FACTS RESPONSE TO THE PRODUCTIVITY COMMISSION DRAFT REPORT ON THE REVIEW OF THE RADIOCOMMUNICATIONS ACT

APRIL 2002

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EXECUTVE SUMMARY

FACTS welcomes the opportunity to comment on the Draft Report prepared by the Commission on its Review of Radiocommunications Acts and of the Market Based Reforms and Activities Undertaken by the Australian Communications Authority.

FACTS key concerns are summarised in the Executive Summary below.

The Commissions Approach

- The correct approach to the regulation of spectrum is that set out in the Radiocommunications Act 1992, with the overriding consideration being maximising public benefit. This requires taking into account technical, financial and public interest objectives, rather than merely "efficient use."

Regulatory Arrangements

- The objectives of the Radiocommunications Act should expressly recognise broadcasting as an activity regulated both by the Radiocommunications Act and the Broadcasting Services Act.

Co-ordinating spectrum use and re-allocation of spectrum

- Section 31 of the Radiocommunications Act should be retained and the ABA should continue to be involved in planning broadcasting services bands. The public interest objectives of the Broadcasting Services Act cannot be met by purely market driven imperatives.

Managing spectrum for non-commercial and broadcast services

- Spectrum planning should not be separated from the general management and regulation of spectrum. Such separation would be a retrograde step to the situation that existed prior to the Radiocommunications Act 1992. Planning and regulation functions should remain with the ABA, which has effectively maximised the availability of broadcasting licence opportunities within the available spectrum.

- Splitting content from carriage would not lead to more efficient use of spectrum. Under the current system, broadcasters use spectrum much more efficiently than many other radiocommunications providers do.

- Current provisions do not inhibit the development of carriage operators, therefore splitting content from carriage would not necessarily facilitate the development of such operators

Supply of Spectrum

- Incumbent users should only be required to vacate existing spectrum to accommodate new users following detailed examination and determination of real community benefit flowing from the reallocating, with more time allowed incumbents to relocate.

- 3G services have not been retarded due to delays in the availability of spectrum but rather due to the still emerging feasibility of the services themselves. In the meantime, although the new services have not emerged, failed to be implemented or not survived, incumbent licensees have been forced to relocate at their own expense.

Substituting spectrum for wired applications

- While it is possible for some spectrum users to substitute spectrum for wired communications, broadband cabling for interconnection of regional centres is not readily available or practical. Wired communication spanning different properties over large areas has significant cost implications and is legal complex.

ITU Frequency plans

- Australia's geographic isolation notwithstanding, there is little flexibility to depart from ITU plans as there are potential interference consequences in relation to a large part of the most used spectrum.

Economies of scale in equipment

- Digital high definition television does not offer counter evidence to the supported claims that departure from international spectrum leads to higher costs for Australian consumers and to greater difficulty in finding markets for equipment manufactured to meet different Australian spectrum use.

Apparatus licences

- These could be made more flexible by limiting the prescriptive nature of such licences to only those characteristics that affect spectrum use.

Spectrum licences

- While it is true that spectrum licences are not entirely technology or use neutral, the core conditions attaching to these licences together with the technical conditions of the band itself effectively make spectrum licences technology specific and this may inhibit reuse for other applications upon expiry.

- Auctioning of spectrum licences may well lead to a real tension between the economic objectives of revenue maximisation and the less measurable objective of maximising overall public benefit.

- The current licence types should be retained, as there are few advantages to be gained from introducing a single licence type.

Competition limits on licence purchases

- Section 50 of the Trade Practices Act does not sufficiently address issues of competition and section 60 and 106 of the Radiocommunications Act should be retained.

Security of Tenure of apparatus licences

- Apparatus licences should be renewed unless licensees fail to comply with licence conditions and/or spectrum re-allocation declarations affect the licence. Where the ACA decides not to renew a licence, a right of appeal to the Administrative Appeals Tribunal should be granted. Further, the period of notice for reallocation should be increased to 5 years.

Compensation for Re-allocation

- While it is debatable whether licences of a reasonable duration can correctly be regarded as "property rights," they can be characterised as medium-term lease arrangement and as such, licences whose licensees are cancelled or not renewed due to spectrum re-allocation should be compensated.

- While there are situations where sale of encumbered spectrum should be encouraged, provision should be made to give incumbents some assurance of continuity while at the same time, not hampering the rights of spectrum licensees.

Secondary Markets

- It is not appropriate for management of spectrum to be undertaken by private band managers, as these cannot properly take account of factors such as international obligations and government policies.

- In spite of the competition limits under the Trade Practices Act, the potential for hoarding exists, which would severely hamper efficient use of spectrum and overall public benefit.

Managing Interference

- While FACTS agrees that in cases of unlawful interference, the ACA should endeavour to recover the reasonable costs of interference investigations from the person making the interference except in cases of administrative error or misjudgement. In such cases, the costs should be borne by the whole community, rather than just by licensees, with the charge being attached to the general licence fee.

Charging for Spectrum

- Indirect costs are only a minor part of the whole equation and do not therefore merit too much attention in relation to their fine-tuning.

- Basing spectrum charges on opportunity costs is fraught with difficulty and would require complex calculations.

Operations of the ACA

- The current system of spectrum planning of the broadcasting services band by the ABA and spectrum coordination internationally for all spectrum (including broadcast spectrum) by the ACA produces good results and should be retained.

- The ACA should be provided with adequate resources to participate fully in national and international fora and to remain committed to its international and national consultative role in order to ensure protection of both Australian users and future spectrum use.

INTRODUCTION

To assist the Commission, this submission addresses FACTS specific comments on individual chapters, findings and recommendations in the order that they appear in the Draft Report.

