NSW GOVERNMENT RESPONSE TO THE PRODUCTIVITY COMMISSION INQUIRY INTO THE REVIEW OF THE RADIO COMMUNICATIONS ACT.

1. Introduction Summary

In the modern world, communications are an essential, indeed critical, tool of business, whether that business is carried out by the public sector or the private sector, and whether it is carried out for commercial or community activities.

Wireless communication, including both mobile telephone and mobile radio, are particularly relevant and is the focus of this submission.

The economic importance of delivering an efficiently and effectively managed communications environment cannot be overstated. But communications are also a vital means of delivering a sense of community to the Australian people and the social importance of delivering an efficiently and effectively managed communications environment also cannot be overstated.

Radiocommunications spectrum (ie spectrum) is, therefore, a strategic resource in delivering an efficient and effective communications environment.

NSW has few difficulties with the current mechanisms for the management of spectrum. Many Federal policy initiatives, particularly in the area of improving the level of delivery of services to rural and remote areas, coincide with State policies initiatives. NSW is, however, concerned that, at times, the economic imperatives of Federal policies can overwhelm the wider social imperatives.

In recent years, the spectacular growth in the demand for mobile telephony services has created particular commercial pressures. Even though some vendors seek to occupy niche markets, the overall nature of mobile telephony services is such that their service delivery is national in outlook and commercial in nature.

The national focus of mobile telephony makes it an appropriate focus for the Federal Government. Its commercial nature makes the sale of spectrum a viable, and potentially lucrative, proposition.

However, mobile telephony is but one of a number of technologies, many inherently commercial, that utilise radiocommunications spectrum. In most cases, the same commercial drivers are present. For State Governments, whose interests occupy a different space to that of the Federal Government, there is a concern that too much of an economic focus can override the social interest.

Mobile Radio

This is particularly so in the case of mobile radio, somewhat of a niche market largely utilised by public safety agencies (Police, Fire, Ambulance and State Emergency Services) but also other Government service providers such as traffic and transport, education, health and essential service workers, all of which are required to traverse isolated areas where mobile telephone services are not available, many of which are required, at times, to operate when commercial networks are under great stress. These are largely a State (and Territory) Government responsibility that, in common with other Government service providers, do not generate a profit. In the public safety area in particular, relatively significant amounts of spectrum, often in contiguous blocks, are required.

The services are also time and mission critical which, apart from the obvious community service component, also have occupational health and safety issues as far as the workers are concerned.

And whereas the ubiquitous nature of the mobile (and fixed line) mobile commercial service is such that the need for public safety agencies to develop their own telephone networks is minimal, the same factors cannot be said to apply to mobile radio. As a consequence most State and Territory jurisdictions still operate extensive local (ie within jurisdiction rather than national) radio networks.

Accordingly, NSW is committed to ensuring that provision is made for the continued access to adequate levels of spectrum to satisfy the legitimate needs of public safety and other state services.

This does not mean that NSW expects either access to spectrum at no cost or access to unlimited amounts of spectrum.

NSW agencies recognises that the Federal Government incurs costs in the management of spectrum and it recognises that spectrum is, at any point in time, a resource in limited supply. NSW has moved to reduce its overall demand for spectrum by adopting trunking technologies and other initiatives. It also recognises that more can be done, but NSW is strongly of the view that price alone should not be the sole determinant of managing the access to spectrum for essential public purposes.

Datacasting

NSW also sees a legitimate direct role for Government is in the datacasting area.

Datacasting, like the telephone network, is likely to be provided as a ubiquitous commercial service but the nature of the services likely to be carried by Governments includes essential public services in non-profit areas such as health and education. NSW believes that it should have direct access to the datacasting environment and not be captive to commercial providers.

A Competitive Commercial Environment

In a broader economic sense, NSW has a decided interest in ensuring that there are opportunities for business to create a strong local economy for the benefit of the NSW community in general. In part this depends on a strong competitive environment and an ability to access latest technology at the lowest costs.

Accordingly, NSW is supportive of a continuing role for the ACCC in oversighting the impact of spectrum management activities and the prevention of monopolies. It is also supportive of a general global trend towards the harmonisation of spectrum as a means of ensuring access to the best of European and US technologies at the cheapest price, which comes from operating in a global market.

A Strategic Outlook

In short, NSW is keen to see even closer cooperation between Federal and State and Territory jurisdictions to ensure that the legitimate requirements of public safety and other community initiatives, particularly in the areas of mobile radio and datacasting are facilitated. NSW is comfortable with the Federal Government's role in managing the national commercial arrangements and seeks only to support Federal initiatives in the commercial environment to ensure a competitive commercial environment is maintained but in a way that reduces the digital divide, particularly as it affects rural and remote areas.

2. ISSUES

2.1 What problems does the legislation seek to address?

Do the objectives of the RCA adequately describe the social, environmental and economic problems which radiocommunications legislation should address?

Yes. The objectives cover the range of issues that are considered relevant.

Do the objectives have sufficient regard for related technologies which may have implications for the management of the radio frequency spectrum?

The objectives are, as expected, strategic statements. They are sufficiently broad and open enough to embrace technological advances., but would benefit from some amendments, for example, objective (b) (see further comments below).

