

The logo for Optus, featuring the word "OPTUS" in a bold, teal, sans-serif font.

Submission in response to  
ACMA Draft Instruments

**Draft instruments for the  
850/900 MHz band auction**

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## Section 1. EXECUTIVE SUMMARY

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- 1.1 Low-band spectrum is the foundation upon which national mobile networks are built since it provides broad geographical coverage. Access to low-band spectrum is a critical driver of competition and investment in Australia, which in turn drives the digitisation of the economy, through improved services and lower prices.
- 1.2 Reflecting this, PwC has estimated that the competitive national deployment of 5G networks could boost the Australian economy by \$130 billion over the decade to 2030. PwC has estimated that \$55 billion of these benefits is at risk if we do not get the policy settings right. Realising these benefits is dependent upon setting policies that encourage investment and a competitive environment – including enabling efficient use of low-band spectrum. It is important that the rules adopted for the auction promote this outcome.
- 1.3 It is vital that auctions are designed to ensure the final prices reflect efficient levels. Every dollar though above this level, is a dollar that cannot be invested in the technology that supports the digital services and experiences that customers expect. A focus on auction price competition and revenue raising risks less investment in regional Australia and diminish the economic and job dividend from regional connectivity.
- 1.4 The benefits to Australia of getting the auction settings right far outweigh any potential financial gain to the Government from adopting auction rules that seek to maximise auction revenue.
- 1.5 The importance of this auction to the national mobile market is reflected in the Government's competition policy objectives and Ministerial Direction for the 850/900 MHz auction. Auction settings should not work against the intent of the Direction and Government policy. Optus is concerned that the proposed draft rules pull against, rather than support, these outcomes. We hold two main concerns with the proposed rules.
- 1.6 First, the implementation of the Direction under the proposed auction rules by the ACMA introduces unnecessary and avoidable financial barriers that are likely to create a disincentive for operators to take up the set-asides – counter to the Direction and Government policy.
- 1.7 Of most concern is the proposal for an 'auction avoidance uplift' or 'exit price' to be set – in effect a tax on the provision of regional services. Not only does this risk the Government's policy objectives, but the use of untested pricing concepts, may be inconsistent with the Radiocommunications Act. Optus seeks that set-aside lots be priced in the same manner as other upper 900 MHz lots.
- 1.8 Second, the lower lot in the 900 MHz band should be differentiated from the upper four lots. It would not be appropriate that the same starting value be ascribed for this lot given the current unresolved issues around the performance and technical constraints to be applied to winner of that lot. The utility of the lower lots is materially lower than the upper lots.
- 1.9 We provide more detail on these main issues of concern in Section 2.
- 1.10 Section 3 provides a summary of our views on the Draft Marketing Plans and Draft Instruments. Detailed comments are provided on the instruments in sections 4 through to 8.

## Section 2. MAIN ISSUES OF CONCERN

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- 2.1 Optus welcomes the opportunity to respond to the Australian Communications and Media Authority's (ACMA) Consultation Paper on the *Draft instruments for the 850/900 MHz band auction* (the Consultation Paper).
- 2.2 Low-band sub-1 GHz spectrum has unique propagation characteristics which makes it well suited to support wide area mobile networks, especially in regional areas. Low-band spectrum is currently used for 4G services (across 700 MHz, 850 MHz and 900 MHz) as well as legacy 3G services (across 850 MHz and 900 MHz) and increasingly for 5G.
- 2.3 Efficient allocation of low-band spectrum will play an important role in ensuring a national competitive mobile market. Analysis undertaken by PwC demonstrates the potential economic and employment gains from getting the correct policy settings for investment in Australia. PwC has estimated, using their geo-spatial economic model, that the deployment of competitive 5G networks could boost the Australian economy by a cumulative \$130 billion over the decade to 2030 – and create 205,000 net new jobs.
- 2.4 Realising these benefits is dependent upon setting policies that encourage investment and a competitive environment – including enabling efficient use of spectrum for 5G.
- 2.5 Low-band spectrum is the foundation upon which national mobile networks are built since it provides broad geographical coverage. Access to low-band spectrum is a critical driver of competition and investment in Australia. Reflecting this, when the 900 MHz spectrum was first allocated in Australia, it was done to achieve a level playing-field with almost identical allocations across the mobile network operators.
- 2.6 Optus supports the Ministerial Direction of sub-1 GHz allocation limits and the allocation of set-aside lots to existing legacy 3G networks in the 900 MHz band. However, we are concerned that the draft instruments may not give full effect to the Ministerial Direction, and risks undermining the intent and effect of the Direction.
- 2.7 Optus is concerned that:
  - (a) The use of an arbitrary set-aside tax and proposed governance processes create a disincentive for participants to elect to take up the set-aside lots; and
  - (b) The specification of the spectrum products in the 900 MHz band currently fails to recognise the lower utility in the lower 900 MHz lot relative to the other 900 MHz lots in the band. It would not be appropriate that the same starting value be ascribed for this lot given the current unresolved debate around the technical constraints to be applied to winner of that lot.
- 2.8 Optus discusses these concerns below.

### **Draft instruments risk undermining the set-aside Direction**

- 2.9 In general, Optus accepts the validity of setting a formal process to both elect and secure the set-aside lot during the formal application and registration procedures. However, the draft allocation determination risks undermining the set-aside Direction by proposing disincentives for the take-up of set-asides. Optus is concerned about:
  - (a) Imposing a tax on set-asides lots; and
  - (b) Application process which imposes additional governance costs.

*Differential pricing appears inconsistent with the Act*

- 2.10 The Draft Allocation Determination proposes two option to price the set-asides lots – reserve plus 25% or final price. The ACMA claim that an arbitrary mark-up is justified on the basis that it “provides certainty” to participants.
- 2.11 Optus is concerned about both these proposals and disagrees with any proposal that sets the starting price of set-asides differently to other 900 MHz lots. In effect, any mark-up above the generic reserve price represents an arbitrary tax on users of the set-aside; and will act as a disincentive to take-up the set-asides.
- 2.12 A premium – in any form – applied to set-aside lots is contrary to the intent of the Ministerial Direction and risks being inconsistent with the objectives of the Radiocommunications Act. Spectrum allocation, including setting related price terms for set-aside lots, should support the Government’s policy objectives rather than used as a means of maximising Government revenue.
- 2.13 The primary objective of the Radiocommunications Act is to maximise, by ensuring the efficient allocation and use of the spectrum, the overall public benefit derived from using the radiofrequency spectrum.
- 2.14 Under the Radiocommunications Act, pricing has a role to ensure the efficient allocation and use of spectrum. Efficient pricing methods can influence the allocation of spectrum to the user will most likely put the spectrum to the highest value use. Such an approach enables the efficient allocation of spectrum while ensuring interference is managed. Effective spectrum management considers and promotes the overall public benefit derived from spectrum.<sup>1</sup>
- 2.15 In other words, pricing is used as an allocation mechanism to ensure that the benefits of use are maximised by allocating spectrum to the party that values it the highest. While we note the ACMA justifies such a tax on the basis of “auction avoidance value”, such a value appears without theoretical economic or legal basis. The ACMA appears to state that set-aside participants would be willing to pay a “tax” for the opportunity to acquire the spectrum prior to the auction. It is not clear to Optus how such a tax promotes the efficient use of spectrum or otherwise promotes economic efficiency.
- 2.16 Optus is not aware of any government position where spectrum pricing should be used to obtain revenue, or to tax usage, other than to ensure an efficient allocation. We welcome clarification on this issue. The ACMA needs to provide greater detail how an arbitrary tax on set-aside lots is consistent with the objects of the Radiocommunications Act and consistent with the Government’s policy objectives for the 900 MHz band.
- 2.17 For this auction, Optus submits there is no role for pricing to ensure an efficient allocation of set-aside lots to participants. This is because the decision to allocate the set-aside lots to the set-aside participants represents the efficient allocation of those lots and will be made through the Ministerial Direction. No further price mechanism is needed to ensure the efficient allocation for these lots, consistent with the Act.
- 2.18 That is not to say there isn’t a role for pricing. The ACMA also appears to discount the role the assignment round will play in ensuring an efficient allocation of awarded lots within the band. Optus agrees that while the allocation of the set-aside lot promotes efficient use of spectrum, there remains uncertainty as to where each lot should sit within

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<sup>1</sup> Australian Government, 2017, Spectrum Pricing, p.6

the 900 MHz band to maximum its value of use. The assignment procedure will play an important role in that. Optus notes that the assignment pricing round will be the mechanism to ensure the allocation of the set-aside within the 900 MHz band maximises value of use.

- 2.19 However, other than this, there appears no allocative or efficiency benefit that accrues from setting the starting price of set-aside lots different from other generic lots. Optus submits the set-aside lots be priced consistent with the other upper lots in the 900 MHz band.

#### Governance processes introduce further disincentives

- 2.20 The set-aside provision was designed to reduce risk and uncertainty for incumbent operators to ensure service continuity. However, the procedures proposed by the ACMA introduce material risk and uncertainty which disincentivises parties from taking up the set-asides. This is counter to Government policy and the intent of the Ministerial Direction.
- 2.21 Optus also notes that given the allocation limit gives effect to the set-aside provisions, through an allocation limit that applies to other auction participants, the auction rules should also enable processes for:
- (a) *Election of a set-aside lot.* Optus agrees that this should take place by the application deadline, however the financial commitment of securing this set-aside lot should not be binding at this stage.
  - (b) *Securing eligibility for the 'elected' set-aside lot.* Optus agrees that may take place by the eligibility deadline with any additional lots to be nominated in the eligibility nomination form, however the financial commitment of securing this set-aside lot should not be binding at this stage.
  - (c) *Final withdrawal of the 'elected' set-aside lot.* Optus submits that all set-aside participants should be given a final opportunity to financially commit to the 'elected' set-aside lot during the pre-bidding phase.
  - (d) *The final generic allocation of the set-aside lot will therefore only occur at the completion of the primary stage.* Optus notes that while this introduces a minor difference in timing of the 'direct' allocation from before the pre-bidding phase to after completion of the primary stage, we note that this will have significantly impact on internal governance processes – including for bid strategy, financial governance and management approvals.
- 2.22 Optus considers the decision by set-aside participants to accept or reject a set-aside lot does not impact on the overall ability of other bidders to acquire spectrum in the auction. While Optus and TPG can both formally signal their intent to acquire the set-aside lot at a pre-determined price, the financially binding aspect of this decision should only be made during the auction. While it is unlikely that a set-aside once elected will subsequently be forfeited during the pre-bidding phase, Optus submits that the opportunity to withdraw should be afforded to all set-aside participants during the pre-bidding phase and only directly allocated as part of the close of the primary stage.
- 2.23 Optus therefore submits that the financially binding commitment for the allocation of the set-aside lot at the pre-determined price should only occur during the pre-bidding phase, with direct allocation of the set-aside lot only occurring at the close of the primary stage.