CHAPTER 2 CHARACTERISTICS OF SPECTRUM MARKETS

Supply of spectrum

In Section 2.4, *Spectrum Planning and Licensing* the Draft Report identifies that delays in re-allocating spectrum for new uses has exacerbated constraints on the supply of spectrum.

The Report states (at page 33):

"*The re-allocation process for the 2.1 GHz spectrum for 3G mobile communications in Australia, for example, took almost 10 years. The long time-lag for the reallocation of spectrum to new services took almost 10 years. The long time lag for the allocation of spectrum to new services constrains the supply of spectrum for these services and may reduce the incentives for innovation*."

There is no basis to an argument that 3G services have been retarded due to delays in the availability of Australian spectrum. The example given by the Commission presents a distorted view of the re-allocation process for 3G spectrum. When the 2.1 GHz spectrum was first identified by the ITU (note, identified not allocated) as a longer-term possible requirement, the technology was merely a concept, predominantly by telecommunications carriers. The technology did not then exist. Even now, only preliminary trial services have been implemented overseas and there are considerable doubts by industry experts as to whether 3G will be a viable prospect within the next 5, possibly 10 years. In the meantime viable fixed services have been forced out of the 2.1 GHz spectrum to accommodate 3G terrestrial and satellite services that are yet to emerge.

The example serves rather to illustrate the equity issues involved in re-allocation. Spectrum re-allocation for 3G is just one example of a number of re-allocation decisions where the incumbent licensee has been required to reallocate at its own expense, however many of the intended new services have been delayed in implementation, failed to be implemented or have not survived for long periods. The MDS services in the 2.3 GHz band, PCS in the 1.8 GHz band, MSS in the 2.1 GHz band and the more current 2.1 GHz band intended for 3G mobile services are all illustrative.

Later (in Chapter 6) the Report notes that reallocation should only be undertaken, "when the benefits are expected to exceed the costs". However, it should be recognized that the costs of re-allocation are not borne by the beneficiary of the re-allocation process. Rather the burden is borne by the incumbent service provider; in terms of cost, difficulties of finding alternative spectrum and potential service disruption. Examination of the instances where incumbents have been required to vacate existing spectrum to accommodate new users illustrate that there should be greater examination of the certainty of real community benefit from the reallocation and more time should be provided to incumbent users where re-location is required. These issues are discussed further under Chapter 6. below.

Substituting spectrum for wired applications

In Section 2.5, *Spectrum markets*, the Report refers to "some" spectrum users being able to substitute spectrum for wired communications. While strictly correct, with respect to broadband communications suitable for television distribution, broadband cabling for interconnection of regional centres is not readily available or practical, particularly to regional transmission sites. Unlike radiocommunications which can be installed by relatively small operators with few complexities, wired communication over long distances spanning different properties has very large cost implications and legally is very complex.

This point is particularly pertinent to regional services that depend on installing their own radiocommunications links for the maintenance of their services where carriers cannot, or will not, supply an economically acceptable alternative.

CHAPTER 3 THE COMMISSION'S APPROACH

Efficient use of spectrum versus maximising the public benefit of spectrum

The Commission's approach to the regulation of spectrum is based on a premise that is different to that which underpins current legislation and regulation. The Commission's stated goal is: *"to enhance overall community benefit by establishing the conditions for efficient use of spectrum as a valuable natural resource".* However, this contrasts with the first object of the Radiocommunications Act, which is: *"to maximise, by ensuring the efficient allocation and use of the spectrum, the overall public benefit derived from using the radiofrequency spectrum".*

That is, the current legislation has a primary objective of maximising public benefit whereas the Commission's premise is to promote efficient use. FACTS submits that the correct approach is the one set out in the Radiocommunications Act, that is, that maximising overall public benefit should be the overriding consideration.

The Commission's stated goal of promoting the "efficient use of spectrum" assumes that community benefit will flow from efficient use alone. This is not necessarily the case. Maximising public benefit requires that spectrum allocation take into account technical, financial and public interest objectives.

The economics of different types of spectrum uses (for example, mobile telephony and broadcasting) differ. If spectrum auctioning is the primary mode of spectrum allocation, users who are able to generate high revenues per unit of spectrum will be able to capture large amounts of the spectrum available. However, this may not be an efficient or desirable result for society since other users generating lower revenues per unit of spectrum may offer services that serve public interest objectives.

The Australian Communications Authority (ACA) has proposed the potential for price based allocations in the 2.5GHz and 7.2GHz bands in its 2001 – 2004 Draft Forward Program. Mobile telephony operators are among the other potential users of these bands. These bands (which are outside the broadcasting services bands) are used by television broadcasters for news gathering and outside broadcast purposes. These activities are essential to broadcasting, particularly for coverage of news, entertainment and sporting and other cultural events such as natural disasters, football games, golf tournaments, the Olympics, commemorative ceremonies and religious festivities. Unless broadcasters have access to adequate spectrum for these purposes, they will be severely

restricted in their ability to cover news and sporting events and the immediacy with which news can be covered.

For example, the less spectrum is available the longer it takes for news stories recorded on location and transmitted back to the station to be broadcast. It would be severely detrimental to the public interest if broadcasters did not have access to the spectrum and sufficient bandwidth to be able to cover news and emergency events as they happen. In circumstances such as the NSW bushfires in January this year, the public relied on the wide and immediate coverage that they are accustomed to receiving on television.

The public is also accustomed to being able to watch their favourite sporting events on television at no charge. Sporting events can only be covered live if broadcasters have access to suitable spectrum to deliver coverage of events outside the television studio.

This is one example of the need for spectrum allocation to take into account public interest objectives in order to ensure overall public benefit is maximized.