Are the objectives too broad in scope? Does this cause problems? Is the intent of all the objectives completely clear?

A Catch-22 situation applies.

Certainly, the objectives are open to interpretation and contain potential conflict. In particular, it is possible for (f), ie the policy objectives of the Government of the day, to be completely opposed to objectives (a) to (e) and (g) and (h). In fact, it will be argued that there are some conflicts already apparent, though the conflict is, by no means, total.

On the other hand, more specific objectives could limit public policy options by failing to encompass an appropriate range of matters.

It will be later argued that there are other ways to address the potential conflicts than changing the current objectives.

It is considered that the objectives are sufficiently clear.

Have the priorities attached to different objectives of the RCA changed over time and what factors explain these changes?

Yes.

Clearly, it has been necessary in recent years to accommodate the rapid growth in mobile telephony. That is understandable and indeed, appropriate. However, the commercial nature of the

sector has, in turn, focussed attention of the potential financial gains from auctioning spectrum and the financial opportunities that arise from the general commercialisation of the spectrum.

Given the demands on the Federal budget, commercialisation is understandable and appropriate, but only if financial gain does not becomes the sole criterion of success. If one decides to sell what are, in effect, public assets, then maximising the return on the sale of those assets is appropriate. But there are also other parallel considerations.

What is of concern is if the sale of those assets removes them from public access, either because they are priced beyond general reach or because they are simply rendered unavailable.

Two examples come to mind.

Firstly, State Governments, in particular, run a number of costly public safety services that generate little revenue and which, for a whole range of occupational health and operational safety reasons, require access to spectrum for radio purposes. As new technologies evolve, it is difficult for such services to compete against the commercial sector for appropriate space within the spectrum.

NSW accepts that the demands on spectrum need to be rationed and have successfully pursued a number of objectives to minimise its spectrum requirements. But it has concerns if price is the only avenue by which demands are rationed. There needs to be a cooperative inter-Government approach to ensuring that the needs of both the commercial and non-commercial sectors are realistically addressed. Commercial competition is not an adequate means of resolving demand for spectrum for public safety or essential community service purposes, such as education or health.

The auction of large blocks of spectrum has rendered those spectrum blocks unavailable to other users for extended periods of time. While it might be expected that that spectrum will be used for the purposes for which it was procured, it is possible that the reason for its purchase was to simply deny access to competitors or for future, yet to be delivered, services.

NSW would argue that a “use it or lose it” policy should generally prevail, except perhaps where agencies or service providers are clearly in a transitionary phase to new systems or technology, in which case some latitude is warranted while those new services are under trial.

NSW would also argue that the auction programs should be agreed upon by Governments, State and Federal, to avoid circumstances where insufficient contiguous blocks are left for essential Government purposes.

Secondly, NSW has repeatedly sought direct access to spectrum for datacasting but the policy direction has been in favour of Government access being provided through commercial providers and potentially at their discretion.

This has the potential to limit the capacity of State and Territory Governments to implement essential community programs across a range of areas, including public information and public education, on commercial grounds.

Are the existing objectives consistent with each other? Are they appropriate? If not, what should be changed, added or removed? Why?

Objective (b) is to 'make adequate provision of the spectrum for use by public or community services'. The term adequate may often be regarded as a minimum. NSW believes that the objective should promote the provision of 'sufficient and suitable' spectrum.

In addition, as has already been pointed out, it is possible for objective (f) to be inconsistent with other objectives. One assumes that any Federal Government would support the overall spirit of the objectives and, if it does, there is no issue. It is does not, then there is potential conflict.

The conflict is lessened if the regulating body, the Australian Communications Authority (ACA) is truly independent of Government and free of Ministerial control.

Should the tradeoffs between competing economic and social uses of spectrum be more clearly articulated in the principles governing spectrum management?

Yes, though perhaps not in the objectives.

The objectives are clearly stated from the point of view of the "reasonable individual". What is in doubt, at times, is their interpretation and the weighting and priority attached to each.

In the case of the former, the terms "efficient " and effective" are open to interpretation. Datacasting provides a good example. While efficiency and effectiveness can be ascertained from the point of view of maximising the price gained for the spectrum and delivering competition (themselves potentially in conflict), NSW would see them in terms of the capacity of the Government to deliver information to the community.

NSW would recommend the joint development of a national strategic plan, under the auspices of the Radiocommunications Act as a means of addressing this issue. NSW concedes that much of the work has already been done by the ACA in a number of documents and band plans but would argue that there is further scope for the development of an overarching document that places the issue in perspective.

2.2 Spectrum Planning

What are the advantages and disadvantages of the current approach to spectrum planning?

NSW concedes that there is a need to establish broad allocations for particular types of services – telephone, radio, television, etc. But it would argue that the allocations should be consistent globally. For this reason, the Government supports the Commonwealth's efforts to harmonise spectrum and reduce, or perhaps eliminate, the differences between the three world zonings.

For example, in Australia and the US, there is considerable use by public safety agencies of the 403-420MHz band for mobile radio applications. In Europe, similar groups use the 410-430MHz band for the same purpose. Not surprisingly different technologies have been developed for the different bands. Harmonised spectrum would mean that applications developed for the US or for Australia or for Europe could be used in all three areas, maximising the market and the competition and lowering costs.

