding in the upcoming auction. All bidders should have a fair opportunity to participate and acquire the spectrum they need to serve their customers across Australia over the course of the twenty-year licence period.

Increasing the allocation limit for the auction from 82 MHz to 102 MHz would allow Telstra to bid for

30 MHz (of the 72 MHz in total available) in both regional and metro areas. That’s 43% of the available spectrum in the auction. The allocation limit needs to be increased so we are not left with less spectrum and can access sufficient additional spectrum to meet the expected growth in demand for new services over the 20 year period of the licences.

We are not asking for more than we need, and we are not asking for restrictions to be placed on others. This increased limit doesn’t prevent others having the opportunity to buy spectrum. It doesn’t reduce how much spectrum could potentially be bought by Optus, TPG or anyone else. It simply ensures that Telstra has a fair chance to bid for a fair share of the spectrum that is going to auction, so that we can keep competing on the merits of the quality of our services and the investments we have made in regional Australia.

# A regulation impact statement must be produced

No Regulation Impact Statement (RIS) has been prepared for the draft Direction. The exposure draft of the explanatory statement for the Direction states a RIS is not required to be prepared for the Direction on the grounds it will have a no more than minor impact on the implementation of the reallocation process. This is fundamentally incorrect. This decision, as currently proposed, will seriously undermine the Government’s aspiration for Australia to have a leading digital economy by 2030 and it will also exacerbate the digital divide between metropolitan and regional areas at exactly the time we are seeing net migration to regional Australia and when it needs improvement in connectivity and bandwidth the most.

The present consultation process is not a substitute for a RIS which robustly considers the impacts of different options on the range of stakeholders whose interests could be materially disadvantaged by the wrong policy decision and which will dictate outcomes for regional and rural customers for the next two decades.

Telstra considers a RIS should have been prepared given the significant regulatory impact the allocation limits will have on Telstra and other mobile network operators. We note that a RIS was prepared for the most recent spectrum auction in the 26 GHz band, in which several options available to the Minister

were discussed.8 We consider that given the disproportionate intrusiveness of the Ministerial interventions proposed for the 850/900 MHz band auction, a RIS must be prepared.

The Australian Government Guide to Regulatory Impact Analysis and the User Guide to the Guide to Regulatory Impact Analysis (User Guide) provide that a RIS must be prepared for any non-Cabinet decision that is likely to have a more than minor impact on business, community organisations or individuals.9 These documents only contemplate that a RIS will not be required where a decision is non- regulatory, or where any regulatory impact is only of a minor or machinery nature. Relevantly, the User Guide provides the following guidance about when the regulatory impact of a decision will be minor:

Minor changes do not substantially alter the existing regulatory arrangements for businesses, community organisations or individuals. A minor change may involve a small one-off cost but no ongoing costs; examples are the introduction of an online application process, an indexation arrangement, or the setting of opening and closing dates for a fishing ground.

If the Direction is made in the terms proposed, it will clearly have a more than minor impact on Telstra and other mobile network operators, as well as on the carriage of the auction and the income received by the Commonwealth:

* There will be ongoing and very significant impacts on Telstra due to the allocation limits imposed as part of the draft Direction ahead of the 850/900 MHz spectrum auction.
* Placing limits on the allocation of a range of spectrum impacts Telstra’s ability to provide our customers with a competitive service especially in regional areas.
* The fact that Telstra, under the allocation limit proposed, will exit this auction with less spectrum in regional areas than it owns today clearly points towards a high risk that the impact of this on business, community organisations or individuals will not be ‘minor’. This is unprecedented—never has there been a situation where an auction participant would, by policy design and implementation, exit with less spectrum than what they owned prior.
* The geographic boundaries in the extended 850 MHz lots reduce the utility of the spectrum for all carriers because interference co-ordination is required along geographical spectrum boundaries; added to which the geographic boundaries are misaligned with the existing 850 MHz band creating further adjacent spectrum coordination difficulties and likely causing inefficient dead zones.
* We estimate the impact of the overly restrictive competition limit will result in many millions of dollars in lost revenue to the Commonwealth in the auction process, as a consequence of reduced auction tension and a failure of this process to find the true ‘market value’ for this spectrum, and—as a corollary—create a windfall benefit to the beneficiaries of the competition limit such as Optus of the same total value. For every cent in unit price that that each spectrum lot sells at below value, the Government will forego $2.6 million in revenue. If all spectrum going to auction sold at 55c below market value, the Government would lose $1 billion.
* Low-band spectrum is highly valued due to it being a scarce resource and highly desired by mobile operators for its good coverage in lower density population areas. The 850 MHz and 900 MHz licences sold in this auction will represent some of the highest value and most important long term spectrum