Indeed, experience of spectrum auctions to date suggests that allocation of spectrum by auction does not necessarily result in an "efficient" use of spectrum or use of spectrum which maximises public benefit. Rather, leaving spectrum allocation solely to market forces can lead to severe disruption if the market overheats. This is clearly illustrated in spectrum auctions that occurred prior to the "tech wreck" when predictions of new technologies and their introduction ran beyond market reality. After auctions in both Australia and New Zealand, spectrum rights have been acquired and then only used in limited geographic areas, despite the incumbent licensee having been forced to re-locate in many instances. In these instances, the pursuit of revenue maximisation has resulted in an outcome that has not maximised overall public benefit.

Auctioning of spectrum can also generate technical interference if different spectrum uses are assigned in adjacent bands. Interference can distort valuations of spectrum worth and reduce efficiency of spectrum usage. The public interest in the wide availability of broadcasting services requires band planning to ensure sufficient bandwidth is available to achieve a high degree of technical quality, consistency of delivery and a relative lack of interference. The important role performed by the Australian Broadcasting Authority (ABA) in planning of the broadcasting services bands is discussed further in Chapter 10 below.

FACTS notes and supports the Commission's comments that there may be a role for the government to intervene in the economy "*to pursue other social and cultural objectives – for example, reserving spectrum for classified uses such as defence – and to provide for community and public access to communications services, such as broadcasting, which may include access to spectrum*" (at page 52). However, FACTS believes this statement needs to be expanded upon.

In FACTS' view there is a clear role for government intervention to ensure spectrum allocation takes into account public interest objectives and that overall public benefit is maximised. Spectrum is the major mechanism of delivery of a number of public interest objectives including universal free-to-air television. The clear public interest objectives served by a strong free-to-air broadcasting sector were outlined in detail in FACTS' earlier submission to the Commission[1].

1 Productivity Commission Inquiry into Broadcasting: Submission from the Federation of Australian Commercial Television Stations, May 1999.

CHAPTER 4 REGULATORY ARRANGEMENTS

International interference management

In Section 4.1, *International regulatory arrangements*, the Draft Report states: "*In Australia, [the international interference management function of the ITU] can be important for the planning and management of interference from satellites*." (at page 56) FACTS notes that interference *to* satellites is equally important. While this may seem a small point, it effectively doubles the amount of spectrum concerned and is perhaps more difficult to manage than interference from satellites. Avoidance of interference to satellite services can restrict the availability of spectrum for terrestrial services. This is because treaty obligations require that the Australian administration protect, within specified limits, satellites registered with the ITU.

Standards regulation

In Section 4.3, *General radiocommunications standards and technical regulation*, the Draft Report notes the provisions of the Radiocommunications Act regarding technical standards. It may be worth noting that more detailed technical standards may be regulated under the Broadcasting Services Act with respect to digital broadcasting. Of particular relevance is the concept of the "notional receiver" defined in the ABA's Technical Planning Guidelines as this sets the criteria for detailed interference based planning and provides a firm guide for the development of receivers that meet those planning requirements.

Objectives of radiocommunications legislation

Section 4.4*, Objectives of Radiocommunications legislation*, addresses the Commission's draft findings regarding the objectives of the Radiocommunications Act and specifically invites comment.

In FACTS' view the objectives of the Radiocommunications Act should expressly recognise broadcasting as an activity regulated by both the Radiocommunications Act and the Broadcasting Services Act.

CHAPTER 5 SPECTRUM ALLOCATIONS

ITU Frequency Plans

DRAFT FINDING 5.1

Although there are overall benefits from adhering to the international spectrum plan to minimise the potential for international interference, Australia's geographic location gives it some flexibility to depart from the International Telecommunications Union plan for Region 3.

In FACTS' view, Australia's flexibility to depart from ITU frequency plans is very limited. Examination of the frequency tables in the Spectrum Plan shows that there are potential interference consequences with a large part of the most used spectrum. All frequencies up to and including VHF can result in interference of terrestrial services between Australia and its neighbours. These include a large part of the spectrum used for broadcasting, particularly sound broadcasting in the MF, HF and VHF bands.

For example, in the UHF band (300 to 3000 MHz), more than half of the spectrum has allocations to one or more of: Space Research, Space Operations, Earth Exploration Satellite, Fixed Satellite, Mobile Satellite, Broadcasting Satellite, Radio Astronomy, Radio Location, Radio Navigation, Radio Navigation Satellite, Aeronautical Radio Navigation, Broadcasting Satellite, Earth Exploration Satellite, Meteorological Satellite and Meteorological Aids. All of the services can have international implications for Australian spectrum use. A large part of this spectrum is also shared with terrestrial services used in Australia but that use cannot be regarded as being isolated from international frequency coordination requirements.

The above-mentioned services also have very substantial allocations in the bands above the UHF band.

In short, flexibility to depart from ITU plans is very limited.

Equipment compatibility

DRAFT FINDING 5.2

Aligning spectrum use to ensure inter-operability of some international services is appropriate where safety-of-life or national security issues are involved. However, this need not pre-determine the use of other spectrum bands.

In accordance with the ITU treaties, trans-border interference issues are handled between administrations, not the individual licensees. With the very high number of allocations to services that can impact on Australian allocations, FACTS considers that alignment with the international allocations should be regarded as the default and departed from only as an exception. It should be noted that there is quite considerable flexibility in the international allocations from the very high number of primary allocations where several services share allocations, so following the international allocations does not severely constrain the availability of spectrum in Australia.

Economies of scale in equipment

DRAFT FINDING 5.3

Australia would benefit from economies of scale in production and greater choice of equipment even in the absence of the Australian Radiofrequency Spectrum Plan.

This finding does not adequately take account of the economic advantages of following international spectrum use in the export and import of equipment.

Australia is an importer of large quantities of radiocommunication equipment. The majority of this equipment is manufactured overseas. Australia follows international radio regulation allocations and licensees gain the benefits of purchasing equipment which can be marketed and deployed globally.

