



Australian Government

Department of Communications

Spectrum Review

March 2015

Disclaimer

The material in this report is of a general nature and should not be regarded as legal advice or relied on for assistance in any particular circumstance or emergency situation. In any important matter, you should seek appropriate independent professional advice in relation to your own circumstances.

The Commonwealth accepts no responsibility or liability for any damage, loss or expense incurred as a result of the reliance on information contained in this report.

This report has been prepared for consultation purposes only and does not indicate the Commonwealth's commitment to a particular course of action. Additionally, any third party views or recommendations included in this report do not reflect the views of the Commonwealth, or indicate its commitment to a particular course of action.

Copyright

© Commonwealth of Australia 2015



The material in this report is licensed under a Creative Commons Attribution—3.0 Australia license,

with the exception of:

- the Commonwealth Coat of Arms;
- this Department's logo;
- any third party material;
- any material protected by a trademark; and
- any images and/or photographs.

More information on this CC BY license is set out at the creative commons website:

www.creativecommons.org/licenses/by/3.0/au/. Enquiries about this license and any use of this report can be sent to: Spectrum Branch, Department of Communications, GPO Box 2154, Canberra, ACT, 2601.

Attribution

Use of all or part of this report must include the following attribution:

© Commonwealth of Australia 2015

Using the Commonwealth Coat of Arms

The terms of use for the Coat of Arms are available from the *It's an Honour* website (see www.itsanhonour.gov.au and click 'Commonwealth Coat of Arms').

Contents

Background	4
Executive Summary	5
Recommendations	7
1. Introduction	10
1.1. Increasing importance of spectrum	10
1.2. Current spectrum management framework.....	10
1.3. What does reform look like?.....	13
2. Proposals for reform	15
2.1. Recommendation 1 – Legislation	15
2.2. Recommendation 1(a) – Single licensing system	17
2.3. Recommendation 1(b) – Integrating management of broadcasting spectrum ..	20
2.4. Recommendation 1(c) – Clarified roles and responsibilities	22
2.5. Recommendation 1(d) – Transparent and timely allocation processes	25
2.6. Recommendation 1(e) – User involvement in spectrum management	27
2.7. Recommendation 1(f) – Streamlined device supply schemes	29
2.8. Recommendation 1(g) – Improved compliance and enforcement.....	31
2.9. Recommendation 1(h) – Transitional arrangements	33
2.10. Recommendation 2 – Government spectrum use	35
2.11. Recommendation 3 – Spectrum pricing	36
3. Financial implications	37
3.1. Single licensing system – implications for charging and revenues	37
3.2. Compensation	37
3.3. Costs of implementation	37
4. Implementation	38
Attachment A	40
Spectrum review process.....	40
Attachment B	43
Current spectrum management framework	43
Attachment C	45
Current spectrum reallocation process	45

Background

In May 2014 the Minister for Communications, the Hon Malcolm Turnbull MP (the Minister), announced a review of Australia's spectrum policy and management framework. The Department of Communications (the Department), in conjunction with the Australian Communications and Media Authority (the ACMA), was tasked with undertaking the review. A description of the process that was undertaken, including stakeholder consultation, is at **Attachment A**.

Under the Terms of Reference, the review was to consider ways to:

1. simplify the framework to reduce its complexity and impact on spectrum users and administrators, and eliminate unnecessary and excessive regulatory provisions
2. improve the flexibility of the framework and its ability to facilitate new and emerging services including advancements that offer greater potential for efficient spectrum use, while continuing to manage interference and providing certainty for incumbents
3. ensure efficient allocation, ongoing use and management of spectrum, and incentivise its efficient use by all commercial, public and community spectrum users
4. consider institutional arrangements and ensure an appropriate level of Ministerial oversight of spectrum policy and management, by identifying appropriate roles for the Minister, the Australian Communications and Media Authority, the Department of Communications and others involved in spectrum management
5. promote consistency across legislation and sectors, including in relation to compliance mechanisms, technical regulation and the planning and licensing of spectrum
6. develop an appropriate framework to consider public interest spectrum issues
7. develop a whole-of-government approach to spectrum policy
8. develop a whole-of-economy approach to valuation of spectrum that includes consideration of the broader economic and social benefits.

Executive Summary

Spectrum is a critical input to a networked and digital economy and society. It supports a wide range of services that promote economic growth and enhance social wellbeing. Its role as an economic driver, and the value it returns to society, is increasing. A broad projection of the economic value of spectrum in Australia undertaken by the Centre for International Economics (CIE) suggests national benefits could be as high as \$177 billion over a 15 year period.¹

The current legislative framework for the management of spectrum is over 20 years old. When it was introduced, the framework was progressive by international standards in its use of market mechanisms, administrative and commons approaches. However, since its introduction there has been a proliferation of new digital technologies and communications services resulting in significant changes in market structures.

With the benefit of a strong stakeholder contribution the Department has identified substantial deficiencies with the current legislative framework. The review has found that current spectrum management arrangements are slow, rigid and administratively cumbersome. For example, reallocating the digital dividend (694-820MHz) took approximately three years with 16 legislative instruments being issued by the Minister or the ACMA. Spectrum not being allocated quickly and easily imposes unnecessary costs on both industry and government.

The review makes three recommendations, the core elements of these recommendations are:

1. replace the current legislative framework with outcomes focussed legislation, that facilitates timely allocations, greater flexibility of use, including through sharing and trading of spectrum, and delivers improved certainty for market participants
2. improve the integrity and consistency of the framework by incorporating the management of broadcasting spectrum and better integrating public sector agencies through the reporting of their spectrum holdings and allowing those agencies to lease, sell or share that spectrum for their own benefit
3. review spectrum pricing arrangements to make these consistent and transparent in order to support efficient use and to facilitate secondary markets.

The recommended legislation would simplify regulatory structures, streamline regulatory processes and clarify the role for Government and the ACMA. It would also provide for greater use of market mechanisms and, consistent with the Government's deregulation agenda, rationalise the number of licence categories, reform current highly prescriptive / lengthy allocation processes and device supply regulations.

¹ 'The economic value of spectrum' – Research report prepared for the Department of Communications by the Centre for International Economics, January 2015.

The recommended new framework would maintain the Government's role in ensuring the adequate provision of spectrum for key public and community services. The Government would provide policy direction and guidance to the ACMA as regulator and continue to manage Australia's participation in international forums.

If the review recommendations are agreed by the Government then the next stage of the reform process is the development of detailed legislative and regulatory measures, which would be undertaken in close consultation with stakeholders.

The legislative reforms would:

- > establish a single licensing system based on the parameters of the licence, including duration and renewal rights
- > clarify the roles and responsibilities of the Minister and the ACMA
- > provide for transparent and timely spectrum allocation and reallocation processes and methods, and allow for allocation and reallocation of encumbered spectrum
- > provide more opportunities for spectrum users to participate in spectrum management, through delegation of functions and user driven dispute resolution
- > manage broadcasting spectrum in the same way as other spectrum while recognising that the holders of broadcasting licences and the national broadcasters would be provided with certainty of access to spectrum to deliver broadcasting services
- > streamline device supply schemes
- > improve compliance and enforcement by introducing proportionate and graduated enforcement mechanisms for breaches of either the law or licence conditions
- > ensure that the rights of existing licence holders are not diminished in the transition to the new framework.

Implementation stages would commence following the passage of legislation. This would again include ongoing consultation with stakeholders and progress over a period of some years.

Recommendations

1. Given technological change and increasing demands for spectrum the current legislative framework (the *Radiocommunications Act 1992*) should be replaced by arrangements that:
 - > provide for greater market-based activity, including by increasing the opportunity for spectrum holders to share and trade spectrum
 - > simplify regulatory structures, streamline regulatory processes and clarify the role of Government.