8 <https://ris.pmc.gov.au/2020/08/13/allocation-limits-26-ghz-spectrum-auction>

9 Department of the Prime Minister and Cabinet (March 2020), available at: [https://www.pmc.gov.au/resource-](https://www.pmc.gov.au/resource-centre/regulation/australian-government-guide-regulatory-impact-analysis) [centre/regulation/australian-government-guide-regulatory-impact-analysis.](https://www.pmc.gov.au/resource-centre/regulation/australian-government-guide-regulatory-impact-analysis) The User Guide is available at: [https://bit.ly/3hJ27rt.](https://bit.ly/3hJ27rt)

investment decisions made in Australia. Efficient investment in these licences will be critical for delivering the Government’s world leading digital economy ambitions and maximising customer experience outcomes in regional Australia over the 20 year licence term. So it is essential the allocation limit decision is considered carefully to ensure that such investment is encouraged.

None of the above consequences can be considered to be akin to introducing an online application form or other inconsequential machinery change, and Telstra does not accept that the Office of Best Practice Regulation’s (OBPR) assessment of the impact of the Direction as ‘minor’ can be justified in these circumstances.

The proposed allocation limit also represents a major departure from previous policy decisions by effectively reducing the quantity of spectrum that a mobile network operator has access to.

Telstra is particularly concerned that the absence of a RIS means that appropriate parliamentary scrutiny of the Direction is not being appropriately informed. We believe the proposed allocation limit must be subject to a robust regulatory impact analysis before a final decision is made.

# The auction lots must be substitutable between bands to support a cross-band allocation limit

The ACCC’s and Minister’s rationale for setting a sub-1 GHz, cross-band allocation limit, is that the

700 MHz, 850 MHz, and 900 MHz bands are ‘substitutable’.10 However, the draft ACMA instruments for the auction in fact, result in these bands being *not* substitutable in the auction—in direct contradiction to the reasoning for setting a sub-1 GHz cross-band limit. The policy rationale is undermined and contradicted by the implementation. The solution to this problem is to make the lot structure in both the 850 MHz and 900 MHz bands identical. Even though lot design is the responsibility of ACMA we believe the Minister has a role to address this.

## The proposed lot structure impairs substitutability of the bands

As proposed, the 850 MHz expansion band and 900 MHz band spectrum are not substitutable in the auction process for the following reasons:

* The 850 MHz band is split into a regional and metropolitan lot, while the 900 MHz band is national. This prevents bidders from engaging in low risk switching of demand during the auction from one band to the other in response to price signals.
* The risks of bidders switching from 850 MHz band to the 900 MHz band during the auction are asymmetric—the risks are much higher in one direction (850 MHz to 900 MHz) than the other (900 MHz to 850 MHz). The bands therefore cannot be freely substituted.
* Bidders that only seek low-band spectrum in regional areas in the auction are forced to bid in the

850 MHz band. They cannot bid in the 900 MHz band—hence it is not substitutable. This also ‘shields’ national bidders in the 900 MHz band from competition, which could result in an inefficient allocation and add to the likelihood of very asymmetric prices across the two bands.

10 ACCC *Allocation limits advice for the 850/900 MHz spectrum allocation* (March 2021), page 3 and Exposure Draft, Explanatory Statement, Radiocommunications (Spectrum Licence Limits—850/900 MHz Band) Direction 2021, page 1.

The fact that the two bands going to auction have different lot structures undermines their ‘substitutability’. From an auction design perspective, bidders can only compete effectively for both bands if they are offered at the same geographical level, i.e. either both split metro/regional with identical boundaries, or both nationwide. A detailed description of the consequences of having different lot structures is provided further in Appendix 1.

## Identical national lots are the best way to ensure substitutability, and promote band utility

The solution to this problem is to make the lot structure in both the 850 MHz and 900 MHz bands identical – either **both** need to be national licences, or **both** need to be geographically split in an identical manner.

Splitting the 850 MHz expansion band into metro/regional areas will increase the risk of utility loss zones (dead zones), where some frequencies cannot be used. The proposal to expand the 850 MHz metropolitan licensed areas compared to the existing 850 MHz further exacerbates this issue, potentially making the area of the ‘dead zone’ approximately equal in size to the area of the State of Victoria.11 This outcome will be bad for efficient spectrum utilisation and customer experience as we believe both bands should be allocated as national licences, and that the Minister should direct the ACMA to do so.

