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Spectrum Management Review
Department of Communications
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Spectrum Management Review Discussion Paper: *Potential Reform Directions*

Dear Sir/Madam,

I refer to the Department of Communications' Spectrum Management Review Discussion Paper *Potential Reform Directions* and the request for responses.

The NSW Government Telecommunications Authority (Telco Authority) is responsible for the overall coordination of radio communications services for the NSW Government, including its spectrum holdings. It works closely with NSW Government agencies for which radio communications are a critical requirement for their operations. I have enclosed the Telco Authority's submission on the issues raised. The submission to this latest review builds on our previous responses in relation to the draft Terms of Reference and on the *Objects of the Radiocommunications Act 1992*.

The Telco Authority's response particularly focusses on the public interest test used for the allocation and pricing of spectrum for public safety and community benefit purposes. The need to ensure that the regulator takes into account all of the financial and non-financial benefits of spectrum for these purposes is essential, as is ensuring that all impacts are considered not just the 'general environment'.

It is also important to ensure that any reforms to spectrum management allow for appropriate governance, particularly where there is increased Ministerial decision making, to ensure transparency and certainty. Appropriate national governance and consultation arrangements are also necessary to ensure that the Minister and regulatory agencies are aware of the needs of spectrum users given the co-regulatory environment being proposed.

Should you wish to discuss the submission, please contact Norman Cossey, A/Manager, Policy, Governance and Reform at the Telco Authority on telephone 9372 8522 (or via email at norman.cossey@finance.nsw.gov.au).

Yours sincerely,



Shaun Smith
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Response to
Spectrum Review
Discussion Paper

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General Comments

Divergence from original draft Terms of Reference

Prior to the release of the current discussion paper, the Commonwealth Government issued draft Terms of Reference for the Spectrum Review. Comment was sought on the draft Terms of Reference and the NSW Government Telecommunications Authority (Telco Authority) made a submission. The issues canvassed in this discussion paper do not align with the issues set for consideration in the final Terms of Reference. Of particular concern is the lack of focus on public benefit issues and uses of spectrum.

The NSW Government, in its provision of services to the community, is a significant user of spectrum for the public benefit. Ensuring that these issues remain at the forefront of a review of spectrum is essential in order to ensure that these services receive appropriate priority.

It is for this reason that the Telco Authority is seeking to reiterate the comments on these matters provided in our submission on the draft Terms of Reference.

The importance of spectrum for public safety purposes

Section 3(b) of the *Radiocommunications Act 1992* provides a requirement for the Australian Communications and Media Authority (the ACMA) to allocate spectrum for defence, emergency management and law enforcement purposes. Section 3(b) confirms that a primary role of the Act is to ensure that adequate amounts of spectrum are allocated for defence, public safety, law enforcement and public/community services purposes. The continuation of this provision is necessary to ensure that a range of public service agencies have access to sufficient spectrum to undertake the critical services they provide the community, particularly in the face of increased demand for spectrum as commercial and consumer technology develops.

The Telco Authority is concerned that too much focus on using market based mechanisms to determine spectrum allocation will lead to a diminishing of the requirement for regulators to allocate appropriate spectrum for public safety purposes. In saying this, it is acknowledged that there will continue to be ongoing tension between the spectrum needs of public safety agencies and commercial users of spectrum. This tension helps to ensure that spectrum is allocated efficiently. However, it is essential that the need to deliver vital front line services is not compromised by the ability of budget rich commercial operators to influence public debate and pay large amounts for spectrum allocations increasing the difficulty and pressures attached to provisioning.

Public interest test

The ACMA has in several forums described the circumstances in which it would apply its version of a total welfare test, called a public interest test, in determining the allocation and pricing of spectrum. The ACMA public interest test provides a method of assessing the impact of a regulatory proposal on the public interest including for citizens, consumers, producers, government and the broader social impact.

While the ACMA generally takes a holistic view, it has previously indicated that it may be appropriate to proceed with a regulatory intervention that delivers a certain outcome for society even if the cost is high. While such a scenario is based around taking regulatory action, it can also be applied to the allocation of spectrum where the benefits of assigning spectrum for emergency management and law enforcement purposes may be beneficial despite a high opportunity cost for other users of the spectrum.