## Specification of a separate lower 900 MHz lot is required

- 2.24 Optus submits that a separate lower 900 MHz lot should be considered, with a lower lot rating and starting price to reflect the value differential in that lot relative to the four upper 900 MHz lots that do not face the same technical constraints that inhibits its utility.
- 2.25 Optus considers there are technical performance issues unique to the lower 900 MHz lot that warrant it being subject to a separate designation from the other four upper 900 MHz lots, and hence not substitutable **[CiC]**
- 2.26 Further, the difference between the lower lot and the four upper lots has been recognised in the Ministerial Direction for set-asides to facilitate minimal disruption when meeting the service continuity objective. Importantly the Ministerial Direction also acknowledges that the lower lot *has different spectrum utility* relative to the upper lots. This distinction should be consistent across all the relevant instruments.
- 2.27 Amending the spectrum marketing plan to reflect the clear distinction between the lower lot and four upper 900 MHz lots will also enable the ACMA to address any variances between the lots through the allocation rules. For example, a separate designation will allow for a separate starting price and/or lot rating for the lower 900 MHz lot to be set. This will therefore enable any prospective bidder to ensure that any bids placed on that lot will reflect the reduced technical utility that the lower lot entails. This also ensures that only interested bidders for the lower 900 MHz lot can ultimately win that lower lot.
- 2.28 Absent the separate specification of the lower 900 MHz lot, Optus considers that the generic treatment of all 900 MHz lots may lead to the eventual winner of the lower 900 MHz lot being forced to pay both an inefficient price for allocation of that lot and being stranded with a lot that does not have the utility of the upper 900 MHz lot that the bidder may have originally bid for. As a result, this may not lead to the efficient allocation or use of the spectrum in the long term.
- 2.29 Optus similarly notes that AMTA members agree with the need for the specification of a separate lower 900 MHz lot.



## Section 3. SUMMARY VIEWS

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- 3.1 To assist the ACMA, this section provides a summary of Optus' position on issues raised in the Consultation Paper. More detailed comments are provided through Sections 4-8.

### **Draft allocation instruments**

- 3.2 Optus supports the ACMA's proposed auction format to use the enhanced simultaneous multi-round ascending (ESMRA) methodology, which is comprised of both a primary stage and an assignment stage.
- 3.3 Optus' views on the parameters in relation to the auction procedures are set out below, while further comments are also provided in Section 4 and Section 5.

### Licence term

- 3.4 Optus supports the ACMA's proposal to set a licence term of 20 years, with licences in both the 850 MHz expansion and 900 MHz bands to commence on 1 July 2024.
- 3.5 We also support the downshift spectrum licence to have licence term ending on 17 June 2028 to align with the expiry of licences issued in the adjacent 850 MHz band.

### Licence renewal statements

- 3.6 Optus supports the proposed licence renewal statement for the spectrum licences to be issued in the 850 MHz and 900 MHz bands. We particularly welcome the clarity of having each of the specific periods defined as this provides prospective licensees with the certainty required for network investment decisions and to prepare for any subsequent renewal processes.

### Lot configuration

- 3.7 Optus supports the frequency lot configuration in both the 850 MHz and 900 MHz bands to be set at 5 MHz paired lots (i.e. 10 MHz lot sizes).
- 3.8 Optus agrees with the overall structure and rationale behind the geographic areas proposed by the ACMA, as follows:
- (a) A single metropolitan geographic area comprised of the five capital cities (Adelaide, Brisbane, Melbourne, Perth and Sydney) in the 850 MHz band;
  - (b) A single regional geographic area in the 850 MHz band; and
  - (c) A single nationwide geographic area in the 900 MHz band.
- 3.9 However, the most important function of metropolitan and regional geographic area distinction in the 850 MHz expansion band is to ensure that any lots won in these areas can be aligned with current holdings for spectrum licensed in the adjacent 850 MHz band. To that end, Optus further considers that the geographic areas for the 850 MHz expansion band should align with the existing 850 MHz spectrum licensed holdings.
- 3.10 Optus also submits that given the significant difference in the utility of the lower 900 MHz lot, as highlighted by the different licence conditions being proposed in the technical frameworks, this should warrant the lower 900 MHz to be considered a separate product in the spectrum marketing plan.

### Auction format and stages

- 3.11 Optus supports the ACMA's proposed auction format to use the enhanced simultaneous multi-round ascending (ESMRA) methodology, which is comprised of both a primary stage and an assignment stage.
- 3.12 Optus also submits that a Secondary Stage be reinstated to allow for the allocation of any 'withdrawn' set-aside lots to be reintroduced into the generic pool of 900 MHz national lots, thereby minimising the unlikely risk of unsold lots following the close of the primary stage.
- 3.13 In summary, Optus considers:
- (a) The Primary Stage should be open to all auction applicants, with the operation of the pre-bidding phase intended to finalise the final starting demand for each bidder. This would also include the final chance in which set-aside participants may elect to withdraw from participation in the auction, and in effect, forfeit any rights to the set-aside lot.
  - (b) Any set-aside lots should be allocated at the close of the primary stage, with any 'withdrawn' set-aside lots subject to a Secondary Stage open to any other bidders still available to acquire lots within their allocation limits.
  - (c) Once all set-aside and generic lots are allocated, bidders are to be provided their frequency assignment options for the Assignment Stage. The assignment stage closes once all winning bidders have been allocated their final frequency assignments for each of their lots won.
- 3.14 Where an Assignment Stage is required, Optus supports the view that all assignment frequency options include contiguous assignment of lots won (inclusive of any set-aside) for each product on offer.
- 3.15 In addition to the specification of a separate lower 900 MHz lot, we also support the view that there be no pre-assigned frequency assignments for any unsold lots.

### Application and registration process

- 3.16 In general, Optus supports the two-stage application and registration process. However, Optus does not support the discretion for the ACMA to vary the application or registration deadlines, starting prices, competition caps and related requirements after the publication of the Applicant Information Package. Notably, there should be no variation after the application deadline, or ability to restart either stages in the application and registration processes.
- 3.17 To accommodate the introduction of the set-aside provisions, Optus supports the requirement for the election of the set-aside lot to be provided by the Application Deadline and in part, secured with the relevant deposit made by bidders by the Registration Deadline. However, we consider that the binding nature of this commitment and the financial implication of being awarded the 'set-aside' should not be confirmed until the conclusion of the Primary Stage.
- 3.18 In addition, we do not agree that the demand expressed in the eligibility nomination form should represent the binding first round bid in the auction. All bidders should be given the same opportunity to submit their final start demand, including any commitment to withdraw from any set-aside lot, during the pre-bidding phase before the commencement of the first round of the auction.

- 3.19 While we understand that prospective auction participants may require some certainty regarding the available supply of lots that can be bid on during the primary stage, the total supply of 900 MHz national lots available in the auction does not change. The function of the set-aside is simply to limit the number of participants that can acquire the specified lot and can be incorporated into the auction system accordingly – such that any set-aside participant if they also choose to be an auction participant for the remaining available lots, can continue to monitor their total bid commitment inclusive of the set-aside lot for the duration of the primary stage. The only difference being that no change to the set-aside lot can be expressed after the pre-bidding phase since demand will always be equal to or less than supply.
- 3.20 Bid valuations and strategies may continue to change up to the time that the auction commences; and the first bid is placed. The bidder's initial demand to be included in the auction system for the first round is therefore committed to in the pre-bidding phase. It would not be appropriate that this information be provided and considered to be binding prior to the start of the first round – as this undermines the purpose of the eligibility nomination form which is to secure the bidder's initial eligibility for the purposes of the auction.
- 3.21 Set-aside participants should therefore be granted the same opportunity during the Pre-Bidding Phase to withdraw their commitment for either the acceptance of the set-aside lot and/or varying their starting demand for lots available during the Primary Stage.

#### Payment arrangements

- 3.22 Optus supports the proposed use of the bank guarantee in lieu of a deposit for the eligibility payment. This is in line with arrangements adopted in previous spectrum auctions conducted by the ACMA.
- 3.23 While we understand there will be an extended period between the end of the auction and the licence commencement, Optus considers that the likely quantum of the auction payment should warrant the option for winning bidders to access instalment payment arrangements. In line with the terms adopted in the 26 GHz auction, we consider five annual instalment payments to be an appropriate starting point.

#### **Early access arrangements**

- 3.24 Optus supports the introduction of early access arrangements for winning bidders to be managed via 'early access' apparatus licences, provided that deployments do not cause unacceptable interference to incumbent apparatus licensees.

#### **Draft technical instruments**

- 3.25 Further detailed technical comments are also set out in the Australian Mobile Telecommunications Association (AMTA) submission.

## Section 4. DRAFT MARKETING PLAN

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- 4.1 The draft Marketing Plan sets out the spectrum product on offer, including the procedures required for the award of the spectrum and the licence conditions that may apply to the spectrum licences to be issued.
- 4.2 In summary, Optus supports the:
- (a) Issue of 20 year spectrum licence terms, commencing 1 July 2024, for the spectrum awarded at auction.
  - (b) Proposed licence renewal statement and timeframes set out with respect to future licence renewal and the certainty that these renewal considerations be completed around two years prior to licence expiry, with the ACMA retaining the discretion to decide on licence duration at a period closer to renewal.
  - (c) Lot configuration based on 5 MHz paired lots, with licences awarded in the 850 MHz expansion band to comprise of either a single metropolitan or single regional geographic area, while all 900 MHz licences will be awarded on a nationwide basis.
- 4.3 However, Optus does not support the use of generic blocks across the whole 900 MHz band product, due to the material technical and performance differences observed. The 900 MHz band spectrum product should be amended to reflect the significant difference in the technical performance of the single lower 900 MHz lot relative to the remaining four upper 900 MHz lots.
- 4.4 This section provides Optus' comments on the Draft Marketing Plan.

### **Licence commencement and duration**

- 4.5 The marketing plan proposes to issue two types of spectrum licences in the 850 MHz expansion and 900 MHz bands. This will include:
- (a) For the 850/900 MHz band: 20 year spectrum licences; and
  - (b) For the downshift spectrum licence: 4 year spectrum licence.
- 4.6 Optus supports the issue these spectrum licences for the specified licence terms with licence commencement to begin on 1 July 2024, immediately following the end of the reallocation period on 30 June 2024.
- 4.7 Primarily, the 850/900 MHz band auction will allocate spectrum licences for a 20 year licence term, with the condition that the spectrum licences may be renewed at the ACMA's discretion and the renewal decision making period to end no later than two-years prior to the licence expiry.
- 4.8 The downshift licence to facilitate the 2x1 MHz guard band immediately below the lower 900 MHz will be 'automatically' issued to the winner of that adjacent 900 MHz national lot in the form of a 2x1 MHz licence for 824-825/869-870 MHz to assist in the facilitation of the 1 MHz downshift activities expected to occur at the same time the existing adjacent 850 MHz licences which expire on 17 June 2028.

