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22nd January 2018.

Spectrum Review Implementation Branch,
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PO Box 78,
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Ref – Response to Five Year Spectrum Outlook 2017-21 Work program document.

On behalf of the Australian Radio Communications Industry Association (ARCIA) we welcome the opportunity to respond to the contents included in this document and to give the representations of the Land Mobile Radio (LMR) industry to the questions raised for comment. ARCIA is the peak body in Australia representing a wide range of wireless communications users as well as the historical LMR industry and we actively promote the best interests of our members and users, as well as the ongoing effective management of the electromagnetic spectrum.

Our Association has taken an active role in the discussions and development of the new Radiocommunications Act and we have expressed our views on behalf of our industry, but we have also recognised and helped to champion the needs of other users of the spectrum. We represent the bulk of the 65,000 plus apparatus licensees that are operating under the present Act and although we may not represent the highest value section of the spectrum, we do speak on behalf of the largest number of users. With this background it is important that we provide relevant input to the Five Year Spectrum Outlook (FYSO) discussions to ensure that our industry sector remains viable and economic.

Until recently there was a pervading sense of opinion within the ACMA that LMR was a diminishing market and that there was little reason to provide much support to LMR issues. Over recent years the ACMA licence records show that LMR services are increasing at a steady rate, although the types of services are changing in format. With this background it is important to note that there is still a significant market share that wish to install and operate their own dedicated private communications networks, the claims of the public carriers that they will be able to provide suitable replacements for private networks may be technically possible, however, the users in business critical systems still wish to maintain control of their own resilience and redundancy capabilities.

As outlined in our responses to the FYSO document, we know that there is a need within the resources and transport industries for those who wish to have the ability to install and operate 'Private LTE systems' (pLTE), along similar lines to their LMR networks which are operating under apparatus licence configurations. The present ACMA determination that any form of suitable LTE spectrum should be packaged and allocated by auction in large amounts and geographical areas is deliberately disadvantaging these market sectors and is not encouraging the best public use of the spectrum. There is a potential requirement for some sections of LTE suitable spectrum to be held for licensing on a 'needs basis', the underlying conditions for this requirement are outlined below.



With the public carriers who actively partake in the auction system and then design and install the broadband systems that will operate on that spectrum, this format suits operators who use the spectrum as a means of generating income as their sole purpose. With other industries the spectrum is simply an aid to productivity and any decision to purchase equipment is justified on the extra productivity that can be gained from the communications systems. For networks like pLTE the users will develop a business case based on the increases in productivity or operational effectiveness that can be gained from the pLTE system, if the gains outweigh the investment required the decision to proceed will be taken. At that point in time there will be a need for spectrum, however, similar to existing apparatus licence formats, the spectrum will only be required in a specific area, not a wide area such as spectrum auctions encompass.

At present there are no facilities to meet this pLTE requirement, although the theoretical outcome would be to either purchase or sub-licence spectrum from one of the carriers, this is not practical with any form of LTE suitable spectrum. The public carriers use their LTE spectrum to generate their income, if there is an application where they can potentially use their spectrum for benefit they are understandably hesitant to allow others to purchase or sub-licence their spectrum. This is a fundamental flaw in the concept of licencing large blocks of spectrum and hopefully creating a demand for a secondary market. In other spectrum segments this might be possible, but with the rapid growth of mobile broadband the public carriers must (and should) retain as much control over their spectrum as possible.

In recent years ARCIA has provided many initiatives to assist the ACMA in its spectrum management role, we have also been very active in both general discussions with the ACMA as well as responding to the many discussion papers. Our responses have always been measured and we make every attempt to put forward suggestions and solutions that are in the best interests of all spectrum users as well as our own industry sector. We have been actively involved in as many aspects of the spectrum review as possible and we welcome the review of the FYSO and support the aims outlined. We are always happy to have the opportunity for meaningful dialogue with the ACMA and Department of Communications & Arts, we believe that constructive dialogue will always provide better outcomes.