The Report cites Australia's adoption of unique standards for digital high definition television as an example of alignment with international allocations not delivering benefits to Australia from economies of scale due to the adoption of a unique technological standard dictating how that spectrum may be used. In fact, the detailed technical standards adopted by Australia for digital television are part of those adopted internationally for use in Europe and parts of Asia. There are some choices within the

complete suite of ETSI DVB standards that Australia has adopted as an early implementer of digital television that are not yet matched in total elsewhere. These variations however, are not dissimilar to choices within the PAL standard that were made in the 1970's. PAL receivers are made by a relatively few manufacturers who export world-wide, despite national variations in many countries.

The issue of digital television does not offer counter evidence to the supported claims that departure from international spectrum leads to higher cost for Australian consumers and to greater difficulty in finding markets for equipment manufactured to meet different Australian spectrum use.

In its submission to the Issues Paper, FACTS identified "the absence of fees for class licensing in shared spectrum bands tends to lead to a lower level of supervision of the licences by the ACA, which in turn can lead to unmanageable levels of interference".

The majority of class licensed equipment is manufactured overseas to standards compliant to ITU frequency assignments. It is necessary to recognise and manage the potential of interference from equipment manufactured overseas.

Accordingly, FACTS does not support Draft Finding 5.3.

Co-ordinating spectrum use and re-allocation of spectrum

In addressing the issue of co-ordinating spectrum use, the Draft Report suggests that market-driven allocation may be more effective in meeting the demands for new technologies and suggests some theoretical difficulties that may arise from administrative spectrum allocation.

It is instructive to examine the actual history of spectrum availability for "new technologies". Perhaps the most significant case is that of mobile telephones. To date, spectrum has been available in ample time for each of the new mobile phone technologies, as is well illustrated by the licensing of spectrum for 3G mobile. By and large, the ITU and the Australian spectrum managers have ensured that spectrum is available in a timely manner. As noted above, leaving spectrum allocation solely to market forces can lead to severe disruption if the market overheats.

In addressing the issue of reallocation the Draft Report quite rightly recognises that reallocation should only be undertaken "*when the benefits are expected to exceed the costs*". It needs to be recognized that the beneficiaries are usually not those who bear the costs. While the full process of reallocation does, as the Draft Report states, need to follow a regulation impact statement, an administrative decision not to renew licences in certain spectrum can be currently made by the ACA without that requirement. With the benefit of hindsight it is possible to point to examples where such decisions have been made without the perceived benefits being realised.

DRAFT FINDING 5.4

Even if fully functioning markets existed there would be a limited role for administratively allocating parts of the spectrum in the following circumstances:

- *to allocate spectrum to meet Australia's international treaties and obligations;*

- *to clear areas of spectrum where re-allocation would have community benefits but licensees refuse to move; and*

- *to ensure the provision of spectrum for defence, and where appropriate, other public and community users.*

In FACTS' view the role for administratively allocating spectrum is a significant one. In particular, FACTS remains strongly supportive of retaining s.31 of the Radiocommunications Act and the continued involvement of the ABA in planning of the broadcasting services bands. The objectives of the Broadcasting Services Act, designed to ensure a diversity of free-to-air broadcasting services to all sectors of the Australian community, cannot be met with purely market driven economic imperatives. Broadcasting is clearly one of the important community services that should be recognised in the third point of this Draft Finding.

Coordination and alignment with international allocations produces tangible benefits. During the staging of the Olympic Games in Sydney it was necessary for the ACA to coordinate with many overseas organisations and local authorities for increased use of spectrum bands to facilitate the demand for broadcasting and telecommunications applications.

The staging of many entertainment and sporting events in Australia includes the operation of equipment flown in from overseas which use internationally recognised bands for specific applications. Additionally, Australian companies which deploy equipment overseas, such as Australian broadcasters, do so in recognition of ITU spectrum plans.

CHAPTER 6 LICENSING

Apparatus licences

DRAFT FINDING 6.1

While the reforms to apparatus licences in the 1990s have led to some improvements, this licence type remains highly prescriptive and inflexible with respect to changes in spectrum use and new technologies. Apparatus licensing still requires intervention by the Australian Communications Authority to enable licensees to adapt to new uses and technologies.

FACTS suggests the flexibility of apparatus licences could be increased by limiting the prescriptive nature of apparatus licences to those characteristics that affect the spectrum use, namely, factors such as bandwidth, emission power, unnecessary emission and susceptibility to interference. Intervention by the ACA for a new licence should not be required to change a microwave link from analog to digital modulation where the interference implications and utilised bandwidth do not change.

Spectrum licences

DRAFT FINDING 6.2

While spectrum licences are not entirely technology or use neutral at the time of issue, they are more flexible than apparatus licences in responding to changing uses and technologies over time.

Although this finding is accurate, as stated above however, the flexibility of apparatus licences could be improved.

FACTS also agrees with the finding that spectrum licences are not entirely technology or use neutral. The ACA describes spectrum licences as "*a tradeable, technology neutral (that is the licence is not related to any particular technology, system or service) spectrum access right for a non-renewable term*."[2] However, the core conditions of a spectrum licence and the technical conditions of the band effectively make a spectrum licence technology specific. This may inhibit reuse for other applications when the spectrum licence expires.

It should also be noted that spectrum sold at auction has been sold with specifications such that only one type of use is seriously contemplated. This is illustrated by the auctions for spectrum in the following bands.

- **2GHz bands**. This spectrum was being re-allocated primarily to promote competition in the telecommunications market and facilitate 3G services. The spectrum lots were configured in a way which facilitated mobile telecommunications use, specifically 3G services. The majority of lots consisted of "paired bands" and restrictions were also placed on secondary trading – such that it could only be undertaken in standard trading units of spectrum space, and a minimum aggregation of bandwidth.