## **Licence renewal statement**

- 4.9 Optus supports the proposed licence renewal statement for the spectrum licences to be issued in the 850 MHz and 900 MHz bands. In particular, we welcome the clarity of having each of the specific periods defined upfront as this provides prospective licensees with the certainty required for network investment decisions and to prepare for any subsequent renewal processes.
- 4.10 Notably, the ACMA is proposing the following timeframes:
- (a) Renewal application period – 6 months, ending 4.5 years before licence expiry, i.e. 31 December 2039
  - (b) Renewal decision making period – 2 years from the end of the renewal application period, i.e. 31 December 2041.
- 4.11 In practical terms, this will give approximately 2.5 years' notice of the renewal decision before the licence expires.
- 4.12 Optus also notes the absence of a public interest statement but appreciates this means that a longer renewal term (i.e. more than 10 years) on expiry is not excluded upfront.
- 4.13 Optus similarly supports a different licence renewal statement being established for the downshift licence. Given the reduced licence term, this gives rise to a shortened timeframe including:
- (a) Renewal application period – 3 months, ending 21 months before licence expiry, i.e. 17 September 2026
  - (b) Renewal decision making period – 12 months from the end of the renewal application period, i.e. 17 September 2027.
- 4.14 As a result, this will give approximately 9 months' notice of the renewal decision before the licence expires. Optus notes that during this period, discussions are also expected to be underway for the renewal of the expiring 850 MHz spectrum licences, it is therefore likely that outcomes from that process will inform the need or requirement to renew this downshift licence.

## **Lot configuration**

- 4.15 The 850/900 MHz auction will make 70 MHz available in the 814-824/859-869 MHz and 890-915/935-960 MHz frequency ranges. Within this context, there are two important aspects for lot configuration: frequency bandwidth and geographic regions.
- 4.16 Optus also submits reconsideration of lot categories – including treatment of the set-aside and downshift lots – be given to ensure that no unintended technical valuations and corporate governance issues are raised. This should also address the reduced utility of the lower 900 MHz lot until at least a downshift in the existing 850 MHz band occurs.
- 4.17 Addressing the lot categorisation for the 900 MHz band into upper and lower lots in the Spectrum Marketing Plan will enable the Allocation Determination to best determine the approach used to efficiently allocate the lower 900 MHz lot, particularly given the current unresolved debate around the technical constraints to be applied to winner of that lower lot under the currently proposed auction rules.

### Lot size

4.18 Optus supports the frequency lot configuration in both the 850 MHz and 900 MHz bands to be set at 5 MHz paired lots (i.e. 10 MHz lot sizes).

4.19 As acknowledged by the ACMA,

*Subject to any allocation limits, participants in the allocation processes may seek to acquire multiple contiguous 5 MHz lots, as the efficiency of network deployment increases the wider the channel deployed. This gives rise to aggregation benefits, or complementarities.<sup>2</sup>*

4.20 Optus notes that this contiguity is given effect through the operation of the assignment stage, which ensures that bidders can only win contiguous assignments of the lots won during the primary stage (inclusive of any set-asides granted, where applicable).

### Recognition of a separate lower 900 MHz lot

4.21 Optus also submits that the significant difference in the utility of the lower 900 MHz lot, as highlighted by the different licence conditions being proposed in the technical frameworks, should warrant the lower 900 MHz to be considered a separate product in the spectrum marketing plan. Further, the difference between the lower lot and the four upper lots has been recognised in the Ministerial Direction for set-asides.<sup>3</sup> This distinction should be consistent across all the relevant instruments.

4.22 The draft Marketing Plan currently recognises the lots in the 900 MHz band to be generic despite a clear difference in utility for the lower 900 MHz lot – see for example, industry concerns around the operability of spectrum at the 890 MHz boundary.<sup>4</sup>

4.23 Optus considers there are technical performance issues unique to the lower 900 MHz lot that warrants it being subject to a separate designation from the other four upper 900 MHz lots. **[CiC]**

4.24 **[CiC]**

4.25 The distinct value differential for the lower 900 MHz lot which is also recognised by the ACMA, noting that:

*Uncertainty around timing of an industry-led downshift makes precise valuation of the lower 900 MHz band lot uncertain, though we acknowledge that this lot may attract lower valuations from bidders due to its relatively lower utility until a downshift in the lower-adjacent band occurs.<sup>5</sup>*

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<sup>2</sup> ACMA, Draft instruments for the 850/900 MHz band auction, Consultation paper, April 2021, p.19

<sup>3</sup> The Allocation Limits Directions specify the 'relevant band' for assignment of the set-aside lots to apply to the parts of the spectrum in the designated area within 895-915/940-960 MHz – i.e. one of the four upper 900 MHz lots to be made available in the auction.

<sup>4</sup> Refer to the AMTA submission for a more detailed discussion.

<sup>5</sup> ACMA, Draft instruments for the 850/900 MHz band auction, Consultation paper, April 2021, p.25

- 4.26 Optus does not accept that this value differential can simply be accommodated and resolved in the assignment and downshift stage.
- 4.27 The ACMA has therefore incorrectly inferred that despite the reduced utility, the lower 900 MHz lots is still similar in value – and can be subject to the same starting price – with the upper 900 MHz lots which do not suffer the same technical constraints; and that any assignment bid will resolve for this difference in value.
- 4.28 Optus considers that the generic treatment of all 900 MHz lots may lead to the eventual winner of the lower 900 MHz lot being forced to pay both an inefficient price for allocation of that lot and the outcome of being stranded with a lot that does not afford the expected utility of the upper 900 MHz lot than the bidder may have originally bid for. It is not clear how such an outcome is consistent with the objectives of the Act.
- 4.29 The proposed Explanatory Statement for the Allocation Limits Direction also highlights that the rationale specifying one of the four upper 900 MHz lots as the potential set-aside allotment was designed to meet the Government’s communications policy objectives, primarily for service continuity, noting that:
- Guaranteeing Optus and TPG Telecom access to spectrum in the relevant bands as set out in subsection 6(1) promotes this objective, as Optus and TPG Telecom would be able to continue providing services using 900 MHz spectrum with minimal interruptions (pending any necessary retuning following the auction).<sup>6</sup>*
- 4.30 Importantly the Ministerial Direction also acknowledges that *“This [lower] lot is adjacent to the 850 MHz band and therefore has different spectrum utility due to a 1 MHz guard band with the 850 MHz band.”<sup>7</sup>*
- 4.31 As such, Optus considers that Schedule 1 be amended to reflect the difference in utility of the lower 900 MHz lot and the remaining upper 900 MHz lots. Having this lower 900 MHz lot being separately defined will serve a two-fold purpose:
- (a) It recognises the difference in technical utility of the lot, particularly with respect to the 890 MHz boundary issues that remains unresolved.
  - (b) It enables the ACMA through their auction rules to recognise the potential difference in starting value for the allocation and/or assignment of that lower lots compared to the remaining generic lots with the same technical attributes of the remaining lots in the 900 MHz band.
- 4.32 This distinction similarly supports the condition that any set-aside lots assigned will only apply to one of the four upper 900 MHz lots in the band.
- 4.33 Optus also supports the auction rule that any lots won within a single category and subject to the same technical conditions be awarded on a contiguous basis.

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<sup>6</sup> Exposure Draft – *Radiocommunications (Spectrum Licence Limits – 850/900 MHz Band) Direction 2021*, Explanatory Statement, p.11

<sup>7</sup> Exposure Draft – *Radiocommunications (Spectrum Licence Limits – 850/900 MHz Band) Direction 2021*, Explanatory Statement, p.12

## Geographic area

- 4.34 Optus agrees with the overall structure and rationale behind the geographic areas proposed by the ACMA, as follows:
- (a) A single metropolitan geographic area comprised of the five capital cities (Adelaide, Brisbane, Melbourne, Perth and Sydney) in the 850 MHz band;
  - (b) A single regional geographic area in the 850 MHz band; and
  - (c) A single nationwide geographic area in the 900 MHz band.
- 4.35 The importance of metropolitan and regional geographic area distinction in the 850 MHz expansion band is to ensure that any lots won in these areas can be aligned with current holdings for spectrum licensed in the adjacent 850 MHz band.
- 4.36 Optus further considers that the geographic areas for the 850 MHz expansion band should align with the existing 850 MHz spectrum licensed holdings – based on large geographic areas – that is, metropolitan and regional areas – to ensure efficient allocation of the new spectrum band. The alignment of the 850 MHz expansion band with the existing 850 MHz spectrum licensed areas (or boundaries) will better facilitate the overall utility and efficient allocation of spectrum of the wider 800 MHz band in the long term.
- 4.37 As noted above, Optus also considers that the lower 900 MHz lot (890-895/935-940 MHz) be separately defined to enable the reduced utility and value difference of that lot to be recognised through the auction rules – similar to the way the Upper and Lower lots were treated in Greater Perth, Margaret River and Hobart during the 26 GHz auction.
- 4.38 However, we also consider that there may be merit in having a different lot rating set for the lower 900 MHz lot relative to the upper 900 MHz lots. We welcome further opportunity to consult on this parameter.
- 4.39 For the avoidance of doubt, Optus confirms that we consider the lot categories be set out as follows. Notably that the table in Schedule 1 be updated to reflect:



Table 1 Proposed product lot category and frequency lot configuration

Lot Number (current proposed)	Lot Category (proposal)	Frequency range (MHz)	Channel size (MHz)	Band
1	850 MET (1)	814-819 / 859-864	2 x 5	850 MHz expansion
1	850 REG (1)	814-819 / 859-864	2 x 5	850 MHz expansion
2	850 MET (2)	819-824 / 864-869	2 x 5	850 MHz expansion
2	850 REG (2)	819-824 / 864-869	2 x 5	850 MHz expansion
** To be allocated to Lot 3 winner	No change	824-825 / 869-870	2 x 1	Downshift spectrum
3	900 Lower NAT	890-895 / 935-940	2 x 5	900 MHz
4	900 Upper NAT	895-900 / 940-945	2 x 5	900 MHz
5	900 Upper NAT	900-905 / 945-950	2 x 5	900 MHz
6	900 Upper NAT	905-910 / 950-955	2 x 5	900 MHz
7	900 Upper NAT	910-915 / 955-960	2 x 5	900 MHz

Source: ACMA, Optus

## Section 5. DRAFT ALLOCATION INSTRUMENTS

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- 5.1 The draft Allocation Determination sets out auction rules for the spectrum product on offer, including the type of auction, how the auction will be advertised and the payment arrangements for licences. In summary,
- (a) Optus supports the proposed auction format to use the ESMRA methodology, which is comprised of both a primary stage and an assignment stage. In particular we strongly support the continued inclusion of the pre-bidding phase prior to the start of the first round in the primary stage. However, the option for withdrawal should also be afforded to any set-aside participants.
  - (b) The allocation of any set-aside lots will therefore occur at the end of the primary stage. In the unlikely event that a set-aside lot has been 'withdrawn' during the pre-bidding phase, this lot would then become available to any other bidder subject to their allocation limits in the form of a secondary stage.
  - (c) The operation of the secondary stage would be consistent with the procedures set out in previous auctions, such as the 3.6 GHz and 26 GHz auctions where the secondary stage was introduced to allocate any unsold lots where an MSR had been successfully triggered.
  - (d) While there will be an extended period between the end of the auction and the licence commencement, Optus considers that the likely quantum of the auction payment should warrant the option for winning bidders to access instalment payment arrangements. Where this is applied, clear timeframes for the post-auction processes for election of this option should be provided.
- 5.2 This section provides Optus' comments on the Draft Allocation Determination.