The new legislative framework (including amendments to related legislation), which would be developed in close consultation with stakeholders, should achieve this by:

- a) Establishing a single licensing system based around a limited number of parameters of the licence (for example frequency band, geographic area, licence duration and renewal rights of the licence).
- b) Integrating the management of broadcasting spectrum, including planning, licensing and pricing into the general spectrum management framework, recognising that the current holders of broadcasting licences and the national broadcasters would be provided with certainty of access to spectrum to deliver broadcasting services.
- c) Clarifying the roles and responsibilities of the Minister and the ACMA under the framework by:
 - i. having the Minister issue policy statements on the Government's strategy and priorities for spectrum with which the ACMA would be required to act consistently
 - ii. providing the Minister with powers to direct the ACMA on specific matters (such as planning, allocation and reallocation, licensing and pricing), as well as a general directions power
 - iii. requiring the ACMA to provide to the Minister an annual work program, prepared in consultation with stakeholders, including key priorities over a three to five year timeframe
 - iv. requiring the ACMA to notify the Minister of intended decisions on specified issues
 - v. requiring the ACMA to improve and maintain the range, availability and quality of information available to the market, supported by appropriate powers to collect information from industry.
- d) Providing for transparent and timely spectrum allocation and reallocation processes and methods by:
 - i. removing the Minister from mandated and routine involvement in allocation and reallocation processes
 - ii. authorising the ACMA to allocate and reallocate spectrum consistent with policy statements or as outlined in its published work program
 - iii. authorising the ACMA to allocate and reallocate encumbered spectrum.

- e) Providing more opportunities for spectrum users to participate in spectrum management by:
 - i. enabling the ACMA to delegate spectrum management functions to other entities where appropriate
 - ii. allowing licensees to resolve interference and disputes, including:
 - encouraging licensees to access alternative dispute resolution
 - requiring the ACMA to develop and publish guidelines on its dispute management processes
 - expanding rights of licensees to take civil proceedings.
 - f) Streamlining device supply schemes by:
 - i. authorising the ACMA to develop targeted device supply schemes commensurate with risk
 - ii. allowing users of devices that are not subject to a specific scheme to manage their compliance obligations consistent with general interference management principles.
 - g) Improving compliance and enforcement by introducing proportionate and graduated enforcement mechanisms for breaches of the legislative framework, including:
 - i. enabling the ACMA to impose civil penalties, issue recalls or interim bans and issue remedial directions and formal warnings
 - ii. applying strict liability provisions and infringement notices to a broader range of offences.
 - h) Ensuring that the rights of existing licence holders are not diminished in the transition to the new framework by:
 - i. providing that allocation and reallocation processes underway at the time the new Act comes into effect would continue under the existing arrangements
 - ii. allowing existing licences to continue under the old licensing arrangements until expiry, while also allowing these licences to transition earlier at the licensee's discretion
 - iii. providing certainty for current holders of broadcasting licences and national broadcasters that they would have continued access to spectrum to deliver broadcasting services.
2. Recognising that how public sector agencies account for and deal with assets is a separate policy matter for Government, the following approaches could be considered:
 - i. requiring public sector agencies that hold spectrum to regularly report the value of their holdings
 - ii. permitting agencies to either lease or sell the spectrum and retain the benefit of doing so.
 3. That the Department review the arrangements for pricing of spectrum (including exemptions, concessions, administrative charges and taxes) so that these are consistent, transparent and support efficient use in secondary markets.

- i. This review will take into account any relevant outcomes of the Review of Australian Government Charging.

1. Introduction

The objective of this review is to maximise the public benefit derived from spectrum. This would be achieved by improving the spectrum management framework so that new and existing users of spectrum benefit from more certain and efficient allocation and reallocation of spectrum and have greater opportunities for technological and service innovation.

1.1. Increasing importance of spectrum

Spectrum is a critical input to a networked and digital economy and society. It supports a wide range of services that we all use and benefit from every day, and that promote economic growth and enhance social wellbeing. Its role as an economic driver, and the value it returns to society, is increasing. A broad projection of the economic value of spectrum in Australia, undertaken by the CIE on behalf of the Department, suggests national benefits could be as high as \$177 billion over a 15 year period, depending on the factors included.²

Wireless services support more efficient processes and delivery of existing services, enabling improvements in productivity. The ACMA has estimated that mobile broadband increased Australia's economic growth rate by 0.28 per cent each year from 2007-2013. This equates to an economic contribution of \$33.8 billion by mobile broadband alone over this period, primarily through productivity improvements.³

In 2014, an Australian Radio Communications Industry Association commissioned study showed that the spectrum used for land mobile radio (also known as two-way radio) generates economic benefits of between \$1.99 billion and \$3.72 billion per annum. Land mobile radio plays a central role in the delivery of services such as mining, transport, utilities and public safety services such as police, fire and ambulance.

The contribution of other spectrum-using sectors to economic growth and productivity is also substantial. A recent US study of the value of commons spectrum found that the application of radiofrequency identification technologies in areas such as retailing and healthcare alone provided an estimated economic value of US\$130 billion.⁴

The impact of these benefits are substantial. Equally, the potential costs of spectrum not being fully and efficiently utilised are significant.

1.2. Current spectrum management framework

The spectrum management framework is set out in the *Radiocommunications Act 1992* (the Radiocommunications Act), related legislation and subordinate regulation.

² 'The economic value of spectrum' – Research report prepared for the Department of Communications by the Centre for International Economics, January 2015.

³ 'The economic impacts of mobile broadband on the Australian economy from 2006 to 2013' – Research report prepared for the ACMA by the Centre for International Economics, April 2014. http://engage.acma.gov.au/wp-content/uploads/2014/04/Economic-impacts-of-mobile-broadband_Final2.pdf

⁴ 'Assessment of the economic value of unlicensed spectrum in the United States', authored by Raul Katz for Telecom Advisory Services, February 2014. <http://www.wiforward.org/wp-content/uploads/2014/01/Value-of-Unlicensed-Spectrum-to-the-US-Economy-Full-Report.pdf>

The existing legislative framework, summarised at **Attachment B**, is over 20 years old. When introduced, the framework was progressive by international standards in its use of market mechanisms and its mixed approach to spectrum management (use of market, administrative, commons approaches). The licensing system has accommodated a range of new technologies and services, and arrangements have allowed spectrum to be allocated and reallocated to new uses.

There are a number of areas where the current arrangements could be significantly improved to the benefit of existing and new users of spectrum. Feedback from stakeholders, supported by the Department's assessment, has identified that:

- > licensing of spectrum is too complex and rigid to efficiently accommodate new technologies and stakeholders' evolving and increasing spectrum needs
- > allocation and reallocation of spectrum takes too long and decisions lack transparency and consistency especially when weighing up commercial and non-commercial uses – for example reallocating the digital dividend (694-820MHz) took approximately three years with 16 legislative instruments being issued by the Minister or the ACMA
- > there is too much uncertainty around spectrum access and renewal, impacting on investor and user confidence. For example it took nearly two years for government to assess that reissuing the 15 year spectrum licences would be in the public interest. Following this decision the ACMA then had to assess whether the licences had been used over the licence period before they could reissue the licences
- > stakeholders are not clear on the different (and appropriate) responsibilities of the Minister, the Department and the ACMA
- > pricing of spectrum does not always reflect its value, changes in value over time or the benefit spectrum provides to society; and the rationale for pricing discounts lack clarity
- > market-based activity – specifically trading or leasing spectrum – while available, is not being made use of extensively
- > technical regulation is too detailed and administratively burdensome
- > compliance and enforcement arrangements do not provide users and the regulator with the right set of tools.

Much of the administrative complexity is the result of checks and balances included in the framework when it was first established, which can be significantly streamlined. Other impediments arise because technology has substantially changed and as a consequence spectrum can be put to far greater use and deliver a wider variety of services than what was contemplated when the framework was developed in 1992.

The challenge of increasing demand for spectrum

As communications service providers and other sectors of the economy integrate and better exploit digital technologies in to their operations the value of spectrum and its future potential is becoming more evident to a greater range of stakeholders.

Consumers are seeking on-demand access to an increasing range of communications, information and entertainment services. Government users such as defence and first responders (police, fire and ambulance) want to improve their existing capabilities by taking advantage of new technologies such as mobile broadband.

New spectrum based technologies and services are emerging, including machine-to-machine communications and services based on cognitive radio technologies. There is significant demand for a wide range of current uses of spectrum such as maritime and aviation safety and communications, scientific research and monitoring, satellite communications and radio and television broadcasting which need to continue to be accommodated.

