



## **Response to Consultation on Options for Managing the Radio Frequency Spectrum**

**January 2012**

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## Executive summary

The Communications Commission published a consultation on options for managing the radio frequency spectrum in September 2011. A total of five replies were received. However, two of these were purely acknowledgment of the consultation and did not constitute a response. This paper summarises the three substantive responses to the consultation.

- The respondents agreed with most of the proposed actions in each of the thirteen questions in the consultation.
- The proposal that the Commission should encourage additional network-based competition in mobile telephony was supported by most of the respondents.
- The proposal that the Commission should award commercial licences which use radio spectrum to provide a paid-for service to end users, be they businesses or consumers via a comparative selection process was universally supported.
- There was broad agreement that the Commission should award Telecommunications Act test and trial licences on a first-come, first-served basis.
- All respondents agreed that any commitments made by bidders in the course of a comparative selection process should be included as mandatory items within any awarded Telecommunications Act or Broadcasting Act licences.
- There was universal agreement that spectrum trading should not be permitted at this time.
- There was again collective agreement that service neutrality would allow operators flexibility in the communication services offered as part of their licence.
- Support for use-it-or-lose-it clauses was voiced by all respondents. A majority of respondents made the point that such clauses should be sufficiently long to allow the operator time to complete the product life cycle before revocation of the radio spectrum takes place.
- There was broad agreement that licence duration should be as long as the investment / service life cycle and duration should be decided on a sector-by-sector basis. There was not, however, universal agreement on what these timeframes should be.
- There was general agreement on the proposed policy for licence revocation, with all respondents agreeing serious repeated breaches should have penalties attached.
- There was agreement from all respondents on the proposals for licence amendments.

- Overall, there was a lack of support for the proposals on the setting of fees.
- There was an overall lack of support for the creation of a web portal to automate the application process.
- General agreement was received from the respondents on the Commission's proposed position on licence-exempt spectrum for 'white spaces'.

The Commission therefore intends to adopt the majority of the proposed measures. The Commission will develop the procedures for awarding telecoms and/or broadcasting licences that involve spectrum, especially in the 800MHz and 2.6 GHz band.

## **Background**

The Isle of Man Communications Commission is responsible for issuing licences for telecommunications and broadcasting services on the Island. However, spectrum management is the responsibility of the UK Office of Communications (Ofcom). Ofcom licenses and regulates the use of radio spectrum in the Island, under the Wireless Telegraphy Act 2006 of Parliament, which is extended to the Isle of Man, with Tynwald's consent, by Order in Council. The Commission works closely with Ofcom to ensure that Isle of Man Government policies are taken into account in licensing decisions.

Spectrum is a key input for the provision of electronic communication services and networks. It is used to provide both mobile and fixed telecommunication services to residential consumers and businesses and it is used to provide both television and radio broadcasting. Radio spectrum is a major asset and the appropriate management of this finite resource is essential to ensure that services using spectrum continue to function and develop. Radio spectrum does not recognise national boundaries and there has to be global agreement on how the airwaves are defined, allocated and used without harmful interference between the various wireless services around the world. Spectrum management by its nature is complex and technical.

## **The Consultation**

The Consultation document "Options for Managing the Frequency Spectrum"<sup>1</sup> was published on 26 September 2011. The document set out the main strategy options for the Isle of Man in modernising its spectrum policy to maximise the benefits for the Island. This applies both to ensuring that business and consumers have the level and quality of services they need, and to exploiting the Island's specific advantages so that radio frequency spectrum contributes to its economic development and the achievement of industrial policy goals. The paper put forward a series of questions, asking interested parties to submit their comments on any or all of them. The Commission received five replies to the consultation, two of which only acknowledged receipt of the consultation document. Three substantive responses were received from Cable and Wireless Isle of Man Limited (C&WIOM), Clear Mobitel Ltd (Clear Mobitel) and Manx Telecom Limited (MT). This Response to Consultation Paper includes a summary of our proposals as set out in the original consultation, a summary of responses received, our analysis of the responses, and our conclusions and next steps.

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<sup>1</sup> <http://www.iomcc.im/consultations.gov?menuid=16918&type=closed>

# **Spectrum strategy for the Isle of Man**

## **Summary of consultation proposals**

The Consultation document identified three policy options for maximising the benefits of spectrum use for business and consumers on the Island – namely: maximising competition, maximising revenues or maximising investment – and set out the Commission’s assessment of the optimal spectrum strategy for the Isle of Man. This strategy consisted of options to maximise investment in network capacity and exploit the use of ‘white space’ spectrum<sup>2</sup> to promote innovation and development. The fundamental aim of spectrum management should be to ensure that spectrum is used to the maximum benefit of the Isle of Man

## **Consultation Question 1a:**

*Do you agree with this assessment of the optimal spectrum strategy for the Isle of Man?*

### ***Summary of responses***

There was general agreement on the spectrum strategy identified within the consultation document.

C&WIOM agreed with the Commission that maximising competition and revenues would be inappropriate given the geography, topography and customer base on the Isle of Man. They also agreed that maximising investment in network capacity was the most suitable option, as long as operators were consulted on any decisions made concerning timescales and milestones for network investment.

Clear Mobitel broadly agreed with the Commission’s proposals with two caveats. Firstly, the Commission should ensure a fair, competitive process in the awarding of valuable spectrum. Secondly, the liberalisation of the 900MHz should be handled carefully to avoid preventing new entrants to the market.