We believe that there are also some other outstanding issues that need to be addressed yet they do not appear in the FYSO program –

-) Licence processing system – the ACMA needs to devote some significant resources to finishing off the system. Clients inadvertently having their licences lapse is still a major problem within our industry and the ACMA not having correct contact details for a client appears to be a significant contributing factor.
-) One of our AP members are in the process of re-instating in excess of 100 lapsed licences for a government department. This licensing system issue needs to be given greater priority by the ACMA as this type of exercise is not only expensive in financial terms, but it ties up valuable industry resources on largely unproductive work with no added value to the client or industry.
-) In a Critical Comms magazine interview last year, a senior ACMA manager cited that APs now have the ability to update client details online. The reality is that the only item that can be updated is the postal address, which is a bit of a joke given that the ACMA's preferred method of licence renewal delivery is email!



We thank the ACMA for the opportunity to comment on the purpose and aims for FYSO and as always, we will welcome the opportunity for further dialogue. As a final comment, we would remind the ACMA that at RadComms 2017 the Chairman of the ACCC, Mr Rod Sims, pointed out very clearly in his presentation that when the indications from Government are that 'Spectrum should be used for the highest value public benefit' this does not necessarily relate only to the amount of contribution to Treasury funds, but to many other aspects as well.

Yours sincerely,
Australian Radio Communications Industry Association (ARCIA) Inc.

Ian Miller – Executive Officer



ARCIA response to Five Year Spectrum Outlook 2017-21

Part 1 – Work plans for new major projects.

On behalf of ARCIA, its members and the radio communications industry in general, we submit the following comments against those sections where we believe we have valid points to make.

Section – Changes to this years FYSO and work program.

(i) Strategic focus and coverage.

We support the concepts outlined, especially the formatting of the work program under the major spectrum functions as outlined, we believe that this will give a much better understanding of the ongoing work program as well as giving the opportunity to monitor works in areas that may not be of immediate interest such as international engagement.

We support the concept of only providing updates on existing work programs rather than revising the whole amount of data previously supplied, however, there is also a need to review previous works to ensure that details that might have been omitted previously are corrected in later versions.

(ii) More detail on what and when.

This is important and updates must be meaningful and contain sufficient information and detail to provide a complete understanding of the progress and future actions on the relevant items. The information contained in the present version of FYSO is a huge improvement on previous reports.

(iii) Report back on progress from previous year and stakeholder feedback.

We believe this is a crucial element of the proposed new format for FYSO, there needs to be feedback both on stakeholder comments as well as on progress on individual work projects. We would suggest that there should be a simple quarterly report against each work plan items that indicates whether there has been any change from the original plan where there are significant changes involved. The quarterly or mid-year reports should be simple and brief, outlining only changes to the expectations or where changes have taken place that should be brought to stakeholder attention. For instance, in the current work plan the comment regarding OCP increases for the 400MHz band simply says that the third projected increase has been shown as a decision not to proceed with the charge, yet there is ongoing works involved as a result of industry input in this area and it is still expected that at some stage the increase might be applied? The extra work may have had some impact on other projects from a resource perspective and so should be noted as such.

(iv) Delivering our work program activities.

We support the early notification of the work program, however, if there are a series of simple quarterly or bi-annual updates to the report then the revision and issue of the new FYSO should be a relatively simple process and should only require full detail on new items to be added to the work plan and not the major exercise as at present.



(v) Consultation periods.

As we have outlined in other sections of this response, we believe that in addition to the formal consultation periods provided by 'Discussion papers' there should be regular meetings with stakeholders to seek direct feedback from industry on issues that may be arising as part of the FYSO consultation process. There are times when decisions made by the ACMA impact on industry and end users in ways ACMA staff are not able to anticipate without knowledge provided by industry.

Regular meetings would ameliorate many of the concerns and issues expressed by industry and make the consultation process more meaningful and realistic, as well as contributing significantly to the overall transparency of the process. This would also give visibility where there might be several items for comment and so avoid multiple discussion papers all being released within a tight timeframe.