Within Australia, the bands are universal across the nation but the applications are not. Different public safety agencies in different states occupy different bands, often for similar purposes.

A more strategic national planning approach in both the public and private sectors is needed to maximise the coordinated use of the spectrum. That process is under way.

Until such an approach is finally achieved, the current approach to spectrum planning seems to be a reasonable approach to a very complex problem. It appears to make a reasonable attempt at accommodating a broad range of disparate radio and wireless services and applications in an equitable manner.

Are there alternative approaches involving less government intervention that would achieve efficient and effective use of the spectrum within Australia? What are their advantages and disadvantages?

By any analysis, despite its commercial value, spectrum remains a strategic resource for a range of reasons, including public safety and national security. It is difficult to see an environment where the Government divorces itself totally from the spectrum allocation process.

Within an agreed strategic framework, it is, however, possible to foresee some withdrawal by Government from the assignment and licensing process.

What lessons can be learnt from planning approaches in other countries?

NSW does not have sufficient detailed knowledge of the practises in other countries to appropriately answer this question.

Is there sufficient consultation within Australia prior to ITU meetings?

The ACA consults widely on radiocommunications matters, although NSW considers there would be benefit in direct approaches to nominated state contacts being made as well as through notifications in the press.

Does the current process of consultation with the ITU promote Australia's interests effectively? How could it be improved?

The current process is adequate, although there is perhaps some scope for a more formal level of consultation with the States and Territories before hand, as indicated above.

Does the current approach work smoothly from an administrative perspective?

Within the constraints of time, yes.

Could the private sector play a greater role in managing the spectrum allocation process? If so, what are the strengths or weaknesses of this approach?

This issue has been addressed above.

Licensing

Is there an alternative to licensing for allocating the spectrum?

The alternatives are:

- direct ownership of the resource in a similar fashion to property;
- long term (eg 99 year) leasing arrangements
- shorter term licenses
- no fee usage rights

For reasons set out above, as well as the pace of technological change, NSW would not recommend either direct ownership of spectrum or its long term leasing. However, the need for some certainty, both commercial and public, justifies a 15 year renewable term and speaks against a shorter term.

Nor does NSW oppose the payment of fees. Its argument is based on the fee matching the relative capacity to pay rather than the absolute commercial value of the resource.

What is the potential for allowing entities other than the ACA to issue licences?

This has been partly addressed above. The potential would seem to be high, as, once the technical parameters have been sorted and categorised and the technical assignment made, the process of licensing would seem to be fairly straightforward. Renewals could certainly be issued via commercial means, such as post offices and other appropriate transactional institutions, but such processes would be, necessarily, subject to Government oversight.

However, a note of caution is relevant.

Law enforcement agencies conduct covert operations utilising radio spectrum for command and control and the gathering of criminal evidence and intelligence. Some risk would be associated with Private Assignors having access to the *covert frequency register* or knowledge of the legitimate holder of licences retained in a *covert identity*.

The NSW Police Service has experienced some difficulties with Private Assigners issuing licences to persons on frequencies that are used for police communications, such as Ch 65 (469.825 MHz) and a number of VHF channels within distances that cause interference to emergency communications.

What would be the advantages and disadvantages of delegating this function to other government agencies or to private sector entities?

The main advantage would seem to be to speed up the process of licensing to better correlate with business demands and requirements, particularly in the private sector context. Additionally, State Governments, who are traditionally major users of radiocommunications services and best understand their service obligations, should have the opportunity to manage their radiocommunications affairs directly. This would have the advantage of a more coordinated approach within each jurisdiction.

However, a different regulatory framework could introduce a degree of instability and increase the degree of conflict amongst competing interests and the opportunity for increased litigation.

Are the objectives of the RCA being achieved through the licensing system?

This is a broad question of degrees. NSW's interests are narrower than the objectives and relate to:

- the adequate delivery of Government services (a core responsibility)
- equality of access across the broader community in NSW (a policy objective)
- competition in the market (an economic objective).

NSW cannot comment on the extent to which the broader objectives of the Act are being met nationally but considers that currently, its own particular objectives are currently mostly being met. However, NSW remains concerned that an uncontrolled commercial market could lead to situations where public and community service requirements are not being adequately provisioned and where monopoly situations arise. Equality of access is a principle shared at both state and national levels, although a greater degree of coordination of programs is possible.

Is the licensing system effective in managing frequency interference?

The regulatory framework and licensing and frequency assigning guidelines generally appear to be effective in managing frequency interference.

Do the current planning and licensing arrangements cause artificial scarcity of spectrum? If so, in what way?

At any point in time, spectrum is a finite resource that is limited by technology and demand pressures. Because of the technical constraints, it cannot be renewed or duplicated in any given area in order to service demand. The licensing and frequency assigning guidelines set the parameters to deal with the technical constraints for spectrum use and would seem to be well defined and implemented. The scarcity of spectrum is directly related to the technical constraints and interference management and would not seem to be artificially generated.

Licence Types

What are the advantages and disadvantages of the three types of licence?