MT agreed in principle that radio spectrum should be used as a resource to meet the needs of the Isle of Man residents and businesses, and that a balance is required between investment and affordability for end users. MT did not, however, feel that a policy of maximising investment potentially went far enough, as it did not emphasise sufficiently the efficiency of the investment. MT felt that it did not take account of the fact that spectrum, if properly used, reduces the investment cost of underlying networks. MT also asked for further clarity on future licensing requirements and demarcation of the roles currently undertaken by both the Commission and Ofcom going forward.

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<sup>2</sup> ‘White space’ spectrum refers to the vacant radio spectrum in the TV transmission bands, originally allocated to avoid interference. White space devices can detect and utilise this spectrum, and then broadcast long-range, high-bandwidth signals. They are designed to operate without causing interference to TV reception or wireless microphones.

## ***Our analysis and conclusions***

The Commission is still of the opinion that a policy of maximising investment is the optimum spectrum strategy for the Isle of Man. The development of the Island's networks and services is fundamental to the benefit of consumers, and the economy as a whole. The Commission is also keen to promote the Isle of Man as a suitable location for new service development. With firms in the United States alone estimated to spend \$25 – \$53 billion<sup>3</sup> in the coming years on development and installation of new 4G networks, it is critical that the Island also invests in its networks and exploits its spectrum resources.

The Island has a history of European and global firsts in the telecommunications industry (3G, HSDPA), acting as an enabler for business wishing to locate their companies in a modern, forward-thinking jurisdiction. Therefore, a strategy of maximising effective and efficient investment in communications infrastructure and services appears best suited to the Island's goals.

## ***Summary of consultation proposals***

The consultation paper provided an overview of the spectrum currently available on the Island and its possible applications. It also identified further spectrum that could be made available, including the 800MHz and 2.6GHz bands. While spectrum is available for a third mobile operator, the document did not make a recommendation as to whether a third licence should be issued.

## **Consultation Question 1b:**

*Do you believe, given its population and geography, that the Isle of Man could sustain more network-based competition – in particular, a greater number of mobile operators, given that spectrum is available to support this?*

*It would be helpful if you can give reasons and provide us with any evidence for your answer.*

## ***Summary of responses***

Views differed with regards to this question. C&WIOM felt that, with a population of between 85,000 and 88,000 people, the Island's customer base was such that it would be economically unviable to support more than two mobile operators. They argued that an investment of around £15–£20 million is needed to develop an Island-wide GSM cellular network. They stated that: "Both C&WIOM and Manx Telecom (MT) have indicated that they will invest in 4G LTE networks, these investments are likely to occur in 2013 and 2014, although investment in test networks is likely to be earlier". C&WIOM did, however, make the point that customer choice could be enhanced by mobile virtual network operators (MVNOs) entering the market using existing mobile infrastructures.

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<sup>3</sup> <http://www.forbes.com/sites/jasoncollazo/2011/08/22/4g-good-for-the-economy-good-for-jobs/>

MT was of the belief that it was possible that the Island could support more network-based competition but, on balance, they thought this was unlikely given “the failure of Cloud9”, the limited take-up of fixed wireless services and the increase across Europe in mobile operator mergers. Manx Telecom agreed that there is sufficient spectrum available to allow the holding of a reserve of approximately a third of each major mobile band, against the eventuality that a third mobile operator made a viable case to enter the Isle of Man market. However, Manx Telecom also made the point that the option should be left open for some of this reserved spectrum to be allocated to MT and / or C&WIOM in the future, if so required. MT noted that the use of additional spectrum by them would lead to greater network efficiencies and the deployment of new services, particularly as 3G networks are migrated to 4G.

Clear Mobitel firmly believe that the Isle of Man mobile market could sustain more network-based competition. They cited Jersey and Guernsey as examples where multiple operators have spawned innovation and competition in both technology and service pricing. Clear Mobitel stated that Airtel Vodafone was the first operator to introduce 3G to the Channel Islands: “As a result both Jersey Telecom and Cable and Wireless followed suit in the market.”

### ***Our analysis and conclusions***

The Commission welcomes the commitment to rolling out 4G services. The Commission also welcomes the views of Clear Mobitel that the Island could sustain more network competition. Jersey and Guernsey each support three operators, Jersey with a population of 92,500, and Guernsey with a population of just 65,000.

Mobile Services continue to be a very important part of the Island’s telecoms sector, with over 100% penetration. The key drivers of demand for public mobile spectrum are likely to be new and faster data applications, for example the delivery of audiovisual content to mobile phones, high speed access to the internet and corporate intranets, and the provision of ubiquitous mobile broadband. The Commission believes, therefore, that it should not, at this stage, rule out the issuing of a third mobile licence. The 800 MHz, 900 MHz and 1800 MHz and 2.6 GHz (2500 – 2690 MHz) spectrum bands are all suitable for mobile applications. The Commission’s highest priority will be to work with Ofcom to finalise the future of the 800 MHz, 900 MHz and 1800 MHz bands and seek expressions of interest for the available spectrum.

## **Licensing award methods and criteria**

### ***Summary of consultation proposals***

The consultation document set out four options for the allocation of spectrum: licence-exemption, first-come first-served, comparative selection and auctions. The consultation document proposed that the method chosen should ensure that the spectrum resource is used to the maximum benefit of the Isle of Man, and to facilitate the Island’s development as a location for trialling and innovating new products. It was therefore proposed that

different methods of assigning spectrum should be used to reflect the commercial value of the spectrum.

