REVIEW OF THE RADIOCOMMUNICATIONS ACTS AND THE ROLE OF THE AUSTRALIAN COMMUNICATIONS AUTHORITY

AEEMA SUBMISSION

October 2001

SUMMARY of POINTS RAISED

WHAT PROBLEMS DOES THE LEGISLATION SEEK TO ADDRESS

Objective of the Act

- The objectives set out currently in the Radio-communications Act are broadly acceptable
- There is a question of whether they are to be understood as a hierarchy of objectives and if so what are the priorities

THE APPROACH TO ALLOCATING SPECTRUM UNDER THE RADIOCOMMUNICATIONS ACT

- The degree to which the private sector can manage spectrum is limited because the private sector cannot manage the trade-off between national, commercial and individual benefits. It may be possible in some defined bands, but there is no evidence that spectrum management can, in general, be more effectively undertaken as a commercial activity outside of the areas where the ACA already provides for commercial management. Spectrum licences provide an opportunity for this to be demonstrated.

Licensing

- The present Act supports several distinct forms of licensing, ie Apparatus Licensing, Spectrum Licensing, and Class Licensing. The legislative support for the different licensing regimes appears to create unnecessary complexity and duplication in the present Act

Licence types

- A licensing system should be established to provide the ACA with the flexibility to create licences from include a continuum that ranges from the closely controlled to the largely de-regulated;

Standards Setting

- The ACA has in some areas adopted the course of utilising international standards and in some circumstances has set aside the need for domestic standards. This has been a positive development in standards setting and should be encouraged to the greatest extent possible.
- ACA is often reliant on industry expertise to assist with standards development. This is at risk with the loss of available expertise in Australia.

CHARGING FOR THE USE OF SPECTRUM

- a concise statement of spectrum revenue policy be developed and this policy be encapsulated in the legislation. The policy statement should acknowledge that revenue raising is not a prime function of spectrum allocation. The principles for determining all aspects of fees should be public and licensees should not be subject to sudden and unexpected changes in fees.

Class Licences

- Class licensing, has the great virtue of allowing specified types of services/equipment to operate in an orderly manner with minimal regulation and without the need to record the existence, characteristics or whereabouts of specific devices. The term itself is confusing because no license is issued to individuals; rather the licence is a standing set of rules that must be followed for specified types of services/equipment. Consideration should be given to a head of power to create rules, similar to that which the ACA has under the Telecommunications Act 1997.

Apparatus Licences

- Apparatus licences provide for predictable planning in the allocation of spectrum. Because parts of the spectrum are planned to support particular types of devices apparatus licences provide a good mechanism for minimising the potential for interference and efficient management of the spectrum.

Spectrum Licences

- Spectrum licences are an efficient way of allocating large blocks of spectrum over geographic areas and provide for commercial management of the spectrum.

The Auction Process

- AEEMA supports the use of spectrum auctions particularly in the case of scarce spectrum or circumstances where there is competitive demand.
- On the whole the auction process and the manner in which the ACA has conducted spectrum auctions has mitigated some of the worst excesses associated with market allocation of spectrum overseas.

Reserve Prices

- Reserve pricing should be abandoned or otherwise set according to some defined and public process

Bidding Limits and Constraints

- The current process of bidding limits and constraints on the amount of spectrum defined entities can acquire appears to be based on a predetermined model of what

the market for the services to be delivered should look like or driven by a desire to assist market entrants. We find no evidence of analysis to support these views and believe that any limits should only be those that can from the application of the Trade Practices Act's significant lessening of competition test as applied to mergers and acquisitions.

LICENCE TENURE AND BAND CLEARANCE

Licence Tenure

- rights of tenure be clearly established under the Act both for long term licences and for short term tenures
- the ACA lacks tools that both promote efficient spectrum management and just compensation to incumbent licensees who are adversely affected by changes to spectrum usage or the demand for spectrum

SECONDARY TRADING OF LICENCES

- Experience suggests that secondary markets have not developed to the extent that they were expected. This may be partly attributable to taxation issues.
- Secondary trading is nonetheless a useful mechanism for consolidating holdings and barriers to its use should be removed.

BROADCASTING

- All technical regulation functions for communications and broadcasting should be unified in one body. This includes the management and allocation of spectrum.