It is noted that, where possible, the ACMA will consider quantitative aspects when making assessments under the public interest test. To date, however, the Telco Authority is not aware of circumstances where the ACMA has been able to consider the data available demonstrating the positive benefits of properly equipping emergency services on insurance premiums and productivity levels during the recovery and rebuild after a natural disaster, etc. when considering the allocation of spectrum for public safety mobile broadband (PSMB) purposes.

The ACMA also contends that the benchmark when undertaking a public interest assessment is not the 'current situation' or the 'best outcome possible', but rather the 'general environment that will occur if the regulatory approach is taken as opposed to where it is not'. Unfortunately, it is easy to discount the likelihood of a "one in 100 year" event on a basic level, however, the Australian community has been experiencing a series of "once in 100 year" events that have occurred one after another over recent years including 2009 Victorian Bushfires, the 2010/11 Queensland Floods and the October 2013 NSW Bushfires.

The recent siege in Martin Place, Sydney provides a timely example of a public benefit from spectrum during a rare but possible event. During the incident a live high quality video feed of the building in which the siege was located was integral to decision makers in the field. It was fortunate that on this occasion access to high quality video and communication services via the Channel 7 building across the street was available. In another location it is unlikely that responders could rely on such facilities. A dedicated public safety mobile broadband capability would have allowed law enforcement to transmit high definition video in real time to commanders in the field, while avoiding the likely congestion on commercial mobile services that significant events in a CBD can create. These types of intermittent public benefits need to be taken into consideration when making spectrum allocation decisions.

Commercial influences in spectrum allocation, management and pricing

The Telco Authority is generally supportive of the concept of allowing markets to determine the price of spectrum and its allocation. Spectrum, when used for commercial purposes has a high intrinsic value, and this should be adequately reflected in the price. Having said this, there are a number of uses of spectrum that are for the public benefit, such as defence, law enforcement, meteorological and space uses. Some of these uses have a commercial aspect (e.g. the Bureau of Meteorology selling weather services, and the use of satellite in commercial communications services), while others, such as national security and public safety work essentially do not. Given that spectrum for public services is not used to generate profit this should be recognised in the price paid with a substantial public benefit discount that adequately reflects the benefits to society as a whole in the use of the spectrum. The Commonwealth Government currently applies a public benefit discount to some spectrum allocations but not others, and where a discount is applied it can vary. The Telco Authority supports a public benefit discount, and notes that the Joint Parliamentary Committee on Law Enforcement recommended that a public benefit discount be applied for PSMB purposes, with the Committee also suggesting that a portion of the spectrum fees paid following the Digital Dividend auction be allocated from consolidated revenue to help fund a PSMB capability.

Of course, the allocation of spectrum to a particular public safety purpose does not necessarily mean that the service to be provided cannot be offered by the private sector on a commercial basis. An example of such an arrangement could be the provision of public safety mobile broadband by a commercial operator. However, in such circumstances care needs to be taken to ensure that the allocated spectrum is made available exclusively for public safety purposes in order to bring competitive pressure to bear on potential suppliers of a PSMB capability, or allow contestability in the market place. This will ensure that over the longer term public safety agencies are not locked into a single supplier when it is time to renew contracts. Otherwise, the goal of the most efficient, highest value and cost effective use for the spectrum will not be achieved. It will also need to be appropriately specified and designed to meet the unique needs of public safety workers (such as resilient, robust and secure) rather than simply adopting an as-built current commercial network.

Specific issues for comment

Proposal 1 – Clear and simplified framework

NSW agencies maintains a number of apparatus licences and manages a number of services for the community that rely on spectrum, including public safety activities and the provision of essential services. The requirements under section 3(b) of the Radiocommunications Act 1992 provide a surety that spectrum for our frontline workers will be available in order for them to do their jobs safely and effectively. The Telco Authority is keen to ensure that any new or revised approach to how spectrum is regulated and how the regulatory framework is ordered does not create gaps or lack clarity and that spectrum decisions take into account the Federal Government's responsibilities under section 3(b) to support the public interest.

With this in mind, the Telco Authority is generally supportive of a simplified and clear framework for the management of spectrum. The positive effect of certainty on spectrum users to make investment decisions, and plan and undertake their operations is apparent. A simplified framework can also provide the flexibility required. This can be achieved through dynamic licensing arrangements, such as those that allow licensees to manage their spectrum flexibly so as to gain the most efficiencies in its use or by being able to assign unused spectrum to other users.

