



Spectrum competition limits

**Submission to the
Australian Competition
and Consumer Commission**

Public version

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Vodafone Hutchison Australia Pty Limited (**Vodafone**) welcomes the Australian Competition and Consumer Commission's (**ACCC**) consultation on competition limits for the proposed reallocation of regional 1800 MHz spectrum by the ACMA.

Benefits of allocating regional 1800 MHz spectrum

Enabling mobile access to the 1800 MHz band is critical to driving mobile investment and competition in regional Australia. Throughout the world, the 1800 MHz band has been used to deliver high speed mobile broadband services. In Australia, mobile network operators (**MNOs**) have used the 1800 MHz band to launch 4G services in the areas where they have had access to the spectrum.

Unfortunately, in regional Australia 80% less 1800 MHz spectrum has been allocated for mobile broadband as compared to the 1800 MHz spectrum allocated in the 5 major capital cities. The lack of access to 1800 MHz spectrum has impeded mobile investment and competition in regional Australia.

The public benefit from enabling mobile services utilising regional 1800 MHz spectrum are significant. The CIE identified economy-wide benefits from mobile broadband of \$33.8 billion from 2006 to 2013.¹ However, the lack of regional 1800 MHz spectrum access may mean the economic benefits of mobile broadband have not been evenly distributed across Australia.

There are 5.7 million people – 27% of Australia's population – living in the regional areas covered by the proposed spectrum licences.² The ACMA's definition of regional Australia includes major population centres such as Albury, Ballarat, Bendigo, Cairns, Grafton and Townsville. Vodafone has submitted modifications to the geographic boundaries proposed by the ACMA, which extend the boundary of regional Australia to include Mildura, Geraldton and Kalgoorlie. Our proposal could enhance the beneficiaries of spectrum licensing the regional 1800 MHz band by 175,000 people. Given the potential for these areas to be included in the regional 1800 MHz spectrum allocation, they should be included in the ACCC's competition assessment.

Setting competition limits

Competition limits must be set for the allocation of regional 1800 MHz spectrum to promote the long-term interests of end-users by promoting competition in the regional mobile services market. The principal reason for setting competition limits is to **prevent excess concentration** of spectrum holdings to the detriment of downstream mobile services competition.

¹ The CIE (2014), *The economic impacts of mobile broadband on the Australian economy, from 2006 to 2013*, report for the ACMA, March.

² VHA estimate based on the ACMA's Hierarchical Cell Identification Scheme and the population the ACMA indicates is resident within each identifier.



Spectrum is an essential enabler of mobile services. Significant imbalances in MNOs' spectrum holdings have the effect of introducing capacity constraints for MNOs with lesser spectrum holdings. If a MNO is capacity-constrained, its ability to compete is reduced and there is less competitive pressure in the market as a whole.

The economics of capacity constraints is essential to understanding the impact of spectrum allocation on downstream mobile services competition. Within this context, it is important to distinguish the concept of preventing "excess concentration" from the ACCC's previously used concept of preventing "monopolisation".³ Monopolisation concerns arise when a single rights holder has 60% or more of the spectrum available in a region. The distribution of the remaining 40% of spectrum has not been a material consideration in typical monopolisation assessments. Unfortunately, this can lead to a flawed appraisal of the dominance of the 60% spectrum holding. A better approach is to focus on whether a single rights holder is able to accumulate an excess concentration of mobile spectrum relative to its competitors.

Excess concentration of spectrum holdings may arise regardless of whether monopolisation occurs. For instance, if a dominant MNO has access to 55% of the market spectrum and there are three other challenger MNOs that each have 15% of the market spectrum then there is excess concentration of spectrum holdings. The ratio of the dominant MNO's holdings to any of its competitors is 3.7 to 1. Moreover, the ability of the challenger MNOs to compete in the downstream mobile services market is hampered by their spectrum-related capacity constraints. By contrast, a market with two MNOs could be competitive even if the dominant MNO had access to the same 55% of the market spectrum because the challenger does not face the same capacity constraints by virtue of its access to the remaining 45% of the spectrum (and a ratio of dominant to challenger holdings of 1.2 to 1).

New issues in setting competition limits

The assessment of competition limits for regional 1800 MHz spectrum raises two issues that were not given consideration in the ACCC's advice on allocation limits for the 700 MHz and 2.5 GHz spectrum auction:⁴

1. Regional 1800 MHz spectrum is allocated in a context where there are significant differences in the incumbent spectrum holdings of mobile network operators (**MNOs**) in regional Australia; and
2. There are potentially two purposes – mobile services and fixed point-to-point links – for which the spectrum could be used following the auction.

³ The ACCC previously stated: "The principal reason for the imposition of competition limits is the *prevent monopolisation*." [emphasis added]. See ACCC (2011), *ACCC advice to the Minister regarding digital dividend and 2.5 GHz spectrum auction competition limits*, 27 July, p1.

⁴ ACCC (2011), *ACCC advice to the Minister regarding digital dividend and 2.5 GHz spectrum auction competition limits*, 27 July.



Existing spectrum endowments

Insufficient attention has been given to existing spectrum endowments in setting competition limits for spectrum auctions in the Australian mobile industry.

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Given the divergence in regional spectrum holdings, it is difficult to conceive how a uniform competition limit for all prospective auction participants will achieve the object of Part XIC of the *Competition and Consumer Act 2010* to promote the long-term interests of end-users. Telstra holds over 60% of the spectrum that is commonly used to deliver mobile services in regional areas. Telstra's excess concentration of spectrum holdings within this geographic area distorts incentives for competitive investment to the detriment of regional mobile consumers. Competition limits for the new regional 1800 MHz spectrum allocation must be formulated with appropriate consideration for this discrepancy in existing spectrum endowments.

Vodafone recommends an **in-band limit** and a **total holdings limit** is used to set competition limits for the auction of regional 1800 MHz spectrum.

- **in-band limit:** a limit on the amount of regional 1800 MHz spectrum can acquire at the auction, which takes into account existing spectrum licences in the 1800 MHz band.
- **total holdings limit:** a limit on the amount of regional 1800 MHz spectrum can acquire at the auction, which takes into account all existing spectrum licences in the 700, 850, 900, 1800, 2100 and 2600 MHz bands. (Due to less certainty of tenure, PTS apparatus licences in the 1800 and 2100 MHz bands should not be considered against the total holdings limit).

The interplay between the in-band limit and the total holdings limit will have significant implications for the efficacy of the auction and the promotion of competition in regional Australia.

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Multi-purpose use of the spectrum

Different technologies lead to different spectrum requirements. For instance, the regional 1800 MHz spectrum is currently used for fixed point-to-point links that provide transmission capacity via microwave technology. We understand the ACMA is developing standards that will permit the continued use of fixed point-to-point links should successful auction participants elect to use this technology. Transmission capacity is used as input to support the delivery of fixed and mobile telecommunications services.

The different purposes for which spectrum might be used must not obfuscate the ACCC's assessment of appropriate competition limits for the regional 1800 MHz spectrum. While a technical assessment may



inform the desired channel bandwidths set by the ACMA, it must not inform the ACCC's decision on competition limits.

Competition limits are intended to prevent excess concentration of spectrum holdings. The potential for excess concentration does not depend on whether, for instance, a dominant MNO uses its spectrum holding for the expected purpose (e.g., mobile services) or an alternate purpose (e.g., fixed services). It is the amount of spectrum that is potentially allocated to the dominant MNO and deprived from its competitors that is of sole relevance to the ACCC's determination of an appropriate competition limit for regional 1800 MHz spectrum.

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