SATELLITES

- The current arrangements for allocation of satellite services are considered adequate and are in any case largely subject to international convention

THE EFFECTIVENESS OF THE ACA

- The ACA has generally been effective in its role and is considered to have a valuable ongoing role in spectrum administration. To some extent it has suffered through loss of skill sets.
- The ACA has a number of consultative forums, in particular the Radiocommunications Consultative Council that comprises representatives of industry associations. While the ACA makes effective use of these forums they are not a substitute for wider consultation or information sharing and all papers and minutes should be made publicly available as soon as they are available to the forum members.

LOOKING TO THE FUTURE

Technology Convergence

- Convergence is largely addressed by the ACA covering all technical use of spectrum, except in the “broadcasting services bands”. This is not justifiable with the convergence of services and technologies.

INTRODUCTION

Spectrum Management is not a simple matter. It cannot be adequately treated within the scope of a single discipline, whether that is law, commerce, economics or engineering. All of these have a contribution to make and informed policy making will accept that at various points in determining a future course for spectrum management they will be accorded different relative weights.

Since the Radio Communications Act of 1992 came into force much has been learnt by all industry participants about the complexities of spectrum use within the context of a policy framework that seeks to limit public intervention and promote competition as the primary mechanism for spectrum allocation.

While many lessons have been learnt we do not believe that these point to fundamental failures in the existing Act.

WHAT PROBLEMS DOES THE LEGISLATION SEEK TO ADDRESS

Objective of the Act

We regard the 8-point statement of the objectives of the Act as being of particular importance for it is within the development of these objectives that the spectrum management policy is enunciated at its most fundamental level.

While the objectives as presently expressed may be individually acknowledged as being appropriate there nevertheless remains the problem of translating these objectives to specific spectrum management policies and procedures.

Possibly establishing a hierarchy of objectives may assist the process. For it has never been clear whether there was any intention or not for the objectives to be read as a hierarchy. As a starting point we suggest that the overarching objective of the Radiocommunications Act should be stated simply as "the maximisation of the overall benefit that Australians derive from the use of the radio spectrum." The Act might then go on to identify more specific needs to be taken into account in this determination of "overall benefit"; such aspects as public benefit, commercial opportunity, national defence, economic return, etc.

Universal Service Obligations

USO should be delivered by most effective technology mechanism. Source of funding for Government social objectives should come from outside the spectrum allocation charges.

THE APPROACH TO ALLOCATING SPECTRUM UNDER THE RADIOCOMMUNICATIONS ACT

There always has been and there will remain an ongoing need for the review and re-allocation of spectrum to meet the requirements of new and emerging technologies. Traditionally this planning has been undertaken as an administrative process that

involves decisions based on a level of technical judgement. In many cases the decision making has been a relatively easy task where a clear demand exists for what is clearly recognised as a widely accepted "international standard system", or where there is no contention for access to the spectrum in question.

More recently spectrum auctions have been employed in an attempt to allocate spectrum for which there is competitive demand. AEEMA unequivocally supports the auction process itself as an ideal mechanism for the assignment of licenses, particularly under conditions of scarcity or competitive demand. However, the impact of spectrum licensing needs to be viewed in the context of an effective spectrum planning and administration process.

Timely and informed administration remains in our view an important continuing aspect of spectrum allocation. Spectrum auctioning itself may allocate spectrum to those who are most willing to pay, but it is effective administration that will ensure the allocation is made in such a manner (lot size, availability of contiguous blocks) as to be commercially viable and useful.

The administrative role in spectrum allocation is not a matter of Government agencies picking winners in technology. It rather goes to the core of providing the essential supports to ensure that price based allocation is both efficient and effective. It includes many functions that the private sector is simply not well equipped to conduct:

- Determination of an appropriate balance of national, commercial and individual interests
- Meeting international treaty obligations
- Conducting appropriate consultation processes
- Neutral decision making

A proper recognition of the administrative role in spectrum allocation is necessary because it is not possible to prescribe in law at a single point in time all details of a spectrum management regime that will be required to operate efficiently in the future. Hence a significant function for the Act should be to establish spectrum management principles as well as the basic powers and criteria needed to implement these principles.