NSW does not offer a view on this.

What are the characteristics or situations to which each type of licence is most suited?

Class licensing is very flexible and can service a wide range of radiocommunications devices that have low interference potential.

Spectrum licensing is very flexible for devices having a high interference potential and seems to be particularly suited to mobile services, including wireless telephony.

Apparatus licences appear to work best for fixed point to point and point to multipoint services that have to operate over extended distances, such as radio and microwave link services.

NSW Government law enforcement agencies operate radio devices designed to avoid detection for the investigation of crime and the resolution of life threatening situations. The employment of these devices may be required anywhere in the jurisdiction of NSW. Class, spectrum and apparatus licences do not individually provide statewide coverage and at the same time an acceptable level

of protection from interference. Class licences provide the coverage but not the level of interference protection needed. Spectrum licences provide flexibility for high interference potential devices but are limited to small geographic locations. Apparatus licensees can be issued for 'state wide ambulatory' operation but only on a 'no interference, no protection' basis. A licence that permits statewide ambulatory operation with no potential of interference is required.

Can the different characteristics of the three types of licence cause competitive advantages or disadvantages for licence holders?

Class licences have the advantage of speedy deployment.

Spectrum licences provide a high degree of flexibility in how mobile services are deployed and provide deployment options to resolve problems in coverage etc.

Apparatus licences provide a high degree of frequency coordination at radio sites and across diverse and divergent paths, minimising interference risk and providing high service quality.

NSW does not see a need for change.

What effect do the three types of licences have on the choice of technology by spectrum users? Do they influence the choice between wired and wireless technologies?

See above.

Has the introduction of spectrum licences made spectrum use more flexible and efficient? How?

Spectrum licences appear to be more efficient and flexible for mobile service operators such as mobile telephony carriers but do not appear to suite fixed, point to point services.

Does the current licensing system provide adequate access to spectrum by individuals for private use (for example, amateur radio operators)?

Private spectrum users have varying objectives and roles. In times of natural disaster or other civil emergencies groups such as the amateur radio service may be requested to supplement the capabilities and resources of public safety services. In this context it is likely that the concerns raised regarding the ability of public safety services to compete with commercial organisations for spectrum access are equally applicable to the amateur and other similar private services.

Are there any areas currently subject to other forms of licensing that should be converted to class licences?

NSW is not aware of any such licensing forms.

Standard setting

What are the advantages and disadvantages of mandatory standards and labelling?

Standards provide good benchmarks and a solid framework for frequency management and should be regularly reviewed to ensure relevance. Given past experience with lack of standards in electronic devices, it would seem that there is little choice.

How effective is the current process for establishing standards, including public consultation?

NSW does not offer a view on this question.

What is the effect of mandatory standards and labelling on competition, incentives for innovation and investment, and consumer welfare?

Mandatory standards, especially if they are too prescriptive can act as disincentives for innovation, but are often necessary to protect a finite spectrum resource and also to protect consumers against radio interference from substandard equipment.

2.3 Charging for Use of Spectrum

Class Licences

Does the absence of fees affect how much spectrum is allocated for class licences?

It doesn't seem to be so.

Does the absence of fees give users of class licences competitive advantages over users of other types of licences?

There appears to be a competitive advantage to be able to quickly deploy services into uncoordinated spectrum under a class licensing arrangement, eg; spread spectrum devices and point to point low power links. However, as the number of these devices increases in any given area the potential for interference between class licensed systems increases. In effect the issue is self regulating but with a possible impact on consumers who eventually suffer service interruptions.

At the moment it is "buyer beware" deployment, but if the level of dissatisfaction amongst users increases in future years, pressure will be brought to bear on the Federal Government to regulate this spectrum or make more available.

Apparatus licences

To what extent have economic incentives from spectrum charges helped to encourage efficient spectrum use?

NSW does not offer a view on this question.

What effect have licence fees had on incentives for investment and innovation?

NSW does not offer a view on this question.

Have these charges prevented the taking up of apparatus licences?

NSW does not offer a view on this question.

What are the advantages and disadvantages of the three components of apparatus licence fees?

The three components are Spectrum Access Tax, Spectrum Maintenance Component and an Administrative Component. (There is also a "k" factor, or multiplier to adjust the total licence fees being levied in order to achieve certain Government outcomes).

NSW does not offer a view on this question.

Is it appropriate to charge the three components for apparatus licence's sold at auction?

NSW does not offer a view on this question.

Should the SAT be set to maximise revenue or to encourage efficient use of the spectrum? Why?

The SAT is a resource rent tax and should be balanced to encourage efficient use of spectrum, which would benefit all spectrum users and not be seen as a revenue raising or taxing regimen that acts as a disincentive to industry development.

How should the level of the SAT be determined?

SAT should be tied to movements in the CPI and reviewed annually.

How should changes to the SAT be determined?

See above. In addition, the Minister should have discretion to determine if a fee adjustment should apply.

Is there sufficient transparency in the processes used to set the initial SAT and changes to it?

It appears to be so.

Should holders of apparatus licences be able to appeal against increases in the SAT? Why?

There should be an opportunity to appeal directly to the Minister, who may then establish an independent review mechanism.