The proposed model where the Minister for Communications would set policy for spectrum management and allocation, with the ACMA acting as regulator implementing Government policy has merit. As noted in the discussion paper, it is expected under this model the Minister will issue policy statements and set the Commonwealth Government's policy goals for spectrum management. The Minister would have the power to direct the ACMA in the exercise of its regulatory functions.

This approach is similar to the way the Commonwealth regulates a number of sectors, with varying degrees of Ministerial intervention (e.g. corporate regulation, trade practices and consumer protection regulation). The Telco Authority is supportive of this approach, however, there should be a number of safeguards in place to ensure that Ministerial decision making is transparent, balanced, fair and applied evenly.

The use of policy statements, and the publishing of Ministerial directions (and their reasoning) are essential elements in ensuring transparency. Care should be taken to ensure that as the body of work providing clear policy definition is developed that previous decisions and the lessons learnt from them is taken into consideration.

The Commonwealth's approach to the allocation of spectrum for public safety mobile broadband purposes is an example of how inconsistency in Ministerial decision making can have detrimental effects. The current costs and benefits analysis on the development of a public safety mobile broadband capability is a significant departure from the work previously undertaken by the Standing Committee on Police and Emergency Management and the Public Safety Mobile Broadband Steering Committee. As well as being inconsistent, it delays the preparation work while the Productivity Commission considers the matter.

Likewise, in implementing Ministerial set policy, the ACMA must apply the law equally and give proper consideration to all users of spectrum. The ACMA generally applies the law consistently, however, the ability of the regulator to effectively monitor the marketplace may be limited should it reduce its compliance functions and inspection services. Similarly, as an independent regulator, the ACMA is free to interpret Ministerial policy statements (as opposed to directions) as it sees fit. In order to avoid any confusion, Ministerial policy setting must be clear and unambiguous.

The discussion paper remains silent on how the Minister will be guided in their decision making. The need for appropriate consultation and governance at both the policy setting and regulatory levels is essential. It is expected that the Minister will receive advice from the Department of Communications and the ACMA, however, these two bodies are limited in the perspectives they can bring to the decision making process, either singularly or in unison. Therefore, the need for a consultative committee arrangement to advise the Minister is essential.

A consultative committee comprising key representatives from Government, industry and community groups would be able to provide the Minister with advice on the setting of policy and provide a mechanism for issues of concern to stakeholders to be brought to the attention of the Minister. Establishing a consultative committee in the legislation and encoding its membership, principles and functions will help to ensure that it becomes an integral part of the spectrum management framework. Such a provision would be in line with similar bodies in other legislation administered by the Communications portfolio.

In addition, as the role of the ACMA changes, particularly if a single category of licence and an increased level of co-regulation are adopted, the need for a robust and effective governance framework for the regulation of the sector is essential. In the case of, for example, the Harmonised Government Spectrum in the 400 MHz band, the existing governance and consultation mechanisms, including the National Committee for the Coordination of Government Radiocommunications (NCCGR) and other similar bodies are compromised due to increased responsibilities and no change to Terms of Reference, internal governance and delegations.

In recent discussions between the Telco Authority and the ACMA it was agreed that there could be significant benefit for both parties in progressing with reforms that would allocate increased management of the Harmonised Government Band to jurisdictions. Providing the correct framework for these new governance arrangements to exist is essential. Through the use of legislation, Ministerial direction, and policy setting, a level of legitimacy will strengthen the bodies and encourage participation. Proper resourcing, including from users who stand to gain the most benefits is also necessary.

While the Telco Authority is particularly interested in the governance arrangements for spectrum used by the public sector, the model could be devolved to other groups and industries (e.g. the broadcasting sector, mobile services, private sector land mobile radio, etc.).

Proposal 2 – Single licensing framework

The Telco Authority is supportive of the proposed single licence model. It is noted that a single licence arrangement will help simplify licensing arrangements to some extent. However, the system could be undermined if the ACMA is required to impose a complex number of restrictions and conditions on each licence in order to make it work effectively. In addition, the flexibility required to make a single licence work, such as variations to licence time periods, if not applied in a consistent and transparent manner may also undermine confidence.