In effect it is necessary to empower a Spectrum Manager[1] to formulate and modify the secondary legislation as the need arises. Clearly such an approach will result in the Spectrum Manager having considerable executive influence over the development of the regulations and procedures associated with spectrum management. That power must be balanced by a requirement for an open and consultative process for the

[1] Although the title "Spectrum Manager" has now disappeared from the spectrum management lexicon, the term will continue to be used here as a convenient alias for whoever it may be who holds overall executive responsibility for spectrum management. It is considered that there is benefit in retaining a clearly identifiable " National Spectrum Manager" position within the spectrum management regime.

making of regulations. There also needs to be an opportunity by which regulation making may be initiated by industry.

The Act should recognise the essential need for balancing a wide range of interests. It is suggested that the most appropriate practical mechanism by which this balancing can be achieved is through the instrumentality of a well-informed impartial administrator working with a well-established consultative process. Administrative decision making may not be a popular contemporary notion but is there a realistic alternative?

A considered administrative planning process still seems an essential component of future spectrum allocation. The essential aspects of the administrative process are that it should be:

- be driven by market demand, ie be responsive to user needs;
- recognise international "drivers" in spectrum based technologies;
- be an open and transparent process;
- be a structured process having defined stages.

A model of an appropriate planning process would include the following stages:

1. A notice of "a planning intention", triggered by market needs or other developments, including a timetable for the conduct of the planning process;
2. A study and review of arrangements to be put in place. This would include assessment of competing demands for spectrum, incumbency issues, procedures for access to spectrum, method of assignment and licensing rules, etc priorities for the spectrum in question. This would be an open and iterative process providing the opportunity for industry input and consultation;
3. A publicly available "reasoned" decision on the arrangements to be put in place;
4. A mechanism for administrative appeal.

This planning process is not entirely different to that which has operated in Australia for a many years albeit on a less formal basis. It also contains the essential elements of the US FCC "rule making" process.

An essential feature of the process outlined above is the existence of a "decision" point, a point at which after assembling and carefully considering all available evidence the Spectrum Manager makes a decision as to the future use of the spectrum in question. Another essential feature is that the process is open and transparent. The administrative planning processes has been criticised as being unable to provide a timely response to rapidly developing requirements, indeed it was argued that this (perceived) failing was one of the compelling reasons for the introduction of an alternative allocation mechanism (spectrum licensing). Spectrum licensing has not speeded up the allocation process to any extent because of the need to resolve various technical and non-technical issues associated with this process.

The planning process must therefore incorporate a mechanism to ensure timely completion. Each planning activity will have differences in scope and complexity such that it may not be practical to apply a single time frame to all planning tasks. We therefore suggest that at the initialisation of each planning task a time schedule be prepared for the completion of each step. Once agreed this schedule should be strictly maintained noting that enough time will be needed to resolve the issues that arises. We maintain that it is not the actual duration of the administrative planning work that is a problem but the lack of certainty as to a date for decision making and completion.

Where appropriate, particularly where contention exists, auctions might then be used to assign these licenses that become available under these allocations. The administrative allocation process moreover need not enforce the deployment of specific technologies (beyond the specification of broad technical parameters) nor need it constrain after-market trading of licences that might seek to aggregate or segregate licenses. The rules pertaining to each particular allocation should be framed appropriate to the service allocation in question.

Licensing

The approach adopted to licensing adopted under the Radio-communications Act to allows for three approaches to the licensing of access

- class licensing
- apparatus licensing
- spectrum licensing.

As yet no viable alternative to a licensing system has been brought to our attention. Fundamentally, the ACA should be empowered with the flexibility to create licences that can range across a continuum from the highly regulated to the largely de-regulated. The critical feature of this approach is that the ACA should be equally compelled to conduct public consultations and be open to challenge on the terms of any licensing conditions for a particular technology

The legislative support for the different licensing regimes appears to create unnecessary complexity and duplicity in the present Act.

There has been consideration among some members of AEEMA of the combination of the existing spectrum and apparatus license types into one type with attributes encompassing both and their full range of effect. A single licensing framework would need to encompass various regulatory arrangements each appropriate to the service in question. Services that need to be tightly controlled and regulated in order to maximise utilisation among a diversity of users would continue to be licensed under detailed rules and procedures. Other services might require less regulation and control. The selection of what attributes to use and what weight they should have in particular circumstances would be established by the ACA under a transparent review process.