Mobile broadband in particular is driving increasing spectrum demand. In 2014, the International Telecommunication Union (Radiocommunication Sector) estimated that an additional 1,340 to 1,960 MHz of spectrum would be required for mobile broadband by 2020.⁵ In Australia, the ACMA estimates mobile data usage to grow by 265 per cent over a four-year period to 2017, increasing from an estimated 22.2 petabytes in 2013 to 81.1 petabytes in 2017.⁶

Vacant spectrum to meet this demand is becoming harder to find. Internationally, there is a focus on enabling greater spectrum sharing by taking advantage of smart technologies that can look up databases to find unused spectrum and switch to the unused frequencies in real-time (these are variously called dynamic spectrum access, cognitive or whitespace technologies). While initially being implemented in the unused spectrum in the broadcasting bands, they can potentially be used throughout the spectrum bands.

Australia's experience accords with what is happening overseas, where increasing demand for mobile broadband is drawing responses from governments. Identification of spectrum to support future mobile telecommunications is expected a key focus of the November 2015 World Radiocommunication Conference (WRC). In the last five years the United Kingdom (UK)⁷, United States (US)⁸ and Canada⁹ have committed to making additional spectrum available for mobile broadband, through direct allocations and spectrum sharing.

According to the US Defense Spectrum Organization, the US Defense Department is looking at sharing spectrum with commercial users with the help of new technologies

5 Future spectrum requirements estimate for terrestrial IMT – M Series – Mobile, radiodetermination, amateur and related satellite services, ITU-R, 2014, http://www.itu.int/dms_pub/itu-r/opb/rep/R-REP-M.2290-2014-PDF-E.pdf

6 'The economic impacts of mobile broadband on the Australian economy from 2006 to 2013' – Research report prepared for the ACMA by the Centre for International Economics, April 2014.

<http://www.acma.gov.au/theACMA/Library/researchacma/Research-reports/economic-impacts-of-mobile-broadband-1>

7 In 2011 the UK announced its intention to release 500 MHz of government spectrum below 5 GHz for commercial mobile services by 2020.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/77429/Spectrum_Release.pdf

8 In 2010, the US announced it would make 500 MHz of federal and non-federal spectrum available for wireless broadband use within 10 years. <http://www.broadband.gov/plan/5-spectrum/>

9 In late 2014, Canada announced measures to release 60 percent more spectrum (above that available at the beginning of 2014) for mobile broadband by May 2015. <http://www.ic.gc.ca/eic/site/ic-gc.nsf/eng/07389.html>

that enable near real-time frequency management. The goal is to enable the operational needs of both commercial and Government users to be met.¹⁰

The review assessment is that aspects of the current framework are too slow, rigid and administratively cumbersome to enable spectrum to be allocated and used quickly and easily. Current arrangements can be simplified and made more flexible to efficiently accommodate new technologies and stakeholders' evolving and increasing spectrum needs.

1.3. What does reform look like?

The development of the reforms was guided by the principles of:

- > transparency – providing a clear and transparent policy framework and direction, within the bounds of which the ACMA should have broad discretion over the options available to it to manage the spectrum and enable a greater role for users
- > efficiency – promoting efficient allocation and use of spectrum – by making use of market principles and mechanisms as the preferred approach and providing licensees with the freedom and incentives to make optimal choices about their spectrum use
- > flexibility – ensuring arrangements are as flexible as possible to promote choice and innovation
- > certainty – providing confidence about regulatory arrangements and spectrum access terms and conditions and promote international harmonisation in Australia's interests
- > simplicity – creating a framework that is simpler, easier to understand and uses the least cost regulation required to achieve the objective.

The proposed reform approach is to restructure and rationalise the legislative framework to:

- > provide for greater market-based activity
- > simplify regulatory structures, streamline regulatory processes and clarify the role for Government.

Consistent with the Government's deregulation agenda, a focus of the proposed reforms is to rationalise the number of licence categories and associated subordinate regulation and to remove unnecessary regulation particularly relating to highly prescriptive and lengthy allocation and reallocation processes.

Areas where additional regulation is proposed, such as the targeted directions powers for the Minister and an expanded compliance and enforcement tool kit, would benefit spectrum users through improving certainty and timeliness of decision making processes, and deliver more effective compliance activities.

There remains an important role for Government in spectrum management. The reforms maintain Government's role in establishing the spectrum management framework, including setting the ground rules for market transactions, enforce compliance, ensuring

¹⁰ <http://www.defense.gov/news/newsarticle.aspx?id=120052> & <http://fedscoop.com/disa-spectrum-forecast-to-industry/>

there remains adequate provision of spectrum for public and community services and in managing Australia's participation in international forums and arrangements.

Given the inherent costs and inefficiencies in both governments and markets trying to jointly coordinate economic activity, the reforms provide a greater opportunity for Government to establish and promote the necessary conditions for market-based activity up-front with a view to limiting the extent to which further direct interventions are necessary. Noting that Government would retain the right to intervene in specific spectrum management matters to achieve policy priorities.

Market mechanisms play a valuable role in allocating spectrum efficiently, placing a discipline on market participants and providing opportunities to trade or lease spectrum. This encourages efficient use and offers users greater flexibility in the way they acquire and manage their spectrum, and maximises its value.

However, the unique features of spectrum such as its propagation characteristics, the constraints imposed by technology and the international planning framework, limit the extent to which spectrum can be fully commoditised. A good example is aeronautical spectrum which, through international agreements, means the spectrum is not easily substitutable for other uses.

The Department commissioned work from the CIE to develop a theoretical market-based model for spectrum management, to test how such a framework would operate.¹¹

The model outlines a market system based on the property rights of spectrum, where all spectrum is competitively allocated and held as long-term (possibly perpetual) licences with parameters setting conditions of use. Users would have the freedom to trade or lease spectrum. There would be carve-outs from this framework for public commons use and services subject to international agreements (such as aeronautical, maritime and satellites). The role of the Government would be to establish market rules, uphold the rights and responsibilities of users, and provide mediation in interference disputes should negotiations not be successful.

The CIE approach was presented to a stakeholder workshop in January 2015. Whilst there was interest in the issues raised there was not general support expressed for its adoption. This review does not recommend complete adoption of the CIE proposed model, although a number of the specific measures, particularly in relation to a simplified licensing system, the provision of higher quality information and measures to improve secondary trading to market participants align closely with the proposed reforms.

¹¹ 'Maximising market involvement in spectrum management' – Research conducted for the Department of Communications by the Centre for International Economics, February 2015.

2. Proposals for reform

2.1. Recommendation 1 – Legislation

Given technological change and increasing demands for spectrum the current legislative framework (the Radiocommunications Act 1992) should be replaced by arrangements that:

- > *provide for greater market-based activity, including by increasing the opportunity for spectrum holders to share and trade spectrum*
- > *simplify regulatory structures, streamline regulatory processes and clarify the role of Government.*

Rationale for reform

The increasing value of spectrum to the economy and society, rapid technological change and increasing demand for spectrum are impacting on the effectiveness of the existing regulatory framework. While the Radiocommunications Act has been able to accommodate these developments to date, a simpler and more flexible framework is desirable. In particular the current framework is highly prescriptive about process rather than focussed on outcomes.

Proposal

The central recommendation of this review is to replace the Radiocommunications Act with a new Act that is streamlined, consistent and outcomes-focussed. Reforming the current tripartite licensing framework, into a single licensing system would support these objectives.

While the current framework is prescriptive about processes, the new Act would focus on the outcomes that should be achieved through spectrum management. This would give users and the ACMA greater flexibility in deciding how to meet the outcomes and rules set out in legislation. The new Act would set out a high level framework with operational detail contained in subordinate regulation. Spectrum users and the ACMA would have increased discretion when operationalising the framework to better meet changing market circumstances, within a framework of legislative objectives and principles and Ministerial policy oversight. The expectation is that the ACMA would, in close consultation with stakeholders, develop subordinate regulation in a way that appropriately limits its proliferation and minimises the regulatory burden.

The objects of the Act would be reviewed during the development of the detailed legislative arrangements to make sure they are appropriate for the new framework, including encouraging efficiency, innovation and certainty of investment and ensuring regulation does not overly constrain spectrum use and reuse. The objective of providing adequate provision for public and community services would be retained.