The Telco Authority has been in discussions with the ACMA concerning the introduction of a single licence for the Harmonised Government Spectrum in the 400 MHz range. The use of a single licence, that allows flexibility for State and Territory Governments to manage their allocation of spectrum in the 400 MHz band has significant merit and is welcomed.

It is essential that any new single licence arrangements provided for in new legislation compliments any arrangements put in place by the ACMA in relation to the 400 MHz band so that minimal disruption is caused as the licences are transitioned to the single licence. Licensees have already been subjected to significant disruption as the 400 MHz reforms proceed and the opportunity to create a seamless transition presented by the development of an entirely new single licence approach should not be missed. Use of consultative and governance mechanisms as outlined in Proposal 1 could be used to assist in this. They could also be used when determining the specified grounds for not renewing a licence.

Proposal 3 – Flexible allocation and reallocation process

The Telco Authority is generally supportive of the proposals. It is noted that a move to a single licence for State and Territory Governments (who currently hold numerous apparatus licenses) is already underway. It is also noted that the NSW Government, through the Telco Authority, is undertaking many of the functions of a band manager.

The Telco Authority does have concerns with two aspects of the proposal. Firstly, the introduction of private band managers, unless properly managed, may be disruptive if their management of a band is not responsive or is disorganised. In NSW, where the Telco Authority would effectively be a band manager for the Harmonised Government Spectrum there are strong governance arrangements in place. Through the Telco Authority's Spectrum Management Office, procedures for allocating spectrum to government users and third parties is clearly established and documented through policies and procedures.

It is incumbent on the ACMA as regulator to ensure that where private band managers are operating that they have in place similar governance arrangements, processes and resources to manage the band effectively. Related issues arise with the use of 'interference hunters' who may assist private band managers and licensees in dealing with spectrum interference issues.

Secondly, the Telco Authority does not use spectrum for commercial purposes. Where it does authorise third parties to use Harmonised Government Spectrum they are usually community support groups or Federal agencies and so are provided with the spectrum at cost. In its growing capacity to act as an effective band manager, the Telco Authority incurs administrative and associated management costs. The licence fees paid by the NSW agencies to the ACMA have not been reduced to reflect the costs or the reduced workload for the ACMA. This imbalance needs to be addressed, whether through a public interest rebate or licence fee reduction.

Proposal 4 – Spectrum pricing to promote efficient use

The introduction of a more transparent and flexible approach for spectrum pricing is welcomed. The pricing for administrative allocations of spectrum for Government use must be carried out in a consistent and transparent manner. It must also recognise the public interest benefits of spectrum allocated for public safety and essential services uses. Consideration should also be given to the non-pricing mechanisms to deliver the efficient use of spectrum that may be in use.

The Telco Authority manages its own spectrum in the 400 MHz Harmonised Government Spectrum bands in an efficient manner. The Government has consolidated and rationalised services as well as surrendering a large number of licences over the last three years.

The more efficient management of spectrum in the harmonised segments has come at a cost to the NSW Government and the licence fees paid should acknowledge and address this by way of commensurate reductions.

The Minister must also maintain consistency in applying a public benefit discount for Government users of spectrum. A public benefit discount of 50 per cent has previously been applied to spectrum in the 1800 MHz band that is used for rail services. The former Commonwealth Government also indicated when it first allocated spectrum for public safety mobile broadband purposes that a 50 per cent public interest discount would be applied. It is unclear whether such a discount will apply after the Cost/Benefit Analysis for a public safety mobile broadband capability has been completed by the Productivity Commission. Further, in preliminary discussions with the ACMA in relation to a single licence for the NSW allocation of Harmonised Government Spectrum the ACMA has advised that any public interest benefit would need to be directed by the Minister for Communications.

The Telco Authority is both supportive of such a direction in relation to spectrum for public safety mobile broadband and for a single licence Harmonised Government Spectrum as well as a clear policy statement that the public benefit discount will apply for all spectrum issued for Government purposes. This will ensure consistency, transparency and assist States and Territories with planning and investment, particularly in regional and remote areas.

Proposal 5 – Structuring payment schedules for licences

The Telco Authority gives in-principle support to this proposal. NSW agencies predominately hold apparatus licences to support operational requirements and pays an annual fee over the five year period of the licence. Should licences be issued for a longer period of time, the Government considers that a mechanism to pay the licence fees by instalment is appropriate.