The introduction of a unified scheme a scheme would simplify the difficulty of dealing with Spread Spectrum systems. However it remains for the details of an arrangement of this kind to be developed.

Licence types

Each licensing arrangement has distinguishing features and objectives.

Class licensing simply recognises the fact that certain types of services can operate in an orderly manner with minimal regulation and without the recording of the existence or whereabouts of specific devices. As a further example of the differing requirements of a licensing system the US FCC system distinguishes between "site specific" licences (ie the licensing of a particular frequency or frequencies at a specific site) and "service area licenses" wherein the licensee may use a block of frequencies anywhere within a prescribed area.

Class licensing has the great virtue of allowing specified types of services/equipment to operate in an orderly manner with minimal regulation and without the need to record the existence, characteristics or whereabouts of specific devices. The term itself is confusing because no license is issued to individuals; rather the licence is a standing set of rules that must be followed for specified types of services/equipment. Consideration should be given to a head of power to create rules, similar to that which the ACA has under the Telecommunications Act 1997.

Apparatus licences provide for predictable planning in the allocation of spectrum. Because parts of the spectrum are planned to support particular types of devices apparatus licences provide a good mechanism for minimising the potential for interference and efficient management of the spectrum.

In general the apparatus licensing regime has had a strong measure of support because it provides for predictable planning in the allocation of spectrum. As parts of the spectrum are planned to support particular types of devices apparatus licences provide a good mechanism for minimising the potential for interference. It does suffer from the draw back of a very large number of licenses being in existence however there is a reasonable prospect that significant efficiencies could be realised by amalgamating large numbers of licenses to reduce administrative workload. The savings generated by such a move should be passed on to the licensees.

Spectrum licences are an efficient way of allocating large blocks of spectrum over geographic areas and provide for commercial management of the spectrum.

The differences between the licence types may be seen to be more apparent than actual. Spectrum licensing has not been achieved in its idealised form, probably because of the impracticality of the idealised concept. On the other hand "liberal"

forms of apparatus licensing (eg system licensing and the licensing regime applied to the PMTS) are in fact approaching the de-regulated ideals of spectrum licensing from the opposite end of the regulatory regime.

Standards Setting

The ACA has in some areas adopted the course of utilising international standards and in some circumstances has set aside the need for domestic standards. This has been a positive development in standards setting and should be encouraged to the greatest extent possible.

ACA is often reliant on industry expertise to assist with standards development. This is at risk with the loss of available expertise in Australia.

CHARGING FOR THE USE OF SPECTRUM

In relation to class licensing there are no fees applicable. This is to some extent due to the fact that the devices covered by class licenses are of little interest to the regulator. There is little likelihood of interference hence the existence, location and operation of the devices does not need to be known. The apparatus license system brings with it significant charges however the price paid is in many respects a reflection of the great merit of this class of licence: technical and commercial certainty.

In recent times the most provocative issue of payment for spectrum has been in relation to spectrum licensing. It has always been the view of AEEMA members that focusing on the apparent monetary value of spectrum is unnecessarily narrow and ignores the wider utility of spectrum access to the community. Such a focus detracts from the necessity to review the total benefit to the community of how spectrum is used.

Spectrum alone appears to be of little value. Its value derives from an opportunity to provide a service for which there is an established or at least predictable demand using technologies that are established or which are at least imminent. Determining the appropriate value of spectrum allocations is a complex and risky matter and it is not aided when speculation on government revenues dominates the lead up to auctions.

Spectrum Licences

Spectrum licensing is in our view to be supported as an efficient mechanism for allocation of scarce areas of spectrum, particularly where there is rapid technological demand and a need for flexibility. However we are strongly of the view that the administrative processes surrounding the decision to utilise price-based allocation through to the auction process itself need to be more robust.

It is appreciated that under spectrum licensing market forces determine allocation of spectrum between users and the manner in which spectrum is used. The major risk in spectrum auctions seems to us to be the potential for revenue considerations to dominate spectrum efficiency. If we are to consider spectrum at least in some bands as a market, then it needs to be always kept in mind that there is a monopoly supplier of spectrum. The manner in which Government conducts itself through the process from making a decision to utilise the auction process for a particular parcel of spectrum through to the auction process will have a not insignificant bearing on whether or not the auction yields a true price for the spectrum in question.