The new Act would also be re-ordered to provide a clear and logical structure that is easier for spectrum users to navigate.

Detail around how this framework would work is set out in the discussion of recommendations 1 (a)–(h) below.

2.2. Recommendation 1(a) – Single licensing system

Establishing a single licensing system based around a limited number of parameters of the licence (for example frequency band, geographic area, licence duration and renewal rights of the licence).

Rationale for reform

The licensing system needs to be made simpler and more flexible. The rigid boundaries between the three licence types and the prescriptive rights that apply in the Radiocommunications Act have limited the ACMA's ability to design licences that meet users' needs. Some elements of current licence design, for example the lack of certainty around licence tenure and the limited homogeneity of licences, may act as a barrier to secondary trading. The Radiocommunications Act contains over 180 pages of rules relating to the three licence types. Conversion and/or reallocation from apparatus to spectrum licences are complicated and lengthy processes. The rights granted under licenses vary considerably depending on whether an apparatus or spectrum licence has been issued, yet often the use and geographical areas that apply to the licence are the same.

A reformed licensing system would better position users to interact early and constructively with the ACMA to configure licences that can accommodate changes in technology and improve their capacity to engage in secondary trading. It would also provide licensees with greater clarity as licence parameters and rights would predominantly be provided for within a licence, rather than mostly residing in different parts of the Radiocommunications Act.

This is one of the key deregulatory reform proposals. It would simplify the licensing system, reducing the number of licence types and associated subordinate instruments.

Proposal

This reform would be the centrepiece of a new spectrum management framework. The intention is to establish a single licensing system to replace the current tripartite licensing system. The primary legislation would prescribe core parameters which must be included in a licence but enable the detail regarding these parameters to be developed by the ACMA in consultation with users, and set out in subordinate instruments.

The Minister would have a direction and oversight role, implemented through policy statements and directions powers as set out in recommendation 1 (c). The expectation is that the Minister would issue a policy statement to guide development of the new licensing system, including principles for the ACMA to follow in setting up the licensing system and the approach to renewal of licences.

Likely core parameters would include:

- > frequency
- > geographic location

- > duration
- > whether the licence is subject to renewal, and conditions when the ACMA would not renew
- > terms for varying and / or revoking licences
- > payment mechanism and amount.

The Department's preferred approach is to minimise the list of core elements and not unduly restrict the capacity of the ACMA to tailor arrangements to best suit different users. As with the current arrangements, the ACMA would retain the ability to include other parameters and conditions consistent with the Minister's overarching policy direction, for example, those relating to sharing/exclusive use of licences, third party use and registration of devices.

It is anticipated that the ACMA would develop a number of standard licence options with standard parameters. These would likely include options broadly equivalent to the licence types in the current legislation.

Stakeholders want a more flexible system but also want certainty in relation to some rights, particularly renewal rights. To balance these needs, the Department's preferred approach is for the Minister to issue a policy statement providing guidance on renewal. The ACMA would then develop a number of renewal options, including renewal processes and methods for determining price, and incorporate into the relevant licence the renewal terms most suitable for that licence.

The reform directions paper proposed prescribing in the legislation a maximum licence duration, and that it be for 15 years. Some stakeholders have advocated for a longer duration or for there to be no cap in the legislation. This is a difficult issue because whilst there are benefits to extending the maximum term (providing users of spectrum with greater certainty to innovate and invest whilst supporting the development of secondary markets), there are also risks in terms of reducing government flexibility as circumstances change. On balance, the Department suggests that the primary legislation should continue to specify a maximum duration for licenses, but that the duration be extended to 20 years.

Accommodating class licensing in the single licensing system

There has been some support from stakeholders for keeping class licences separate from the single licensing system, particularly given the limited nature of class licensee rights as compared to those that apply to apparatus or spectrum licences.

The following options have been considered in providing for common use of spectrum under the reformed framework:

- > merging apparatus and spectrum licences but retaining class licences as a separate licence category
- > excluding class licences from the single licensing system but providing for unlicensed spectrum use – this would be used to accommodate low power or localised applications that require less protection or oversight

- > incorporating class licences fully into the single licensing system.

A commons form of regulated use of spectrum exists in most international spectrum management frameworks and should continue to be provided in Australia. This allows operation of certain services and devices using common frequencies on a shared basis with no right to interference protection. Rules for the use of commons spectrum are required to manage the risk of interference (and so not diminish the rights of other users) and address health related concerns arising from electromagnetic emissions. Unlicensed or licence-exempt spectrum use does not equate to it being unregulated.

Consistent with current class licensing arrangements and other international frameworks, the Department proposes that the rules regarding commons use of spectrum be specified in subordinate legislation rather than through primary legislation. The question to be examined during the course of developing the new Act is whether it is best to incorporate commons regulation through licensing or by separate authorisation. Both of these approaches can be accommodated under the umbrella of a single licensing system.

Consolidate pricing and taxation arrangements

The pricing and taxation arrangements for licences would need to be consolidated as part of the move to a single licensing system.

The payment structures and taxation arrangements between the licensing types currently differ. Spectrum licences are subject to cost recovery charges, spectrum access charges and a spectrum licence tax. Apparatus licences have a cost recovery charge plus a licence tax which differs depending on whether it is a receiver or transmitter licence. These fee arrangements are sourced from five different Acts as well as subordinate regulation. Class licences have no fees.

It is proposed to retain the current flexibility for the ACMA to set prices, and the timing and structure of payments, with the Minister similarly retaining the power to direct the ACMA on these matters.

If the recommendations of this review are accepted then the intention would be to undertake further work to review pricing arrangements for spectrum to ensure these are suitable for the new licensing system (see recommendation 3).

2.3. Recommendation 1(b) – Integrating management of broadcasting spectrum

Integrating the management of broadcasting spectrum, including planning, licensing and pricing into the general spectrum management framework, recognising that the current holders of broadcasting licences and the national broadcasters would be provided with certainty of access to spectrum to deliver broadcasting services.

Rationale for reform

The objective is to provide greater flexibility for broadcasters to manage their services within their spectrum holdings, improve the tradability of spectrum and to promote efficiency and consistency in spectrum management across different platforms.

Historically, the planning, allocation, licensing and pricing of broadcasting services band spectrum has been conducted differently from spectrum for other uses. This was put in place to accommodate the unique requirements of broadcasting services, including content and related public interest obligations, to manage coverage and reception of services, and to allow a regulated process to determine the number and characteristics of television and radio services given their unique role in society.

As identified in the Department's Digital Television Regulation Consultation Paper (January 2015) technological developments and increasing competition for content services will require broadcasters to continue to innovate. In this environment it is important that broadcasters' ability to offer new services and manage their costs, through the use of more spectrally efficient technologies and / or shared infrastructure are not constrained.

Proposal

It is proposed that over time broadcasters would transition to the new arrangements on the same basis as other apparatus licensees so that the same broad and flexible spectrum processes would be applied to use of broadcasting services bands. Under a new framework broadcasters would have greater opportunity to manage their own service arrangements within their current channels, or in collaboration with other broadcasters or providers of content. Subject to the terms of the licence there would also be scope for broadcasters trading spectrum for alternate uses. A range of regulatory and other issues associated with these proposals are canvassed in the Digital Television Regulation Consultation Paper.

The transition to any new arrangement would require consideration of a range of policy, regulatory and technical issues, including spectrum pricing and licence tenure, and the link between spectrum allocation and public interest obligations on broadcasters. The allocation of broadcasting and apparatus licences to free-to-air broadcasters is currently linked, and technical and interference considerations are likely to mean that use of any spare spectrum for non-broadcasting purposes would require substantial replanning. The Government would need to work closely with the broadcasters to manage any transition in a way which is consistent with commitments to ensure that television and

radio operators continue to have access to adequate spectrum for their services, and which is cognisant of the need to manage impacts on the public who use broadcasting services.

The pricing arrangements for broadcasters' spectrum licences would be considered by the Government through the proposed review at recommendation 3 and would also take into account the pricing arrangements that apply to broadcasters' separate broadcasting service licences.

