



Commonwealth Held Spectrum

**Submission to The Australian Government
Department of Communication and Arts**

August 2017



Introduction

Vodafone Hutchison Australia Pty Limited (**VHA**) welcomes the opportunity to comment on the Department of Communication's draft proposals on Commonwealth Held Spectrum (**CHS**).

The Department sought comments on its proposals for the governance framework, improving transparency and retaining benefits through sharing and trading of spectrum.

While VHA supports the proposals, VHA is concerned that they do not go far enough to give government users of spectrum real incentives for more efficient use of spectrum and/or exploration of alternatives to spectrum (including not only spectrum sharing, but the use alternative networks including fixed/NBN, investment in sites rather than use of spectrum and/or procurement of commercial services where appropriate to deliver government requirements).

The fact that "measuring the totality of Commonwealth Agency spectrum is difficult" illustrates the very real problems and substantial opportunity costs involved in government use of spectrum given that the current system gives little incentive for exploration of alternatives or more efficient use of spectrum.

It appears from the Department's data that just the top 6 Commonwealth government users of spectrum appear to hold in excess of 34,000 MHz of spectrum. By comparison, the entire commercial mobile industry supports around 30 million mobile devices with average data usage approaching 5 GB/month, and growing at 50-70% year on year, on less than 2% of the spectrum available to the top 6 Commonwealth users. The mobile industry has on average paid between hundreds of millions of dollars and billions of dollars for licences to utilise these relatively modest amounts of spectrum, whereas most government users pay little or no spectrum charges. Given that research and analysis consistently points to the mobile industry contributing tens of billions of dollars of value to the Australian economy each year, there is a serious need to ensure efficient incentives for overall allocation and use of spectrum to ensure the greatest public benefit for Australia.

We must also question the basis on which the Department concludes "GBE's spectrum pricing arrangements are similar to or the same as other non-Government users of spectrum." A comparison of the very different approach to the allocation and pricing of NBN Co's spectrum compared to the arrangements available to private companies reveals stark differences between the two and substantial preferential treatment given to NBN. VHA was approached by the ACMA in 2014 and asked whether it wished to negotiate to buy some of the unsold 700 MHz spectrum. However following a public consultation which revealed some interest in the spectrum from others, the spectrum was put to auction on the basis that "This consultation indicated strong market interest from other industry players. The Government has determined that the competing interests would best be resolved through a competitive process."

By contrast, when a similar consultation was conducted in relation to NBN's potential negotiated procurement of a far larger quantity of 3.5 GHz spectrum, and a number of submissions identified strong



competing interests in this spectrum as it was likely to be the only internationally-aligned 5G band potentially available in Australia, the spectrum was nevertheless allocated to NBN. The license structure under which the spectrum was set aside for NBN is also an unusual and preferential structure which has never been made available to private companies under which the spectrum is set aside for NBN, but not actually paid for by NBN unless and until NBN choose at their discretion to take up the various licences. The pricing for that spectrum (\$0.03/MHz/pop) is also likely to be orders of magnitude below the value that the rest of the same spectrum band would fetch in a 5G spectrum auction. As such, we do not understand how the Department could conclude that GBEs including NBN hold spectrum on similar arrangements to private companies.

In summary:

1. VHA supports the proposal on establishing a Steering Committee as part of a strong governance framework to identify and implement whole-of-government efficiency improvements, with a caveat that an independent review of Steering Committee actions will provide invaluable insights and ensure a consistent and objective policy construction.
2. VHA agrees that a regular and consolidated reporting approach will improve transparency.
3. VHA supports a whole-of-government approach to identify sharing and trading mechanisms. We support the aforementioned Committee's role in this process and its focus on overcoming non-financial barriers to sharing and trading. We agree that licensees are ultimately better-placed to assess the sharing and trading opportunities of spectrum and that they should have better incentives to enter such arrangements.
4. However, VHA views the above proposals as necessary but not sufficient for Commonwealth holders of spectrum to have sufficient incentives to ensure the efficient allocation and use of spectrum. The Department canvases the far more substantive approaches which have been taken by policy-makers and regulators in the UK and the USA, yet does not include any proposals which would have a similar impact on incentives in Australia. The Department needs to consider more meaningful mechanisms such as:
 - a. market based incentive pricing and "ratchet" mechanisms under which government users either need to "top up" their payments to reflect market prices when licences are re-issued or migrate to alternative bands or technologies,
 - b. incentive auctions under which the costs of migrating government users to alternatives are identified,
 - c. requirements for government users to demonstrate that they have meaningfully assessed alternatives to spectrum including partnerships with/procurement from private operators and/or



- d. targets for return of spectrum from government users, especially in bands which have been internationally identified for mobile broadband, and reporting and incentive mechanisms to ensure targets are delivered.

Spectrum as a resource

Electromagnetic spectrum is a core apparatus in our digital economy, and the radiofrequency spectrum that enables transmitting radiocommunications has been a critical resource for numerous purposes, from economic to social, and cultural. The radiofrequency spectrum has been converted into a technological platform of strategic importance for the economic development of countries.

While the demand for radiofrequency spectrum is increasing due to the many and diverse applications in communications, broadcasting services, fixed services, satellites, navigation, etc., and the communication capacity has increased due to technological advancements, spectrum still remains as a finite and scarce resource, which requires an allocation and management scheme among the alternative competing uses.

An efficient and transparent spectrum management framework is therefore the first step into establishing a more comprehensive and flexible use of CHS.

The role of the Government

The current spectrum management framework defines the Australia Government responsible for defining and allocating the primary property rights for the radiofrequency spectrum. In addition, Federal and State governments use spectrum in a wide variety of areas such as defence, emergency services, state-owned public transport services and meteorology.

In that regard, as mentioned in our submission for Spectrum Review in 2014, while the services supplied by Government might be public goods, access to spectrum is not a public good. The Productivity Commission's examination of Public Safety Mobile Broadband in 2016 provides a good example of the appropriate way to separate the provision of public goods (e.g., public safety) from the provision of inputs (e.g., spectrum) into the delivery of those public goods. It is critically important for the Government to separate provision of public goods from spectrum allocation decisions to ensure efficient use of spectrum and maximise overall public benefit from the allocation and use of the spectrum.

Typically, the role of the Government is to coordinate policy development, define and implement regulatory actions and utilise spectrum at its best value whilst providing services as public goods. There is also an implicit role of providing and maintaining incentives to create competition and ensure the highest value use of spectrum within the regulator and policy advisor capacities. However, the Government through its portfolio of agencies, has another role as the owner of large spectrum holdings. In this context, the Government requires incentives to manage its spectrum efficiently and to ensure its policy decisions are not unintentionally distorted by its own holdings of spectrum.



Vodafone does not agree that Government Business Enterprises (GBE) that hold spectrum such as NBN Co Ltd are treated at arm's length from the government. When the then Minister directed the ACMA to provide 3.4/3.5 GHz spectrum to be set aside in metropolitan areas for NBN Co, it was done so at the notional "market price" – a price that is only paid if and when NBN Co exercises its option. In fact, the market price was determined by the Government as part of its 15-year re-issue process in 2012. The public consultation on the Government's proposal to set aside the spectrum for the NBN indicated there was likely mobile industry demand for the spectrum in question and yet the Government proceeded with its bespoke deal and pricing arrangement. By contrast, when Vodafone took the same approach and made unsolicited proposal to acquire some of the unsold 700 MHz, the consultation again revealed mobile industry demand for the spectrum but this time the Government elected to auction the spectrum with a subsequent more than doubling of the unit price for the spectrum ultimately paid at the auction.

