ENCOURAGING EFFICIENT USAGE OF LICENSED SPECTRUM

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The views expressed in this paper are the personal views of the author and do not necessarily represent the views of Telstra Corporation Limited.

Introduction

Spectrum licences in Australia are initially allocated via market based mechanisms (generally auctions)[1] which strongly influence the application of this key national resource to its highest value use or uses. Spectrum licences have normally been awarded for 15-year periods,[2] which have been considered sufficient to provide certainty for bidders to develop their technology and business plans and, if successful at auction, to then deploy infrastructure and services and generate commercial returns.

Telstra itself has previously advocated a use-it-or-lose-it approach in the management of Australia's scarce spectrum resources.[3] From a position as one of the largest licensed spectrum users in Australia, Telstra requires the ability to gain fair commercial access to spectrum infrastructure when that is necessary for meeting the efficient growth and/or expansion of services to the benefit of the majority of the Australian population.

The appetite to embrace the use-it-or-lose-it approach has been largely absent at the policy level in Australia,[4] due I suspect to the difficulties perceived to achieve a detailed, workable and fair implementation of this approach in all situations. When this is coupled with vocal opposition from influential parties and a flawed view of the value of non-use of spectrum, use-it-or-lose-it has not gained traction with policy makers and administrators, thus not enabling active policy discouragement of non-use of significant key spectrum assets which is at odds with existing Government policy.

Summary of the proposed use-it-or-lose-it policy

I propose a policy tool in this paper that is designed to assist decisions around spectrum licence renewals. The proposed policy would:

- Allow investigations into usage of licensed spectrum to be undertaken from year 7 onwards of a new or re-allocated spectrum licence period
- Provide clear criteria determining effective spectrum usage
- Allow non-binding preliminary findings on usage to be made which may be taken into consideration at the time of licence re-issue

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1 ACMA may choose to allocate spectrum licences by auction, tender, or via a pre-determined or negotiated price: *Radiocommunications Act 1992* (Cth) s 60. The ACMA has expressed a preference to allocate spectrum licences via auction where demand exceeds supply: ACMA, *Response to Submissions on the Draft Spectrum Management Principles* (March 2009) p 5.

2 This is the maximum period allowable under s 65.

3 See, eg, Telstra's response to ACMA's Consultation Paper on Spectrum Management Principles, available at http://www.acma.gov.au/webwr/_assets/main/lib310710/telstra.pdf.

4 See, eg, ACMA, *Response to Submissions on the Draft Spectrum Management Principles* (March 2009) pp 11–12; ACMA, Response to Submissions on Spectrum Trading (November 2009) p 2.

Relevant policy instruments

There are two main sources of current policy directives for spectrum management in Australia:

1. The object of the Act

The object of the Act[5] is to provide for management of the radiofrequency spectrum in order to:

- maximise, by ensuring the efficient allocation and *use* of the spectrum, the overall public benefit derived from *using* the radiofrequency spectrum
- make adequate provision of the spectrum … for *use* by public or community services
- provide a responsive and flexible approach to meeting the needs of *users* of the spectrum
- encourage the *use* of efficient radiocommunications technologies so that a wide range of services of an adequate quality *can be provided*
- provide an efficient, equitable and transparent system of charging for the *use* of spectrum, taking account of the value of both commercial and non-commercial use of spectrum
- support the communications policy objectives of the Commonwealth Government
- provide a regulatory environment that *maximises opportunities* for the Australian communications industry in domestic and international markets and
- promote Australia's interests concerning international agreements, treaties and conventions relating to radiocommunications or the radiofrequency spectrum.

(My emphasis in italics/underlining.)

The first object of the Act in particular and indeed the first four objects thus require spectrum to be used efficiently to meet the needs of users and maximise the public benefit of such use.

2. The ACMA's Principles for Spectrum Management[6]

The ACMA's Principles are to:

- allocate spectrum to the highest value *use or uses*;
- enable and encourage spectrum to move to its highest value *use or uses*;
- use the least cost and least restrictive approach to achieving policy objectives;
- to the extent possible, promote both certainty and flexibility; and
- balance the cost of interference and the benefits of *greater spectrum utilisation*.

(My emphasis in italics/underlining.)