### Auction procedures

- 5.3 Optus broadly supports the ACMA's proposed auction format to use the enhanced simultaneous multi-round ascending (ESMRA) methodology, which is comprised of both a primary stage and an assignment stage.
- 5.4 A key rationale for using price-based allocation is to ensure that spectrum will be allocated to their highest value use. This may not eventuate should bidders end up with an allocation at the start of the auction which they no longer deem necessary.
- 5.5 Optus strongly supports the inclusion of the pre-bidding phase during the Primary Stage, which allows bidders to confirm and commit to their starting demand for the auction. However, we consider that all bidders should be given the same opportunity to submit their final start demand, including any commitment to withdraw from any set-aside lot, during the pre-bidding phase before the commencement of the first round of the auction.
- 5.6 Importantly, there should be a clear statement to ensure that the eligibility secured at registration is not tied to the bidder's first round bid. These are two very distinct auction mechanics that serve very different purposes – to secure interest in bidding *and* to actively commit to a bid (which may or may not be equal to the interest expressed at registration) – and therefore should be clearly decoupled.
- 5.7 Bid valuations and strategies may continue to change up to the time that the auction commences; and the first bid is placed. It would not be appropriate that this information be provided and considered to be binding prior to the start of the first round – as this

undermines the purpose of the eligibility nomination form which is to secure the bidder's initial eligibility for the purposes of the auction.

- 5.8 In practice, the pre-bidding phase will ensure bidder's intent is reflective of any final approved bidding strategy it has adopted. Any auction bid strategy will also include consideration for the acquisition of the set-aside lot, where applicable, and therefore this decision should not be decoupled from any strategy to acquire any other additional lots available at auction.
- 5.9 Optus therefore submits that the withdrawal of any 'set-aside' lot during the pre-bidding phase can also be accommodated in the auction rules. This would also allow for any remaining bidders to acquire the forfeited lot in a secondary stage where relevant.

## **Auction rules**

- 5.10 Important elements applicable in an ascending auction such as the ESMRA, include:
- (a) Information policy;
  - (b) Minimum spectrum requirement;
  - (c) Activity rule and eligibility requirement; and
  - (d) Assignment and downshift stage pricing rule.
- 5.11 Optus comments on these auction elements below. Optus further discusses the detailed auction rules in response to Schedule 2 and Schedule 3 in Section 6 of this submission.

### **Information policy**

- 5.12 Optus submits that a full information policy be adopted for this auction given the importance of low-band spectrum and the need for all bidders to make fully informed price decisions given the significant financial commitments likely to be involved.
- 5.13 At the end of each clock round in the Primary Stage, bidders are typically provided information about the demand observed during the round. This facilitates price and allocation discovery, allowing auctions to operate in an open and transparent fashion.
- 5.14 However, the ACMA only proposes to provide excess demand information in circumstances during the primary stage of the auction where excess demand is below supply. This is primarily on the basis that the expected level of excess demand for each product from the start of the auction is likely to be low. This is confirmed at subsection 8(1)(d) in Schedule 2 of the Draft Allocation Determination.
- 5.15 As noted by the ACMA,

*In practice, a limited information policy will have the same effect as a no-information policy, since on our assumptions, there is potential for maximum excess demand in the auction to only be 2 lots across the metropolitan areas. However, providing excess supply information does not increase the risk of*

*strategic demand reduction, and may assist bidders to bid for lots that would otherwise be unsold.*<sup>8</sup>

- 5.16 Optus does not support this proposal and reiterates that revealing the exact level of demand at the end of each clock round should be provided. There should be no masking of any excess demand or supply to ensure that all bidders are able to access full transparency on the bidding status of all spectrum lots on offer. The provision of more information would enable bidders to make informed decisions on the more efficient allocation of its resources and to manage internal stakeholder expectations.
- 5.17 The full information policy was adopted in the 26 GHz auction and should continue to be applied for this auction. The ACMA's justification for not providing this information has no merit and risks undermining auction price discovery in the primary stage. Optus considers there will be sufficient competition by bidders for all available lots on offer and it is vital that auctions are designed to ensure the final prices reflect efficient levels.
- 5.18 Optus notes that this would also include transparency over the take-up of any set-aside lots at the end of the pre-bidding phase – where an excess supply would indicate that a secondary stage may be triggered for any lot that was elected for during registration but forfeited before the start of the first round in the primary stage.
- 5.19 The competitive results of previous auctions where full information policy was adopted clearly demonstrate that concerns over strategic demand reductions should be minimal. Further, we observe that it is not clear that concerns over strategic demand reductions are legitimate given that revenue maximisation is not an object of the Act.

#### Activity rule

- 5.20 Optus supports the ACMA proposal to use a global activity rule for this auction, noting that the level of the activity rule will be consulted on with registered bidders after the close of applications.
- 5.21 Optus considers one of the main purposes of the activity rule is to ensure auction progress, as it provides one of the key triggers for an Eligibility-reducing round.
- 5.22 Given the auction structure and the role of the bid processing algorithm, Optus therefore welcomes that reduced risk that an Eligibility-reducing round may occur due to partial fulfilment of bids since eligibility will be based on the higher of the bids placed or the bids processed. This approach was adopted in the 3.6 GHz and 26 GHz auctions and should continue to be applied for this auction.
- 5.23 Optus also considers that given the low number of lots to be available in this auction, the eligibility percentage could initially be set at 100% in the primary stage. There is limited value in having this activity rule set below the 100% level given the small number of available lots on offer in the primary stage.

#### Minimum spectrum requirement

- 5.24 Optus supports the ACMA proposal to not facilitate the inclusion of a minimum spectrum requirement (MSR) for this auction due to the small number of lots available on offer and the accepted view on the utility of 10 MHz of low-band spectrum.

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<sup>8</sup> ACMA, Draft instruments for the 850/900 MHz band auction, Consultation paper, April 2021, p.29

- 5.25 However, we consider that the flexibility that the MSR has enabled in past auctions – where a bidder has expressed a binding demand reduction from one lot to zero thereby resulting in that lot being unallocated at the end of the primary stage – could be used to facilitate the subsequent allocation of that ‘unsold’ lot (in this case, a ‘withdrawn’ set-aside lot during the primary stage) in a later stage of the auction.
- 5.26 As such, we propose a secondary clock stage (similarly to that adopted in the 3.6 GHz and the 26 GHz auctions) could be reinstated for the allocation of any unsold lots. In this context, the same competition limits and starting eligibility less the eligibility for any lots won in the primary stage would apply for each remaining bidder. Optus also considers that operation of the secondary stage would exclude the ‘set-aside participant’ who has forfeited the lot, and that the starting parameters would be in line with the rules set out in the previous auctions.

#### Assignment stage pricing rule

- 5.27 Optus supports the ACMA proposal to use the nearest Vickrey core pricing algorithm for determining the winning prices in the assignment stage, noting the expectation that this will be a small fraction of the total bids for the auction.
- 5.28 Optus similarly supports the ACMA proposal that there will be no pre-assignment of unsold lots to a specified part of the band. However, we question the lack of recognition for the technical utility and value differential for the lower 900 MHz lot. Optus submits that the value differential of the lower 900 MHz cannot be appropriately resolved by treating it as a generic 900 MHz lot and leaving it to assignment bids for bidders to resolve.
- 5.29 As previously highlighted, Optus considers that the generic treatment of all 900 MHz lots may lead to the eventual winner of the lower 900 MHz lot being forced to pay both an inefficient price for allocation of that lot and the outcome of being stranded with a lot that does not afford the expected utility of the upper 900 MHz lot the bidder originally bid for.
- 5.30 To address this concern, Optus proposes that the 900 MHz band be split into lower and upper lots – that is, a separate lower 900 MHz lot should be considered, with a lower starting price to reflect the value differential in that lot relative to the four upper 900 MHz lots that do not face the same technical constraints that inhibits its utility. This will allow bidders to express demand for the 900 MHz lots while taking into account any technical variances during the primary stage. Optus also subsequently supports the winner of the lower 900 MHz lot to be pre-assigned contiguous spectrum with any upper 900 MHz lots won.
- 5.31 The ACMA also notes that:
- (a) Any unsold lots will be treated as a single contiguous lot and will not pre-assigned to any part of the band;
  - (b) Prior to the start of the Assignment stage, that winning bidders will be provided with their feasible frequency options for each product at least 24 hours before commencement of the Assignment stage; and that
  - (c) The downshift lot will be automatically assigned to the eventual winner of the lower 900 MHz lot.
- 5.32 Optus welcomes this clarification and considers that the ‘at least 24 hours’ requirement should also include at least one full working day for winning bidders to consider their assignment round strategies.

- 5.33 In addition, Optus would support resumption of the auction after recess days to commence at the beginning of an auction day (i.e. to commence at 9am) and not part way through the day. This is to avoid any confusion regarding when bidding activity is to recommence and ensures that any internal governance processes can be implemented accordingly.