- **800Mhz and 1800MHz bands**. Again, this spectrum was being re-allocated primarily to promote competition in the mobile telecommunications market and it was configured in a way that facilitated mobile telephone use, specifically GSM and CDMA. Again spectrum lots were in "paired bands". Anyone wishing to bid for spectrum in configurations other than the pairing required for mobile telecommunications, had to bid for spectrum pairs and then offer for sale any unused parts of the spectrum (if any secondary market were to develop).

- **3.4Ghz band and 27GHz band**. All lots in these auctions were unpaired. The spectrum was configured in such a way that bidders in an auction could purchase a lot and its natural "pair" if they so desired. Alternatively, pairs could be created after the auction if a licensee was able to find a seller. This suggests that in reality the spectrum was sold to the virtual exclusion of any voice device being used over it.

- **500MHz bands**. Lots in this auction were segmented in such a way that they were only suitable for mobile applications, although the technical characteristics of the spectrum would have been suitable for delivery of a wireless local loop.

2 Introduction to Spectrum Licensing: at www.aca.gov.au/licence/spectrum/index.htm.

Of course, packaging spectrum lots for auction so as to favour particular uses also influences the level of revenue that sale of the spectrum is likely to attract.

In short, in FACTS' view, spectrum auctioning has the potential to produce a real tension between the financial objective of maximising revenue and less measurable objective of maximising overall public benefit.

Advantages of a single licence type?

DRAFT FINDING 6.3

There are few advantages and likely disadvantages from introducing a single licence type compared with retaining the current licence types in the Radiocommunications Act.

FACTS agrees with Draft Finding 6.3, although as indicated above and in our comments below on licence tenure, FACTS believes that there is scope to further improve the utility of both apparatus and spectrum licences. In short, apparatus licences can be made more useful if greater security of tenure is granted, for example by providing for presumption of renewal and by improving flexibility in the technical licence conditions.

Issuing of spectrum licences

DRAFT FINDING 6.4

The practice of using a market-based approach only when there is excess demand for a band may unnecessarily restrict the issue of spectrum licences. From an efficiency perspective, it may be beneficial to sell spectrum licenses even when there is only one prospective buyer

DRAFT RECOMMENDATION 6.1

The Australian Commissions Authority should issue spectrum licenses in bands even if only one party is interested in using that bandwidth. To establish the level of demand, the Authority should call for expressions of interest and allow a suitable period for responses.

As the Draft Report notes in the preceding text, spectrum licensing is generally suitable for wide area services with a limited number of service providers . The Report gives several examples. The move to spectrum licensing these uses would be facilitated if the costs were kept similar to that of the existing apparatus licences. However, it will be necessary to move with caution to ensure that the smaller users of spectrum, operators of special purpose fixed links, two way radio operators etc. are not squeezed out of the market by prospective users with deep pockets. Clearance for MMDS and 1.8 GHz where the prospective use has not eventuated or survived illustrate the need for caution.

Competition limits on licence purchases

FACTS is concerned that the Commission's findings and recommendations on the issue of competition limits on licence purchases do not reflect the practical issues of clearance under the Trade Practices Act and will lead to an inefficient allocation process.

DRAFT FINDING 6.5

Competition limits imposed under sections 60 and 106 of the Radiocommunications Act 1992 are not necessary given the application of section 50 of the Trade Practices Act 1974.

The ACA has used the powers provided under sections 60 and 106 of the Radiocommunications Act 1992 to ensure diversity of providers. Section 50 of the Trade Practices Act 1974 merely tests whether an acquisition would have the effect, or be likely to have the effect, of substantially lessening competition in a market. There may be instances where the section 50 "effects test" would lead to a lower level of competitive activity than that provided by a regime that is permissive to new entrants.

Further, section 50 is often tested with the ACCC using the process of "informal clearance". Informal clearance is not available in the acquisition of spectrum in a price allocation process, as the market inquiries conducted by the ACCC would telegraph a prospective bidder's intentions. It is easier for a bidder to rely on advice and a regime with limits on the number of bidders than having the disruption of divestiture to a market that has been sated already.

DRAFT RECOMMENDATION 6.2

Those parts of sections 60 and 106 of the Radiocommunications Act 1992 that impose competition limits should be repealed.

FACTS submits that this step is unnecessary.

DRAFT RECOMMENDATION 6.3

The ACA should continue to indicate to potential bidders that section 50 of the Trade Practices Act 1974 applies to the acquisition of radiocommunications licences.

Sections 68A and 106A clearly set out that apparatus and spectrum licences are assets for the purposes of, among other things, section 50 of the Trade Practices Act 1974. The law is clear and no action is required of the ACA.

DRAFT RECOMMENDATION 6.4

The Australian Competition and Consumer Commission should consider amending its merger guidelines to address specifically how the acquisition of radiocommunications licences would be assessed under section 50 of the Trade Practices Act 1974.

FACTS submits that any such guidelines should include a process that allows for informal clearance before any price-based allocation to avoid the spectre of divestitures.

Security of tenure of apparatus licences

DRAFT RECOMMENDATION 6.5

Section 130 of the Radiocommunications Act 1992 should be amended to specify that apparatus licences generally will be renewed unless:

- *licensees have failed to comply with licence conditions; and/or*

- *spectrum re-allocation declarations affect the licences*

FACTS commends the Commission on this recommendation. FACTS suggests that this recommendation could be further improved by granting a right of appeal to the Administrative Appeals Tribunal where the ACA decides not to renew a licence. Without such a right of appeal, the value of a presumption of renewal would be weakened. As indicated above in our comments on reallocation in Chapter 5, an administrative decision not to renew licences does not have the same safeguards as those built into the reallocation process.