It is quite clear that both these fundamental spectrum policy drivers are designed to achieve 'efficient allocation and use' and 'allocation to highest value use' when applied rigorously by the ACMA.

Default position at end of spectrum licence period

At the end of the 15-year licence period, the default position under the Act is for the spectrum to be returned to the pool/market[7] unless (a) the Minister determines under section 82(3) a class of services for which it is in the public interest to re-issue the spectrum licences to the same licensees,

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5 As set out in s 3 of the Act.
6 ACMA, *Principles for Spectrum Management* (March 2009) pp 2–3.
7 See s 60 and ss 80–81 of the Act.

or (b) the ACMA uses its power under section 82(1)(b) when it is satisfied special circumstances exist as a result of which it is in the public interest for the licences to be re-issued to the existing licensees.

Should the Minister make a determination under section 82(3), the ACMA then has discretion to re-issue the spectrum licence or return the licence to the market. The Act does not explain the criteria to be used by the ACMA in making this determination, but the factors that can be taken into account must be referable to the object of the Act and presumably would also be informed by the Principles.

Why can spectrum 'non-use' arise?

Non-use could arise from any of:

- changes in business plans post spectrum acquisition;
- an inability to raise investment finance;
- changes in forecast market developments;
- delays in technology standardisation/development;
- changes in Government policy;
- inability to conclude a secondary trade of unused spectrum on suitable terms;
- intentional non-use by spectrum licence acquirers eg for strategic reasons; or
- other reasons/motives not so apparent.

But irrespective of the licensee's reason for long term non-use, the only reasons providing any credible argument for *long term* non-use are 'delay in technology' and possibly 'change in Government policy'.

I do certainly acknowledge the 'property rights' of spectrum ownership by licensees and the legitimate action of holding spectrum for periods without utilising the asset (eg in planning for future demand or anticipating new technology). BUT it can only be viewed as not in accordance with the intent of the Act should such holding action continue to the end of the 15-year licence period — such lengthy non-use in the limited spectrum market is just very inefficient and not in the interest of maximising public welfare.

Examples of prolonged spectrum non-use, and consequences

Spectrum licensing has been utilised in Australia since 1997.[8] Re-allocation or re-issue of current 15-year spectrum licences requires licence policy decisions within the next year or so,[9] and is the subject of a current consultation by the Department of Broadband, Communications and the Digital Economy (DBCDE).[10]

Telstra has strongly supported the ACMA's second Principle, under which spectrum management decisions are intended to 'enable and encourage spectrum to move to its highest value use or uses'.[11] Telstra has expressed strong concerns about licensees 'squatting' on spectrum.[12] Several bands stand out as prime examples:

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8 Spectrum licensing was introduced through the *Radiocommunications Amendment Act 1997 No. 41* (Cth),

9 See ACMA, *Five Year Spectrum Outlook, 2009–2014* (April 2008) pp 21–23.

10 DBCDE, *Public Interest Criteria for Re-Issue of Spectrum Licences* (24 April 2009), available at http://www.dbcde.gov.au/consultation_and_submissions/public_interest_criteria_for_re-issue_of_spectrum_licences/discussion_paper.

11 ACMA, *Principles for Spectrum Management* (March 2009) pp 2–3.

- 800 MHz holdings of Hutchison (now absorbed into VHA), including those segments acquired from AAPT, which have been unused for a number of years;
- 1800 MHz holdings of Hutchison (now absorbed into VHA), which do not appear to have been used since the original spectrum auction; and
- the regional and rural 2300 MHz holdings of Unwired, and the 3400 MHz holdings of Austar, which — save for a limited trial service in the Wagga area by Austar[13] — do not appear to have been used.

The most significant examples of non-use of licensed spectrum since that time are summarised in the table below, with my comments as to the deleterious effects of this:

Non-use case	Unused spectrum	Comments	Consequences of non-use
Hutchison (VHA)	850MHz FDD	Acquired from AAPT in 2007, unused since, no subsequent secondary trades despite attempts	Telstra has built additional bases in lieu of access to 2nd 850MHz carrier, resulting in inefficiencies and continuing costs
	2x10MHz — capital cities	”	”
	2x5MHz — regional areas	”	”
Hutchison (VHA)	1800MHz FDD		
	2x30MHz — Syd, Mel	All of Hutchison spectrum still lying unused since acquisition.	Opportunity to purchase or trade to achieve more efficient future contiguous band usage foregone
	2x25MHz Bris, Adel, Perth	”	”
	2x5MHz ACT/Tas/Darwin	”	”
Austar	2.3GHz TDD	Purchased in 2000, unused since (except for limited trial in Wagga area). Failed Opel proposal was to purchase some of this spectrum	Lack of wireless broadband services in regional Australia once technology became available ~2004
	98 MHz — regional areas	Executed a swap with Unwired, gaining respective 2.3 GHz and 3.4 GHz licences in regional areas.	
Unwired	3.4GHz FDD	Purchased in 2000, some use in Sydney (2004) & Melbourne (2007), Perth proposed in 2010	Valuable BWA resource lying fallow — no BWA services deployed in other markets that licence covers

[12] See, eg, Telstra’s response to ACMA’s Consultation Paper on Spectrum Management Principles, available at http://www.acma.gov.au/webwr/_assets/main/lib310710/telstra.pdf.

[13] Austar launched a wireless broadband service in Wagga in 2006 which appears to have been subsequently extended to Tamworth.

Non-use case	Unused spectrum	Comments	Consequences of non-use
	between 2x32.5 MHz and 2x50 MHz in metro areas	Executed a swap with Austar, gaining respective 2.3 GHz and 3.4 GHz licences in metro areas. Note: Telstra excluded from the 2000 auction in metro	
Telstra, Optus, VHA	1900 MHz TDD 20 MHz in all state capital cities.	Telstra, Optus, Vodafone, PBA each acquired initial carrier in 2001 auction. PBA service launched commercially, achieved limited uptake and ultimately failed. Telstra purchased 2nd carrier on secondary market 2009 — but still awaiting release of relevant technology	Little current demand evident beyond ongoing use by existing Telstra pt-pt fixed links
Qualcomm	2100MHz	Unused to date	Unproductive after 7 years

Other views on non-use

Optus, in its submission to DBCDE's discussion paper *Public Interest Test Criteria for Reissue of Spectrum Licences*, states in section 2.4 that 'It is Optus' view that reissuing licenses to those incumbents who have left their PMTS spectrum assets idle or hoarded them for competitive purposes is not in the public interest.'[14]

Access Economics in a report for Unwired of 18 June 2009 on the 'Public Interest Tests in the Re-issue of Spectrum Licences'[15] make the following comments:

> The reallocation of spectrum using auctions, under certain circumstances, can allocate spectrum to its highest social value use when the spectrum is unused (section 1, p3); and
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> …the renewal of spectrum for all incumbents may not be the best option when some spectrum licences are not in use.[16]

Non-use conclusion

I can only strongly conclude, in the interest of end users and certainly in line with government spectrum management policy, that where there are significant consequences of non-use, such licensees should be encouraged to either move to usage; or trade the spectrum; or have their licence critically reviewed at expiry.

Challenges in implementation of a 'use-it-or-lose-it' principle

I do not suggest that spectrum management policy is an easy area of public policy — it is complex and must balance the huge and varied demands of end users and providers against the efficient allocation of scarce public spectrum resources to maximise the public welfare of all Australians now and into the future.

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[14] Optus submission to DBCDE (June 2009), p 5, available at http://www.dbcde.gov.au/__data/assets/pdf_file/0003/118371/OPTUS_submission_29_Jun_09.pdf.

[15] The Access Economics report is not available online but is referred to in Unwired Australia Pty Ltd, *Submission in Response to The Department of Broadband, Communications and the Digital Economy Discussion Paper: Public Interest Criteria for re-issue of Spectrum Licences* (June 2009), available at http://www.dbcde.gov.au/__data/assets/pdf_file/0007/118375/Unwired_submission_22_Jun_09.pdf.

[16] Ibid, section 6.2, p 21.

I do however suggest that incorporating appropriate 'use-it-or-lose-it' principles into spectrum licensing management would bring further efficiencies and community benefit. And it could be a relatively simple policy initiative to implement.