The Auction Process

In general AEEMA has supported the auction process for scarce spectrum or spectrum in which there is competitive interest. The auction seems to us to be the most appropriate means of allocation. Taking this as our stating point there are nonetheless significant areas where the process of auction requires refinement. Many aspects of the auction models appear to us to carry with them certain views about how markets for those services should operate– number of entrants, optimal market structure, reserve prices and so on. Some of these constraints may be justified but it has been unclear in the past on which of the objectives applicable to Radiocommunications Act these constraints are seeking to support or in fact what analysis has justified their adoption.

Reserve Prices

Setting of reserve prices for spectrum does not appear to be established on any clear basis. The outcomes of auctions suggest that the reserve price has in fact determined to a large extent the price paid for the auctioned spectrum. A process for determining a justifiable reserve price based on the assessed value of proposed services to be delivered on the spectrum to be allocated, or on an assessment of the value of some substitutable service already in operation could be undertaken.

Reserve prices that are set too high or too low will work against an effective market based allocation.

Setting of the reserve should be a transparent process able to solicit industry and community views as well as demonstrating publicly the means by which the reserve has been set. If the process of setting a reserve cannot be conducted on terms that are fully transparent then the practice should be abandoned and the Government should accept what the market is willing to pay for the spectrum being offered.

Bidding Limits and Constraints

Aspects of the competition elements of the auction process are too arbitrary. The Minister for Communications sets the competition limits applied by the ACA in a determination. This is based on advice from the ACCC and DCITA. The limits supplant the general industry acquisitions and mergers competition policy test under s 50 of the TPA. In a highly competitive industry, any competition limits should be in line with the TPA and not be used to manipulate market structures.

There seems little need to introduce into the process additional measures to promote competition through the rules of procedure or to expect that there is any threat to competition at auction. The auctions conducted to date have shown that the process is quite able to support a competitive outcome.

LICENCE TENURE AND BAND CLEARANCE

Licence Tenure

AEEMA has in various submissions to the ACA highlighted the importance of certainty in spectrum tenure.

Length of tenure is recognised as a difficult spectrum management issue. It is suggested that there is no "correct number" that can be applied across the board. On the one hand the licensee seeks certainty to underpin a business plan, on the other the spectrum manager must retain some rights of resumption to be able to accommodate important future technology developments.

In general we have supported extended periods of tenure during the various auctions conducted to date. This is primarily conditioned by not unreasonable concerns about the impact of government revenue speculation, media interest and other factors that contributed to a degree of irrationality in discussion of spectrum prices. Apart from these complicating factors we do not believe it appropriate for spectrum licenses to be tied to what appears an arbitrary figure. Tenure should more open and take into consideration the useful life of assets and services delivered and to some extent also be cognisant of the payback period on the investment being made.

Similarly we consider a clear policy on a right of renewal on similar terms should also apply if a re-allocation review were to identify no likely alternative or competitive demands for allocated spectrum. There is as yet no precedent in re-allocation procedure and some thought needs to be given to what process will be followed on the expiry of spectrum licences.

BAND CLEARANCE

The issue of band clearance has been widely debated over recent years. Fixed link users have sought a compensation mechanism for the costs of their removal to other bands in the wake of recent auctions. Much of the difficulty associated with the

clearing of bands for new services appears to stem from differences in "expectations" between incumbents and would-be new licensees.

Two issues frequently raised are:

- Under what circumstances if any is compensation to be made for compulsory re-location of existing services;
- By whom and by what mechanism should such compensation be paid.

The government has consistently maintained a policy that compensation will not be paid for compulsory clearing of incumbent services. This policy is simple to implement and it eliminates any possibility of windfall gains or unreasonable claims by incumbents. However it also requires long lead times for the introduction of new services if incumbent services are to be afforded reasonable notice to quit.

AEEMA members have considered at some length the matter of compensation and believe that the matter of compensation for enforced clearance can no longer be usefully pursued. We do not support the US approach of compensation being paid to incumbents by the new service provider.

The 1.8 GHz "Licensed" and "Unlicensed" PCS bands utilised a process of clearing funded by industry. In both situations the detail of the clearing process was devised (in the rule-making process) and managed by industry but with legislative backing from the FCC. The essential features of the PCS licensed bands are that clearance is mandated (after a set period of time) to ensure that the new licensee has timely access to spectrum, relocation costs are paid for by the new licensee and costs for clearance are shared between new licensees because of fortuitous clearance.