Table 2 of the original consultation, repeated below, demonstrated how the Isle of Man might apply appropriate policy choices to different types of spectrum, depending on their commercial value and on possible non-commercial policy objectives such as the promotion of competition. In practice, frequency bands can be grouped according to their likely commercial value (low or non-existent, medium or high) and similar policies applied to each group. The table was included purely for illustrative purposes

**Table 2: Outline licensing policy options in various bands**

<b>Commercial value</b>	<b>Low</b>	<b>Medium</b>	<b>High</b>
<b>Application</b>	Short-range devices	Fixed Wireless Access	Mobile communications
<b>Frequency band</b>	5.8GHz	26GHz	800 MHz (Digital Dividend spectrum)
<b>Policy objective(s)</b>	Promote innovation	Social inclusion Access to services Business services	Geographic coverage Competition Investment
<b>Licence award method</b>	Licence exempt	First-come, first-served (or beauty contest if supply exceeds demand)	Beauty contest with fixed fee/set minimum price
<b>Conditions attached</b>	Minimal or none	Use-it-or-lose-it	Coverage and roll-out Prevention of interference Use-it-or-lose-it
<b>Duration</b>	N/A	10 years	10 – 15 years
<b>Fee level</b>	Minimal	Medium	High

Respondents were asked if they agreed that comparative selection or 'beauty contest' procedures should be used to award commercial licences.

### **Consultation Question 2:**

*Do you agree that the Commission should award Telecommunications Act or Broadcasting Act licences for commercial radio spectrum use through comparative selection procedures? It would be helpful if you can give reasons and provide us with any evidence for your answer.*

## ***Responses***

All respondents agreed in principle that the Commission should use a comparative selection procedure for valuable commercial licences to encourage a fair, competitive telecommunications market. All operators felt this was the best way to ensure equal treatment.

Both MT and C&WIOM had queries about some of the detail contained within Table 2 which set out what this might mean in practice.

Manx Telecom argued that the information contained in Table 2 of the document was not sufficiently developed to stand as the basis of policy, and needed to be further substantiated. For example, while MT agreed that FWA at 26GHz might only require a first-come first-served approach, FWA at 2.6GHz for WiMax use might be directly competing with mobile technologies in LTE and could require a comparative selection process.

C&WIOM believed that the comparative selection process vets operators and ensures that their agendas are in line with the best interests of the Island, including an ongoing commitment to re-invest in telecommunications infrastructures. C&WIOM did not believe that first-come first-served or auctions seek to allocate spectrum on the basis of merit, intentions or agenda. C&WIOM argued that high costs for spectrum in the mobile communications market, brought about through an auction process, would ultimately result in higher bills for customers. They were also of the view that if any category of frequency – such as fixed wireless access – were allocated on a first-come first-served allocation method, ‘use-it-or-lose-it’ conditions should be applied to avoid spectrum hoarding.

Clear Mobitel agreed with the Commission’s proposed use of comparative selection procedures as a way of encouraging a fair, competitive telecommunications market in the Isle of Man. They believed that this method would work for the allocation of the 800MHz and 2600MHz bands for LTE architectures, whilst allowing existing licensees with 900MHz and/or 1800MHz spectrum holdings to operate enhanced 3G UMTS (HSPA+) in those bands.

## ***Our analysis and conclusions***

Given that the Commission proposes to ensure radio spectrum is used to the maximum effect and to facilitate the development of new products and services, it agrees with the respondents that a comparative selection process would be the most appropriate way of allocating radio spectrum for valuable commercial licences. By using a comparative selection process, the Commission can ensure any commitments made by competing operators are included as part of their licence and as such susceptible to regulation. The Commission agrees that Table 2 in the original consultation was illustrative rather than exhaustive. The Commission agrees that the value of the spectrum will vary according to the service in question, as well as the band, and will take this on board before publishing proposals for awarding specific bands.

## **Test and Development/Trial licences**

### ***Summary of consultation proposals***

Non operational licenses (test and trial) cover activities such as testing and development of wireless equipment, scientific research / experimentation and trials / demonstrations of radio apparatus within a business containing a closed user group. These licenses do not allow any sort of commercial or operational use and are issued by Ofcom. At present no corresponding Telecommunication or Broadcasting Act licence are required due to commercial activity being prohibited.

In order to exploit the Isle of Man's comparative advantage in the availability of spectrum resources (geographic isolation, relatively low population density), the Commission proposed to make Telecommunications Act and Broadcasting Act licences available for the use of spectrum for research and development, technical testing and pre-commercial trial applications. These licences are not intended to have an immediate commercial value, and it was the Commission's view that they should be awarded on a first-come, first-served basis.

### **Consultation Question 3:**

*Do you agree that the Commission should award Telecommunications Act test and development/trial licences on a first-come, first-served basis? Do you agree that commercial trials could be allowed in limited circumstances? It would be helpful if you can give reasons and provide us with any evidence for your answer.*

#### **Responses**

All respondents agreed that test and development/trial licences could be awarded on a first come, first served basis.

C&WIOM believed that test/trial licences could be awarded on a first-come first-served basis, on the proviso that they were only used as per Ofcom guidelines. This would include ensuring that any trial licences are time limited, which would also help to ensure that spectrum is not hoarded. Given that Ofcom already has a clear, transparent and proven method for issuing and controlling the use of trial licences – and remains the body responsible for issuing Wireless Telegraphy Licences in the Isle of Man – C&WIOM believe it is important for the Isle of Man to continue to adhere to the Ofcom process for trial licences. This being the case, C&WIOM do not believe that any trial licences should be used for commercial gain, however limited.