Responses to the questions raised for discussion in Part 1.

1. Will the proposed structure of the work program assist you in your business planning?

Whilst the underlying processes certainly appear to help those spectrum users with high levels of spectrum demand, it will be of little use to the bulk of smaller users whose demands relate to their own business activities which are not spectrum related and where the need for spectrum is as an aid to more efficient business operations rather than a direct benefit from spectrum itself. For public carriers and other industries where their business development and growth are directly dependent on spectrum the proposed options are most suitable, however, for many users like the members of ARCIA and many industries where spectrum is an aid to operations rather than a generator of income, the format outlined offers no benefit and the outcomes may potentially prove to be negative.

2. Does the content provide adequate detail for you to engage with the ACMA's planned work in a meaningful way?

Although the content outlined is a big improvement of existing processes, the continual theme during the spectrum review process of the need for better transparency perhaps points to the definition of the information and detail provided. On the surface the proposed format could be deemed to provide 'adequate' information, however, is it really enough to be categorised as 'sufficient' information. Given that this is a multi-purpose document designed to advise the Minister of the proposed working plan, as well as provide underlying guidelines for funding and resource allocation within the ACMA, plus report to industry and users on the progress of the planning and works in progress, then the definition of 'adequate detail' becomes important. For instance, in the FYSO document on page 42 under 'Spectrum pricing', there is a comment that "the ACMA decided not to implement the third of the 15 percent increases" in the 400MHz band. There is no mention of this being subject to further investigation, in fact from the FYSO comment it could be construed that there would be no more OCP increases in the band, yet that is not the case as further investigation is continuing. This is an example of adequate not being sufficient and as part of the overall review such detail should be captured now rather than left to fall by the wayside and the need for better transparency become lost in the mists of time..



3. Does the consultation process provide sufficient opportunity for you to contribute to the work program?

No.

In addition to the processes outlined in the FYSO document there needs to be more meaningful consultation with industry. As has been identified within the processes for review of Opportunity Cost Pricing for the 400MHz band, the limited understanding of ACMA staff with respect to the actual use of spectrum in the market-place (and even within technical operations) means that assumptions are being made that are not completely accurate. The indications from this are that there needs to be more direct consultation with stakeholders rather than the present system of 'Discussion Papers' and follow-up response documents, there is an ongoing need for real consultation and discussion to ensure that the intrinsic value of **transparency** is actually achieved and not just as a form of tokenism.

4. Do you have a preference for how the ACMA should communicate changes during the period of a work program?

At this point in time and within the present format the FYSO is an annual work program document, there has been little or no update on progress or changes within the work programs during the course of the validity of the FYSO, basically little or no transparency. Given that the work program is now going to be segmented, it should take little extra effort to issue reports during the year on a quarterly basis indicating whether any of the items within the work program have changed or if new items have been included in the program, as well as what impact there might be on existing plans. For example, with the proposal to implement the third tranche of OCP increases for the 400MHz band, as a result of issues raised by industry the data was challenged and the ACMA decided that more research was required, this meant that the proposed price review was deferred. This should then be flagged in a FYSO update during the year so that everyone knows what has happened and the new work plan outlines. In this case the review of information would have had some impact on other proposed works from FYSO, what were they and how were the priorities affected? There was also no formal notice to industry that the proposed price increase had been abandoned, yet this was a significant change of status.



Part 2 – The forward allocation work plan

Although in general terms we support the proposed outlines for developing the forward allocation work plans, we have significant issues with the continuing proposals for simply auctioning spectrum off in ‘saleable lots’ to the highest bidder as a large spectrum block. This methodology does not recognise that there is a market for Private LTE systems and that frequency allocations for systems such as this should be done by a ‘Needs based’ allocation system, similar to existing Apparatus Licence methods.

We support the concept of the FYSO work plan showing proposals by band and indicating the existing status and projected plans for bringing those spectrum segments to be available for users. The scenarios outlined and other proposals go directly against the potential needs of prospective Private LTE system requirements and so completely ignore an important market sector. This is a very disappointing situation from our Associations perspective.