It appears to us that this approach transposed into a market like Australia would hold back service delivery and would add to end-user costs.

An alternative option for compensation in the case of bands for which valuable service licences are to be sold at auction would be to have the cost of clearance met from within the auction revenue. The cost of clearing would need to constitute the "reserve price". This approach may not be applicable in every situation. This approach was considered in the 1.8 GHz auctions (at least for the metropolitan markets) where it appeared to be an appropriate application, indeed there seemed a prospect that revenue lost to clearing might be more than offset by an increased auction price for spectrum having an earlier availability and greater certainty of utility.

After considering the various approaches to compensation for clearance we believe that no model currently is satisfactory and that the most effective mechanism for future re-allocation is a well structured and administered planning process that is responsive to technology developments and able to provide sufficient notice to allow the relocation of incumbent services where a higher benefit service is on offer.

Licence reallocation and Conversion

Reallocation requires a considerable balance of judgement between the interests of incumbents and new users. The reallocation process is currently lengthy involving:

- An initial designation by ITU
- Notification of a potential change
- Publication of a band plan
- Consultation process within RCC and more widely
- Allocation of the spectrum
- Commencement of a reallocation period

The process can take a number of years, with the re-allocation period itself being 2-year duration. The current process offsets in some respects the lack of any formal compensation mechanism for incumbents. While the present arrangement does not provide for financial compensation it does cover a significant period of time that allows for return on investment and for alternate arrangements to be made.

SECONDARY TRADING OF LICENCES

We are not aware of any significant secondary market in spectrum licenses and we note that "brokers" in spectrum have not emerged as was suggested they might. This may be partly attributable to taxation issues.

Secondary trading is nonetheless a useful mechanism for consolidating holdings and barriers to its use should be removed.

BROADCASTING

The distinction between the ACA and ABA requires examination. The ABA is best positioned to deal with content related matters. Spectrum Allocation in support of technology deployment needs to be considered under a uniform process that will best be served by one single body.

SATELLITES

The current arrangements for allocation of satellite services are considered adequate and are in any case largely subject to international convention

THE EFFECTIVENESS OF THE ACA

The ACA like many Government entities is continually being asked to conduct itself as a corporatised body. It derives considerable revenue from its various activities but all of this is effectively assigned to consolidated government revenues. The ACA

does not as a result the wherewithal to effectively execute the trade-offs in its activities that a fully commercial organisation could.

Skill sets and Consultation mechanisms

If the ACA is to perform its functions better and have a greater range of skills to reflect its role it needs to better scale its fees to the services it delivers.

The current legislative framework is not seriously deficient, but with the benefit of experience it is clear that some fine-tuning is warranted. Adjustment is necessary to achieve the skill sets and processes necessary to secure informed decision making in the face of an increased need for flexibility in planning and allocation that is demanded by both rapid changes in technology and end user communication needs.

It is recognised that the acquisition and retention of the complex mix of skills required to manage spectrum within such a complex environment can be a problem in itself. Consultation can be one avenue for overcoming this problem. However, if consultation is to be employed in the lead up to decision making it must be conducted in a serious manner and that includes providing an agreed framework within which it operates. The ACA is regarded as an organisation that respects consultative processes. However, even here unrealistic arrangements are sometimes set in place which undermine the value to be gained from consultation.

A formal procedure within which consultation on spectrum management and related issues can occur in the future is essential. We understand that in some cases the timetable for legislative or regulatory change is not within the power of the ACA or DOCITA to determine. However, many complex consultative arrangements operate with certain minimum expectations for public comment and participation. In the present case we urge the need for a detailed exposure draft to be made available for a period of 60 days so that all contributors will have adequate time to assess and comment on proposals affecting spectrum usage.

LOOKING TO THE FUTURE

Technology Convergence

Convergence is largely to be addressed by the ACA covering all technical use of spectrum, except in the “broadcasting services bands”. This is not justifiable with the convergence of services and technologies.

The distinction between the ACA and ABA requires examination. The ABA is best positioned to deal with content related matters. Spectrum allocation in support of technology deployment needs to be considered under a uniform process that will best be served by one single body.