Clear Mobitel expected Ofcom to govern the grant of the licence and were also of the opinion that trial licences should not be used for commercial gain.

Manx Telecom agreed that a first-come, first-served basis may be appropriate for allocating time-limited trial licences on a non-protected, non-interference basis – in bands that are not congested. MT believed limited commercial trials could be allowed but restricted to services that are not in competition with existing commercial services. MT noted that the existing system already allows trial licences to be issued by Ofcom and that co-ordination with Ofcom or existing UK users in trial bands will still be required.

## ***Our analysis and conclusions***

The Commission agrees with Manx Telecom that there is the potential to offer limited test and trial licences, with the added ability for the operator to recover at least some of the cost for the trial through restricted commercial offerings. The Commission notes that the Commission for Communications in Ireland (ComReg) has been awarding trial licences for some time, on the understanding that the trial is carried out on a non-commercial basis and, in particular, that any payment or like consideration by a third party to the licensee in connection with the use of radio equipment, spectrum or services under the licence is limited to recovery of costs arising from the trial<sup>4</sup>. The Commission believes that such licences should be time limited and no expectation should be given that a full licence will automatically become available at the end of the commercial trial.

To enable an operator to recover costs arising from the trial and to extend the service beyond the closed user group of the business concerned and/or to test whether the services are commercially viable a Telecommunications or Broadcasting trial licence would be required. Previously, as no commercial activity was permitted, a Telecommunication Act or Broadcasting Act licence was not required alongside the non-operational Wireless Telegraphy licence supplied by Ofcom. Under the outlined proposals, operators would be selling a service, however limited, to a user base outside of the commercial entity as per the Telecommunications Act Part II section 4(2).

The Commission will work with Ofcom to explore the feasibility of developing commercial trial licences and continue to consider with Ofcom applications for non-operational and trial licences, on a case by case basis.

## **Conditions attached to licences**

### ***Summary of consultation proposals***

The Commission considers it appropriate to include commitments made during a comparative selection process as mandatory conditions in Telecommunications Act or Broadcasting Act licences, rather than treating them as ancillary obligations. If a licence has been awarded on the basis that the bidder undertook to do certain things, it seems appropriate that the ultimate regulatory response, if the bidder consistently fails to do those things, should be to withdraw the licence.

### **Consultation Question 4:**

*Should commitments made by bidders in the course of a comparative selection process be included as mandatory conditions in the relevant Telecommunications Act or Broadcasting Act licence? It would be helpful if you can give reasons and provide us with any evidence for your answer.*

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<sup>4</sup> <http://www.testandtrial.ie/uploads/files/ComReg0535.pdf>

## ***Responses***

All respondents agreed that any commitments made by bidders in the course of a comparative selection process should be included as mandatory items within any issued Telecommunications Act or Broadcasting Act licences.

C&WIOM argued that operators could make unrealistic or unattainable commitments in order to get a licence if they knew they would not be held to such promises. C&WIOM also believed that the inclusion of explicit licence conditions should be publicly available on the Commission's website, to enable a level of transparency and accountability. Given that a corresponding Wireless Telegraphy licence is required from Ofcom, C&WIOM would welcome clarification if such obligations were to form part of any WT Act licence.

Clear Mobitel expressed similar views. They believed a clear licence obligation brought focus and veracity to the entire process and prevented false claims being made by applicants in order to secure a licence.

MT made the same observation, in that promises may never be fulfilled unless they are mandated in the licence. They did, however, make the point that where changes in regulations or legislation rendered the commitment unfeasible, operators should be granted an exception. MT was unclear on how feasible licence revocation might be, given that licences are long term by nature and that an operator would potentially have gained a large market share by the time it became clear they were going to fail to meet their obligations.

## ***Our analysis and conclusions***

As previously discussed, the Commission believes that a comparative selection process would help ensure that promises made during a bidding process were honoured, by including them as mandatory conditions of any subsequent licence. It is clear that any selection process is effectively worthless if the commitments made are unenforceable. The Commission, therefore, will include commitments made within any licence issued following a comparative selection processes. The Commission understands that these obligations would not necessarily need to appear in a corresponding WTA licence, though the WTA licence will refer to the corresponding Broadcasting or Telecommunications Act licence. So, for example, Ofcom may revoke a WTA licence if the corresponding Isle of Man licence has been revoked. The Commission will consider publishing licences on its website but also notes that while ComReg publishes mobile licences, it deletes text considered confidential and subject to the protection of confidentiality. Ofcom does not currently publish all of its WTA licences on its website (although it may do so in future) but does publish details of operators and their assigned frequencies, plus the relevant technical standards applying to each service.

## **Spectrum trading**

### ***Summary of consultation proposals***

In the Isle of Man, where the market is relatively small both geographically and in value terms, and is likely to be already highly concentrated, a single trade could radically change the structure and result in reduced competition. Given that the Communications Commission considers it important to ensure that the policy of promoting investment does not result in harm to competition, its view is that the Isle of Man is not a suitable market for the implementation of spectrum trading, in the form of direct trades between operators without regulatory intervention. The Commission proposed reassignment of spectrum on a case-by-case basis. The Commission also proposed the inclusion of a condition in all Telecommunications Act and Broadcasting Act licences to the effect that those licences may not be sold, leased, traded or otherwise reassigned without its express permission.