Responses to the questions for discussion raised in Part 2.

5. Will the proposed structure of the work program assist you in your business planning?

Whilst the underlying processes certainly appear to help those spectrum users with high levels of spectrum demand, it will be of little use to the bulk of smaller users whose demands relate to their own business activities which are not spectrum related and where the need for spectrum is as an aid to more efficient business operations rather than a direct benefit from spectrum itself. For public carriers and other industries where their business development and growth are directly dependent on spectrum the proposed options are most suitable, however, for many users like the members of ARCIA and many industries where spectrum is an aid to operations rather than a generator of operations, the format outlined offers no benefit and the outcomes will potentially prove to be negative.

6. Does the content provide adequate detail for you to engage with the ACMA’s planned work in a meaningful way?

Although the content outlined is a big improvement of existing processes, the continual theme during the spectrum review process of the need for better transparency perhaps points to the definition of the information and detail provided. On the surface the proposed format could be deemed to provide ‘adequate’ information, however, is it really enough to be categorised as ‘sufficient’ information. Given that this is a multi-purpose document designed to advise the Minister of the proposed working plan, as well as provide underlying guidelines for funding and resource allocation within the ACMA, plus report to industry and users on the progress of the planning and works in progress, then the definition of ‘adequate detail’ becomes important. For instance, in the FYSO document on page 42 under ‘Spectrum pricing’, there is a comment that “the ACMA decided not to implement the third of the 15 percent increases” in the 400MHz band. There is no mention of this being subject to further investigation, in fact from the FYSO comment it could be construed that there would be no more OCP increases in the band, yet that is not the case as further investigation is continuing. This is an example of adequate not being sufficient and as part of the overall review such detail should be captured now rather than left to fall by the wayside and the need for better transparency become lost in the mists of time.



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8. Do you have a preference for how the ACMA should communicate changes during the period of a work program?

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Part 3 – ACMA approach to the implementation of the Spectrum Review.

The Reform Context.

ARCIA has been involved in many discussions and workshops as part of the development of the Spectrum Review and supports the concepts as outlined.

Reform Implementation Objectives.

Although ARCIA supports the concepts as outlined, we do not feel that the ACMA have truly embraced the concepts, especially those relating to ‘highest value use or uses’. As outlined by Rod Sims from the ACCC at RadComms 2017, highest value should NOT be construed on the basis of the amount of funds generated for the Treasury coffers directly, this is also reflected in the FYSO document where the text in the second paragraph is highlighted to show that value should include both economic and social value. The same sentence then goes on to elaborate that ‘use’ should encompass both public and private users.

In this context we believe very strongly that as spectrum is being prepared for release to market some sections need to be held back from the present ‘lot by auction’ system and made available for allocation on a ‘needs based’ system similar to present apparatus licence allocations. The reason for this is that there is now and will continue to be a demand for spectrum for private LTE systems in certain industry groups around Australia. The present auction system is not suitable for these users as they generally will require coverage and spectrum licensing in specific geographic locations, not on a national or state-wide basis. It is also the case that most of these users will not yet be fully aware of their needs as they are still developing their future plans. Private LTE users will develop the business case based on their own productivity gains and operational efficiencies, not on the availability and purchase of spectrum initially.

Other than this one fundamental issue with the outlined processes we support the balance of the concepts.

(i) Enhancing market-based activity.

- Greater Industry-initiated licence trading – although this is a positive contribution to the spectrum management concept, in many ways it will not be operable in other than niche market segments. If we look at the general spectrum available to the public carriers the very basis for their business operations are built on having spectrum available on which to provide services to their clients. To date (and it is difficult to see any changes in the future) there has been little interest from the public carriers to relinquish any of their spectrum and trade licences. In particular with the concept of private LTE systems, the carrier’s philosophy is that if there is demand there then they should be meeting that demand with their own services and not trading any of their valuable spectrum to others.