Should the SAT comprise an upfront payment, an annual charge, or some combination of the two? Why?

NSW does not offer a view on this question.

Would it be more appropriate to call the SAT a charge for use of the spectrum resource?

It is a Resource Rent Tax.

What is the rationale for setting the SMC as a proportion of the SAT? What other methods could be used to set the SMC?

The SMC should be determined by the actual cost of delivering spectrum management, including spectrum coordination, interference management and other obligations, domestically and internationally.

Is there sufficient transparency in the processes used to set the initial SMC and changes to it?

It would appear to be so.

Have the charges for apparatus licence fees influenced the attractiveness of apparatus licences relative to class and spectrum licences?

Apparatus licences remain attractive as they offer certainty of access at a reasonable, predetermined price. Spectrum licences have primarily been issued through a public auction process that carries a high risk that acts potentially as a disincentive to small businesses.

Spectrum Licences

What are the objectives of allocating spectrum through auctions? Are there conflicts between some objectives?

The Federal Government's policy appears to be to maximise the commercial return to the Federal Government from spectrum auctions. Unfortunately it would appear to act against non-commercial users of spectrum. It also inhibits innovation in the industry (see below).

Given these objectives, when should auctions (rather than tenders or predetermined prices) be used to sell spectrum or apparatus licences? How much of the spectrum should be allocated using auctions? Why?

This question raises a whole raft of issues that should be addressed through a peak industry forum such as the Radio Consultative Committee to reflect the views of all users and attempt to strike a balance between the competing interests.

To what extent are auctions effective in promoting efficient use of spectrum?

The auctions have demonstrated that they are efficient revenue generators for Government but have been less successful in delivering any innovation. For example, 500 MHz spectrum, originally purchased by Simoco remains unused, 3.4 GHz spectrum purchased by AAPT for LMDS services remains unused and the 1.8 GHz spectrum purchased by mobile service providers for DCS 1800 services remains unused. This has created a barrier to others as the spectrum lies fallow but cannot be accessed for the 15 year term of the licence.

Do auction processes ensure that spectrum is allocated to the uses that are of highest value to society?

No. They ensure that spectrum is allocated to the areas of highest demand, perceived or actual (ie potential profit) but because something is popular and in demand does not means that it has a relatively high value to the community. Up until now the focus of spectrum auctions has been to service the mobile telephony service providers. This has raised significant revenues for the Commonwealth, but has caused a scarcity of spectrum for non-commercial use.

The community has not been asked to value services such as Police, Fire and Ambulance services and their non-commercial needs for spectrum against the demands of the mobile telephony service providers.

NSW does not oppose the auction process, although it does oppose the view that auctions are an appropriate means of allocating all spectrum for all purposes.

However, again a note of caution is required.

The public auctions process makes it extremely difficult for covert law enforcement entities, if forced to participate in the auction process, to avoid compromise to its identity and the spectrum it has to obtain.

Security and public safety requirements cannot be compromised in the drive to commercialise the spectrum.

Should entry to the auction process be restricted in order to influence the shape of the industry that uses spectrum?

Having identified areas where auctions are appropriate, auctions should as far as possible be open so as not to manipulate or create artificial demand.

What should be the ACCC's role in the allocation of spectrum?

The ACCC should be given powers to deal with anti-competitive practices by spectrum purchasers, such as the hoarding of spectrum.

How has the auction process affected investment and innovation?

It would seem that the auctioning of spectrum and the consequent high prices paid has had the effect of restricting innovation by soaking up capital. This has consequently restricted investment in technology.

Is the electronic simultaneous ascending bid multiple round auction process the most effective process available to auction spectrum? What are its advantages and disadvantages compared with other methods? Under what circumstances should one approach be used over another?

It would seem to be in a fair and open process within the limits of the discussion above.

What are the advantages and disadvantages of setting a reserve price?

As with any other auction, it would seem to ensure at least a minimum commercial return on the resource but, if both sides are prepared to bargain, is unlikely to determine the eventual cost of spectrum purchase.

Can the auction process influence the choice of technology adopted by spectrum bidders?

Spectrum auctions appear to be well suited towards mobile services and are an entry barrier for operators of fixed services.

Should the charge for spectrum licences consist of an upfront payment, annual payments or a combination of both?

NSW does not offer a view on this question.

In what ways does the requirement that the Minister direct the imposition of any limits affect the allocation of spectrum licences?

The Minister can artificially create or deny access for businesses being established. This may or may not be a positive thing depending on the circumstances.

Is the auction process sufficiently transparent?

It would appear to be so.

Licence Tenure

What factors influence the appropriate duration of licences?

Technology life cycles and opportunities to adopt new technologies, or upgrade existing technologies at the end of life cycles are the main factors that should determine the duration of a licence.

Should apparatus and spectrum licences have the same duration?

Yes. This would introduce a high degree of certainty.

What would be the likely consequences of extending apparatus licences?

There would be certainty in continuation of business and achieving ROI. However, extended licence terms can still act as a barrier to deployment of new innovative technologies.

Is there a need to review licences at some predetermined time before they expire? Under what circumstances? When should they be reviewed?