### **Consultation Question 5:**

*Do you agree that spectrum trading in the Isle of Man should not be permitted at this time? Do you agree with the proposal to consider spectrum reassignments on a case-by-case basis? It would be helpful if you can give reasons and provide us with any evidence for your answer.*

### ***Responses***

All respondents believed that spectrum trading was not required at this time and thus should not be permitted. All respondents also agreed that spectrum reassignment should be allowed on a case-by-case basis via a clear, transparent process.

C&WIOM agreed that spectrum was a scarce resource that needed careful management by a diligent central body, and that this was especially important in the context of a small market such as the Isle of Man. They agreed that specific conditions in all Telecommunications and Broadcasting Act licences should exist, requiring permission from the Commission before any re-assignment of spectrum.

Clear Mobitel saw merit in the Commission permitting limited spectrum reassignments. Clear Mobitel thought that this should take the form of licensed entities surrendering unwanted / excess spectrum to the Commission for re-assignment under a comparative selection processes.

MT stated that re-assignment should be considered on a case-by-case basis and be permissible unless it would cause damage to competition, consumers or investment.

### ***Our analysis and conclusions***

Given the views of the operators and our own analysis, the Commission is of the opinion that spectrum trading should not be permitted at this time. The Commission will consider appropriate processes for spectrum reassignment.

## **Spectrum liberalisation/change of use**

### ***Summary of consultation proposals***

The Commission recognises that increasingly, where spectrum is harmonised at EU level, this is done on the basis of technology and service neutrality. There is little benefit for a small jurisdiction in departing from this policy, since manufacturers are unlikely to produce specific equipment for a very limited market. The Commission considers that the best policy for the Isle of Man is to follow the EU rules on service neutrality in harmonised bands, while reserving the right to prescribe specific services in certain other bands to achieve public policy goals. In relation to trial licences, service neutrality was deemed appropriate.

### **Consultation Question 6:**

*Do you agree that service neutrality should be applied only in bands which are harmonised at EU level, and for trial licences? It would be helpful if you can give reasons and provide us with any evidence for your answer.*

### ***Responses***

Respondents were all in agreement in principle to a service neutrality approach.

C&WIOM agreed that service neutrality would allow operators maximum flexibility in conjunction with their existing licence, which allows the provision of communication services of any description.

Clear Mobitel agreed that service neutrality should only be applied to bands harmonised at EU level. It was also of the opinion that the same process should be applied to test and development (T&D) licences. Clear Mobitel was of the view that vendors normally follow EU legislative decisions.

Manx Telecom argued that, while they were sympathetic to a service-neutral approach, there may be exceptions with regards to audiovisual policy, to promote cultural, linguistic and media diversity to establish services with coverage areas or to ensure safety of life. MT thought there was also little point in service neutrality if licences were issued under sector-specific legislation. Service neutrality could also be inconsistent with comparative selection processes.

### ***Our analysis and conclusions***

The Commission is of the opinion that service neutrality is an approach that has merit but may be more difficult in practice in a smaller state where market forces are limited. The Commission therefore proposes to follow EU rules on service neutrality in harmonised bands, while reserving the right to prescribe specific services in certain other bands to achieve public policy goals. The Commission proposes to consider changes of use on a case-by case basis.

## **'Use-it-or-lose-it' clauses**

### ***Summary of consultation proposals***

'Use-it-or-lose-it' clauses are terms and conditions in licences that require the operator to provide a service within a certain timescale, or surrender the licence. Their aim is to prevent spectrum 'hoarding', an anti-competitive strategy whereby an operator acquires spectrum which it has no intention of using, purely to prevent an actual or potential competitor from getting it. The Commission proposed the inclusion of use-it-or-lose-it clauses in commercial Telecommunications Act and Broadcasting Act licences.

### **Consultation Question 7:**

*Do you agree with the proposal to include use-it-or-lose-it clauses in commercial licences? It would be helpful if you can give reasons and provide us with any evidence for your answer.*

### ***Responses***

All respondents were broadly in agreement with use-it-or-lose-it clauses.

C&WIOM considers use-it-or-lose-it clauses to be reasonable, so long as sufficient time is allowed for planning, installation, development and launch of new services and products. In the case of comparative selection, timescales should be in line with those stated in the operator's original application. Reasonable timeframes and the ability to provide a broad range of services within a spectrum band would encourage innovation and development of new products and services without the need for further application to the Commission.

Clear Mobitel believed that it is vital to include use-it-or-lose-it clauses in commercial licences. It is, they said, both inefficient and unfair to the market for an operator to hoard spectrum. Clear Mobitel believed that the Commission must apply the use-it-or-lose-it clauses to both new entrants and incumbents equally. The Commission should conduct regular spectrum audits of all licensees to ensure hoarding is not evident and anti-competitive practices are not being used.

Manx Telecom did not see the need for use-it-or-lose-it clauses, but did not object to their introduction as long as they were suitably drafted. Manx Telecom made the point that, to encourage investment, it would not be appropriate to place short timescales on the use of allocated spectrum, as new equipment can take many months to deploy, which can lead to apparent non-use. Short timescales could also result in operators deliberately using spectrum inefficiently to avoid losing it. Spectrum use should be measured over a reasonable time period across the allocated band and across the Island as a whole.

### ***Our analysis and conclusions***

Given that no respondent objected to use-it-or-lose-it clauses, the Commission intends to include such clauses in commercial licences. The timescales appropriate for such clauses will be decided in discussion with the relevant operator and should be in line with

commitments made in their original application.