Proposed 'gentle encouragement' approach

An approach is proposed at Annexure 1 to this paper that I believe is a practical methodology that would deliver real benefits to Australia, be fair to all market participants, straightforward to implement and improve delivery against the existing required policy outcomes. The proposal I am making does not involve harsh licence revocation powers, but is rather a consultative and 'gently encouraging' approach which is consistent with the property rights in spectrum acquired by a licensee. Consequences, if any, only occur at the end of the spectrum licence term and only affect the ability to renew the spectrum licence. No change to existing legislation is required and the approach I am suggesting is wholly within existing powers under the Act.

The main aspects of the use-it-or-lose-it approach detailed in Annexure 1 are shown in the following table:

Use-it-or-lose-it: Suggested Policy Approach	Comment
1. Policy only applies to new or re-allocated licences	Re-issued licences will have already demonstrated effective usage
2. The ACMA sets up a process to conduct informal investigations into circumstances of alleged extended non-use of spectrum licences	Can be done under existing powers[17]
3. The ACMA investigates 'non-usage' upon reasonable request made by an aspirant alternative spectrum user, and only in the 7–12-year period of a current 15-year spectrum licence. The ACMA could also initiate an investigation in its own right where it could show good cause	The ACMA must be satisfied that the requesting organisation has reasonable commercial/other interest in potential access to that licensed spectrum. Patently vexatious or repeat ('cry wolf') calls for investigation will not be accommodated.
4. Usage determined on a simple, easily measured set of criteria	Eg 24/7 operation for 3 years prior to licence expiry in minimum 40% of coverage area
5. If non-usage found, the ACMA issues a 'Preliminary Non-use Finding'	Preliminary Non-use Finding has no binding force to require usage
6. If licensee does not create sufficient usage in years 13–15, then this will be a significant factor tending against re-issue of the licence to the existing licensee (whether use is a specific condition of the licence; or the public interest class specified under s82 of the Act by the Minister for spectrum licence re-issue specifically identifies prior use as a criteria; or the ACMA is exercising its s82 power)	Preliminary Non-use Finding in years 7–12 would encourage licensee to move to usage or to undertake a secondary trade option prior to years 13–15.

[17] Three possible sources of the power are:
- s 12(1) of the *Australian Communications and Media Authority Act 2005* (Cth), which provides that the ACMA may 'do all things necessary or convenient to be done for or in connection with the performance of its functions';
- s 303 of the *Radiocommunications Act*, which provides a general power for the ACMA to 'conduct research' into use of spectrum; and
- the implied power of government agencies to conduct inquiries to fulfil their functions.

Note that this proposed use-it-or-lose-it policy would also recognise as legitimate any agreed 'third party use' as provided for under the *Radiocommunications Act 1992* (Cth) ('**Act**').[18]

Addressing opposing views about the 'non-use' of spectrum

The main likely concerns of a use-it-or-lose-it policy are listed in the following table together with counter arguments, based on the proposed approach in Annexure 1:

Potential Implementation Difficulties For Use-It-Or-Lose-It

Potential difficulty	Counter position
1. Lack of justice to licensee	The proposal is not to withdraw licensed spectrum mid-term (which would require a specific inclusion of a licence revocation power in a use-it-or-lose-it licence condition), but provides for usage investigation only. Any finding by the ACMA causing detriment to the licensee would be subject to the usual principles of natural justice, eg providing licensees with an opportunity to respond to findings. The property rights of the licensee are recognised and retained for the full duration of the licence period
2. Difficulty in assessing genuine use	The proposal sets out clear guidelines to assess use: eg 24/7 service, minimum 40% licence area coverage for 3 years, appropriate backhaul, operational customer service facility, customer devices connected to user population. Such guidelines remove concerns of 'arbitrariness' in assessment.
3. Heavy burden of monitoring and enforcement	The proposal is for simple investigation of usage against clear criteria, only upon reasonable request, with published findings the only requirement.
4. Licence term not aligned with technology lifecycle	The proposal allows for imminent exploitation; exploitation within 3 years; or technology availability within 2 years together with market demand. This allows genuine usage plans to be properly considered.
5. Need to give 'little bloke' a go	Not covered under the object of the Act; rather, maximising the overall public benefit is specified in the object of the Act,[19] and the ACMA's Principles encourage the highest value use of spectrum.[20]
6. Non-use seen as an appropriate position	Not covered under the object of the Act; non-use for extended periods of up to 15 years is impossible to estimate with certainty as being the highest value outcome. Genuine plans demonstrated at licence expiry would be taken into account.