This is understandable and their shareholders would have concerns if any of the carriers were to release a valuable asset for others to use for their own benefit when the carrier could meet that need. The difficulty arises when the potential user of the spectrum and data transmission capacity wishes to retain total control over the operating systems for valid business reasons. In



both the resource and transport industries there is real concern over the resilience and redundancy levels offered as a commercial product in 'business critical' operating scenarios. For this reason there is a need for spectrum, yet there will NOT be a secondary trading regime whilst the public carriers deem that there is a need from which they can generate an income stream.

- Greater use of spectrum sharing – this is a concept that is welcome and can be used to improve spectrum efficiency, however, it may also require changes in existing regulations to enable implementation. At present some of the other instruments under the existing Act such as RALI's may have restrictive clauses that could limit the overall implementation of spectrum sharing. We believe that as part of the implementation of the spectrum review provisions the existing regulations and guidelines should also be reviewed and brought up to date with modern technology capabilities as well as the new legislative requirements. We acknowledge that the implementation of the single licencing system will promote this capability.
- Increasing predictability – we support this capability and welcome the introduction.
- Pricing spectrum to reflect its market value – ARCIA has indicated support for Opportunity Cost Pricing from the time it was first discussed, however, we have had concerns about how the initial 'market value' was derived and also the fundamental data used to justify proposed increases subsequently. At the proposal for the implementation of the third of five proposed annual increases our Association presented information that contradicted the ACMA reference data and pointed out that technology and changes to the use of spectrum made the data inaccurate. The ACMA then did further research and discovered that the information presented by ARCIA pointed out errors in the ACMA assumptions and the third increase was deferred (note – not cancelled as could be inferred from the comments in the work plan on page 42). The salient point from this exercise is that for the ACMA to determine 'market value' there is a very real need for an understanding of the market and the needs of the users, any marketing organisation that makes decisions and implements plans based only on their own data without external verification is not doing the job properly. Relying on spectrum auctions to establish market value is not an absolute indicator, just a snap-shot of demand at that particular point in time.

(ii) Better regulatory design and delivery

- Increased use of market principle and mechanisms – in general we support this aim, however, we would point out that the use of only one mechanism, spectrum auctions, does not embrace the real evaluation of the market or any form of consideration of other users outside of the public carrier industry. The use of spectrum for public infrastructure must be valued in some way as a necessity in certain applications.
- Increased user and third-party management of spectrum – we support this concept and look forward to further investigation of options.
- Faster, more responsive and adaptive regulatory processes – again we support this concept



- Streamlining, simplifying and allowing more user flexibility – this is also an area we support, however, in order for the aim of making it easier to work with Government and to give greater flexibility there has to be a realistic set of guidelines in place. The existing regulations were framed based on the 1992 Act and so should now be revised to ensure that they still represent the requirements of the modern technology and business practices. It is essential that any moves towards flexibility and user involvement in spectrum management functions be underwritten with clearly defined guidelines to avoid the possibility of litigation taking over the management roles by default.

- Enhanced transparency in ACMA decision-making – we are strong advocates for this parameter and have been actively involved in working within the spectrum review to achieve this requirement. This present revision of FYSO is as a direct result of those discussions and requests by stakeholders.

Implementation timing

We support all comments within this section.

Consultation

ARCIA has developed a strong working relationship with the ACMA over recent years and we believe that the role of consultation should be expanded beyond just a series of discussion papers as has been the case in recent years. We believe that where industry is to be affected by changes in spectrum management areas then there should be direct dialogue between the ACMA and any interested stakeholders ahead of the final preparation of discussion papers, far too often the details contained in discussion papers become the basis for the final decision, even though stakeholders may raise relevant points that should be considered. It seems that on occasions there is a real lack of transparency and stakeholder input becomes diminished in the consideration of final positions once discussion papers have been presented. If the ACMA are hoping to take a lower key approach to spectrum management and involve users and industry to a greater extent, then much more dialogue and real consultation will be required.