## **Licence duration**

### ***Summary of consultation proposals***

Licence duration is an important issue in spectrum management. Some services provided using radio frequency spectrum – for example, mobile communications – require high levels of investment, and the licence duration should be long enough to allow this investment to be recovered. A licence duration that is too short is likely to lead to under-investment, particularly towards the end of the licence period, as uncertainty arises as to whether, or under what conditions, it will be renewed. On the other hand, a licence duration which is too long – or indeed which is indefinite – may create problems for the regulator, particularly as international conditions governing spectrum management change. A finite licence duration allows for unexpected developments in technology or international regulation to be taken into account. For the convenience of licence holders, the Commission considers that Wireless Telegraphy Act licences should be coterminous with the associated Telecommunications Act or Broadcasting Act licences for the provision of the relevant services. The Commission considers it appropriate that licence duration should be in line with investment life cycles. It believes that early notification and consultation on proposed changes in spectrum use can alleviate many of the concerns about licence duration. It intends to adopt a sector-by-sector view on licence duration, based on the term of existing licences in the band, investment life cycles and expected international developments in technology and spectrum management.

### **Consultation Question 8:**

*Do you agree that licence duration should reflect the factors listed above, and should be decided on a sector-by-sector basis? What other factors should the Commission take into account in setting licence duration? It would be helpful if you can give reasons and provide us with any evidence for your answer.*

### ***Responses***

There was broad agreement that licence duration should be at least as long as the investment service / product lifecycle.

C&WIOM agreed that Telecommunications Act licences and Wireless Telegraphy Act licences should be coterminous. Given the ongoing capital investment involved in a mobile network, coupled with the ongoing expenditure, C&WIOM believed that licence duration should be a minimum of 15 years. C&WIOM accepted that licence conditions should be sufficiently flexible for holders to forfeit spectrum if they cannot demonstrate they will be using the spectrum to provide additional services.

Clear Mobitel agreed that licence duration should reflect the sector licensed. They also believed that renewal should take into account whether a licensee had delivered on the

prerequisite licence conditions, and its behaviour in the market during the tenure of the specific licence.

Manx Telecom argued that the initial investment in a mobile network is only part of the total lifecycle for a product (upgrades, major refreshes, new technologies). They believe 30 years would be an appropriate starting point for licensing mobile and mobile supporting technologies. Operators will make high-value decisions on certainty that bands will be available in the future.

### ***Our analysis and conclusions***

The Commission broadly agrees with the responses received, though notes the variance in possible licence durations. Sector-by-sector licence duration decisions will need to be made in accordance with the legislation. Clear and firm investment commitments should be made by the operator in respect of longer term licences. Renewal of licences should also take into account the services delivered by the operator during the previous licence period. The Commission will consider varying the licence duration according to the investment required, the sector and likely service, while also taking into account licence durations in comparable jurisdictions. The Commission notes that Ofcom is proposing that 800 MHz and 2.6 GHz spectrum licences will be of indefinite duration (with an initial term of 20 years), continuing in force until relinquished or revoked<sup>5</sup>. While ComReg is proposing to award Liberalised Use Licences in the 800 MHz, 900 MHz and 1800 MHz bands in two Time Slices, where<sup>6</sup>:

- Time Slice 1 commences on 1 February 2013 and expires on 12 July 2015; and
- Time Slice 2 commences on 13 July 2015 and expires on 12 July 2030.

## **Revocation of licences**

### ***Summary of consultation proposals***

The Commission proposed a relatively active stance to spectrum management, as it considers that market mechanisms alone are unlikely to deliver an optimal result in the context of the Isle of Man. Compliance with conditions in Telecommunications Act and Broadcasting Act licences is taken very seriously and, subject to the relevant provisions, the Commission will consider serious or repeated breaches as grounds for revocation of the relevant licence. It is envisaged that spectrum licences granted by Ofcom should contain terms that permit revocation on the expiry, revocation or surrender of the corresponding Telecommunications Act or Broadcasting Act licence.

## **Consultation Question 9:**

*Do you agree with the Commission's proposed policy on licence revocation? If not, what alternative policy should be adopted? It would be helpful if you can give reasons and provide us with any evidence for your answer.*

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<sup>5</sup> <http://stakeholders.ofcom.org.uk/binaries/consultations/944166/summary/combined-award-2.pdf>

<sup>6</sup> [http://www.comreg.ie/\\_fileupload/publications/ComReg1175.pdf](http://www.comreg.ie/_fileupload/publications/ComReg1175.pdf)

## ***Responses***

There was general agreement with the proposed policy on revocation. All agreed that serious and repeated breaches should have serious penalties attached, with Clear Mobitel believing a tough stance is required especially with regard to efficient use of spectrum. Clear Mobitel believes the Commission should conduct regular spectrum audits of licensee holdings to ensure effective use of this scarce natural asset.

C&WIOM agreed that, in certain circumstances, licences should be revocable if conditions of the licence are not met. The option to revoke licences must, however, be carefully defined so as to be fair, transparent and proportionate, and operators should be given adequate opportunity to amend any breaches before revocation is carried out. Whilst C&WIOM accept and agree that the Commission is keen to discourage 'spectrum hoarding' through its ability to revoke licences, they argue that this should not come at the expense of the licensee and the investments they are making in technology and infrastructure which are wholly reliant on the long-term prospect of its spectrum allocation.