The ACMA recently provided its views in relation to spectrum 'non-use' in a response to Telstra recommendations to adopt 'use-it-or-lose-it' conditions.[21] These views and rebuttal commentary as to why I believe ACMA's views are (with the greatest respect) misguided are summarised here.

(a) *Use-it-or-lose-it conditions are expensive to monitor and enforce*

Use-it-or-lose-it monitoring would involve less complex decisions and reasoning than a total welfare standard analysis. The proposal for a generic use-it-or-lose-it condition is simple to apply. The ACMA would review licensees' interests and usage justifications on licence expiry,

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[18] Section 68 specifically allows a spectrum licensee to authorise other persons to operate radiocommunications devices under the licence.

[19] Section 3(a) of the Act.

[20] ACMA, *Principles for Spectrum Management* (March 2009) pp 2–3.

[21] ACMA, Response to Submissions on the Draft Spectrum Management Principles (March 2009) pp 11–12.

and could also elect to investigate licensee usage intentions prior to expiry upon reasonable request. See Annexure 1.

(b) *Other policy options available to government are more effective in promoting competitive markets and spectrum efficiency*

Spectrum caps and market mechanisms alone have been shown to be ineffective in promoting competitive markets and efficient spectrum use, particularly in contended bands, and may achieve unintended deleterious effects.[22] This is demonstrated by the continued:

- absence of deployments by regional internet service providers of wireless access services **through inability to access otherwise idle spectrum resources**; and
- non-use of spectrum in the 800, 1800, 2300 and 3400 MHz bands.

(c) *Determining real use can be difficult and resource intensive particularly with partial rollouts and with some smaller licensees*

The use-it-or-lose-it proposal at Annexure 1 addresses the onus of proof of use for all situations.

(d) *Licensees could be forced to roll-out infrastructure earlier than is optimal, resulting in inefficient deployment; the equipment needed for the licensee's desired service may be unavailable within the mandated roll-out time, particularly in the case of emerging technologies, leading to a bias against innovative uses*

This is only a hypothetical risk. Indeed, where aspiring alternative users express interest in specific spectrum segments, then deployment of available technologies is probably viable and optimal. Conversely, a lack of available spectrum has actually hampered the roll-out of, amongst other things, wireless access services in regional and rural areas of Australia. Failure to roll-out is a real risk that should be weighed more heavily than the hypothetical risk of earlier than optimal roll-outs.

(e) *Large, established firms which are more likely to be in a position to carry losses caused by earlier-than optimal deployment may be advantaged*

A major part of the ACMA's role is to maximise the overall public benefit derived from the allocation and use of spectrum.[23] The ACMA is not intended, under the statutory framework, to manage the spectrum in a way that lowers barriers to entry so as to facilitate low or no cost entry to markets. Some wireless markets reliant on spectrum (eg mobile telecommunications) are very highly capital intensive. On the other hand, local needs can in some circumstances be competitively served by local providers with a moderate capital outlay. The ACMA can deal with this diversity of spectrum demand by appropriately assigning particular spectrum segments (eg spectrum in the 3.6 GHz band, which is intended to be released to facilitate delivery of regional and rural wireless access services).[24]

(f) *Spectrum may have an economic value even when not in use. This 'non-use' could potentially be the highest value use of spectrum at a point in time.*

While economic principles may properly inform the ACMA's approach to spectrum management, the ACMA is primarily required to give effect to the objects of the Act. Relying on the proposition that the option value may be the highest value use without considering other relevant matters (such as the economic and community costs of non-use) may be inconsistent

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[22] For example, ACMA has specifically recognised that 'a band's highest value use is not determined solely by market forces, but also by consideration of the broader public good or social benefit achieved by that use': ACMA, *Response to Submissions on the Release of the 3.6 GHz Band for Wireless Access Services (WAS): Spectrum Planning Paper 6/09* (October 2009) p 2.

[23] Section 3(a) of the Act.

[24] See ACMA, Response to Submissions on the Release of the 3.6 GHz Band for Wireless Access Services (WAS): Spectrum Planning Paper 6/09 (October 2009).

with the Act's objects.[25] The markets for radio spectrum are not intended to (and do not in fact) function as a perfect market.