As it stands, NBN Co has either a free option under which spectrum is set aside for NBN and therefore not available to other users even if NBN is not actually utilising the spectrum, or a continuing option to access spectrum in the 3.4/3.5 GHz band at prices that are likely to be well below the market rate. The stark differences between the NBN Co arrangement and the mechanisms by which spectrum is available to private companies reveals that there is no basis on which to conclude that GBEs are treated at arm's length and, therefore, they should form part of the scope of the Department's Review.

With respect to NBN Co's metro 3.4/3.5 GHz spectrum, it is clear that if the forthcoming multi-band spectrum auction, which contains a marketable parcel of equivalent spectrum in Brisbane, confirms that NBN Co's spectrum is below the market price, then the Minister should either reallocate the NBN Co metro 3.4/3.5 GHz spectrum via auction (as it did in the case of the unsold 700 MHz spectrum) with NBN Co naturally able to participate in the auction, or direct the ACMA to "ratchet" up the price of NBN Co's spectrum to reflect the market price. Similar considerations may still be relevant if the Government and the ACMA proceed to allocate the 3.6 GHz spectrum in the next 2-3 years.

The inherent tension between Government as policymaker and Government as spectrum owner, as evidenced with respect to NBN Co spectrum example, should be explicitly considered in the new framework and the processes that are formed from it. As the framework develops and its processes mature, the delineation between the Government's various roles should become clearer and steps taken to improve the transparency of spectrum decision-making for other users of spectrum.

Comments on draft proposals

Proposal 1: A strong governance framework

VHA agrees with the fact that a strong governance framework through an overarching body will enable coordination and facilitation of spectrum policy for CHS and identify efficiency improvements.

For efficient CHS governance, the whole-of-government process needs to be clearly defined with key stakeholders, accountability measures, escalation/enforcement path and execution mechanism. The



framework also needs to be flexible in order to accommodate unforeseen changes that might benefit the public in the future as technology, services and demand evolve.

VHA supports the view on the Government Spectrum Steering Committee (committee hereafter) providing guidance to the Minister by identifying, evaluating and driving initiatives to increase efficiency of CHS. It may also be helpful for the committee to define targets for the release of spectrum to the mobile industry and potentially others as has occurred in the US¹ and the UK². This will also help with Minister's role in providing strategic priorities to guide ACMA to deliver on spectrum management regulatory functions. In international forums, the committee could facilitate coordinated, whole-of-Government spectrum management decisions. While there is a clear need to liaise with the Department's spectrum policy units, the committee should have the flexibility to act independently from other spectrum policy units in order to mitigate conflicts between the roles of government as the owner of spectrum and government as policy maker.

Even though the presence of the committee will help streamline the governance process, it still remains an inward-looking mechanism. In order to ensure objective policy construction and maintain consistent and unbiased flexibility of governance, the committee could greatly benefit from an independent review mechanism. This may help to avoid structural rigidities in the committee's decision-making, particularly as stakeholder interests change over time.

Overall, the design principles for the advisory committee governance framework should embrace the shifting in the role of the government from a controller of CHS management process to a facilitator of spectrum policy and decentralized governance coordination to identify and implement efficiency improvements.

Proposal 2: Improving transparency

VHA agrees that regular reporting of the value of CHS will enable enhancing spectrum efficiency by providing transparency and complete the governance framework outlined in Draft Proposal 1 as the main output. A regular and consistent approach to reporting will help identify current status and progress, highlight areas of improvement and provide a reference point for determining when CHS no longer constitutes the highest value use. Equally important, transparency around the value, use and plans for CHS will not only improve spectrum efficiency but also reduce the load on administrative tasks to collate and use this information (and produce spectrum inventories), and will promote more pro-active decision making.

¹ <https://www.ntia.doc.gov/category/500-mhz-initiative>.

² <https://www.gov.uk/government/publications/enabling-uk-growth-public-sector-spectrum-release-programme>.



Considering the inter-temporal nature of spectrum decisions, a consolidated reporting process is integral to improving efficiency.

