



# nbn's submission on Allocation limits advice for 850 MHz expansion band and 900 MHz band spectrum allocation

3 February 2021 v0.3

**Public**



NBN Co Limited (**nbn**) welcomes the opportunity to provide feedback on the ACCC's Consultation Paper on 'Allocation limits advice for 850 MHz expansion band and 900 MHz band spectrum allocation'.

**nbn** encourages the ACCC to take a holistic look across the industry's requirements for spectrum and ensure that the Government's Communications Policy Objectives are facilitated in advising on potential competition limits for the 850MHz expansion band and 900 MHz band. These include:

- promoting competitive market outcomes for the long-term benefit of consumers;
- encouraging investment in infrastructure, including in regional Australia; and
- supporting a national public safety mobile broadband (PSMB) capability.

In this submission, **nbn** will detail its commercial-in-confidence spectrum plans and requirements [C-i-C] [C-i-C]. These plans and requirements reflect **nbn**'s current spectrum strategy based on the information available to **nbn** today and reflect our purpose to build a nation-wide broadband network to lift the digital capability of all Australia whilst also ensuring an appropriate upgrade path for all technologies.

We consider that **nbn**'s proposed use cases [C-i-C] [C-i-C] are relevant to the ACCC's consideration of allocation limits. [C-i-C] [C-i-C] We do not have specific views on the other considerations that the ACCC has identified may be relevant to its views on allocation limits.

## Summary

**nbn** is investigating a solution [C-i-C] [C-i-C] to provide a wholesale bundled voice and broadband solution in remote, rural and regional areas [C-i-C] [C-i-C]. This [C-i-C] [C-i-C] Solution is potentially a significant step forward in achieving Universal Service Guarantee (USG) reform in the relevant areas. [C-i-C] [C-i-C]

Our preference is that the 850 MHz expansion band lots are geographically configured in such a way that the lots covering the metro areas use the same boundary as that used by the existing ACMA 800 MHz band (also referred to as 850 MHz band) spectrum licences (825–845/870–890 MHz). [C-i-C] [C-i-C]

We are in discussions with the ACMA regarding the proposed geographic lot configuration. This has included the [C-i-C] [C-i-C] two 'bookend' examples of possible metro licences as presented by ACMA at the recent Tune-up session and technical considerations that may alleviate their concerns regarding the likelihood of the desired metro boundary creating dead-zones in densely populated areas.

[C-i-C] [C-i-C]

## USG reform [C-i-C] [C-i-C]

In December 2018, the Australian Government announced a USG that will ensure all Australians have access to voice and broadband services. To support the Government's commitment to exploring better ways to deliver voice services under the USG over time, **nbn** has been engaged in ongoing discussions with the Department of Infrastructure, Transport, Regional Development and Communications (Department) to identify emerging technologies for delivery of voice and broadband services to the most remote parts of Australia.

Late last year **nbn** established a new business unit – Regional Development and Engagement – that is resourced to investigate and develop new and innovative solutions to improve telecommunications service delivery in rural, regional and remote areas.

In particular, **nbn** is currently investigating a solution to find alternative ways to provide [C-i-C] [C-i-C] voice and broadband services to Australians currently accessing voice services [C-i-C] [C-i-C] in remote, rural and regional areas. This investigation is part of:



- **nbn**'s commitment to build the digital capability and digital economy of regional and remote Australia with a particular focus on uplifting the connectivity and customer experience of those on the fixed wireless and satellite networks;
- **nbn**'s participation in the Government's Alternative Voice Services (AVS) trial; and
- the Government's commitment to explore better ways to deliver voice services under the USG.

[C-i-C] [C-i-C]

[C-i-C] [C-i-C] Our preference is that the 850 MHz expansion band lots are geographically configured in such a way that the lots covering the metro areas use the same boundary as that used by the existing ACMA 800 MHz band (also referred to as 850 MHz band) spectrum licences (825–845/870–890 MHz). [C-i-C] [C-i-C]

### Government's Alternate Voice Services (AVS) Trial

The Department has opened applications for a \$2m program to trial alternative ways to deliver voice services in rural and remote areas of Australia [C-i-C] [C-i-C]. The trials are proposed as part of the Government's USG reform and their aim to develop alternative technologies to provide better services and functionality.

**nbn** plans to take part in the trials to test a solution on our own towers [C-i-C] [C-i-C].

For the trial, **nbn** will use temporary scientific apparatus licences acquired from the ACMA in the 850 MHz expansion band to prove-out the use case. The trial will be conducted for a year with initial results expected in mid 2021. The proposed technical solution is similar to that currently used in the existing **nbn** fixed wireless network [C-i-C] [C-i-C].

If the trials prove successful, **nbn** anticipates that the [C-i-C] [C-i-C] Solution could become a key component of future USG reform [C-i-C] [C-i-C].

[C-i-C] [C-i-C]

### Spectrum requirements

[C-i-C] [C-i-C]

- **Commercial auction considerations:**
  - It is noted that mobile network operators have significant sunk investments in the 900 MHz part of the planned 850/900 MHz spectrum blocks for imminent re-allocation. [C-i-C] [C-i-C]
- **Geography requirements:**
  - [C-i-C][C-i-C]
  - The proposed geographic boundaries are currently being discussed with the ACMA. **nbn** previously proposed that the existing geographic boundaries as used for the existing ACMA 800 MHz band licences (825–845/870–890 MHz) would be suitable for the 850 MHz expansion band.<sup>1</sup> The boundaries correspond to separate metro areas for each of Sydney, Melbourne, Brisbane, Adelaide and Perth and a contiguous area covering regional/rural/remote Australia.
  - We note that the 850 MHz band and 850 MHz expansion band use frequency division duplex (FDD) and this use of paired spectrum significantly reduces the risk of dead zones at licence boundaries, avoiding significant loss of utility when geographic boundaries are allocated and adjacent spectrum licensees operate in adjacent geographies within a single band.
- [C-i-C] [C-i-C]

<sup>1</sup> See [https://web.acma.gov.au/rrl/spectrum\\_search.show\\_table?pSV\\_ID=85&pSS\\_ID=868](https://web.acma.gov.au/rrl/spectrum_search.show_table?pSV_ID=85&pSS_ID=868) for existing licence geographies.



[C-i-C] [C-i-C]