2.4. Recommendation 1(c) – Clarified roles and responsibilities

Clarifying the roles and responsibilities of the Minister and the ACMA under the framework by:

- i. *having the Minister issue policy statements on the Government’s strategy and priorities for spectrum with which the ACMA would be required to act consistently*
- ii. *providing the Minister with powers to direct the ACMA on specific matters (such as planning, allocation and reallocation, licensing and pricing), as well as a general directions power*
- iii. *requiring the ACMA to provide to the Minister an annual work program, prepared in consultation with stakeholders, including key priorities over a three to five year timeframe*
- iv. *requiring the ACMA to notify the Minister of intended decisions on specified issues*
- v. *requiring the ACMA to improve and maintain the range, availability and quality of information available to the market, supported by appropriate powers to collect information from industry.*

Rationale for reform

The policy framework

The key method of Ministerial intervention in the current framework is the general directions power in the *Australian Communications and Media Authority Act 2005* (ACMA Act). The powers of Ministerial intervention under the Radiocommunications Act are for the most part process driven, rather than levers for strategic policy intervention. For clarity and transparency, policy areas where the Minister would want to directly intervene in spectrum management should be identified.

Stakeholders want greater transparency and accountability in decision-making, and a clear distinction to be made between the responsibilities of the Minister/Government to set policy and the ACMA to implement policy. This includes transparent disclosure of decisions and the reasoning behind decisions, regular updates on processes and explanations when things change. Stakeholders are also seeking clear guidance on future spectrum policy and management priorities.

The proposed reforms to the policy framework would significantly improve decision-making and make this more transparent and accountable. The proposed reforms would allow the Minister to intervene in a strategic way and to provide policy guidance; and provide greater clarity for users on roles, spectrum management priorities and the ACMA’s activities. Essentially the approach recommended in this review aims to improve the arrangements for transparent government policy setting, whilst reducing Ministerial involvement in ACMA process steps.

Making information available to support the spectrum market

Efficient spectrum management and market transactions rely on information on what spectrum is available, where, under what conditions, and the prices paid. This

information is not always accessible to users and in some cases the ACMA may not have the power to collect relevant information.

More readily available information would reduce transaction costs, aid price disclosure and support spectrum sharing, secondary trading and new market entry.

Proposal

The policy framework

These proposed reforms are intended to provide the key mechanism for guiding the ACMA's discretion, making major allocation and reallocation decisions that involve competing uses and undertaking exception-based interventions on behalf of non-commercial users. Decisions need to be based on good information, including on the economic implications of choices. The Minister's decision-making would be guided by the Objects of the new Act and any other principles set out in the primary legislation.

The Minister would issue policy statements setting out the government's policy goals for spectrum management, or focussing on a particular issue or policy initiative. The ACMA would be required to act consistently with policy statements. Policy statements would be of limited or no set duration and could be updated or withdrawn as needed. Statements would initially guide implementation of key elements of the new framework, for example, the single licensing system.

The Minister would also be provided with an expanded range of specific directions powers, allowing intervention in most aspects of the spectrum management framework. Examples of new directions powers include to reserve spectrum for particular purposes, allocate spectrum, override a standard licensing option established by the ACMA, and (as is currently the case) to set competition limits and spectrum prices.

Day-to-day management of spectrum, consistent with government policy, would be the responsibility of the ACMA. It is anticipated that, having set the policy direction, Ministerial intervention using specific directions powers would be on an exception basis. If the Minister were to intervene, policy statements and directions would be made public, consistent with current practice. The ACMA Act general directions power would continue to be available to the Minister to direct the ACMA on the exercise of its spectrum management powers and functions.

The ACMA annual work program would clearly set out the ACMA's priorities specific to spectrum, how these would be implemented and timing. The ACMA would use the work program to report implementation progress and changes to priorities. When preparing its annual work program the ACMA would consult with stakeholders on its contents before providing it to the Minister. The Minister would have the ability to require amendments to the work program, request additional information and indicate issues of interest or where Ministerial intervention may be required. The annual work program would be a public document.

The ACMA would be required to notify the Minister of upcoming major activities and decisions, to provide the Minister with sufficient opportunity to assess policy

implications and intervene where necessary. These notifications would discuss potential impacts, sensitivities and risks and would not be required to be made public.

Making information available to support the spectrum market

As part of its annual work program, the ACMA would be required to identify the information needed to support spectrum management and the spectrum market under the new framework, following open data principles. This would include making information that it routinely collects as accessible, up-to-date and interactive as possible; and assessing the ability of the ACMA's current licensing database to meet user needs. The ACMA would make recommendations, provide an implementation plan and report on progress.

In making information available, the ACMA would do so in a way that enables third parties to become involved in information provision and in providing services to the market based on the ACMA information, for example, databases to support dynamic spectrum access or spectrum trading intermediaries.

The reform directions paper proposed that the ACMA be given a general information gathering power under the Act similar to that currently provided under the *Telecommunications Act 1997*. While stakeholders support high quality information being made available, they do not support a broad information gathering power for the ACMA due to the potential administrative burden of information requests. Instead, it is proposed to provide the ACMA with an information gathering power but limit the power to only target the information gaps necessary to support ACMA's spectrum management functions.

2.5. Recommendation 1(d) – Transparent and timely allocation processes

Providing for transparent and timely spectrum allocation and reallocation processes and methods by:

- i. removing the Minister from mandated and routine involvement in allocation and reallocation processes*
- ii. authorising the ACMA to allocate and reallocate spectrum consistent with policy statements or as outlined in its published work program*
- iii. authorising the ACMA to allocate and reallocate encumbered spectrum.*

Rationale for reform

Allocation and reallocation processes need to be made consistent, less prescriptive and complex, while continuing to meet the objectives of:

- > maximising the public benefit through efficient allocation and use
- > providing a return for the use of a public resource.

The current conversion and reallocation processes are highly prescriptive, inefficient and require intervention by the Minister in routine processes which reduces the efficiency and flexibility of the framework. For example, reallocating the digital dividend (694-820MHz) took approximately three years with 16 legislative instruments being issued by the Minister or the ACMA. **Attachment C** illustrates the steps and instruments required to reallocate spectrum under the current framework.

Stakeholders have highlighted the need for faster, simpler and less costly allocation and reallocation processes.

Proposal

Under a single licensing system, allocation and reallocation processes would be streamlined and made consistent, reducing the regulatory burden. Arrangements would balance stakeholders' need for transparency and certainty with the flexibility to change spectrum use when it is in the public interest to do so.

Planning allocation and reallocation processes

The ACMA would be required to identify planned allocation and reallocation processes through its annual work program. This would facilitate early engagement with stakeholders. While the Minister would have powers to direct the ACMA in relation to the high level outcomes of these processes, there would no longer be mandated Ministerial involvement in the routine processes associated with allocation and reallocation. The ACMA would be able to undertake allocation and reallocation activities where these are consistent with the Ministerial policy statement or outlined in its work program.

In the interests of providing licensees with assurance about tenure, the ACMA would specify the processes governing variation or revocation of licences as a licence parameter at the time of issue. Additionally, the ACMA would be expected to manage

future variation or reallocation processes by issuing licences of appropriate durations to accommodate planned reallocations of particular bands.

Allocation and reallocation processes

The ACMA would be required to determine allocation and reallocation procedures in writing, including timing of these processes. The ACMA would have the discretion to determine the appropriate allocation or reallocation mechanism such as auctions, tenders or administrative mechanisms.

The ACMA would have the authority to allocate or reallocate spectrum that is encumbered, to provide greater flexibility for both existing and future spectrum users, facilitate private band management and encourage more efficient and intensive spectrum use. Allocating and reallocating encumbered spectrum would need to take into account incumbents' existing rights and licence durations.

2.6. Recommendation 1(e) – User involvement in spectrum management

Providing more opportunities for spectrum users to participate in spectrum management by:

- i. enabling the ACMA to delegate spectrum management functions to other entities where appropriate*
- ii. allowing licensees to resolve interference and disputes, including:*
 - encouraging licensees to access alternative dispute resolution*
 - requiring the ACMA to develop and publish guidelines on its dispute management processes*
 - expanding rights of licensees to take civil proceedings.*

Rationale for reform

Delegating spectrum management functions

The ACMA is currently limited in the functions it can devolve to industry under the Act. Other entities may be able to perform these functions more efficiently and effectively. This proposal could provide greater flexibility and fit-for-purpose access arrangements for spectrum users by bringing spectrum management closer to the user where appropriate. It would also allow innovative management arrangements to develop, and potentially result in greater efficiency of spectrum use.