## Allocation limits

- 5.34 Low-band spectrum is the foundation upon which national mobile networks are built since it provides broad geographical coverage. Access to low-band spectrum is a critical driver of competition and investment in Australia. Reflecting this, when the 900 MHz spectrum was first allocated in Australia, it was done to achieve a level playing-field with almost identical allocations across the mobile network operators.
- 5.35 Importantly, there is no disagreement that allocation limits – taking into account all existing sub-1 GHz holdings – must be imposed on the amount of spectrum that can be won at auction. Failing to do so may lead to a detrimental impact on the Australian economy, limit competition and reduce network choice for Australian consumers.
- 5.36 Optus supports the ACMA's proposal to apply allocation limits for the purposes of this auction and included in Part 2 of the Allocation Determination.
- 5.37 Clause 15 currently gives effect to an allocation limit for all bidders to be based on an aggregate of 82 MHz of the sub-1 GHz band under spectrum licences in the metropolitan or regional geographic areas. This gives practical effect to the imposition of an 80 MHz sub-1 GHz cap for any person or group of related persons during the auction.
- 5.38 This same allocation limit applies to any set-aside lot that has been elected and accepted as part of the auction procedures.
- 5.39 While Optus strongly supports the Government's policy intention to set-aside for Optus and for TPG one 10 MHz lot in the 900 MHz band for service continuity, we also submit reconsideration of the proposed allocation limits should be given to ensure there is no future entrenchment of the spectrum imbalance between the existing mobile operators.
- 5.40 To that end, Optus resubmits that the allocation limit should be set at a maximum of 72 MHz in all geographic areas for total low-band spectrum. An allocation limit of 72 MHz will allow all three mobile network operators to continue to compete, ensuring the market benefits from at least three competitive, national multi-band 5G networks.
- 5.41 Optus also notes that given the allocation limit gives effect to the set-aside provisions, where the election of the set-aside influences the allocation limit that applies to other auction participants, the auction rules should also enable processes for:
- (a) *Election of a set-aside lot.* Optus agrees that this should take place by the application deadline, however the financial commitment of securing this set-aside lot should not be binding at this stage.
  - (b) *Securing eligibility for the 'elected' set-aside lot.* Optus agrees that may take place by the eligibility deadline with any additional lots to be nominated in the eligibility nomination form, however the financial commitment of securing this set-aside lot should not be binding at this stage.
  - (c) *Final withdrawal of the 'elected' set-aside lot.* Optus submits that all set-aside participants should be given a final opportunity to financially commit to the 'elected' set-aside lot during the pre-bidding phase.

- (d) The *final generic allocation of the set-aside lot will therefore only occur at the completion of the primary stage*. Optus notes that while this introduces a minor difference in timing of the 'direct' allocation from before the pre-bidding phase to after completion of the primary stage, we note that this will have significantly impact on internal governance processes – including for bid strategy, financial governance and management approvals.
- 5.42 Optus considers the decision by set-aside participants to accept or reject a set-aside lot does not impact on the overall ability of other bidders to acquire spectrum in the auction. While Optus and TPG can both formally signal their intent to acquire the set-aside lot at a pre-determined price, the financially binding aspect of this decision should only be made during the pre-bidding phase and only directly allocated as part of the close of the primary stage. Specifically,
- (a) In the unlikely event that this occurs, the forfeited lot can be returned to the allocation pool to be taken up by any remaining bidder in the auction in accordance with the allocation rules.
  - (b) Optus proposes that a secondary stage, similar in form and function to that adopted in the 3.6 GHz and 26 GHz auctions for allocating any unsold lot where a minimum spectrum requirement was triggered, be reintroduced. Participation would also be limited to any remaining bidders subject to their registered eligibility and allocation limits at the close of the primary stage. This would address any auction efficiency risk of ending up with unsold lots at the close of the auction.
- 5.43 Furthermore, Optus does not support any change to the allocation limits once it has been announced. We also welcome further clarification that the allocation limits cannot be varied after the release of the AIP.

### **Lot ratings and starting prices**

- 5.44 The auction rules again propose to introduce a discretionary power for the ACMA to change the starting prices before the auction. If the starting price changes, then the lot ratings may also change, and the relevant administrative deadlines also amended accordingly.
- 5.45 Optus strongly opposes this discretion and considers that the clauses set out under Part 4 – Division 5 of the Draft Allocation Instrument be removed. In line with previous auctions, these auction parameters should not be changed after the release of the AIP and the discretion for the ACMA to change any these parameters should also be removed.
- 5.46 Lot ratings provide an indication of the relative value of a spectrum lot, which is then used to determine the bidder's eligibility and ability to continue participating as the auction progresses. In contrast, the starting price sets out the initial lot price at the start of the auction, and from which any bid increments would be applied.
- 5.47 These are important auction parameters and should not be subsequently changed after the AIP has been published, but more significantly should not be changed after the application deadline has closed.

### **Starting prices**

- 5.48 Optus further raises two issues relating to starting prices that need reconsideration:

- (a) A separate lower 900 MHz lot should be considered, with a lower starting price to reflect the value differential in that lot relative to the four upper 900 MHz lots that do not face the same technical constraints that inhibits its utility; and that
- (b) Any set-aside lots should not be priced above the starting price for the upper 900 MHz lots. Set-aside participants should also be given the opportunity to forfeit any rights to this lot at the pre-bidding phase – in the unlikely event this occurs, the ‘withdrawn’ lot would return to the auction pool for allocation in the form of a Secondary Stage for any other remaining bidders subject to their allocation limits.<sup>9</sup>

5.49 In particular, Optus disagrees that the set-aside lot be subject to any price above the starting price for any equivalent upper 900 MHz lot. Optus strongly rejects any proposal to set the price of the set-aside lot at the ‘exit’ price. Pricing the set-aside lot above the equivalent starting price would undermine the Government’s policy intention to ensure service continuity objectives can be met. Notably, Optus submits:

- (a) There is no precedent that would warrant an ‘auction avoidance uplift’ in any form to be introduced. There is no reason to justify any specified price for the set-aside lot to be set above the starting price for an equivalent upper 900 MHz lot. **[CIC]**
- (b) The set-asides where granted are to meet the Government’s policy intention to facilitate service continuity objectives for affected incumbents and it should be up to the set-aside participant to accept or forfeit their rights to this reserved lot at any point before the first round of the primary stage of the auction (i.e. during the pre-bidding phase).
- (c) Uncertainty relating to the starting price for a set-aside lot could also lead to corporate governance issues. Prudent internal processes would not support a binding financial commitment being made prior to a final starting price for all available lots being notified. Importantly, the price for the set-aside lot must be specified upfront and there should be no change to the specified price for the set-aside lot after it has been announced. Optus also notes that there should be no change to the starting prices for the other lots.
- (d) Should a set-aside participant choose to ‘withdraw’ their elected set-aside lot during the pre-bidding phase, a secondary stage can be utilised to enable any remaining bidders to bid on that forfeited lot within the same auction process. This would address any auction efficiency concerns that the ACMA may hold arising from an unsold lot at the end of the auction.

5.50 As outlined in Section 2, the introduction of either an ‘auction avoidance uplift’ or ‘exit’ price cannot be justified. Optus is not aware of any policy or economic theory that would support such an uplift. Optus is deeply concerned that the ACMA would consider such a novel approach which appears on its face to work against the Ministerial Direction.

5.51 A premium – in any form – applied to set-aside lots is contrary to the intent of the Direction. Spectrum allocation, including setting related price terms for set-aside lots,

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<sup>9</sup> In particular if the ACMA retains the right to change the reserve price before registration, bidders should not be asked to commit to the set aside until the final reserve price is known



should support the Government's policy objectives rather than used as a means of maximising Government revenue.

5.52 Optus considers that:

- (a) A premium based on an 'uplift' value risks the spectrum lot being allocated at above-market rates, which leads to an inefficient allocation of the valuable spectrum asset, inconsistent with the objectives of the Radiocommunications Act.
- (b) The use of an 'exit' price value further exacerbates the risk of acquiring a spectrum asset that is above the bidder's terminal value for the set-aside lot, which leads to an inefficient allocation of the valuable spectrum asset; inconsistent with the objectives of the Radiocommunications Act.

5.53 Either of the proposals introduce an unacceptable risk that taking up a set-aside would expose the set-aside participant to a financial liability greater than that for other lots. This risk may be small, but the presence of the risk has material impacts for governance.

5.54 No set-aside participant would rationally accept the financial uncertainty of accepting an offer without the financial liability and terms known upfront. Participants are unlikely to accept an offer which has the effect of signing a 'blank cheque' financial commitment, particularly given the importance of the spectrum on offer and the potential quantum of the amount require to complete the acquisition.

5.55 It follows that *any* price that is set above starting price for similar lots to the set-aside lot would undermine the purpose of the set-aside policy. This risk is further exacerbated should the final starting price for both the set-aside lot and lots available during the auction not be resolved before the release of the AIP.

5.56 Given the Government's policy objectives to support competitive market outcomes in regional areas and to minimise further imbalance in low-band holdings, the ACMA should not introduce any unnecessary financial barriers, such as setting an uncertain pre-determined price for the set-aside lot.

5.57 Importantly, the market price for the set-aside lot should be set no higher than the starting price of an equivalent upper 900 MHz lot offered in the auction.

### Lot ratings

5.58 Optus supports different lot ratings to be considered for each of the different spectrum products on offer. Specifically, we recognise there are some differences in utility of the different lots that may warrant a different lot rating to be established – such as between the 850 MHz expansion, the lower 900 MHz and the upper 900 MHz lots. Optus supports the ACMA engaging in additional consultation on these values once the difference between lot categories are finalised.

### **Application and registration process**

5.59 In general, Optus supports the proposed processes and procedures on how the auction will be advertised with the clear exception that we do not agree with the proposed rules set out under Part 4 – Division 5 of the Draft Allocation Instrument. Optus also supports the proposed use of the bank guarantee in lieu of a deposit for the eligibility payment.

5.60 Optus also notes concerns with the operation of Part 4 Division 1, clause 29 (3) that refers to election of set-asides on the Application Form. Notably, we consider that

Schedule 1 regarding the allocation of a lot for a pre-determined price for set aside lots be amended to:

- (a) Remove reference to the allocation of the set-aside lot to be made immediately before the start of the primary stage; and
- (b) Confirm that the set-aside price be set at pre-determined price that is a specified amount *no higher* than the starting price set for any of the four upper 900 MHz lots.

5.61 Optus further reiterates there should be no discretion for the ACMA to vary the starting prices for any of the lots on offer in the auction.

*The application and registration deadlines should not be subject to change*

5.62 Optus notes that the general procedures before the auction, including the two-stage application and eligibility requirement processes, are generally well understood and have been adopted in the past. The key deadlines and related requirements for the application and registration are provided to all prospective applicants with the understanding that the decisions and rules for participation are final. That is,

- (a) The ACMA advertises the auction, including release of the Applicant Information Package which sets out all relevant information such as the spectrum lots on offer, the allocation method, and payment terms.
- (b) The Application Deadline sets out the *last day* that a potential applicant can enter the allocation process. This includes the payment of a non-refundable application fee proposed to be set at \$10,000. Only applicants who complete this stage will be able to proceed to the registration stage.
- (c) The Eligibility Deadline sets out the *last day* that an applicant can submit their eligibility nomination form. This also includes the associated eligibility payment to secure the activity point required to place the relevant bid in the first round. No new applicants can enter the process at this stage and a bidder is registered following the completion of this stage.