C&WIOM was of the view that the ultimate sanction for non payment of fees should be revocation, but a reasonable timescale must be given and any right to revoke the licence must be only in respect to failure to pay undisputed sums. Any sums in dispute should be resolved in line with a clear dispute process. Whilst sums are being withheld pending resolution of a dispute between a licensee and the Commission, this should not trigger a right of revocation. C&WIOM raised further concerns with the other listed reasons for revocation.

MT agreed that, in certain circumstances, a licence should be revocable. However, they argued that care would be needed in amending the licences. MT, while agreeing with the policy on revocation, highlighted that they would not be in favour of retrospective changes to licensing conditions if they could in turn trigger future revocation (rewriting coverage commitments, for example). MT argued that some materiality to the breaches should be required.

Manx Telecom would also like to encourage dialogue where a failure to meet an investment target or coverage commitment by a debateable amount would instigate a revocation of the licence.

## ***Our analysis and conclusions***

Grounds for revocation of a licence, for example through non-payment of fees, already exist in Commission and Ofcom licences. The Commission is also of the opinion that the reasons for licence revocation should be open, transparent, appropriate and proportionate, and welcomes the responses to consultations on this issue. Nevertheless, revocation must continue to be an option available to the Commission, and conditions outlined in the consultation document will be reflected in Telecommunications and Broadcasting Act licences as appropriate.

## **Amendment of licences**

### ***Summary of consultation proposals***

Given the rate of developments, both technological and regulatory, in electronic communications and spectrum management, it must be recognised that the need may arise for amendments, of Broadcasting/Telecommunications Act licences and Wireless Telegraphy Act licences, during their lifetime, particularly if they are of long duration. The Commission envisages that amendment requests related to services would be submitted to it using a standard form and would be processed as quickly as is practicable. It also envisages that an administrative charge would apply to proposals for licence amendments made by the operators themselves. The Commission intends to seek changes to the Telecommunications Act, and corresponding changes to the Broadcasting Act if necessary, to enable this proposal.

### **Consultation Question 10:**

*Do you consider that these proposals represent a reasonable basis for licence amendments? If not, what alternative would you propose? It would be helpful if you can give reasons and provide us with any evidence for your answer.*

### ***Responses***

There was agreement from all respondents that the proposals for licence amendments were proportionate.

Clear Mobitel considers the Commission's proposals for license amendments are both practical and proportionate.

C&WIOM made the point that the process should be proportionate to the issues at stake. C&WIOM called for a clear policy for deciding when an amendment would be considered sufficiently large to warrant a full consultation. As they pointed out, issuing technology and service-agnostic and service-neutral licences would reduce the need for as many amendments.

MT reiterated the point that licence amendments might place existing licensees at a substantial disadvantage if they changed the fundamental commitments originally entered into. This in turn could cause the risk of future licence revocation. Dependant on the change, Manx Telecom would be in favour not just of consultation, but also of the possibility of legal challenge on the merits of such amendments.

### ***Our analysis and conclusions***

The Commission believes the process, as described in the consultation, forms a reasonable basis for licence amendments. The Commission would, of course, consult before proposing significant changes to existing licences.

## **Fees**

### ***Summary of consultation proposals***

To date, fees charged by the Communications Commission have been decided on an *ad hoc* basis. Where the Commission is involved in setting fees for Telecommunications Act or Broadcasting Act licences that require the use of radio spectrum in future, it proposes to set fees consisting of two parts:

- an initial application fee; and
- an annual licence fee that will both cover the Communications Commission's administrative costs and reflect the commercial value of the spectrum, subject to the pursuit of public policy objectives by the Commission.

These fees are independent of any charges that Ofcom may apply for the administration of the associated Wireless Telegraphy Act licences.

### **Consultation Question 11:**

*Do you agree that these policies should underlie the Commission's decisions on fee setting? Are there any other factors which should be taken into account? It would be helpful if you can give reasons and provide us with any evidence for your answer.*

### ***Responses***

There was opposition to the proposition that the Commission should impose a charge for spectrum on top of any charge already required by Ofcom.

While Clear Mobitel believed the fees policy was correct and equitable, both Manx Telecom and Cable and Wireless argued that fees should be limited to cover administration and management costs only.

Manx Telecom did not believe that there was a shortage of spectrum on the Island and so large fees were inappropriate. Manx Telecom did not believe that it should pay fees to both Ofcom and the Commission for the same item. Manx Telecom believed that, where spectrum is scarce, a fee should be charged that reflected the scarcity value.

C&WIOM were unsure how fees would encourage coverage of rural areas, unless fees were to be higher for operators who did not cover these areas. They believed fees must be cost-based, transparent and applied fairly. C&WIOM argued that excessive fees (that could not be justified) should not be charged. They also believed that the costs associated with any spectrum consultation should be covered by the annual licence fee attached to the Telecommunication Act licence.

### ***Our analysis and conclusions***

Fees charged by Ofcom cover the costs of administration (allocation, interference management etc). They do not include a fee for the commercial value of the spectrum

allocated. For example, auction processes carried out in the UK have not been extended to the Isle of Man and spectrum is allocated through the Commission. The Commission intends to follow a similar path in the allocation of the 800MHz and 2.6GHz spectrum. However, the Commission is of the view that a commercial value should be attached to the Island's spectrum. While spectrum is available at the moment, the ever-increasing use of wireless technology means the Commission must have a policy and process that is robust, to administer and control future requirements. Fees charged for commercially valuable spectrum should encourage operators to innovate and use their allocation efficiently. Hoarding spectrum would be commercially unattractive, as an expensive asset would be generating no revenue. Fees, in conjunction with use-it-or-lose-it conditions, should ensure that operators only apply for the spectrum they can and will make effective use of. Nevertheless, the Commission has noted the concerns of some respondents in this area and intends to consult further on the matter in due course.