The Commission notes that longer terms or rights to term extensions would not take precedent over any subsequent spectrum reallocations which currently give a minimum of 2 years' notice. In FACTS' view 2 years is insufficient notice for resumption. A re-allocation period of at least 5 years is necessary to ensure adequate planning for incumbent users of re-allocated spectrum.

Compensation for re-allocation

DRAFT FINDING 6.6

Given that apparatus licences are akin to short-term permits to access a public resource, it is not appropriate to provide compensation to apparatus licensees whose licences are cancelled or not renewed as a result of spectrum re-allocation.

FACTS remains of the view that there are circumstances where compensation for failure to renew licences is justified. Two years notice is clearly insufficient time for major relocation of communications infrastructure. Given the support for extending the period of apparatus licences, it is evident that there may need to be some reassessment of this finding. While there is significant debate as to whether reasonable duration licences are properly characterised as "property" rights, at the least they can be characterised as

medium term lease agreements. As such, some rights regarding lease termination are reasonable.

Managing encumbered spectrum

DRAFT RECOMMENDATION 6.7

The Radiocommunications Act 1992 should be amended to allow the conversion of a designated band to spectrum licences while allowing for certain apparatus licences to remain in that band.

DRAFT RECOMMENDATION 6.8

Where it is cost-effective to do so, the Australian Communications Authority should convert wide area apparatus licences into spectrum licences.

FACTS agrees that there are examples of current uses of spectrum that could be accommodated without difficulty while introducing the new services, at least for some period of time. For example, services currently operating in the 3G spectrum may be accommodated for considerable time in the rural and remote areas as, even if 3G technology is implemented in the next year or two, it may be several years before it becomes economically viable in the regional areas. Even then it may be possible to

retain some of the fixed links that do not have interference consequences with the settled areas where 3G is likely to grow.

DRAFT RECOMMENDATION 6.9

The conversion process in the Radiocommunciations Act 1992 should be amended to allow the Australian Communications Authority to offer – where practicable – a spectrum licence for the same frequency range in cases where an apparatus licensee operates on different frequencies in contiguous geographic areas.

This recommendation seems reasonable provided it is regarded as permissive rather than prescriptive. The ACA should be permitted to offer the same frequency range provided that does not impinge on the rights of existing licensees in the adjoining geographic area.

DRAFT FINDING 6.9

Given the characteristics of apparatus licences and the risk of hold-out, it is appropriate to retain the spectrum re-allocation process in the Radiocommunications Act 1992 to facilitate the clearing of bands for new uses.

FACTS does not agree that "hold-out" is a significant risk and suggests that hold-out has not been a problem to date. FACTS is concerned that legitimate incumbents are ensured reasonable tenancy rights. The Draft Report has noted in several parts the difficulties of spectrum licensing fixed link services and it is these services that are most frequently at risk from re-allocation. It is likely that the availability of suitable alternate spectrum for these services could become increasingly scarce with increased use of spectrum licensing of re-allocated spectrum.

In summary, there are situations where the sale of encumbered spectrum is not only feasible but should be encouraged. However, to work effectively there will need to be provisions that allow incumbents to retain some assurance of continuity, while not unduly hampering the rights of the spectrum licensee.

CHAPTER 7 SECONDARY MARKETS

While not adverse to secondary trading in non-broadcasting services bands, FACTS maintains the important concerns expressed in our earlier submission. In particular, FACTS is concerned that secondary trading in the absence of a regulator will create greater potential for interference disputes. The ACA would need to monitor secondary trading to ensure licence conditions are respected.

Secondary trading in broadcasting services bands apparatus licences should not be permitted. FACTS submits that these licences should continue to be "stapled" to the accompanying broadcasting licence. This is discussed further in Chapter 10 below.

FACTS has serious concerns about private entities acquiring rights to determine the use of bandwidth where there is competition for use of the bandwidth. A private band manager cannot properly take account of the following factors:

- international obligations including coordination with proposed new satellites;
- implementation of Government policies;
- impartial assessment of conflicting spectrum demands;

- encouragement of more efficient and flexible use of spectrum; and
- longer term planning to take account of future changes in spectrum demand.

The Commission has identified that some of these problems have hampered band management in New Zealand.

FACTS is also concerned about the potential risk of hoarding. Although competition limits exist under the Trade Practices Act, the expense, delay and difficulty of enforcing competition limits against spectrum hoarding will severely hamper efficient spectrum use and overall public benefit.

CHAPTER 8 MANAGING INTERFERENCE

DRAFT FINDING 8.1

Mandatory standards are justified where they provide a cost-effective means of managing interference.

DRAFT RECOMMENDATION 8.1

The Australian Communications Authority should not be able to refuse registration of a device where an accredited person certifies that the device will not breach spectrum licence core conditions

FACTS agrees with this draft finding and draft recommendation provided the accreditation process is maintained to a suitable level.

In particular, FACTS supports the views expressed in the DCITA review that civil actions for interference resolution should only be used as a last resort, following the failure of negotiation and conciliation. The role of the ACA in ensuring that the technical background to these cases is expertly and impartially assessed is a critical part of the conciliation process and accordingly it is essential that the ACA maintain its technical expertise.

While the ACA makes best endeavours to reduce interference while maximising benefits gained from use of spectrum, it is strengthened in its actions by mandatory standards.

DRAFT RECOMMENDATION 8.2

In the case of "lawful" interference, the Australian Communications Authority should recover the costs of interference investigation according to the cost recovery arrangements for indirect costs.

DRAFT RECOMMENDATION 8.3

In the case of "unlawful" interference, the Australian Communications Authority should endeavour to recover the reasonable costs of interference investigations from the person making the unlawful transmissions.