Parallel examples

1. Oil and gas leases

I also note that the Australian Government is currently conducting a review of the policy for granting and renewing 'retention leases', under which lessees obtain gas and oil exploration and commercialisation rights. The *Review of Policy Relating to the Grant and Renewal of Retention Leases discussion paper*[26] notes that:

> … **it is not in Australia's interests to strand gas resources indefinitely**, particularly when there are potential economic markets. Nor would it be appropriate or efficient to undermine sunk investments in LNG and domestic gas infrastructure that still have major economic potential. Equally, **the policy framework must promote, rather than impede, greenfield investments** in LNG when they are in the best interests of gas developers and the nation. And, importantly, Government must strike the balance between attracting and protecting investment in exploration while also delivering development outcomes.
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> …
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> … **the key driver of our resource development must remain the operation of an efficient and transparent market** (emphasis added).

The discussion paper concludes that it is appropriate to include stricter use-it-or-lose-it conditions in retention leases than those that are currently imposed to encourage exploration, investment and commercialisation. Like spectrum, oil and gas fields are limited natural resources. Retention lessees' failure to use their leases to explore and commercialise relevant resources potentially blocks the economic benefits that flow from successful and efficient exploitation of those resources.

In my view, those conclusions are equally applicable to unexploited and unused spectrum licences (which, whilst in non-use, block potential economic and community benefits flowing). Again, use-it-or-lose-it conditions appear to be an appropriate regulatory tool to promote the maximum public benefit being derived from spectrum.

2. The anti-siphoning broadcasting list

I also note that the Australian Competition and Consumer Commission ('**ACCC**') comments in their recent submission to the Department of Broadband Communications and the Digital Economy on strengthening the 'use it or lose it' provisions in the guidelines for considering whether listed sporting events remain on the anti-siphoning broadcasting list.[27] There are clear parallel considerations here again with ongoing non-use of spectrum.

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[25] See s 3 of the Act; ACMA, Response to Submissions on the Release of the 3.6 GHz Band for Wireless Access Services (WAS): Spectrum Planning Paper 6/09 (October 2009) p 2.

[26] At 2 November 2009, a copy of the paper was available at http://www.ret.gov.au/resources/Documents/Grant_and_%20renewal_of_retention_leases-optionspaper.pdf. See p. 7.

[27] Australian Competition and Consumer Commission, Submission to the Department of Broadband, Communications and the Digital Economy: Review of the anti-siphoning scheme (15 October 2009) http://www.dbcde.gov.au/__data/assets/pdf_file/0017/121229/Australian_Competition_and_Consumer_Commission_main_submission.pdf, p 4.

More aggressive options for implementing use-it-or-lose-it principles

The use-it-or-lose-it approach suggested in Annexure 1 is one of 'gentle encouragement' with no direct impact during the existing spectrum licence term. However, for completeness it should be recognised that more aggressive approaches are possible, for example:

(i) Licence fees increase over time if non-use found

If the ACMA found that spectrum was not being used over an extended period, then a licence fee or spectrum licence tax penalty could be invoked to apply additional charges during the remainder of the licence period.[28] The disadvantage of this proposal is that it would likely require legislative changes.

(ii) Licence is withdrawn during the licence term if non-use found

This model would require an aspirant alternative user of the spectrum to demonstrate a credible business case. The ACMA would then conduct an investigation, and if the spectrum was found not to be used, the licence would be cancelled and returned to market with the previous incumbent able to make a commercial offer in competition with other interested parties. This proposal would require the ACMA to impose use-it-or-lose-it conditions on spectrum licences (in which case the licence could be cancelled under s 77 of the Act), or legislative changes. The difficulty with this approach is that it requires a significant degree of discretionary decision making by the ACMA which would be likely to be heavily litigated by the party that loses out on the spectrum.

The above approaches are worth investigating further to assess whether they are workable, however the likelihood is that they will involve both changes to the Act and complexity in their application.

Competition law approach

It has been suggested that specific use-it-or-lose-it principles are not necessary because in a case of anti-competitive hoarding of the spectrum, the ACCC could conduct an investigation under the *Trade Practices Act 1974* (Cth) that could lead to a finding against the incumbent licensee. No such case has ever been pursued by the ACCC to date, perhaps in part because proving a breach of competition law in such circumstances would be difficult. Moreover, while extended non-use of spectrum may be thought to be generally inefficient for society as a whole, most cases of extended non-use would not constitute a breach of Australian competition law. (This topic is worthy of a separate paper!)