Issues around yearly payments (such as risk to the Commonwealth from non-payment) are not relevant for State and Territory Governments who have a continuing need for spectrum.

As with the previous comments, any changes to the payments arrangements must recognise the different needs of different types of licensees (e.g. Government users, small businesses, larger commercial operations, etc.), be clearly documented and consistently applied.

Proposal 6 – Open data

The Telco Authority supports the proposals outlined in the discussion paper. In supporting the proposal, care needs to be taken in relation to national security, law enforcement and commercial in confidence implications from an open data approach.

Proposal 7 – Compensation for resuming licences

NSW agencies have invested heavily in their radio communications infrastructure and in planning their resources to ensure a mission critical service. Should the ACMA seek to resume licences it is appropriate that compensation be payable. The Telco Authority's experience to date in relation to the movement of spectrum holdings in the Harmonised Government Spectrum segments has been one of early consultation and sufficient timelines to deliver change. Nevertheless, compliance has a significant cost that could be partially met through compensation.

An area of concern in relation to the proposals outlined in the discussion paper is the need for further detail of how the compensation scheme will operate. Only once this information is received can a meaningful decision be made on its effectiveness. Details of who would be eligible for compensation and how compensation would be calculated have yet to be developed. Therefore any support for this proposal is preliminary until further information is disclosed.

The discussion paper notes that compensation on licences with less than five years left in the term is unlikely to be made available. Such a time limit fails to reflect the life cycle for capital investment with most infrastructure and equipment having a life cycle of between 10 to 15 years. If a five year limit is introduced it would mean that licensees would not gain compensation for capital expenditure that is only half way to two-thirds through its life, impacting certainty in investment decision making and cost effectiveness.

It is also counter to the current situation where the pro rata amount of costs associated with a license is returned to the licensee when they surrender an apparatus licence. Most government licences are currently apparatus licences which have a maximum of five years duration. Should this timeframe continue under the proposed parameter licence arrangement NSW agencies would not be eligible for compensation. This situation would be untenable given that Government also incurs costs when it is required to surrender spectrum or move its holdings and would need to be addressed during the development of the framework.

Proposal 8 – User involvement in spectrum management

As noted in our response to Proposal 3, the Telco Authority generally supports this proposal in circumstances where the ACMA has in place a sufficient framework to monitor outsourced services and where service providers (such as band managers, frequency allocators and interference hunters) are properly accredited and have in place sufficient governance over their own affairs to ensure that they act in accordance with the legislation, Government policy and appropriate business practices.

While it is not raised in the discussion paper, the funding of services traditionally undertaken by the regulator is an issue that needs to be addressed. It is noted that some of the reforms proposed in the discussion paper will increase the workload of the ACMA, such as additional responsibilities and powers in relation to devices and collecting market information. As a number of existing ACMA functions will also be retained, such as issuing licences, maintaining the licence register, etc.

However, these increased and continuing duties must be weighed against a reduction in activity around interference compliance, band management, frequency assignment etc., and considered in the context of the costs for the ACMA to administer the licences and the red-tape costs that will transfer to licensees.

Proposal 9 – Device supply regulation

The Telco Authority is supportive of this proposal. The ability of unapproved devices to cause interference remains an issue and supply channels are now far more complex than they were in 1992 when the current Radio communications Act was enacted. Efforts to update the law and take into consideration developments in technology and the marketplace are warranted.

Proposal 10 – Flexible allocation and reallocation process

The Telco Authority supports this proposal, noting that providing the ACMA with a range of enforcement and compliance options will allow flexibility and a proportionate response to breaches of the regulatory framework.

Proposal 11 – Moving spectrum to its highest value use

Generally the Telco Authority offers support for this proposal. Having said this, the Authority is concerned that the current proposal does not provide an opportunity for innovative uses for spectrum to be considered. In the example given in the discussion paper, the compression technology for broadcasting services is an already established technology and so it is easy to identify the potential benefits from moving the spectrum to the highest value use while also allowing for improved broadcast services. For new innovative uses of spectrum, however, during the early phases its characterisation as the highest value use may not be readily apparent. This would act as a deterrent to the deployment of new technology that may have immense benefit to society and the national economy. This issue will need to be addressed should this proposal proceed.