5.63 However, we are concerned with the ACMA discretion in clause 44 to vary starting prices, lot ratings and deadlines. As such, the rules propose to allow that 'Not less than 5 working days before the eligibility deadline' the ACMA may vary the starting price and lot rating for the lots of each product in the auction. This should not be allowed.

5.64 In doing so, this will have the following effect on the application and registration process.

- (a) The Extended Eligibility Deadline must be set at least 20 working days after the original Eligibility Deadline; and
- (b) A New Application Deadline must be set which must be at least 20 working days after the date the variation is made.

5.65 Notably, there should be no change to the starting price and lot ratings for any spectrum product – including any set-aside lot – on offer in this auction. This uncertainty may also apply to the specified price for the set-aside lot where it also causes the price of the set-aside lot to change in detrimental terms.

5.66 Optus submits that this introduces uncertainty into the process by both extending the eligibility deadline to accommodate any varied starting price and re-opening the application process to other prospective applicants who have already chosen to

foreclose their opportunity to participate by not applying by the Application Deadline in the first place.

- 5.67 Specifically, the extension of these 'administrative' deadlines will create additional internal governance issues. For example,
- (a) Internal Executive and Board approvals to participate need to be planned well in advance. This will have flow-through implications for securing any bank guarantees associated with the Eligibility Payment.
  - (b) Executive and Board approvals should only need to be sought once for the decision to participate in the auction, and not revisited after it has been approved (i.e. should an auction parameter change).
  - (c) A change in starting price, irrespective of the size of the change, will require a new executive proposal to be submitted, and the internal governance process would effectively need to be restarted.
- 5.68 While this ACMA discretion is subject to a time constraint of 'not less than 5 working days before the eligibility deadline' and is only limited to varying a starting price and thereby lot ratings, it is unclear that the benefits of this discretion will outweigh the costs of the change that may be imposed on the applicants abiding by the original deadlines.
- 5.69 Optus likewise would not support the eligibility deadline only being extended 20 days based on a change of starting prices as typically we are provided at least six to eight weeks, from when the auction is first advertised to the close of registration. This full period is required to complete internal governance processes, such as:
- (a) Executive approval sought *and* gained to approve the bank guarantee and the provisional approval of the eligibility nomination form, which is not known until the starting prices are known and will not be committed to until the pre-bidding phase of the auction. Securing finance arrangements for participation, such as contacting the bank and formally requesting the bank guarantee. Where additional financial facilities may need to be established depending on the size of the guarantee, this would require bank credit approval which could take two weeks. Formal documentation will then need to be established before the guarantee can be drawn on. We estimate that this process may take around four weeks, which is more than the additional 20 days any deadline extension would allow.
  - (b) Further internal governance activities will then be required to ensure the appropriate executive approval is granted and the bank processes can be completed.
- 5.70 We do not consider the additional complexity caused by a change to the starting price will be commensurate with the potential to attract additional potential bidders or to increase the appetite for applicants to seek to acquire any additional lots.
- 5.71 Optus therefore submits that the ACMA reconsider the need for this discretion to be introduced into the Allocation Instruments.

### Securing initial eligibility

- 5.72 The ACMA proposes to set the Amount required to secure initial eligibility points to be set at 10% of the sum of the aggregate start demand (expressed in lots) multiplied by the starting price for the lots of that product, as specified by the applicant in its completed eligibility nomination form.

- 5.73 Optus supports the initial eligibility amount to be set at this level.
- 5.74 However, as noted above, the ACMA should not have the discretion to vary the starting round prices and lot ratings after the AIP is released. A change in starting price will have implications for prospective applicants who chose to secure their initial eligibility by providing a deed of financial security.
- 5.75 First, there will internal governance processes to be managed to inform and assess for any changes to the auction terms. Additional approvals will be required to execute the new instructions, including the approval to secure a new deed of financial security.
- 5.76 Second, there will be costs associated with securing a deed of financial security. Any variation to this amount, including the need to secure a new deed of financial security will also be subject to cost.
- 5.77 In addition, the rules also require that a copy of the original deed must be received by the ACMA no later than 3 working days after the eligibility deadline for the application to be valid. As such, Optus notes that the deed of financial security will be prepared more than 5 working days prior to the eligibility deadline.

#### Implication for the election of set-aside lots

- 5.78 As discussed above, Optus supports an application and registration process being established to enable potential set-aside participants to elect, secure and withdraw without financial penalty from acquiring the set-aside lot at a pre-determined price.
- 5.79 Specifically, we accept the validity of setting a formal process to both elect and secure the set-aside lot during the formal application and registration procedures. However, we advocate that the ability to withdraw from acquiring the set-aside lot should also be established to ensure that, should network planning or spectrum strategies change, the 900 MHz lot is able to return to the generic pool of upper 900 MHz lots for allocation to potential bidders who value the use of the lot more efficiently.
- 5.80 Optus therefore submits that the financially binding commitment for the allocation of the set-aside lot at the pre-determined price should only occur during the pre-bidding phase, with direct allocation of the set-aside lot only occurring at the close of the primary stage.
- 5.81 Optus notes that where the set-aside lot is forfeited during the pre-bidding phase, this information will be made available to all remaining bidders during the primary stage in the form of excess supply for a previously elected set-aside lot. Where this occurs, a secondary stage would be triggered for the allocation of this lot to any bidder subject to their registered eligibility and allocation limits at the close of the primary stage.

#### **Affiliated applicants**

- 5.82 The affiliation rules apply where the Minister issues an allocation limit determination.
- 5.83 Optus acknowledges that these affiliation provisions will be conducted at various stages of the auction process, including following the close of applications, during the auction and potentially following the conclusion of the Primary and Secondary stages of the auction prior to the Assignment Stage if the ACMA has concerns that two or more bidders have become affiliated during the auction.
- 5.84 For the avoidance of doubt, Optus also notes that the limited exception to the “members in common” definition for the 3.6 GHz and 26 GHz auctions, which was intended to provide that common outsourced company secretaries in offshore subsidiaries of bidders were not taken to be associates for the purposes of the allocation limits should again be

considered. As such, we consider that any changes introduced in the Minister's Allocation Limits Direction should similarly be reflected in the final allocation instrument.

## **Payment terms**

- 5.85 The ACMA is proposing to use the upfront payment arrangement at the conclusion of the 850/900 MHz band auction, where:
- (a) The balance of the winning price must be paid to the ACMA no later than 20 working days after the date a notice of payment is given to the winning bidder, with the licence to be issued shortly after full payment is received; and that
  - (b) The timing for the notice of payments would not be given to winning bidders until closer to the time of the spectrum licences would commence.
- 5.86 While we understand there will be an extended period between the end of the auction and the licence commencement, Optus considers that the likely quantum of the auction payment should warrant the option for winning bidders to access instalment payment arrangements. In line with the 26 GHz auction, we consider five annual instalment payments to be an appropriate starting point.<sup>10</sup>

### **Flexibility for instalment payments**

- 5.87 The ACMA seeks comment on the option for delayed payment arrangements (i.e. instalment payments) for the payment of winning high bids.
- 5.88 In particular, the ACMA notes that should this option be included, the allocation instrument would be amended to reflect the flexibility for winning bidders to adopt either an upfront or instalment payment option. This would include advising bidders of the amounts payable under both the upfront and instalment payment options prior to making a formal election of the payment arrangement by the date that the ACMA sets.
- 5.89 Under the instalment payment arrangement, winning bidders would be awarded the licence upon receipt of the first instalment payment, and due close to the start of the licence commencement.
- 5.90 Optus similarly considers that where an instalment option is elected, it would be appropriate to consider five annual instalment payments to be an appropriate starting point and set according to similar terms adopted during the 26 GHz auction. In addition, Optus considers that an additional auction form be provided for winning bidders for 'Election to pay by instalment payments' Any refund of eligibility payments should be payable within 6 months.
- 5.91 In addition, where a refund of the eligibility payment is payable to any unsuccessful bidder then the ACMA must refund this amount no later than 6 months after notice is given that their confidentiality obligations have ended.
- 5.92 Optus agrees that any refund be provided within 6 months of the auction results being confirmed.

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<sup>10</sup> We similarly acknowledge that the unsold 700 MHz auction also allowed for instalment payment, based on three annual instalments following the close of the auction.

- 5.93 For all other refund of eligibility payments, e.g. where a bidder has secured initial eligibility through the use of bank guarantees, we consider it is appropriate that this remains in place until the final payment has been made.

## Section 6. DETAILED AUCTION RULES

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- 6.1 Schedules 2 and 3 in the Draft Allocation Instrument sets out the detailed auction rules relating to each of the two stages to be carried out in the auction.
- 6.2 In general, Optus supports the proposed auction scheduling proposals, where:
- (a) The rounds of the auction are confined to working days other than recess days (that is, Monday to Friday between 9am and 5pm).
  - (b) There is a clear recess day between the end of the primary stage and the assignment stage. Optus also seeks at least one clear recess day between the primary stage, the proposed potential Secondary Stage and the Assignment Stage
- 6.3 Optus also supports the inclusion of the pre-bidding phase in the primary stage and the approach used for the calculation for the reduction in eligibility points that were introduced in the 26 GHz auction. These are important auction mechanics that enable bidders to place bids with greater certainty that the bidder's starting demand aligns with any approved auction strategy adopted by that bidder, and that there is no unintended loss of eligibility points during the auction.
- 6.4 Optus, however, retains significant concerns on the operation of the set-aside provisions in the detailed auction rules. As discussed in Section 5 above, an auction mechanism should be introduced into the detailed auction rules to allow any set-aside participants to withdraw its commitment to acquire the set-aside lot, similar to the way in which bidders can choose to change their start demand during the pre-bidding phase.
- 6.5 In the unlikely event that such an action is taken, the auction rules can be amended to ensure that any withdrawn set-aside lots could be reallocated into the auction pool in the form of a Secondary Stage open to other auction participants subject to their competition limits. It is envisioned that in this instance, a Secondary Stage could be triggered similar to the way the Minimum Spectrum Requirement (MSR) would have operated in the 3.6 GHz and 26 GHz auctions with bidding on any withdrawn set-aside lots to occur immediately following completion of the primary stage and before the assignment stage commences.
- 6.6 Optus' views on the detailed auction rules are further discussed below.

### **Schedule 2 – Rules for the primary stage of the auction**

#### Part 2 – Processing of bids

- 6.7 Under Schedule 2, the processing algorithm to be applied at the end of each clock round in the primary stage is a key feature of the auction format. These are contained in;
- (a) Subsection 2A(1) sets out the bid queuing process;
  - (b) Subsection 2B describes how an increase bid may be applied; and
  - (c) Subsection 2C describes how a decrease bid may be applied.
- 6.8 Optus submits that a clear process diagram and illustrative example should be provided to ensure all bidders understand how this process works.