Allowing licensees to resolve interference disputes

The current arrangements do not encourage or incentivise spectrum users to resolve interference problems themselves, instead they rely on the ACMA to address these issues. This places an increased administrative burden on the ACMA where users have the capacity to resolve interference disputes but do not do so.

Stakeholders have requested the right to undertake civil action to enforce their rights of access.

Proposal

Delegating spectrum management functions

It is proposed that the ACMA be able to delegate its spectrum management functions with the intention of enabling greater involvement of spectrum users and other entities in spectrum management and so improve flexibility and efficiency. This may include private band management or involvement of other entities in specific parts of the framework.

The ACMA would designate what roles or functions were to be delegated and any requirements that would apply. This could include planning, licensing, pricing, fee collection, interference management and dispute resolution. In the interests of flexibility, the legislation would not mandate particular functions.

The ACMA would be responsible for monitoring and overseeing these arrangements to ensure the delegated functions are performed effectively and remain consistent with

policy guidance and spectrum management arrangements. The ACMA would be able to withdraw delegations for certain reasons, for example, breaches of requirements.

Some stakeholders have indicated concern about the delegation of particular functions, such as interference management and compliance and enforcement. The Department's preferred approach is to not limit the kinds of functions that can be delegated, with the appropriateness of doing so to be considered at the time a proposal is put forward. It is expected that the ACMA would retain oversight of any functions delegated, having regard to any Ministerial policy statements.

Some stakeholders suggested in submissions that industry codes may be a useful tool for users' involvement in spectrum management. Industry codes are most likely to be successful where they deal with technical issues and the industry is clearly defined with a small number of participants. The spectrum sector is more fragmented, with a large number of diverse users, and less suited to a co-regulatory approach where codes are required to be agreed by all or a substantial sector of the affected parties. While the new Act would provide for industry codes, the Department's preferred approach is for user involvement in spectrum management to occur through self-regulation or the delegation of spectrum management functions by the ACMA.

Allowing licensees to resolve interference disputes

The intention is to allow spectrum users in dispute over interference to voluntarily attempt resolution directly themselves or through alternative dispute resolution mechanisms, prior to approaching the ACMA. In cases where this option is taken up, the ACMA would only become involved where a report from a conciliator or mediator indicates that no resolution is possible.

To encourage this option to be used, the ACMA would be required to publish guidelines setting out its dispute handling process, including the expectation that users generally attempt to resolve an issue themselves before coming to the ACMA. These would be developed in consultation with the Minister and stakeholders. The ACMA's guidelines would include the process steps and outline the roles and responsibilities of all involved in a dispute. These guidelines would form the basis of a standard approach to dispute resolution and guide the conduct of any independent dispute resolution processes.

Interference protection is a primary concern of stakeholders. It will not always be appropriate for users to resolve interference issues themselves. In some cases the interfering party may not be readily identifiable and interference may have serious consequences. Under a user-managed arrangement, there would be a process to escalate interference disputes for resolution by the ACMA. Where interference is particularly serious, for example where it threatens safety of life and/or property, and for interference of unknown origin, the ACMA would remain the most appropriate body to investigate and initiate action.

Spectrum licensees are currently able to undertake Federal Court civil proceedings against a person causing them interference. The proposal would expand eligibility to undertake civil proceedings to a wider range of licensees.

2.7. Recommendation 1(f) – Streamlined device supply schemes

Streamlining device supply schemes by:

- i. authorising the ACMA to develop targeted device supply schemes commensurate with risk*
- ii. allowing users of devices that are not subject to a specific scheme to manage their compliance obligations consistent with general interference management principles.*

Rationale for reform

Supply regulation needs to be simplified and made less duplicative. Supply regulation is necessary to limit the likelihood of non-compliant devices entering the market and creating interference to radio communications. Currently an ex ante approach is used as it is too difficult and costly to regulate use after the fact. The scope of regulation is broad. It includes all electrical and electronic equipment to ensure their electromagnetic compatibility, as well as mandates specific performance characteristics for radio communications transmitters.

The current Act is very detailed and allows for the ACMA to make standards, labelling and record-keeping requirements that are burdensome for business and the ACMA. It also imposes an Australia-specific compliance burden on suppliers that can act as a barrier to market entry and international trade. The globalisation of trade has also meant that the current framework fails to capture all relevant parties in the supply chain such as some parallel imports and drop shipments.¹²

Simplifying compliance is part of the Australian Government’s Industry Innovation and Competitiveness Agenda¹³ to assist small and large businesses. Reducing the highly detailed requirements where appropriate would reduce costs and delays for businesses, increase the supply of products into the Australian market and allow regulatory authorities to focus on higher priorities.

Proposal

It is proposed that the detail in the Radiocommunications Act around labelling and record-keeping requirements be removed and the ACMA authorised to develop device supply schemes in subordinate regulation that are commensurate with risk.

The primary legislation would specify the objectives to be considered by the ACMA in developing and applying supply schemes, and amend the definition of supplier to capture all parties in the supply chain. General interference management principles/requirements could be specified in the primary legislation or in a generally applicable device supply scheme. A preferred approach would be developed through the

¹² Drop shipping is the supply of items where local traders act as an intermediary between an overseas supplier and the consumer.

¹³ Industry Innovation and Competitiveness Agenda: A lower cost, business friendly environment - Reducing the regulatory burden, October 2014. www.dpmc.gov.au/pmc/publication/lower-cost-business-friendly-environment-reducing-regulatory-burden

drafting process in consultation with stakeholders. Consistency with other legislation would also be considered when drafting the new arrangements.

The ACMA would be required to develop device supply schemes that:

- > are appropriate to the level of risk posed by the equipment in terms of risk of interference and/or risks to health and safety
- > are targeted to ensure compliance obligations are met by the most appropriate party in modern, complex and globalised supply chains
- > define the party bearing the compliance burden for a particular supply chain – to mitigate industry concern that ambiguity of responsibility creates regulatory burden.

Device supply schemes developed by the ACMA may include elements of current requirements where the ACMA considers this is necessary based on the risk posed.

Suppliers would be free to choose how they comply with general interference management principles/requirements unless the ACMA has set out specific obligations in a device supply scheme. For example, if a system, service or product has been approved under a trusted international standard or risk assessment, then the ACMA should not impose any additional requirements for approval in Australia, except in cases where the need for unique Australian regulations can be demonstrated.

2.8. Recommendation 1(g) – Improved compliance and enforcement

Improving compliance and enforcement by introducing proportionate and graduated enforcement mechanisms for breaches of the legislative framework, including:

- i. enabling the ACMA to impose civil penalties, issue recalls or interim bans and issue remedial directions and formal warnings*
- ii. applying strict liability provisions and infringement notices to a broader range of offences.*

Rationale for reform

The ACMA needs a better range of compliance and enforcement tools.

The Radiocommunications Act is reliant on criminal sanctions which applies a higher standard of proof than for civil actions. It is the ACMA's responsibility to collect evidence that meets the standard of proof required to prosecute an offence. There are strict liability provisions but these apply to a limited number of offences. In the event of a breach of a spectrum licence condition, the ACMA is limited to suspending or cancelling the licence, rather than using more graduated tools such as remedial directions and formal warnings.

The ACMA also has limited flexibility in terms of its technical regulation. In contrast, electromagnetic compatibility non-compliance is commonly managed through recalls in Norway and Sweden and bans in the United Kingdom.

Stakeholders are seeking a more effective approach to compliance and enforcement.

Proposal

The proposal is to introduce graduated compliance and enforcement arrangements. This would enable more targeted responses to breaches of the framework and a pathway of escalation, enabling the ACMA to take action which is more commensurate with the seriousness of the conduct. Additional enforcement powers and an expanded range of penalties would better align the ACMA's enforcement capabilities with those of other Australian regulators.

Criminal offences would be reviewed to take account of developments in policy and contemporary practice on the framing and operation of Commonwealth offences.