There should be "use it or lose it" provisions included in the licence conditions to ensure take up and deployment within a reasonable time eg. 3 years. This would deter spectrum hoarding and other anti-competitive practices, such as artificially inflating prices. There appears to be merit in undertaking a review of a spectrum licence as outlined above and also towards the end of the licence term, say 12 months beforehand to determine whether to extend the licence or look at other options.

Should there be more scope for extending licences? If so, for how long?

Spectrum licences have similarities to property leases and therefore flexible renewal terms after the initial term could apply, eg 15 year initial term followed by two terms of up to 3 years each. Of course, if the usage is ongoing unlimited renewable every 15 years will continue.

What would be the advantages and disadvantages of allocating licences on an indefinite basis? Would a 'use it or lose it' condition be desirable?

Indefinite licenses provide certainty for commercial and Government operators but could result in a degree of laziness in the use of the spectrum. In such a dynamically developing technology area, the current terms seem appropriate with some modifications.

There should be "use it or lose it" provisions included in the licence conditions to ensure take up and deployment with in a reasonable time eg. 3 years. This would deter spectrum hoarding and

other anti-competitive practices, such as artificially inflating prices. There appears to be merit in undertaking a review of a spectrum licence as outlined above.

Why should spectrum licences be reissued to the same licensee only if special circumstances exist or if the licence is used to provide a service, which the Minister declares to be in the public interest?

NSW is not opposed to the reissue of licenses to the same licensee, if there is a valid reason for doing so. "Special circumstances" and "public interest" are open terms that could be used to cover almost anything. The use of those terms is simply to provide the opportunity for re-issue but, without definition, they are no more than a guideline.

Where spectrum has been reserved for defence purposes, for police and emergency service purposes including public safety activities and security purposes including covert operations, intelligence activities and anti-terrorism, for community services in health, education or transport and the like, or for commercial licenses where the commercial concern is an ongoing entity, and similar situations licenses, there is no reason why licenses should not be re-issued. In fact there are strong reasons why they should be re-issued.

The need is to ensure that the spectrum is used for the purposes for which it is assigned.

Renewable 15 year licenses, with a "use it or lose it" review period that takes into account the need to retain existing spectrum while trialing new spectrum opportunities, achieves this. Re-issue is only a concern if the re-issue is without analysis. But the analysis must be reasonable and take account of the circumstances.

If the concept of a national strategic plan is taken up, there is no reason why long term access should not be given to specific users until agreed changes in the strategic plan or changes forced by technology re-locate those users in other areas of spectrum. This will enable better planning at both State and Federal levels and a greater capacity to ensure that the spectrum allocated is not compromised by other users.

What is the meaning, in this context, of 'special circumstances' and the 'public interest'?

As indicated above Defence, police operations, including the gathering of evidence and intelligence, security and anti-terrorism activities, emergency services, essential community services and on-going commercial activities are some of the areas that would fall into the definition

Licence Re-allocation and Conversion

What are the strengths and weaknesses of the reallocation and conversion processes?

The re-allocation is re-farming of spectrum for a new use, which displaces a traditional use, for example; the sale of 1.8GHz spectrum for mobile telephony services, displacing incumbent fixed services. A conversion process appears to be an administrative process to convert apparatus licences into spectrum licences but the services and continued use in the affected spectrum remain substantially the same.

Under what circumstances should licences be reallocated? Under what circumstances should they be converted?

See response to previous question, above.

Is there sufficient flexibility in reallocating licences?

No, to date the reallocation process has been prescriptive in types of technology that could effectively deploy into that spectrum.

In the case of spectrum reallocation, who should pay for the cost of moving to a new frequency?

New users should bear the cost of displacing incumbent users. Incumbent users should not subsidise the cost of entry of new users for the spectrum by bearing the costs of displacement and relocation.

The Federal Government should not be seen to favour any particular business or service over another, nor favour any technology over another, whether or not that technology has been supplanted by newer technology. Community benefit should be determined in the fullest context, where opportunities are properly balanced against the value to the community of traditional services that would be displaced, and the cost of re-establishing them elsewhere.

Should licensees be compensated if their licences are cancelled or if they choose not to convert them? If so, how should compensation be determined?

See the response above. The US experience in compensating incumbent users, although having a number of inequities could be used as a template for developing a compensatory regimen in Australia.

Is there adequate provision for review of spectrum reallocation declarations?

The ACA currently invites comment prior to advising the Minister to make a spectrum declaration. Unfortunately, the ACA, it would seem, has substantially ignored the views of incumbents in its drive to make spectrum available for mobile services. Therefore, a degree of independent arbitration to deal with competing interests should be established, which should include the protection of incumbents businesses and their rights to continue those businesses.

Secondary Trading in Licences

Which areas of spectrum are most amenable to secondary trading? Which areas offer the greatest potential efficiency gain from secondary trading?

NSW does not offer a view on this question.

Which features of the regulatory framework support secondary trading? How do they do this?

NSW does not offer a view on this question.

Are there factors constraining the development of secondary markets?

NSW does not offer a view on this question.

If the duration of apparatus licences is increased, is a secondary market for these licences likely to develop?

NSW does not offer a view on this question.

