AMTA Submission to the ACMA:

29 June 2018

Point to multi-point apparatus licensing in the 5.6 GHz band – IFC 13/2018

Introduction

The Australian Mobile Telecommunications Association (AMTA) welcomes the opportunity to participate in the ACMA's consultation process in relation to the development of apparatus licence arrangements for P MP services in the 5.6 GHz band.

AMTA strongly supports the ACMA's decision to re-allocate the 3.6 GHz band in regional areas to mobile broadband use, including 5G services.

The 3.6 GHz band has been identified as an important option for early use by 5G mobile networks use as it is suitable for providing a 'coverage layer' due to its propagation characteristics. AMTA believes that in Australia, 3.6 GHz is likely to be used in both urban and regional areas to deliver 5G services.

AMTA recognises that incumbents in the 3.6 GHz band have expressed reluctance to migrate to the 5.6 GHz band and this is understandable, given investments made. However, we support the ACMA's findings that have assessed the viability of the 5.6 GHz band for use by P-MP apparatus licences. The ACMA's studies have indicated that P-MP use of the 5.6 GHz band is viable and we note that there is ready availability of P-MP equipment that operates in the band.

AMTA believes that incumbents in the 3.6 GHz band should be given access to the 5.6 GHz band as early as practicable.

We also support the mitigation measures proposed by the ACMA, including a seven-year reallocation period and a commitment to investigate the possibility of using some of the 28 GHz band for apparatus-licensed fixed wireless broadband services, should provide incumbents with sufficient continuity of service.

Finally, AMTA notes that 3.6 GHz band P-MP licensees also have the opportunity to seek continuing third-party access to spectrum licences in the areas in which they operate.

Spectrum is required for 5G

5G is the next generation of mobile technology and is anticipated to enable a fully and seamlessly connected society and economy. 5G will be an evolution that builds on 4G/LTE mobile networks. It will deliver substantial improvements in the speed, latency and reliability of mobile networks in order to meet the continually increasing demand for mobile services including new capabilities that will be enabled by this next generation of services.

5G promises to be a comprehensive advance in mobile technology, delivering more than just IoT and faster speeds, it will mean a world where everything and everyone is connected to a fast, responsive and reliable network. 5G will mean instantaneous sharing of information and data; connected vehicles and machines; services and applications that are not yet imagined.

AMTA notes that the Government has recognised the need to make spectrum available in a timely manner to enable innovation and productivity across industry sectors with a particular focus on enabling the early deployment of 5G mobile networks in Australia.[1]

We strongly believe this is needed to ensure ongoing demand for all types of services can be met and Australia remains at the forefront of rolling out the next generation of mobile technologies to enable transformative social and economic benefits across industries such as transport and logistics, health, education and the automotive industry.[2]

The mobile industry is already preparing for 5G and conducting trials[3]. A recent report by Deloitte Access Economics estimated that annual network spend by mobile network providers in Australia could be worth $5.7 billion in FY 2017-18.[4]

Economic and social benefits of mobile broadband and 5G

Mobile broadband continues to play a key role in stimulating Australia's economic growth and productivity. It is a driving force in connecting people and businesses, stimulating innovation and technological progress, and transforming industries in both densely populated and remote regions. Future development of mobile technologies, such as 5G, the Internet of Things (IoT) and Machine to Machine (M2M) applications will re-shape the Australian economy and drive productivity improvements.

Research by Deloitte Access Economics[5] found that mobile telecommunications creates significant benefits in terms of productivity and workforce participation. Specifically, the research showed that Australia's economy was $42.9 billion (2.6% of GDP) bigger in 2015 than it would otherwise have been because of the benefits generated by mobile technology take-up with an increase in:

- long term productivity of $34 billion or 2% of GDP; and

[1] Department of Communications and the Arts, 5G-Enabling the future economy, Directions paper, Oct 2017.
[2] AMTA Mobile Minute –'5G A connected future for Australia' June 2017
[3] Telstra 5G trial; Vodafone Hutchison Australia 5G trial; Optus 5G trial; Optus 4.5 G trial.
[4] Deloitte Access Economics, 5G-enabling businesses and economic growth, 2017.
[5] Deloitte Access Economics, Mobile Nation: Driving workforce participation and productivity, 2016.

- workforce participation of $8.9 billion, or 0.6% of GDP.[6]

The research also found that 65 000 full-time equivalent jobs were supported by the increased GDP attributable to workforce participation (equivalent to 1% of total employment in the Australian economy).[7]

In another recently released report on 5G,[8] Deloitte Access Economics found that 5G will add to these economic benefits:

> "*Mobile is an integral part of how Australian businesses and society function. 5G will continue this trajectory and with the digital economy to grow to $139 billion by 2020, it is important to take action to harness the potential of 5G.*"

Further indication of what the global path to 5G will entail is provided by Ericsson's Mobility Report (June 2018) which takes a closer look at the trends that will drive the mobile industry over the next five years, with major milestones including the first commercial launches of 5G networks and large-scale deployments of cellular IoT. The Ericsson Mobility Report (June 2018) forecast that by the end of 2023 there will be 1 billion 5G subscriptions globally. [9]

It is clear that the global demand for wireless services continues to grow and the evolution of 5G and IoT services will place even greater pressure on the capability of industry to deploy networks to meet growing demand without timely and sufficient spectrum allocations.

Issues for Comment

Proposed revision of the Fixed LCD

8. The ACMA seeks comment on the proposed amendment to subsection 11T(1) of the Radiocommunications Licence Conditions (Fixed Licence) Determination 2015 to extend the adjacent channel interference management provision to include the 5600–5620 MHz and 5630–5650 MHz frequency ranges.

AMTA supports the proposed revision of the Fixed LCD.

Proposal to allow Fixed service licensing in the 5600–5650 MHz band

9. The ACMA seeks comments on a proposal to authorise operation of the Fixed service in the 5600–5650 MHz band by way of a decision made pursuant to subsection 10(10) of the ARSP.

AMTA supports the proposal to allow Fixed service licensing in the 5600-5650 MHz band.

For any questions in relation to this submission please contact Lisa Brown, Policy Manager, AMTA at lisa.brown@amta.org.au or (02) 8920 3555 or JuanPablo Casetta, AMTA Spectrum Consultant at juanpablo@openspec.com.au.

[6] Ibid
[7] Ibid
[8] Deloitte Access Economics, 5G-enabling businesses and economic growth, 2017
[9] Ericsson Mobility Report, June 2018