Specific proposals include:

- > reviewing (in consultation with the Attorney-General's Department) what criminal and/or civil penalties should apply under the reformed framework – civil penalties are available to other regulators in Australia and overseas, including measures available to the ACMA under the *Telecommunications Act 1997* and the *Broadcasting Services Act 1992*
- > applying strict liability provisions and infringement notices to a broader range of offences – this would reduce the evidentiary burden and enable minor offences to be responded to and resolved more quickly and efficiently

- > enabling the ACMA to issue remedial directions and formal warnings – these are useful intermediary steps and would enhance the ACMA’s capacity to prevent or remediate interference and other non-compliance matters
- > enabling the ACMA to seek court orders such as injunctions to restrain existing or future conduct, or requiring respondents to undertake certain action including publishing notices about their conduct
- > empowering the ACMA to issue recalls, interim bans, formal and public warnings and/or require consumer warning labels – this would greatly assist the ACMA in its management of the supply of non-compliant devices, for example, when a product poses an interference risk and the supplier is not prepared to recall the goods voluntarily or a supplier cannot be found.

Consultation with the Australian Competition and Consumer Commission and State and Territory fair trading agencies would be undertaken in respect to the final proposal to ensure there is no overlap with existing legislative frameworks regarding consumer product safety.

2.9. Recommendation 1(h) – Transitional arrangements

Ensuring that the rights of existing licence holders are not diminished in the transition to the new framework by:

- i. providing that allocation and reallocation processes underway at the time the new Act comes into effect would continue under the current arrangements*
- ii. allowing existing licences to continue under the old licensing arrangements until expiry, while also allowing these licences to transition earlier at the licensee's discretion*
- iii. providing certainty for current holders of broadcasting licences and national broadcasters that they would have continued access to spectrum for the delivery of broadcasting services.*

Rationale for reform

Transitional arrangements would need to be worked through carefully with stakeholders and the full transition to the new framework would take place over a number of years. In addition to the new legislation coming into effect, significant work would be required to prepare for implementation of the new framework, including the development of new standard licence options. In developing these arrangements, ongoing assurance for existing licensees and close engagement with stakeholders would be paramount.

Proposal

Replanning and allocation activities

As a general principle, any processes, including allocation and reallocation activities, underway at the time the new Act commences would continue under the old framework. Any allocation or reallocation activities that begin after the relevant part of the new Act commences would be conducted under the new framework.

Prior to the new Act commencing the ACMA would be expected to have regard to the outcomes of this review when considering implementation of any replanning or reviews of bands that are underway.

Existing licences

All existing licences would continue under the current framework with their current licence conditions until expiry (or revocation in the case of class licences). However, once the new framework commences no new licences would be issued under the old licensing system (other than designated processes underway at the time of commencement). The consequences for existing licensees would be:

- > Apparatus licences – transition to the new arrangements as existing licences expire, however, all licensees would be given at least 12 months' notice of the transition.
- > Spectrum licences – these would be grandfathered and continue until expiry unless users voluntarily transition to the new framework.

- > Class licences – these would continue until revoked by the ACMA. In general, revocation would occur when an appropriate replacement licence or regulation is available under the new arrangements.

The grandfathering of spectrum licences would result in a protracted transition period (up to 15 years) during which both frameworks would operate in parallel. Therefore consideration would be given to appropriate arrangements to encourage existing licensees to move to the new system prior to expiry of their licence. Any early migration would be at the licensee's discretion.

Licences for broadcasting service providers

Broadcasters would transition to the new arrangements on the same basis as other apparatus licensees, that is, they would continue to operate under current arrangements until their licences expire. They would then be issued licences under the new arrangements with the technical features similar to their current licences.

The pricing arrangements for broadcasters' spectrum licences would be considered by the Government through the proposed review outlined at recommendation 3 and would also take into account the pricing arrangements that apply to broadcasters' separate broadcasting service licences.

2.10. Recommendation 2 – Government spectrum use

Recognising that how public sector agencies account for and deal with assets is a separate policy matter for Government, the following approaches could be considered:

- i. requiring public sector agencies that hold spectrum to regularly report the value of their holdings*
- ii. permitting agencies to either lease or sell the spectrum and retain the benefit of doing so.*

Rationale for reform

Government users of spectrum provide services that offer significant benefits to society beyond a pure commercial return. These users currently receive most of their spectrum administratively, and should they achieve efficiencies in its use are generally unable to fully realise these benefits.

Treatment of Government assets is a matter of Government policy. However, from the perspective of a new framework, the policy objective of improving efficiency and treating spectrum users consistently would be significantly enhanced if Government users are able to benefit from trading and leasing of spectrum.

Proposal

It is proposed that the Government consider its policies regarding how public sector agencies account for and are permitted to deal with assets, such that agencies can benefit from both the additional flexibility provided in the new framework and more efficient use of their spectrum holdings. This would include considering:

- > requiring public sector agencies that hold spectrum to regularly report the value of their holdings, and
- > permitting agencies to either lease or sell the spectrum and retain the benefit of doing so.

2.11. Recommendation 3 – Spectrum pricing

That the Department review the arrangements for pricing of spectrum (including exemptions, concessions, administrative charges and taxes) so that these are consistent, transparent and support efficient use in secondary markets.

- i. This review will take into account any relevant outcomes of the Review of Australian Government Charging.*

Rationale for reform

If the proposed changes to the legislation and licensing are agreed (recommendations 1 and 1(a)), then prices charged for spectrum would need to be reviewed to ensure they are appropriate to the new arrangements. For example, changes to licence configuration and access rights may require adjustments to pricing.

Current pricing arrangements are complex and may not always provide an incentive for efficient use. The approach to providing pricing discounts is unclear and needs to be examined.

Proposal

It is proposed that this review would consider the pricing options and valuation approaches (for example, opportunity cost pricing or other forms of administered incentive pricing) which should be applied to spectrum under any new arrangements. It would also consider related pricing issues such as taxes charged, the application of concessional rates and recovery of administrative costs.

The review would commence following Government's approval of a new legislative framework and would report to the Minister in at the end of 2015. The outcomes of the review would inform the charges for licences allocated under the new framework.

3. Financial implications

3.1. Single licensing system – implications for charging and revenues

The current licence types have different payment structures. A move to a single licensing system that provides for greater payment flexibility, while not affecting currently issued licences and their associated payment arrangements, has the potential to provide greater certainty around revenue forecasts.

As noted in recommendation 3, moving to a single licensing system would also necessitate a review of spectrum pricing arrangements. Charges, pricing and implications for Government revenue would be reported to the Minister as part of that review.

3.2. Compensation

Compensation is currently payable under the Radiocommunications Act to spectrum licensees if the ACMA resumes part or all of a licence (section 93). The ACMA must not compulsorily resume a licence without the Minister's approval. Statutory compensation is not available to apparatus or class licensees.

It is proposed that the right to compensation would continue to be a last resort in limited circumstances and similarly require Ministerial approval.

Stakeholders have asked for compensation and/or financial assistance to cover the costs of relocation when bands are replanned. The Department proposes that financial assistance for relocation not be provided. Replanning would continue to be managed through notice periods and the provision of information to assist affected stakeholders. Any assistance would be considered on a case-by-case basis by the Government as occurred with the recent digital television switch-over and restack process.

3.3. Costs of implementation

The intention of the proposed changes is to simplify / streamline administration of spectrum regulatory arrangements. Cost of regulation is therefore expected to decline over time although timing of this, including provision for any transitional costs, would need to be assessed. It is proposed that this occur through normal Government budgetary processes.

The ACMA has indicated a need for transitional funding to undertake work such as reviewing administrative instruments, implementing enhanced compliance and enforcement requirements, stakeholder engagement and developing systems and support for the single licensing arrangements and changes in charging and pricing.