Additionally, so as to not create an imbalance between metro and regional spectrum purchase ability for any bidder in a national licence context, it is important that existing 850 MHz holdings are calculated as a population-weighted national average for the purposes of determining the allocation limits for each bidder.

In Telstra’s case, our existing 850 MHz holdings equate to a national holding of 2x11.4 MHz on a population weighted basis. Rounding to the nearest 5 MHz, our existing 850 MHz holdings would be deemed as 2x10 MHz nationally, enabling us to purchase as much spectrum in regional areas as we would be permitted to acquire in metro areas. This would also require the Minister to reframe the allocation limits and how existing low-band holdings are to be treated.

## If the lots in the bands are to be split, they must be split identically

In the event that a metro/regional split remains a policy objective, despite the clear spectrum utilisation inefficiencies in doing so (and the consequential negative outcomes for consumers), then:

* The Minister must direct the ACMA to split the 850 MHz band and 900 MHz bands identically, with the same geographic boundaries between all lots offered in both bands. This is essential to make the bands ‘substitutable’ in the auction and to equalise demand between the bands, reducing the risk one band sells below true market price.
* We strongly recommend that the boundaries adopted be identical to those in the current 850 MHz licences. The metropolitan boundaries proposed by the ACMA for the extended 850 MHz band trigger a significant risk of creating a ‘dead zone’ whose area is equal to that of the State of Victoria. This is not a good public policy outcome and would be very detrimental to regional customers. Further information on

11 A detailed explanation of the issues is provided in Telstra’s submission to the ACMA consultation on the draft allocation instruments.

this and other reasons are in our submission to the ACMA’s consultation on the draft auction instruments.

* The allocation limit in regional areas must be increased to 102 MHz (and metro areas 92 MHz) so that Telstra has the ability to acquire the same quantity of spectrum in regional areas as we can in metro areas (at least 2x10 MHz).

# Need to apply build and coverage obligations to set-aside lots

We agree with the ACCC’s conclusion that set-asides for Optus and TPG in the 900 MHz band are not necessary.12 In the event that set-asides are nevertheless given to Optus and TPG, we believe ‘build’ or ‘coverage’ obligations must be applied to those ‘set aside’ lots. Such obligations should apply to set- aside lots for the entire 20 year term of the licences, to ensure that they are used for purpose of service continuity. We cannot have the situation where providers acquire spectrum on a preferential basis, and on potentially at less than the full market price,13 without having any obligations in return and then fail to use it for the intended purpose, with Australian mobile customers receiving poorer service as a result.

It would not be a good public policy outcome if, after receiving the benefit of a ‘set aside’, a mobile operator achieved their build or coverage obligation on Day 1 of their 900 MHz licence by virtue of their extant 3G network – with no trailing obligation to maintain any form of ‘service continuity’ beyond that date. These licences are proposed to have 20 year terms, and so with the preferential rights conferred by a ‘set aside’ there must be enduring obligations attached to that ‘set aside’. These should, at a minimum require:

* The mobile network coverage provided by the ‘set aside’ spectrum cannot, at any time during its 20 year licence term, be materially less than the 3G/4G mobile network coverage provided by the recipient of that ‘set aside’ as at the auction application close date.
* Services provided by ‘set aside’ spectrum in regional areas must be upgraded from 3G to 4G/5G, and any other future technologies, no less than 3 years after that operator first provides that technology to any metropolitan customer (or no less than 2 years after licence commencement date, whichever is later), so as to ensure the spectrum continues to be used efficiently throughout its 20 year term.

12 ACCC, *Allocation limits advice for the 850/900 MHz spectrum allocation* (March 2021), pages 19-20.

13 The ACMA has proposed to price the set-aside lots at either the ‘exit price’ for the relevant set-aside recipient or at a specified ‘up-lift’ from the reserve price to reflect ‘certainty’. Neither approach is likely to arrive at a price that reflects the market outcome of the auction.

# Appendix 1: Analysis of the lack of substitution between bands to support a cross-band allocation limit

The proposed lot structure only allows bidders to switch from 900 MHz to 850 MHz relatively easily in response to price signals, but switching back to 900 MHz is inherently risky. Therefore, not only is switching risky, but the switching risks are asymmetric, undermining band substitutability. In this Appendix we explain why this is the case.