FACTS notes these recommendations and has some difficulty with Draft Recommendation 8.2 as this addresses, in the main, administrative error or misjudgement by the Government or its agency. In such cases the whole community, not just radiocommunications licensees, should cover the costs. It would seem reasonable to have this charged to the general licence fee rather than inflating the management fee component.

CHAPTER 9 CHARGING FOR SPECTRUM

DRAFT RECOMMENDATION 9.2

The Australian Communications Authority should examine the cost effectiveness of introducing a new system for recovering indirect costs, using a suite of rates designed to indicate the costs imposed by different categories of users.

FACTS has doubts regarding the value of paying too much attention to fine-tuning the recovery of indirect costs as there may be little to be gained. As the Draft Report notes, fee paying licensees effectively subsidise class licence use. Cost recovery by the ACA of costs attributable to managing class licensed spectrum should perhaps be directly covered by general revenue. However FACTS suspects the change in fees would be minimal compared to total licence fees.

FACTS notes the recognition by the Commission of different categories of users. This should be understood when reviewing its findings on spectrum planning and licensing.

DRAFT RECOMMENDATION 9.3

To achieve efficient outcomes, spectrum charges should be based on opportunity cost.

FACTS queries what methodology might be adopted to establish opportunity costing. Even the broad "area density" based criteria used at present has its difficulties in establishing appropriate area boundaries. FACTS has participated in Working Groups discussing methods for refining the fee structures, including development of formulae that provide more continuous fee variation than the current stepped structure. However the subject is far more complex than appears on the surface and the net result seem to raise as many problems as it provides improvements.

DRAFT RECOMMENDATION 9.4

The Australian Communications Authority should implement a more transparent and flexible model for calculating the apparatus licence Spectrum Access Tax. In particular, it should ensure that all the elements required for the calculation of fees are given to licensees, and that fees vary in a continuous – rather than discrete – fashion.

FACTS has not been uncomfortable with the transparency aspect of the fee elements as they can be fairly easily calculated from the published tables.

DRAFT RECOMMENDATION 9.5

Shadow pricing of apparatus licences is a suitable technique for avoiding distortions between different types of licence, but it should be undertaken in a transparent and predictable manner that incorporates necessary adjustments to make comparisons meaningful.

FACTS has doubts whether the factors that should be accounted are sufficiently clear as to provide a fair and reasonable assessment. While there has been insufficient experience with spectrum auctions to provide a sound basis for assessment, it is clear that each auction has had specific aspects affecting the prices obtained. These could invalidate trying to assess the application to other spectrum pricing where the technology basis and the relative availability of suitable spectrum vary to a marked degree.

FACTS would be concerned if prices obtained during the height of the technology enthusiasm of the late 1990's were to be used as the basis for spectrum charging for current usage. As we have noted above, experience of spectrum auctions to date suggests that allocation of spectrum by auction, although an efficient tool to maximise revenue, does not necessarily result in an "efficient" use of spectrum or use of spectrum which maximises public benefit.

CHAPTER 10 MANAGING SPECTRUM FOR NON-COMMERCIAL AND BROADCASTING SERVICES

DRAFT RECOMMENDATION 10.1

The Commission recommends that:

- *section 13(b) of the Radiocommunications Act 1992 should be repealed, transferring responsibility for the broadcasting services band of the spectrum to the Australian Communications Authority, to be managed under the provisions of the Act;*

- *licences granting access to spectrum should be separated from content-related licences that grant permission to broadcast, and the spectrum access charges should reflect the opportunity cost of the spectrum used; and*

- *the Australian Broadcasting Authority should retain responsibility for issuing licences to broadcast and for determining the number of non-commercial broadcasting licences in a licence area. It also should retain responsibility for regulating content, enforcing codes of practice and monitoring ownership.*

FACTS does not support this recommendation. FACTS remains of the firm opinion that it would be a retrograde step to restructure spectrum planning for broadcasting spectrum in a manner that separates spectrum planning from the general regulation of broadcasting services.

As noted in FACTS' earlier submission, separating the management of the broadcasting spectrum from the regulation of broadcasting would effectively be moving backwards to the regime that existed prior to the introduction of the *Broadcasting Services Act 1992* and the *Radiocommunications Act 1992*. At the time these Acts were introduced the creation of the umbrella organisation (the ABA) was seen as a substantial improvement to the overall management of broadcasting. Subsequent experience has confirmed the wisdom of that approach.

In the Commission's Draft Report there is recognition of the need for government intervention in reserving spectrum for broadcasting (page 52 para 1). The need for Government intervention is emphasised by the ubiquitous nature of broadcasting, the high investment by the community in broadcasting reception equipment, the role of

broadcasting in maintaining the local and national culture, public access to news and meeting the expectations of the community generally.

Meeting the needs and expectations of the community in the supply of broadcasting services means ensuring the physical access to broadcasting services. This involves management of the broadcasting spectrum and, at the same time, appropriate attention to the content and quality of the services offered.

Technical planning guidelines implemented and monitored by the ABA provide a quality of television broadcasting service which is in accordance with world best practice. These practices ensure quality levels that place Australian television programs competitively in world markets.

In Section 10.4, *Policy options*, the Draft Report states that: "*Commercial broadcasters using spectrum in the broadcasting services bands have a reduced incentive to use the spectrum efficiently because the spectrum used for broadcasting is managed differently*."

It then goes on to propose that planning by the ACA would be more efficient.

FACTS submits that both of these statements stem from an incomplete assessment of the real situation.

First, the planning of broadcasting spectrum use follows very detailed examination and planning by the ABA in consultation with the broadcasting industry and relies heavily on world best practice to provide the maximum number of broadcasting services in any given area. This has been clearly demonstrated by the planning for digital television where, unlike digital mobile telephony, the same spectrum has been used for digital and analogue broadcasting. Mobile telephones on the other hand have used new, virgin or cleared spectrum for introducing each technology change.