The point is that the Act encourages use of the spectrum, and enjoins the ACMA as the regulatory agency to carry out that policy approach. When it comes to instances of extended non-use of spectrum the ACMA does not have the option of ignoring this as if no Act existed, and vacating the field with the view that ACCC should fix the problem using its distinct powers under competition law.

Conclusion

This practical use-it-or-lose-it approach would positively influence the efficient allocation and management of Australia's scarce spectrum resources and there are strong grounds to support this approach being utilised as a mechanism to ensure obligations under the *Radiocommunications Act* are met and implementation of the ACMA's recently released spectrum management principles can be well achieved.

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[28] This could be achieved through the ACMA amending the Radiocommunications (Spectrum Licence Tax) Determination 1999 made under the Radiocommunications (Spectrum Licence Tax) Act 1997 (Cth).

This proposal has been developed with the objective that a well constructed use-it-or-lose-it policy is relevant to the consideration of licence renewals. It recognises that:

- Non-use of spectrum is inconsistent with the object of the Act and with the ACMA's Principles for Spectrum Management. The ACMA should thus be concerned about non-use.
- Spectrum property rights of licensees should be retained for the duration of each licence period

ANNEXURE 1

A proposed practical use-it-or-lose-it approach to spectrum licence renewals

(i) Context — s82 re-issue

A use-it-or-lose-it licence condition is proposed for all new or re-allocated spectrum licences to encourage usage of licensed spectrum allocations. It would only have force in respect of potential re-issue of any such spectrum licence upon expiry. Re-issued licences would not require such a licence condition as they have already been assessed as having effective usage.

Assuming no changes to the Act, this presupposes that re-issue of the spectrum licence would be made possible under s82 of the Act.

(ii) Usage factors

Key factors to determine an adequate level of economic exploitation of a spectrum licence would include:

- sufficient base stations of a recognised wireless technology deployed and continuously activated (24/7) for at least the last 3 years prior to expiry, and providing effective coverage to at least 40% of the licensed area;
- all such base stations to be interconnected on a continuous basis (24/7) for at least the last 3 years, via appropriate traffic backhaul infrastructure, to an operational central node or core network; and
- either:
  - evidence of public marketing campaigns and published marketing collateral commensurate with a commercial service offered throughout the licensed area, along with an established/operating customer service facility accessible via phone and internet (details included in the collateral); or
  - evidence of fitment of operational terminal devices to a user population (fleet size) commensurate with both the geographic area and spectral bandwidth of the relevant licence, supported by formal user guides issued to every user.

These factors where absent in years 7–12 could lead to a finding of non-use by the ACMA.

The ACMA could conduct an investigation into alleged non-use any time in the period of 7 to 12 years from the time of licence allocation. This investigation might be instigated by the ACMA itself where it could show good cause, or may be triggered by a request from an aspirant alternative user of the spectrum. The ACMA must be satisfied that the requesting party has reasonable commercial/other interest in potential access to that licensed spectrum. Patently vexatious or repeat ('cry wolf') calls for investigation will not be accommodated.

Where these factors are absent in years 13–15 they would assume a significant status in considerations of usage as a criteria for licence re-issue, in conjunction with any other re-issue factors.

(iii) Non-usage 'exemption factors'

If notwithstanding that there is no current use, evidence of the 2 factors below exist to the ACMA's satisfaction, then the ACMA may decline to make a preliminary finding of 'non-use' against the licence holder of that spectrum:

- an existing and fully-developed business plan for economic exploitation of the assigned spectrum within the next 3 years; or
- the existence of a nascent technology specifically aimed at the relevant band, and which will be commercially available within the next 5 years at most, and for which all interested parties are expressly waiting.

(iv) Pre-emptive condition to be inserted in new spectrum licences

A pre-emptive condition would be inserted in any new spectrum licence setting out that should the ACMA not be satisfied that a licensee has made effective use of their spectrum as a minimum within the final three years of the licence period (with some scope for assessment of such usage eg a 'bright line test' approach), and any other relevant factors the ACMA considers, the licence would then not be eligible for re-issue to the existing licensee in the event of s82 re-issue being available.