Let’s assume the ACMA employs a 4:1:5 eligibility points ratio for the 850 MHz metro : 850 MHz regional

: 900 MHz national lots (i.e. the metro 850 MHz lot has a points rating 4 times higher than the regional 850 MHz lot, while the 900 MHz lot, being national, must be the sum of the two – 5 points)

When switching from 900 MHz to 850 MHz, a reduction in 900 MHz frees up 5 points that could then be used to fund corresponding increases in 850 MHz. Suppose a bidder wants to switch 1 lot from 900 MHz to 850 MHz. If the reduction in 900 MHz is applied, 5 points are freed up which can then be used to fund the 1 lot increase in 850 MHz metro (4 points) and 850 MHz regional (1 point). In most cases, this should be a relatively risk-free switch, because the reduction in demand in the 900 MHz band will either be entirely successful, or entirely unsuccessful.

In contrast, a switch from 850 MHz to 900 MHz is extremely risky. Suppose a bidder attempts to switch 1 lot from 850 MHz (both regional and metro) to 900 MHz:

* If the bidder is unsuccessful in reducing its demand14 in either 850 MHz regional or metro (i.e. is ‘retained’ in one of those regions), the corresponding increase in 900 MHz will not be applied (as not enough eligibility points are freed up to fund this increase).
* Moreover, the auction could end at this point if the attempted switch clears the auction.
* Given the low demand scenarios outlined by the ACMA, the ACMA must also believe that this is a real concern.

The information policy proposed also provides no information about excess demand making it impossible to determine how likely it is that a bidder gets ‘retained’ in particular when switching more than 1 block.

Note that in some circumstances even a switch from 900 MHz to 850 MHz may be hard to manage or risky, depending on the final lot rating values, because a switch could, under some circumstances, be only partially successful, leaving a bidder with lots in both bands.

Consider a scenario where a bidder attempts to switch 2 lots from 900MHz to 850MHz, but gets retained on 1 lot in 900MHz:

1. If metro and regional have an asymmetric eligibility points split as proposed above (4:1), then the bid-processing rules will ensure that the bidder ends up on 1 lot in regional and 1 lot in metro.

14 In the proposed ESMRA auction format, a bidder can be unsuccessful in reducing their demand in a given product since this format is designed to minimise or prevent the risk of unsold lots. This is called being ‘retained’. Consider a situation where there is an ‘excess demand’ of 1 lot in a given region. If two bidders in the same auction round attempt to reduce their demand by 1 lot each, only one of those bidders will be successful in doing so, and the other bidder will be ‘retained’ and keep that lot in that region. Otherwise, if both bidders were successful, 1 lot would become ‘unsold’.

1. If, however, metro and regional have the same eligibility points (e.g. suppose a 1:1:2 ratio), the freed-up points can be used to fund either:
   1. 2 lots increase in 850MHz metro
   2. 2 lots increase in 850MHz regional
   3. 1 lot increase each in 850MHz metro and 850MHz regional
2. Which of these options is picked during bid processing depends on the price points at which the increases were submitted:
   1. If the increase in 850MHz metro was submitted at a higher price point than 850MHz regional, the points will be used to fund an increase of 2 lots in 850MHz metro (and vice versa for regional)
   2. If the increases in metro and regional were submitted at the same price point, the allocation would be random (i.e. either 2 lots metro, 2 lots regional or 1 lot each)

The effect of these risks is that it is likely that bidders will have to decide before the auction which band they are going to bid for and then stick with it throughout the auction. This could easily lead to an

inefficient allocation if bidders’ prior beliefs are wrong (e.g. a bidder starts off in 850 MHz, but then faces unexpectedly strong competition in that band while the 900 MHz band clears at a comparatively low price, or vice versa). Such a bidder may regret its initial decision to bid in one band and would have preferred to bid in the other band.

If bidders cannot react and update their prior beliefs during the auction, the efficiency benefits of the auction itself are nullified, particularly in terms of price discovery. This could lead to highly asymmetric prices between the two bands, which are a result of the flawed auction design and not a reflection of relative demand differences for the two bands.

Further, in Telstra’s case, the way the allocation limit is constructed means we cannot bid for as much 900 MHz spectrum as we can in the 850 MHz band. Under the current rules, we could not bid for more than 2x5 MHz of 900 MHz spectrum, whereas we can bid for 2x10 MHz of 850 MHz in metro. The reverse is true for TPG in that it faces different allocation limits in metro and regional due to its existing 850 MHz holdings. So again, the bands are not ‘substitutable’ to bidders.

It should be clear that the solution to the above problems is to make the lot structure in both the 850 MHz and 900 MHz bands identical – either **both** need to be national licences, or **both** need to be geographically split in an identical manner.