In general we are comfortable with the transition processes outlined in the document and are looking forward to contributing to the final transition planning as the review is implemented.

Responses to the questions raised in Part 3 –

- 9. Do you agree that these reform objectives appropriately reflect the direction the ACMA should take in implementing the recommendations of the government’s Spectrum Review?**

No!

In the FYSO document, Part 3 – ACMA approach to implementation of the Spectrum Review, the second paragraph of the ‘Reform Implementation Objectives’ the ACMA indicates that spectrum value should include **both economic and social values**. This factor was also raised by Rod Sims of the ACCC in his Radcomms presentation when he highlighted the point that best economic benefits of spectrum should not be judged solely on the contribution to Treasury funds. By continuing to allocate spectrum solely by the supposed market-value approach of auctions the ACMA are NOT recognising the other values that might be made available through a ‘needs-based’ allocation process for some spectrum segments.



10. Are there any other reform objectives toward which the ACMA should direct its implementation activity?

There are other areas that should be included in the ACMA review, with the move towards a single licensing framework (which we support) and the associated move towards more user involvement in interference mitigation, there now needs to be a review of many areas within the ACMA Regulations. Under the single licensing regime there is mention of 'Equipment rules' as part of the management process, it is a strong belief of our Association that there does need to be a realistic and workable set of equipment rules in place before many of the proposed changes under the spectrum review come into operation. For instance, the original intent of the spectrum review was to make it easier for industry and users to work with Government, and to have simpler regulations in place. We believe that guidelines under the RALI's such as LM8 need to be updated to reflect current technology and the more practical spectrum configurations now available as a result of technology and equipment design advances. In addition, the ACMA staff have to develop a much more realistic knowledge of how their actual 'product' (the spectrum) is used in the market and what the real benefits are. In many instances ACMA staff have little or no idea how spectrum is used outside of those promulgated by the public carriers. In the real world any marketing organisation that does not understand how its products are utilised or the benefits offered will not fulfil its purpose, the Government and ACMA should realise that if they are going to try to mimic commercial operations then they must also operate with a more commercial focus. We also believe that in market segments such as the Land Mobile Radio (LMR) sector, concepts such as the 'High Density Areas' (HDA) should be re-examined and changes made. The recent investigation of the number of licences as part of the OCP review revealed that the industry outline of the increase in low-power licences and the trend for high-power allocations decreasing means that the original HDA basis of mostly high-power licence allocations has changed. This means that better spectrum allocation and more efficient use will be gained by changing the operational areas and frequency re-use characteristics, especially in High Density Areas. These planning characteristics have been in place for over twenty years and technology and spectrum use have changed dramatically in that period, as such these parameters should be reviewed as part of the process.

The current consultation processes have become disjointed through different ACMA areas separately consulting the same stakeholders. To actually work the new licensing, equipment rules and regulatory arrangements need to have their fundamental parameters jointly established and referenced in a common place so that all ACMA areas and spectrum users know the rules and limits for the operation of services.

11. What more information do stakeholders require about the ACMA's implementation engagement plan, and when, in order to plan their engagement with ACMA consultation activities?

As an industry group who accurately reflect the views and opinions of the majority of our members, as well as having a relatively practical knowledge of many other industry sectors, we believe that there needs to be an even better system of direct industry consultation rather than the present system of 'Discussion papers'. Whilst we do not wish to see the present system discontinued, we believe that the details outlined in the discussion papers could be far more effective if direct consultation were to take place as part of the development process of these discussion papers. Our Association values the face-to-face meetings we have regularly with the various ACMA sections and we believe they provide better insight for both organisations on an



ongoing basis. We believe that the ACMA should have regular meetings to discuss varied topics ahead of formal positions being outlined in discussion papers, this would lead to a simplification of the process and a higher level of transparency of both issues and outcomes. One of the most common requirements outlined through all discussions during the spectrum review process being developed was the need for better transparency, more open discussions will facilitate this need.