Broadcasting in Australia may be seen by some as less than fully efficient in relation to the care taken to avoid interference. Without that care however, the outer predominantly rural service areas would not have access to the services available to the denser population centres. Thus, compared to European countries for example, Australian broadcasters serve much greater areas per unit of spectrum but at the same time, have fewer customers because of the sparser population.

Commercial broadcasters have demonstrated their willingness to fully utilise the limited spectrum they are provided for each service area to ensure full coverage of that area. Many of the fill-in services they have provided may not be seen to be economically justified but are installed to ensure the maximum coverage of the population within the defined service areas.

Secondly, the ACA does not in practice plan the use of spectrum in the way broadcasting is planned. The ACA does some broad-band plan development but little actual service planning. Detailed planning is invariably done by the licensees; particularly the carriers such as Telstra or Optus, Government user organisations such as Defence or aviation, or by single licence users where the ACA simply verifies the interference potential to other licensees. Prior to 1992, when the broadcast planning was carried out by the then Department of Communications, it had a special division of broadcast planning experts undertaking the task of detailed broadcasting spectrum planning.

In this same section, the Draft Report states: "*Many of the spectrum planning and licensing problems discussed above result from the ABA attempting to use technical planning processes to achieve social and cultural objectives.".*

FACTS does not agree that the ABA has departed from good engineering practice and rather contends that the ABA has been effective in maximizing the availability of broadcasting licence opportunities within the available spectrum. The ABA has been particularly vigilant in ensuring that consumers of broadcasting are able to receive the designated services for their area with minimal interference or disruption.

The Commission's Draft Report includes five main points in developing its Draft Recommendation 10.1. FACTS makes the following comments regarding those paraphrased points.

Splitting content from carriage would create preconditions for more efficient use of spectrum.

Broadcasters have only used spectrum for which they are granted licences in accordance with plans prepared by government agencies. With few, if any, exceptions this is barely sufficient to meet the service expectations of the communities within the designated

service area. In our view, broadcasting uses spectrum more efficiently that many other radiocommunications services.

Television broadcasting delivers programming designed to entertain, educate and inform typically on a 24 by 7 basis. The spectrum is efficiently used in comparison with spectrum used by mobile phone operators who design their systems for the busiest time of the busiest day of the year and under-utilise spectrum at all other times.

Splitting content from carriage would facilitate the development of carriage operators

The current provision does not inhibit the development of carriage operators. Indeed carriage of the national broadcasters is by carriage service operators. Additionally, other carriage service operators such as Optus carry the remote area commercial broadcasters while cable services carry all the services provided in major centres. There is no economic constraint that prevents a carriage service provider from providing the carriage for any broadcaster on a third party licensing arrangement. In relation to multiple content

providers, that is a content related matter to which the Government has given careful consideration, particularly within the broadcasting bands.

Splitting content from carriage would improve planning and regulatory efficiency

FACTS is not aware of any justified criticism of the ABA regarding its supposed concerns about the quality of program content resulting in limiting the spectrum made available in licence area plans. FACTS support the ABA's efforts to protect the level of technical performance by constraining interference but FACTS has no knowledge of it limiting the number of television licences. With respect to radio licences, it may be better to refer to that industry.

Splitting content from carriage would allow for technological convergence

The Report draws attention to the Section 40 licences that can be issued by the ABA and notes that these do not relate to direct spectrum access. It should be noted that in comparison to free-to-air commercial broadcasting licence fees, the S.40 licence fees are quite nominal and the licence conditions considerably less regulated.

Splitting content from carriage would create consistency with other spectrum management

FACTS contends that it is in the public interest to preserve the distinction given to broadcasting because of the critical nature of the services provided. The objectives of the Broadcasting Services Act define a set of social objectives for broadcasting that justifiably differentiate broadcasting planning from the purely economically based planning of most of the other spectrum uses. The bipartisan support from Parliament for these broadcasting objectives clearly indicates that there are community concerns that override simplistic market efficiency assessment.

For the above reasons FACTS does not support the Draft Recommendation 10.1

CHAPTER 11 OPERATIONS OF THE ACA

FACTS supports the thorough consultation processes that the ACA has established and maintained and encourages their continuation. FACTS however, is concerned when resource limitations impact on the ACA performing its international coordination role.

In our previous submission, FACTS recognised the ACA's role within the ITU and the importance of this role in effective spectrum planning. The ACA performs this role through representation on a range of broad international issues.

Spectrum management is inextricably linked to spectrum planning and should be addressed by a co-ordinating body, because of the substantial overlap between international issues and domestic issues dealt with in spectrum management. The ACA currently plays a very important role representing Australia on spectrum management issues in the international arena. The ACA has a detailed understanding of, and expertise in, international spectrum management issues.

This notwithstanding, FACTS also supports the retention of the current system of spectrum planning of the broadcasting services band being undertaken by the ABA while spectrum coordination internationally for all spectrum (including the broadcasting services band) is undertaken by the ACA.

FACTS' members also devote a great deal of time and resources to its participation within Australian delegations to the ITU. FACTS stresses the importance of providing the ACA with adequate resources to address the management of international spectrum issues.

Recently, FACTS has noted that the ACA has reduced its attendance at some ITU Study Group meetings to selected participation.

The ACA should be provided with the resources to remain committed to its national and international consultative role and these resources need to be maintained to ensure all Australian users, as well as the future spectrum use by Australians, are protected.

CHAPTER 12 THE WAY AHEAD

As this is effectively a summary of the remainder of the Draft Report, FACTS offers no further comment but trusts that the Commission will take into account the comments made above.