- 6.9 For example, in traditional auctions, a bidder's decision to decrease bids in one area is often correlated with the decision to increase bids in another area. Partial fulfilment of a decrease bid (or multiple decrease bids) may be insufficient to allow the fulfilment of an increase bid. Further, where a bidder places multiple increase bids within the same clock round, there is no option to allow one increase bid to be prioritised over the other.
- 6.10 Put simply, Optus considers that the issue of partial processing of bids should not be allowed. For example, there remains an inherent risk for bid limits to be exceeded due to a partial decrease bid being processed on a higher priced lot and an increase bid being partially processed on a lower priced lot. The bid processing algorithm should be amended to ensure that bid instructions are completed in their entirety to limit any bid exposure risks of a bidder 'winning' spectrum they are no longer interested in.
- 6.11 Similarly, Optus considers there should be no accidental loss of eligibility points due to the bid processing algorithm and eligibility should be calculated based on bids placed not on the bid processed. To this end, Optus welcomes the confirmation in paragraph 12(1)(b) and subsection 13(2) that the calculation of any reduction in eligibility points in a clock round is based on the greater of the bidder's total value in eligibility points submitted and the bidder's total value in eligibility points for the bids processed (i.e. bidder's posted demand) for the given clock round. These changes were introduced during the 3.6 GHz and 26 GHz auctions and should continue to apply in this auction.

### Part 3 – Arrangements for the primary stage

#### *Entries in the auction system before the first round (clause 3)*

- 6.12 Optus strongly supports the inclusion of the pre-bidding phase and the binding commitment that is entered at this stage. This ensures that all bidders will have their auction strategies locked in and fully understand the auction mechanism at play. This worked very well when it was introduced during the 26 GHz auction.
- 6.13 In this 850/900 MHz band auction, it will also be one of the first auctions overseen by the ACMA that applies a set-aside provision. It is understood that certainty on the maximum number of lots that can be acquired during the primary stage must be confirmed during the Registration process and cannot be changed after this date for the purposes of locking in the key auction parameters in the auction system.
- 6.14 For all intents and purposes, the overarching allocation limit that applies to each bidder remains the same irrespective of whether a set-aside participant accepts a 'set-aside' lot or not. Even for a set-aside participant, the overall allocation limit that applies will not change and the acceptance of a 'set-aside' lot only reduces the amount of lots that can be won by a set-aside participant during the primary stage.
- 6.15 The election of a 'set-aside' lot can also be considered as confirming a 'Minimum Spectrum Requirement' that has been set at 1. As adopted in previous ACMA spectrum auctions, the purpose of a MSR was to protect a bidder from only obtaining part of the required spectrum to deliver their use case.
- 6.16 On this basis, a set-aside participant should also be afforded the same flexibility to reduce their starting demand for a 'set-aside' lot during the pre-bidding phase.
- 6.17 In the unlikely event that a set-aside participant chooses to withdraw their commitment to acquire their 'set-aside', then this lot can return to the pool of available 900 MHz national lots for any remaining auction participants through a Secondary Stage process.



- 6.18 Following the close of the pre-bidding phase, Optus acknowledges that the auction system includes information on the start demand, initial eligibility points, and allocation limits applicable to individual bidders prior to the start of the first round.
- 6.19 While the auction rules do not allow for the supply of 900 MHz national to be amended after the Registration Deadline for the operation of the primary stage, the entries in the auction system can be amended to include information on whether there is any available lot that has been withdrawn by a set-aside participant and therefore progressed for allocation in a secondary stage.
- 6.20 As noted in Section 5, Optus proposes that the allocation rules be amended to allow set-aside participants to be given a final opportunity to 'withdraw' their election of the set-aside lot during the pre-bidding phase. In the unlikely event that this occurs, the unsold lot can move to a secondary stage for allocation to any of the remaining bidders.

*Bid increment percentages and eligibility requirement percentage (clauses 4, 9, 10)*

- 6.21 Optus acknowledges that both the bid increment and eligibility requirement percentages are required to be set for each clock round.
- 6.22 We similarly acknowledge that the starting level of the bid increment percentages and activity rule will be consulted on with registered bidders after the close of applications. We also support the requirement that any changes to these percentages are subject to consultation with bidders during the course of the auction, with a clear indication of when any such changes are expected to take effect.
- 6.23 As preliminary considerations, Optus considers that:
- (a) The starting bid increment be set significantly lower than the 3.6 GHz or the 26 GHz auction due to a potentially higher starting price. There is no requirement that the bid increment should start at 10% – e.g. the minimum bid increment was set at 2.5 % from round 1 during the unsold 700 MHz auction; and
  - (b) The eligibility percentage to be set at 100% from round 1 due to the low number of lots available. There is limited value in having this activity rule set below the 100% level given the small number of available lots on offer in the primary stage.
- 6.24 We will provide more feedback on these parameters in future consultations, as required.

*Auction schedule (clause 5)*

- 6.25 Optus supports the proposal that rounds of the auction be confined to working days other than recess days (that is, Monday to Friday between 9am and 5pm).
- 6.26 Optus also proposes a minimum of 8 rounds and a maximum of 12 rounds per day, noting that this was the minimum and maximum used during the recent 26 GHz auction.
- 6.27 In addition, Optus also proposes that a 30 minute break for morning and afternoon tea and a 60 minute break for lunch be scheduled as it is anticipated that the rounds will be of shorter duration than previous auctions.

*Information policy (clause 8)*

- 6.28 At the end of each (and before the start of any new) clock round, the ACMA will be required to provide the aggregate demand for each product lot.

- 6.29 Optus strongly disagrees with the ACMA's proposal to not provide the exact excess demand, where it is greater than zero, at the end of each round.
- 6.30 Specifically, that the definition for excess demand in subsection 2(1) also notes that "The excess demand may be a positive number or a negative number or zero." This information is important for both transparency and price discovery, it would not be appropriate for this information to be masked, such as in the manner adopted during the 3.6 GHz auction (which was considered a limited information policy).
- 6.31 Optus further notes that previous auctions have adopted full information policy, where even though only single lots were on offer there was no consideration for the masking of any excess demand or excess supply. Despite this, there was no negative impact on demand in the auction and it is unclear why this would be adopted now.
- 6.32 The competitive results of previous auctions clearly demonstrate that concerns over strategic demand reductions should be minimal.

#### Part 4 – Bidding in the primary stage

- 6.33 The auction rules governing the validity of bids is set out at subsection 15.
- 6.34 Bids associated with an increase bid or decrease bid option may be associated with a price level that falls within the range of the opening price and clock price for the relevant lot. The defined price point is then used as the determiner of where the bid sits within the queue for the purposes of the processing algorithm set out at subsection 2A(1), where both increase and decrease bids are placed in the same queue. A maintain bid is always applied in full and taken to be at the posted price for the clock round.
- 6.35 Bidding remains open for all lots in each product in every clock round, until the final clock round is reached.
- 6.36 Optus considers it is interesting that the rule set out at 15(2) implies that the auction system will always 'place automatic decrease bids for the lots of the product in a clock round.' This means that where applicable, a bid must be submitted for all active products at the end of each clock round, or a reduction in eligibility points will occur. Optus proposes that a maintain bid should be the default bid to ensure that eligibility is maintained unless a bidder deliberately places an increase or decrease bid.
- 6.37 In addition, where the bidder has placed a bid that is not a valid bid, then the auction system will automatically consider that the bidder has placed a decrease bid equal to a decrease in the total lots for that product from the start demand in that clock round.
- 6.38 The operation of subsection 15(2) therefore infers that a bidder is able to intentionally (or otherwise) place a bid to decrease a large number of lots in a product in a single clock round. Optus considers that the risk of placing unintentional decrease bids should be minimised. As noted above, it is not clear that the placing of a default full decrease bids, and the risk that this is accepted when it is not intended, is being made to benefit an active bidder's participation in the auction. Optus proposes that it would be preferable for all bidders, the ACMA and auction integrity that the default bid is maintain bid and only intentional decrease bids are placed and processed.

#### Part 5 – Determining the primary winners and primary prices

- 6.39 The primary stage ends when there is a clock round in which excess demand is less than or equal to supply for lots of the product. After the final clock round, the auction system will determine the primary winners and primary prices for that round.

## Part 6 – Bringing the primary stage to an end

- 6.40 At the end of the primary stage, the auction manager must tell each primary winner:
- (a) The total number of lots of each product allocated to the primary winner; and
  - (b) The total posted price for the allocated lots of each product and the primary price to be paid by the primary winner for those lots.
- 6.41 In terms of the allocated lots of each product awarded to other primary winners, subsection 18(2) does not require the auction manager to tell all bidders the total posted price (or total primary price) applicable to each primary winner. Instead, the auction manager is only required to disclose the total number of primary winners; and the total number of lots of each product that have been allocated to primary winners. Optus also considers that to ensure full price transparency at the end of the primary stage, this information should include the total posted price applicable to each of the spectrum lots on offer.

### **Introduction of a secondary stage**

- 6.42 Optus submits that detailed auction rules should be established for all scenarios, however unlikely, that may affect the outcomes of an auction process.
- 6.43 This 850/900 MHz band auction will be one of the first auctions overseen by the ACMA that applies a set-aside provision.
- 6.44 Optus understands that in the event a set-aside participant chooses to withdraw their commitment to acquiring a set-aside lot having already accepted the offer in the Letter of Intent, the only way this can currently be done in the draft instruments is to withdraw participation from the auction altogether after the Registration Deadline – a process should be established to enable that lot to be allocated within the same auction
- 6.45 As discussed in Section 5, Optus submits that a process should be introduced that will enable set-aside participants to withdraw from their election to take-up a set-aside lot with no financial penalty. Optus considers that this would take place during the pre-bidding phase, when any decision to be taken by the set-aside participant will become financially binding. This should include the option for the set-aside participant to withdraw from any lots – including set-asides – nominated (and secured) by the registration deadline during the same pre-bidding phase of the auction.
- 6.46 In the event the demand for *any* lots are reduced during the pre-bidding phase, these should be made available to other bidders in some form during the same auction process, subject to the allocation rules. For example, where it concerns:
- (a) a standard product lot open to all bidders, any reduced demand will be made available as part of the overall supply available for bidding during the primary stage. No change is required to accommodate this.
  - (b) an ‘elected’ set-aside lot, open only to set-aside participants, in the unlikely event that demand for this lot is reduced during the pre-bidding phase, this lot should be made available for allocation within the same auction process. This would require secondary stage rules to be reinstated to enable this.
- 6.47 To facilitate the allocation of any ‘withdrawn’ set-aside lots during the primary stage, Optus considers a Secondary Stage process similar to that applied in previous auctions could be reinstated for instances where a MSR has previously been triggered. To this end the starting price for the forfeited lot would restart at reserve price (i.e. the same as

the starting price for the set-aside lot) and increase accordingly to the same bid increment relied on during the primary stage.