Do constraints on secondary trading have economic costs? For example, do constraints prevent spectrum from being reallocated to higher valued uses? Similarly, do constraints mean spectrum trading occurs through more costly mechanisms (such as acquisition of companies that hold spectrum)?

NSW does not offer a view on this question.

How can any constraints in the secondary market be reduced or removed?

NSW does not offer a view on this question.

Should secondary trading perform a larger role than is currently the case?

NSW does not offer a view on this question.

Non Commercial Use of Spectrum

How should 'adequate' provision of spectrum for public or community services be determined?

The provision of spectrum should be by consultation with all interested parties, but at least with State Governments, who are major users of radiocommunications spectrum for their delivery of essential and emergency services into the community. The development of some national strategic plan would seem to be an essential requirement.

Is adequate attention given to the opportunity cost of spectrum that is allocated to the Department of Defence and emergency services?

No, but NSW would agree that neither Defence or emergency services are entitled to a *carte blanche* allocation of frequencies.

How should the charges paid by the Department of Defence for spectrum be calculated?

NSW does not offer a view on this question.

Do current licence fees provide adequate incentive for the Department of Defence to make efficient use of spectrum, including surrender or sale of spectrum which it no longer requires?

The cost of licences is probably not their main driver. National Defence and National Security issues, and the use of communications technology for these purposes are their main focus, and radiocommunications users should not act contrary to the best interests of national defence and security.

However, NSW strongly supports efforts to harmonise emergency services spectrum on a global basis. Europe, Russia and a significant number of Asian countries have set aside two blocks of 5MHz in the 380 to 400 MHz band for emergency services. Millions of dollars could be saved by having spectrum that corresponds to international allocations by being able to purchase equipment that utilises the economies of scale of these markets. An additional benefit would be the possibility of mutual aid in the event of international catastrophe.

NSW accepts that Defence purposes are a high priority but these purposes need to work in conjunction with police and emergency service operations. Governments need to look in as well as

out. In Darwin in 1942, it was necessary to defend the airspace **and** put the fires out on the ground, at the same time.

Should spectrum zoning for defence purposes be subject to review and challenge by other spectrum users?

Defence spectrum allocations are an appropriate matter for discussion. NSW believes that there is scope for better use of Defence spectrum, particularly for public safety initiatives. However, it is conceded that there are probably good reasons for not having Defence matters compromised by having them open to public debate. That is not to say however, that they should not be subject to an administrative review by the Government. Nor is it inappropriate that any review should seek the views of Radiocommunications users and Industry, provided that there is appropriate regard given to the sensitivity of the information.

Should the Department of Defence holdings of spectrum be converted to spectrum licences?

NSW does not have a position on this.

Are there processes and charging regimes that would be conducive to greater efficiencies in defence and national security use of spectrum? For example, what effect have spectrum charges had on spectrum use for defence and community purposes? Should non-commercial users be rewarded or compensated for surrendering spectrum?

Unless fees are set at excessively high levels, it is doubtful that licence fees have a major impact on the allocation of spectrum for either Defence or public safety needs. Where the requirement is established, the money will be found, albeit perhaps at the expense of other important Government programs. NSW does not believe that license fees are an appropriate mechanism for rationalising spectrum for such purposes.

If spectrum needs to be surrendered to improve access by Defence or for public safety agencies then legitimate existing users should be compensated.

Which community and emergency services should be exempt from charges for use of spectrum? What criteria should be used to select exempt service?

All not for profit community and emergency services should be exempt from fees although it is perhaps appropriate that fees be charged to recover the administrative costs of the regulator.

Are there any particular issues relevant for the provision of services to remote communities?

NSW strongly supports the provision and extension of radiocommunication services to remote communities.

The auctioning of spectrum in the 1.8 and 2GHz bands for mobile telephony use has resulted in a substantial loss of highly suitable long-haul microwave link spectrum in these bands.

As it is unlikely that 3G services will ever be deployed in rural areas and it would seem appropriate that some of the spectrum withdrawn for these services could now be reissued for fixed microwave links in these areas.

Broadcasting

Can the spectrum that is currently designated for broadcasting licences be used for other purposes?

NSW believes so.

What are the advantages and disadvantages of excluding the allocation of broadcasting spectrum from the broader spectrum planning and management processes undertaken by the ACA?

There appear to be none. It is a delegated power from the ACA to the ABA that could be resumed at any time.

Are there differences in the way the ACA and the ABA plan and allocate spectrum? Why?

NSW does not offer a view on this question.

What are the advantages and disadvantages of the approach recommended by the Commission in its Broadcasting Report? That is, to transfer all spectrum planning and licensing responsibilities to the ACA?

NSW agrees with the Commission. The ABA should be tasked with the regulation of broadcasting content only, but the carriage of that content over the broadcasting spectrum should be an ACA responsibility.

What effect would transferring responsibility for broadcasting spectrum have on the availability of spectrum in the broadcasting services bands? Would any spectrum be freed up? For what purposes could it be used?

There would probably be nil effect in the short term.

Satellites

What allocation and charging arrangements should apply to spectrum for satellite operations?

NSW does not offer a view on this question.