4. Implementation

Were Government policy approval to implement the proposed reforms to be announced by mid-2015, then the broad activities and indicative timing for the major work streams to be completed by late 2016 are:

1. New legislation and related legislative changes.
 - > Detailed stakeholder consultation and development of draft legislative proposals – announcement to September 2015.
 - > Release of consolidated legislative reform package – September 2015.
 - > Passage of legislative package by early to mid-2016.
2. Initial policy statements and subordinate regulation.
 - a) Policy priorities and the development of the ACMA annual work program.
 - Consultation on scope and detail of policy statement – mid to late 2015.
 - Release of policy statement – following passage of legislative package.
 - ACMA commences formal consultation on draft annual work program, including transition arrangements – mid-2016.
 - First annual work program finalised – mid-2016.
 - Single licensing system:
 - Initial examples of model licences prepared for release with exposure draft of legislation – from mid-2015.
 - Consultation on the detail of the single licensing system – mid-2015 to early 2016.
 - Release of policy statement – following passage of legislative package.
 - ACMA commences formal consultation on draft licensing options – mid-2016.
 - ACMA commence progressive implementation of new licensing system – late 2016.
 - b) Further measures to fully operationalise the new framework including allocation and reallocation processes, technical regulation and compliance and enforcement measures to take place during the course of 2016 and 2017.
3. Review of pricing arrangements.
 - > Consultation and preparation of report on revised arrangements – mid-2015 to late 2015.
 - > Outcomes to inform implementation of draft licensing options – mid-2016 onwards.

Attachments

- A. Spectrum review process
- B. Current spectrum management framework
- C. Current spectrum reallocation process

Attachment A

Spectrum review process

Overview

The Department undertook extensive consultation during this review. This included the release of two discussion papers to which over 80 submissions were received, over 40 meetings with industry, Government and community stakeholders – both bilaterally and in focus groups – and conducting a stakeholder workshop with over 100 attendees.

Each of these consultation activities and key outcomes are outlined further below.

Issues Paper

On 23 May 2014, the Minister announced the review. At the same time an issues paper was released which outlined the terms of reference for the review and discussed their broader context.

The Department received a total of 38 submissions to the issues paper, of which 35 were published on the Department's website. The remaining three were confidential.

Consultation on the Issues Paper – individual and group meetings

The Department consulted with over 30 stakeholders either on an individual basis or in group meetings. These discussions allowed the stakeholders to highlight concerns and offer proposals regarding the direction and scope of the review.

Industry groups and associations

The Department held individual meetings with over 15 key industry stakeholders, including:

- > telecommunications companies (Telstra, Optus, Vodafone, the Communications Alliance and the Australian Mobile Telecommunications Association)
- > broadcasters (Free TV Australia, all three commercial broadcasters, the ABC and SBS, the Australian Subscription Television and Radio Association and Commercial Radio Australia)
- > specific service providers (Australian Commercial and Entertainment Technologies Association, Australian Radio Communications Industry Association, Broadcast Australia, Satellite Industry Association of Australia, and the Wireless Institute of Australia).

Most of these stakeholders were involved in subsequent engagement activities (such as the Workshop) and made submissions to the review.

Interdepartmental Government Meetings

An interdepartmental meeting was held in August 2014 which brought together 17 Australian Government agencies to discuss aspects of the review.

Separate meetings were also held with the central agencies: the Department of Prime Minister and Cabinet, the Treasury and the Department of Finance.

Scientific stakeholders

Meetings were also held with scientific stakeholders from the Australian Maritime Safety Authority, Civil Aviation Safety Authority, Department of Infrastructure and Regional Development, and Geoscience Australia.

Minister's Keynote Address at the ACMA's RadComms Conference 2014

On 10 September 2014, the Minister provided a keynote address at the ACMA RadComms 2014 conference.

This speech provided more context for the review and identified three areas of potential reform:

- > a clearer and simplified policy framework to ensure transparency and accountability in decision-making (for example, by way of Government policy statements and specific Ministerial powers of intervention)
- > a simplified and more flexible licensing system based on a parameter-based single licensing framework (as opposed to the current three types of licences)
- > introducing greater flexibility into the current television broadcasting framework through a variety of measures.

Potential Reform Directions Paper

On 11 November 2014, the Minister announced the release of the Spectrum Review – Potential Reform Directions paper. The paper outlined five reform principles and 11 potential reform proposals and invited comments from interested parties.

The Department received 46 submissions to this paper of which 38 are published on the Department's website. The remaining eight submissions are confidential.

Consultation – individual and group meetings

Following the release of the Potential Reform Directions Paper, the Department undertook additional consultation (including an interdepartmental meeting in December 2014 and a central agencies meeting in January 2015) to update stakeholders on progress in the review process and to provide an opportunity for stakeholders to ask questions and make further comment.

State and Territory Governments

Meetings were also held with representatives from the New South Wales, Queensland, Tasmanian, Victorian and Western Australian Governments, including a representative from the National Coordination Committee for Government Radiocommunications.

Stakeholder Workshop

On Wednesday 28 January 2015, the Department conducted a full-day stakeholder workshop on the review. The workshop was convened to provide further information on proposals to stakeholders and gather additional feedback by allowing stakeholders to discuss proposals, ask questions and raise new issues in an open forum.

There were 103 attendees at the workshop, representing 57 organisations.

The workshop heard presentations from the Parliamentary Secretary, the Hon Paul Fletcher MP, and 12 speakers from industry, other stakeholders and Government who discussed opportunities and ideas presented by the reform process.

Attachment B

Current spectrum management framework

Australia's spectrum management framework is established under the Radiocommunications Act, related legislation and subordinate instruments. The objects of the Radiocommunications Act broadly outline the framework's objectives, including maximising the public benefit through spectrum's efficient allocation and use, making adequate provision for public and community services such as defence, security and emergency services, and promoting international harmonisation in Australia's interests.

The role of the Radiocommunications Act

The Radiocommunications Act introduced market-based arrangements of spectrum allocation and pricing to operate alongside the existing administrative framework. These market-based arrangements were designed to promote more efficient allocation and use through the use of auctions to allocate spectrum access rights, as well as allowing secondary trading of those rights.

This hybrid administrative/market model preserves the central role of Government in planning and administering spectrum while allowing for a market-based approach in areas of commercially-driven demand.

The Radiocommunications Act defines three separate licence categories for spectrum.

- > Spectrum licences authorise exclusive use of specific portions of spectrum in a particular geographic area (including national licences). Spectrum licences afford the most protection from interference, and because of this and their technological neutrality, they are generally more suitable to trading. Spectrum licences are issued using a price-based method, through auction, tender or pre-determined or pre-negotiated price, for a period of up to 15 years.
- > Apparatus licences authorise a person to operate a specified transmitter or receiver in a defined part of the spectrum, in accordance with licence conditions. These licences are generally issued for up to five years and are renewable upon expiry, subject to the ACMA's consent.
- > Class licences authorise users of designated segments of spectrum to operate a low-power or localised service (such as Wi-Fi networks or cordless telephones), provided the device complies with the licence conditions. Class licences establish parts of the spectrum as commons, do not involve licence fees and provide users with no protection from interference.

Spectrum management

Under the Radiocommunications Act, the Minister has certain powers to make specific decisions and input to processes. In this context, the Department provides advice to Government on the policy aspects of spectrum management and in the exercise of these powers.

The ACMA is the industry regulator responsible for regulation of radiocommunications consistent with the Radiocommunications Act (as well as spectrum for broadcasting purposes consistent with the *Broadcasting Services Act 1992*). The ACMA's spectrum management functions are set out in the ACMA Act, they include:

- > performing its functions under the Radiocommunications Act, which include planning, licensing, allocation and reallocation of spectrum
- > advising and assisting the spectrum community
- > reporting to, and advising, the Minister in relation to the spectrum community
- > managing Australia's input into the setting of international standards for radiocommunications
- > giving advice and making information available to the public about the spectrum community, including conducting public educational programs
- > undertaking functions conferred on the ACMA through the spectrum-related tax Acts.

The ACMA also prepares advice to Government and the market on future spectrum activities and issues, including through:

- > The Australian Radiofrequency Spectrum Plan, which is a statutory instrument under the Radiocommunications Act that outlines Australia's international spectrum harmonisation obligations; identifies variations to international allocations; and informs users about the various types of services that can be operated in each frequency band, and the conditions attached to their operation. It is usually updated after each WRC meeting.
- > The Five Year Spectrum Outlook which provides a rolling five-year snapshot of ACMA's spectrum demand analysis and indicative work program.

Attachment C

Current spectrum reallocation process