## **Licensing procedure**

### ***Summary of consultation proposals***

The Commission's aim is that the cost and regulatory overhead of obtaining licences in general, and trial licences in particular, should be proportionate. It was proposed in the consultation document that the process of awarding these licences should become a key 'selling point' for the Isle of Man. It was also proposed that, subject to the potential level of interest, the Commission could investigate the extent to which this process could be automated, perhaps through a web-based platform.

### **Consultation Question 12:**

*How many licence applications would you be likely to make annually for services involving the use of the radio frequency spectrum? Do you think the Commission should automate its system and, if so, who should bear the cost? It would be helpful if you can give reasons and provide us with any evidence for your answer.*

### ***Responses***

Current and potential licensees were unsure as to the number of probable applications for spectrum they would make annually. Neither Manx Telecom nor C&WIOM felt there was a need to automate the process at this time.

C&WIOM believed they did not require an online web platform and so should not be required to cover the cost for its implementation. They argued that trial licences should stay under the remit of Ofcom.

MT believed, based on its historic applications, that it would make one application per year.

Clear Mobitel made the point that automation might be suitable for the management of test and trial licences that would not require a full consultation.

### ***Our analysis and conclusions***

Given the responses received, the Commission has decided it will not pursue the creation of a web portal for radio frequency licence applications at this time. The Commission will, however, keep this under review and base any future decision on the level of interest generated by the Commission's spectrum strategy as a consequence of this consultation.

## **Licence-exempt spectrum**

### ***Summary of consultation proposals***

The Communications Commission's general policy is that rights of use for radio frequencies should only be required where there is a risk of harmful interference either being generated or being suffered by licensed users. The Commission will continue to work with Ofcom to examine spectrum bands, technologies or apparatus that may be considered for exemption from licensing under the Wireless Telegraphy Act. The Communications Commission also intends to encourage, and set aside licence-exempt spectrum specifically for, white space devices (or at least to define spectrum bands in which they can operate on a reasonable, licence-exempt basis). The Commission intends to continue to work with Ofcom in developing the appropriate conditions for licence-exemption of white space devices.

### **Consultation Question 13:**

*Do you agree with the Commission's proposed position on licence exemption? It would be helpful if you can give reasons and provide us with any evidence for your answer.*

### ***Responses***

There was general agreement on this proposal. However, both MT and C&WIOM were keen to ensure that no interference would be generated from such devices to licensed operators. Both operators stressed the need to continue to engage with Ofcom in the development of white spaces and to be seen to conform to emerging standards and policies.

C&WIOM argued that the Commission should continue to work closely with Ofcom to consider which if any devices may not require a licence. They believed no harmful interference should be caused to any operator by way of such devices.

MT did not believe that the use of white spaces could be used to improve the coverage of mobile broadband, as unlicensed usage is very poor for managed wide-area coverage. They did agree that the Isle of Man should continue to adopt commonly accepted licence-exempt standards and bands. MT believed that it was important not to get too far ahead of Ofcom, with regard to white space use, and to remain consistent with the UK. MT was not in favour of unlicensed white space if this was to the detriment of licensed spectrum users. Interference could be a major issue for both DTT devices and LTE 800 handsets.

Clear Mobitel showed considerable support for the Commission's proposals and commented that the Commission was very forward-thinking in its approach to white space spectrum. It fully supported proposals to set aside license-exempt white space spectrum, believing the

Commission to be right to put the Island at the forefront in the development of this kind of spectrum.

***Our analysis and conclusions***

The Commission will continue to work with Ofcom to consider these spectrum bands and emerging technologies. The development of the appropriate conditions for licence-exempt white space devices will be continued. The Commission remains of the opinion that the rights to use these frequencies should not be at the expense of other licensed operators where there is a risk of harmful interference being suffered. The Commission will endeavour to construct a process that enables the Island to facilitate the innovation and exploitation of white space spectrum while ensuring compliance with UK licence-exempt standards.

## **Conclusions and Next Steps**

The majority of proposals consulted upon were supported by the respondents.

The Communications Commission therefore proposes to undertake the following next steps:

- The Commission will include appropriate provisions to enable better management of the Island's radio spectrum in the new legislation currently being drafted, for eventual consideration by Tynwald.
- The Commission will continue to work with Ofcom to finalise the future of the 800, 900 and 1800MHz bands and seek expressions of interest for its eventual allocation.
- The Commission will develop comparative selection processes to allocate spectrum in the 800MHz and 2.6GHz bands. Commitments made by operators as part of this process will be included as obligations under any granted licence.
- The Commission will investigate the feasibility of introducing limited-term test and trial licences that incorporate restricted commercial components. These licences will not be allowed in current commercial markets.
- While spectrum trading will not be permitted at this time, the commission will consider proposals for a spectrum reassignment process.

The Commission will continue dialogue with Ofcom on the proposals to licence-exempt white spaces.

## **List of respondents to the consultation**

Cable and Wireless Isle of Man Limited

Manx Telecom

Clear Mobitel

A. N. Other

A. N. Other