Do current charging arrangements (for example, only charging satellites declared to be 'Australian') affect competition between spectrum users?

Only as this relates to the cost of services affected by spectrum use and technology choice.

Does international coordination through the ITU adequately protect Australia's interests in managing the Australian radiofrequency spectrum and in the allocation of orbital slots?

It would appear to be so.

Impact of Legislation on Competition

Overall, does the RCA encourage or discourage competition?

The Radiocommunications Act appears to promulgate a balanced outcome amongst all users of radiocommunications spectrum. But the policies of the Department of Communications,

Information Technology and the Arts, and the implementation of those policies by the ACA do not necessarily reflect the Act's objectives in a balanced manner.

Which particular sections of the RCA retard or encourage competition?

NSW does not offer a view on this question.

Does the RCA affect competition between wired and wireless communication technologies?

The application of Spectrum licensing and Class licensing particularly appear to affect competition between wired and wireless technologies.

Does the RCA's licensing system promote or discourage innovation?

The licensing system, in particular the Spectrum licensing regimen, appears to discourage innovation, for reasons previously stated.

Is the RCA effective in controlling market dominance and increasing competition?

There appears to be scope for further investigation and assessment, for reasons stated previously.

What benefits and costs are associated with any restrictions that the RCA imposes on competition?

NSW does not offer a view on this question.

In assessing competition issues, what effects on the environment, welfare and equity, occupational health and safety, economic and regional development, the competitiveness of business including small business, and efficient regulation, need to be taken into account? Why?

All these issues are relevant and need to be considered and appropriately balanced.

Are there alternative ways to allocate, reallocate and convert spectrum which would be more conducive to competition than the current approach? What are they?

Spectrum licences could be priced in a similar manner to apparatus licences, at a level to allow easy entry and access.

The Effectiveness of the ACA

What is the most appropriate criteria for assessing the ACA's effectiveness in implementing the reforms introduced by the RCA?

Its capacity to act independently. DCITA is the Federal Government's policy making body and the ACA is only the implementation arm. Therefore the effectiveness of the ACA in influencing policy and reflecting community concerns in any reform process is significantly limited.

Do the key performance indicators in the ACA's Corporate Plan provide an appropriate basis for assessing its performance? If yes, how well has the ACA performed against its own key performance indicators? If not, what would be a more useful set of indicators and how well has the ACA performed against these indicators?

The essence of NSW's concerns is clearly identified here. Objective (b) of the RCA, 1992 is to "make adequate provision of the spectrum for use by public or community services".

The ACA's Corporate Plan 2001-2004 (downloaded from the Web October, 2001) highlights terms such as the market, market based reforms, industry self regulation, consumers, increased private sector management, priced bases allocations of spectrum, but it gives little attention to "public and community services"

"Public and community services" is not referenced at all in Planned Outcome 1.0: An efficient industry and a competitive market. There is one reference to "Public interest" in the introduction and one reference to "the public" in Output 1.1 (which deals with "Managed regulation of radiocommunications").

"Law enforcement and emergency services" are referenced as a heading twice in Output 1.2 (which deals with "Managed regulation of telecommunications"), both times the detail pertains to "law enforcement and security".

NSW is of the view that there is little meaningful attention to objective (b) in the Corporate Plan.

Therefore, the support that is generally forthcoming from the ACA on issues of core interest to NSW appears to have little to do with the Corporate Plan.

Is there an organisation in another country which could provide a meaningful benchmark for comparison purposes? If so, how does the ACA compare to it?

There may be some merit in amalgamating the policy responsibilities of DCITA and the implementation responsibilities of the ACA and form a body similar to the FCC. Hopefully, better policies and strategies that reflect community views and values, and not just economic outcomes would emerge.

In making comparisons, how should differences in weightings attached to different objectives be handled?

NSW does not offer a view on this question.

How has the capacity of the Minister to issue directions to the ACA influenced its effectiveness?

The Minister, though DCITA, has significant influence and control over the ACA's activities.

Looking to the Future

How is technological change likely to affect the future management of the radiofrequency spectrum?

There will be continuing pressure on availability of spectrum to meet emerging technology needs.

How is technological change likely to affect competition issues?

Cost of technology and implementation and cost of access (spectrum) will cause businesses to attempt to limit competition.

Is the role of the Government in spectrum management likely to change in the foreseeable future?

A broadening of spectrum licence concepts without the attendant high risk, high cost spectrum auctions would be a benefit to increased flexibility, equity and access.

How accommodating of future change is the approach of the RCA?

The RCA appears to be pro-active in its approach to future developments but it cannot possibly foresee all future technological developments or spectrum demands.

What changes may be necessary to provide an appropriate regulatory framework for managing the radiofrequency spectrum in the future?

NSW believes that the more important issues from its perspective is how to ensure that adequate attention is paid to objective (b) under the current regulatory environment.

Technological convergence

What pressures does technological convergence exert on the RCA?

The ACA should continue to change and adopt its regulatory processes to mirror and accommodate developments in the industry.

To what extent are differences in regulatory structures inhibiting the efficient use of spectrum?

Technology convergence must ultimately lead to legislative and regulatory convergence.

Should there be a single regulatory framework for managing all communication technologies?

Yes.