- 6.48 Regardless, this would allow the set-aside lot where it has been forfeited to be allocated through a second phase, using a simple clock, pricing ascending mechanism until there is no longer any excess demand expressed by any remaining bidder.
- 6.49 Participation in the secondary stage would be open to any other remaining bidder that has not exceeded their allocation limit, and the result from the secondary stage aggregated with the primary stage, if applicable, for the purposes of determining the frequency assignment options to apply during the assignment stage.
- 6.50 Optus further notes that as per previous auctions, the likelihood of a secondary stage eventuating during the live auction remains low.

### **Schedule 3 – Rules for the assignment stage of the auction**

#### **Part 2 – Arrangements for assignment stage**

- 6.51 During the rounds of the assignment stage, bidding is only open to bidders who have been allocated lots in the primary stage and the Optus proposed Secondary Stage.
- 6.52 Optus also supports that the auction scheduling includes a clear recess day between the end of the primary stage and the secondary stage, and the end of the secondary stage and the assignment stage.

#### **Part 3 – Bidding in the assignment stage**

- 6.53 The auction rules governing the validity of bids is set out at subsection 6. Notably, that bidders can only submit a single bid for any (or all) of the frequency range options provided through the auction system for the relevant assignment round.
- 6.54 Optus has also submitted that the lower 900 MHz lot be considered separate from the upper four 900 MHz lots. Optus notes that where the winner of the lower 900 MHz lot is also a winner of any of the four upper 900 MHz lots, then similar to previous auctions there should be contiguous assignment between any upper and lower lots in the 900 MHz band.

#### **Part 4 – Determining winning assignment bids and prices**

- 6.55 After each assignment round, the auction manager must determine the winning assignment bids for each product or group of products bid for in that round according to subsection 7. The determination of assignment prices is set out at subsection 8, and effectively reflect the application of a second price rule.

#### **Part 5 – Bringing the assignment stage to an end**

- 6.56 At the end of each assignment round, the auction manager must tell each winning assignment round bidder:
- (a) The frequency ranges assigned to lots of a product allocated to the bidder in the primary stage or secondary stage; and
  - (b) The assignment price for the frequency ranges assigned.

- 6.57 The auction manager must also disclose to all bidders the assignment price for each winning assignment bid in an assignment round.
- 6.58 This also infers that the result of each assignment round is provided prior to the start of the next assignment round.
- 6.59 The assignment stage ends when all available assignment rounds have concluded.

## Section 7. EARLY ACCESS ARRANGEMENTS

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- 7.1 Spectrum licences in the 850 MHz expansion and 900 MHz bands won during the auction will commence from 1 July 2024, which closely aligns with the reallocation period that ends immediately before this date, i.e. 30 June 2024.
- 7.2 As spectrum is progressively cleared in both the 850 MHz and 900 MHz bands, the ACMA anticipates that winning bidders may wish to be able to deploy early access radiocommunications transmitters in vacated or already vacated parts of the band.
- 7.3 To facilitate early access deployments in unencumbered spectrum, the ACMA is proposing to:
- (a) Amend the *Radiocommunications (Transmitter Licence Tax) Determination 2015* (the Tax Determination) to provide that transmitter licence tax assigned PMTS Class B licences operating in the 850/900 MHz band is calculated by reference to population.
  - (b) For incumbents in the 900 MHz band that wish to surrender their licence, or part thereof, issue PMTS Class B licences subject to the new PMTS Class B 850/900 MHz arrangements.
- 7.4 Because these licensing and tax arrangements could facilitate both early access and transitional activities, the changes to the Tax Determination are expected to be made shortly after the auction.
- 7.5 In general, Optus supports the introduction of early access arrangements for winning bidders to be managed via 'early access' apparatus licences, provided that deployments do not cause unacceptable interference to incumbent apparatus licensees.
- 7.6 Optus provides preliminary comments on these early access arrangements below.

### Proposed changes to the Tax Determination

- 7.7 Under the current Tax Determination, PMTS Class B licences operating between 935-960 MHz (paired) are subject to a fixed annual tax amount for each MHz on which the licensee may operate. For all licences issued after 5 April 2021, the annual apparatus licence tax was \$3,374,209/MHz (paired).<sup>11</sup>
- 7.8 In facilitating the transition to spectrum licences, as well as a \$/MHz(paired)/pop price for early access arrangements, the ACMA has proposed that new PMTS Class B 850/900 MHz arrangements be introduced.
- 7.9 This would allow for incumbent licensees to progressively vacate underutilised parts of existing apparatus licence by:
- (a) Transitioning their existing PMTS Class B licences to the new PMTS Class B 850/900 MHz arrangement licences until the new 850/900 MHz spectrum licences come into effect.

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<sup>11</sup> See Division 6. ACMA, Apparatus licence fee schedule, April 2021, p.20

- (b) The new PMTS Class B 850/900 MHz arrangements will allow incumbent licensees to continue to operate within their current PMTS Class B licence areas in the 935-960 MHz band.
- 7.10 The ACMA also proposes to adopt an equivalent early access annual licence tax rate set at \$0.1445/MHz (paired)/pop based on the current fixed annual tax amount. However, this would only apply to licensees under the PMTS Class B 850/900 MHz arrangements.
- 7.11 For existing apparatus licensees who wish to retain their current national licences in the 900 MHz band, the proposed tax arrangements would remain in the Tax Determination for the duration of the re-allocation period.
- 7.12 As acknowledged by the ACMA,
- It is possible that, depending on the outcomes of the auction, an incumbent licensee may wish to retain their licence in a given area, but an early access licensee may seek to access the same region. This would effectively result in overlapping apparatus licence areas.<sup>12</sup>*
- 7.13 Optus considers that where this situation arises, this may mean that the ACMA over-recovers licensing costs – through both the existing apparatus licence in the 900 MHz band and the new PMTS Class B 850/900 MHz arrangements for early access areas – for spectrum management in the overlapping areas.
- 7.14 While we support the ability for early access to be facilitated in underutilised areas, it is not clear that this over-recovery of costs for those areas is justified under the Act.

#### Facilitating continued use of the 900 MHz band

- 7.15 Optus supports the ACMA's proposed approach for considering early access requests based on the primacy of existing site registrations in licence areas.
- 7.16 As acknowledged by the ACMA, where there are overlapping areas,
- In this event, we propose that primary access be given to the party that registers their site first. This may mean that sites registered under incumbent licences would be unaffected by any early access deployments but the lightly-used parts of the band could be put to use during the early access period. If an incumbent sought to replace their national 900 MHz licence with PMTS Class B licences to which the early access arrangements apply during the re-allocation period, we would regard the sites being carried over from the national 900 MHz licences to the replacement PTS B [sic] licences as having primacy over any proposed early access deployments.<sup>13</sup>*
- 7.17 Optus notes that where early access has been sought in an overlapping area, the incumbent licensee should also be given the courtesy of being advised that early access arrangements have been sought.

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<sup>12</sup> ACMA, Draft instruments for the 850/900 MHz band auction, Consultation paper, April 2021, p.48

<sup>13</sup> ACMA, Draft instruments for the 850/900 MHz band auction, Consultation paper, April 2021, p.48

## Section 8. DRAFT TECHNICAL FRAMEWORK

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- 8.1 The draft technical framework sets out the technical framework and licence conditions under which the 850/900 MHz spectrum licences will be offered.
- 8.2 Further detailed technical comments are set out in the AMTA submission.

### Key Principles

- 8.3 Optus observes that the key objective of the latest round of technical discussions are intended to provide certainty to likely applicants for participation in the upcoming spectrum auction in the 850/900 MHz bands. Significant progress has been made in achieving this. However, some issues are yet to be fully resolved.
- 8.4 Optus submits that, upon conclusion of the spectrum auction in late 2021, the ACMA should convene a second TLG for the bands so that outstanding matters can be finalised in full knowledge of who the successful participants in the auction were and their relative positions in the band. By doing this, the ACMA and licensees can proceed with certainty on the utility of all parts of the band, how to deal with the 1 MHz downshift and the immediate, transitory, and final conditions under which licensees will be operating.

### Technical Instruments and Core Licence Conditions

- 8.5 Most of the matters in the technical framework are dealt with in detail in the AMTA submission and Optus directs the reader to that document for the necessary treatments of the issues where all AMTA members concurred.
- 8.6 Optus reiterates and supports the adoption of the 38 series 3GPP specifications as the baseline for the technical frameworks. We believe the adoption of these standards facilitates the use of global telecommunications infrastructure and enables the realisation of cost-effective and timely 5G networks in Australia.
- 8.7 The proposed out-of-band emission (OOBE) limits have excluded the additional 9 dB allowance for AAS in 960 MHz to 970 MHz. This extra limitation will effectively make the requirements more stringent for the AAS deployments compared to the non-AAS requirements. Optus believes there is no technical justification for this, given the 9 dB allowance is a direct translation of the OOBE from non-AAS to AAS and thereby is not a relaxation. AAS technology is a key component of 5G and enforcing extra limitations on it may hinder 5G network implementations. In addition, the overall OOBE in the AAS deployments is significantly reduced in practice due to the de-correlation that occurs naturally by the band-edge filter outside the AAS operating band. Optus believes this additional benefit of AAS should be factored in during the OOBE estimations.
- 8.8 Optus notes that the AMTA submission advocates for an initial guard band of 2.5 MHz above the top of the current 800 MHz licence to allow for OOBE masking. While this is considered adequate for the time being, Optus suggests that, on evidence from filter manufacturers, a narrower guard band above the top of the 800 MHz band is feasible.
- 8.9 Optus suggests that an improved filter design should be contemplated as part of a post-auction TLG to specifically address this matter and the impact that it has on the utility of the lower 900 MHz block. We suggest that a grandfathering arrangement for devices where existing filters mean that a smaller guard band for OOBE cannot be met. Optus suggests that the grandfathering be applied to devices requiring a 2.5 MHz guard band no later than 31 January 2022. Optus suggests June 2024 for a sunset clause on the



grandfathering arrangements for these devices, meaning that they would need to comply with a smaller guard band after that date.

- 8.10 Based on the evidence from filter manufacturers, Optus anticipates that the OOB requirements can be reasonably and cost-effectively met, using currently available filters, with a guard space of no more than 2 MHz above the top of the 800 MHz band.
- 8.11 Optus points out that the minimum supported bandwidth by an LTE channel for many applications and use cases is 3 MHz, leaving only 2.5 MHz available in the lower 900 MHz lot renders it effectively useless until the 1 MHz downshift is implemented.
- 8.12 Optus therefore considers the key objective of a post-auction TLG would be to consolidate this principle, agree on the final values and grandfathering and sunseting arrangements for the OOB guard band in the lower 900 MHz lot.