The draft proposal addresses key issues for improving transparency by consolidated reporting. It is important that the committee makes its reports available to non-government stakeholders and develops forums to gather input from these stakeholders to facilitate its decision-making.

Proposal 3: Retaining benefits through sharing and trading spectrum

VHA supports the Government's proposal on a whole-of-government approach to assessing the efficiency of Commonwealth held spectrum. The committee's role in identifying spectrum sharing and trading mechanisms will be crucial in improving the utilisation of the nation's scarce and valuable spectrum resources. We acknowledge there are many barriers to efficient management of Commonwealth held spectrum including certainty requirements, administrative burdens and apparent lack of demand. That said, the existing spectrum management framework generally exacerbates these problems through unclear property rights (as evidenced by the Department's example of holder's developing 'work-around' apparatus licences) and high search costs that inhibit prospective commercial users and agency spectrum managers (to the extent such functions exist) from determining whether spectrum leasing or trading arrangements might be feasible.

We have observed the government agencies and government as a whole are often reticent to trade spectrum. Leasing arrangements appear to be more acceptable to many agencies. The committee should consider the underlying reasons for this reference and consider whether its desire to preserve options and control via ownership is ultimately in the long-term public interest. As the Department has observed the management of Commonwealth held spectrum as an asset is poor and unlikely to deliver efficient outcomes with respect to the use of the spectrum. We believe the Government (and its agencies) require stronger incentives to trade spectrum or to offer it for reallocation. Perhaps, the creation of spectrum release targets as have been used in the US and the UK is one means of achieving this objective.

Ultimately, each agency will remain best positioned to manage its spectrum holdings in most circumstances. However, the agencies' incentives to pursue efficient trading or sharing opportunities appear limited. We agree with the Spectrum Review's recommendation that agencies be permitted to retain the financial benefits of leasing or trading. The committee ought to consider this and other mechanisms that facilitate agencies' incentives to pursue efficient spectrum arrangements.

Additional measures required to ensure a meaningful incentive for efficient use of spectrum which maximises public benefit.

However, VHA views the above proposals as necessary but not sufficient for Commonwealth holders of spectrum to have sufficient incentives to ensure the efficient allocation and use of spectrum. The Department canvases the far more substantive approaches which have been taken by policy-makers and



regulators in the UK and the USA, yet does not include any proposals which would have a similar impact on incentives in Australia. The Department needs to consider more meaningful mechanisms such as:

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- c. requirements for government users to demonstrate that they have meaningfully assessed alternatives to spectrum including partnerships with/procurement from private operators and/or
- d. targets for return of spectrum from government users, especially in bands which have been internationally identified for mobile broadband, and reporting and incentive mechanisms to ensure targets are delivered.

Conclusion

Draft proposals 1 and 2 address key issues around governance framework and transparency on consolidated reporting. Designing and implementing these processes will promote a more structured and transparent approach in managing CHS, reducing administrative burden and clarifying certainty requirements. VHA supports the proposal on establishing a Steering Committee as part of a strong governance framework to identify and implement whole-of-government efficiency improvements, with a caveat that an independent review of Steering Committee actions will provide invaluable insights and ensure a consistent and objective policy construction. Complementing the governance framework, a regular and consolidated reporting approach will improve transparency and enable more timely, consistent and homogenous flow of information. Draft proposal 3 aims to formulate a whole-of-government mechanism to make sharing or trading arrangements of CHS. VHA is of the view that licensees are better placed to assess the sharing and trading opportunities of spectrum, and that the Government should not be too prescriptive about implementing sharing or trading mechanisms.

Spectrum management and reform involves a considerable amount of uncertainty as relevant information will often become available only when implementing deregulation. The overall governance framework proposal, therefore, is a first step into establishing a more comprehensive and flexible use of CHS by identifying efficiency improvements, enhancing transparency and coordinating an oversight of CHS.