



Pan-Channel Island Consultation on 800 MHz and 2.6 GHz Spectrum Awards

Consultation Document

Channel Islands Competition and Regulatory Authorities

Document No: CICRA 13/38

31 July 2013

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1. Introduction

Telecommunication customers, businesses and individuals alike, are increasing their use of mobile telecommunication technology. As a result, the radio spectrum which is used to provide mobile communication is coming under pressure and may become a bottleneck in satisfying customer demand. Moreover, new technologies are being developed and new international standards on radio spectrum use are being agreed that will improve the benefits that customers derive from mobile communication services. These pressures have already led to the licensing, in every continent, of new radio spectrum for use in the provision of what are variously called 4G (4th Generation) or LTE (Long Term Evolution) services. Since early in 2013, LTE services have been available in the UK. They also need to be available in the Channel Islands.

The spectrum which can support 4G services includes the 800 MHz spectrum – which became available when television broadcasting switched from analogue to digital ('digital dividend') – and the 2.6 GHz band, for which standards and an international framework for its use have now been agreed. Other spectrum may also support 4G services such as the 1800 MHz band, which is used in the UK. Together, these frequency bands provide a substantial increase in the available spectrum as well as valuable opportunities to further the interests of the wider economies and societies of the Channel Islands. Specifically, customer benefits derive from the vastly increased speed and capacity of 4G services, with the result that vast quantities of data, including image and videos, can be transmitted to mobile customer handsets. This is of value in itself and, moreover, can lead to the substitution of 4G services for fixed line broadband services. This widens the range of communication services available to customers and can promote greater access to information and a more inclusive society.

In recognition of these developments and the new opportunities they offer, the States of Jersey and States of Guernsey have jointly requested the Jersey Competition Regulatory Authority (JCRA) and the Guernsey Competition and Regulatory Authority (GCRA) (see 1 May 2013 letter in Annex A) to run a process of spectrum allocation designed to achieve certain key policy objectives common to both Governments.

Like the two Channel Island governments, the regulators have broadly similar duties under the Telecommunications (Jersey) Law 2002 and the Regulation of Utilities (Bailiwick of Guernsey) Law, 2001¹ and, among other objectives, must further the interests of consumers and economic well-being in the Channel Islands. The JCRA

¹ Amended by *The Guernsey Competition and Regulatory Authority Ordinance, 2012*

and the GCRA share a common Board of Directors and have a common leadership. For the purposes of this document, the JCRA and the GCRA are together referred to as the Channel Islands Competition and Regulatory Authorities, or **CICRA**, and all references in this document to CICRA should therefore be read as references to each of the JCRA and the GCRA, unless the context otherwise requires.

In response to the request from the States of Jersey and States of Guernsey, CICRA is continuing a programme of consultation to make spectrum in the 800 MHz and 2.6 GHz bands available to the operators best placed to bring benefits to Guernsey and Jersey through improved services. CICRA published a first consultation in April 2012 but suspended it at the request of the States of Jersey and States of Guernsey. This was to give the new Guernsey government elected in spring 2012 time to review its radio spectrum strategy. In particular, the States of Jersey and States of Guernsey commissioned a report from consultants Analysys Mason to support them in their review. As the Analysys Mason's report could be useful to readers interested in the issues raised by this consultation document, a redacted copy of the report (without confidential material) is included in Annex D.

This consultation will inform the broader regulatory decision framework and the basis for making recommendations to Ofcom on spectrum allocation for the available 800 MHz and 2.6 GHz spectrum in Guernsey and Jersey. Issues to be considered include the identification of the allocation process most likely to yield benefits, the role and form of competition, if any, between operators (new and existing), the uses to which spectrum may be put, the impact on the environment, and the timing of any awards. The methods by which interferences caused by telecommunication activity in these spectrum bands – potential interferences to television broadcasting and air navigation radars – are best mitigated and financed also need to be considered.

Disclaimer

This document does not constitute legal, technical or commercial advice; the JCRA and the GCRA are not bound by this document and may amend it from time to time. This document is without prejudice to the legal position or the rights and duties of the JCRA and the GCRA to regulate the market generally.

2. Structure of the Consultation

The consultation document is structured as follows:

Section 3:	This section describes the legal bases for CICRA's role (with the JCRA and the GCRA having their own separate legal basis in each jurisdiction) in the allocation of spectrum for telecoms purposes as well as the role of UK legislation in this area.
Section 4:	Proposes a set of objectives that might guide the process and criteria for the allocation of relevant spectrum.
Section 5:	Discusses the existing spectrum allocations in Guernsey and Jersey, as well as developments leading to the availability of new spectrum.
Section 6:	Provides an assessment of the issues that appear most relevant to any spectrum award in these bands and seeks views on these.
Section 7	Sets out the likely timetable and consultation stages in reaching a decision allocating any new spectrum.

Interested parties are invited to submit comments to the Channel Islands Competition and Regulation Authorities in writing or by email on the matters set out in this paper to either of the following addresses:

Guernsey Competition and Regulatory Authority Suites B1 & B2, Hirzel Court St Peter Port Guernsey GY1 2NH Email: info@cticra.gg	Jersey Competition Regulatory Authority 2 nd Floor, Salisbury House 1-9 Union Street St Helier Jersey JE2 3RF Email: info@cticra.je
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All comments should be clearly marked "*Pan Channel Island Consultation on award of 800 MHz and 2.6 GHz spectrum*" and should arrive by close of business on **Monday 9 September 2013**.

In line with CICRA's consultation policy, the regulators intend to make responses to the consultation available on the CICRA website. Any material that is confidential

should be put in a separate annex and clearly marked as such so that it may be kept confidential. CICRA regrets that it is not in a position to respond individually to the responses to this consultation.

3. Legislative and Licensing Background

Legislative background and regulatory duties in the Channel Islands

The legislative bases for this consultation in Jersey are provided by the Competition Regulatory Authority (Jersey) Law 2001 and the Telecommunications (Jersey) Law 2002. In Guernsey, the relevant legislation is The Regulation of Utilities (Bailiwick of Guernsey) Law, 2001² and The Telecommunications (Bailiwick of Guernsey) Law, 2001. Any decision resulting from this consultation will be based on relevant laws and duties of the GCRA and the JCRA respectively.

The duties of the JCRA in the telecommunications sector are defined in Article 7 of the Telecommunications (Jersey) Law 2002; the duties of the GCRA in the telecommunications sector are defined in Section 2 of The Regulation of Utilities (Bailiwick of Guernsey) Law, 2001. In addition, there is scope for the States of Guernsey and Jersey to give directions to the GCRA and the JCRA respectively.

UK Legislation relevant to spectrum licensing in the Channel Islands

The use of spectrum in the Channel Islands is governed by UK legislation and international agreements between the UK and other countries on the use to which various bands of radio spectrum can be put and the avoidance of interference across borders. The licensing of spectrum, in the UK and in the Channel Islands, is carried out by Ofcom, the UK communications regulator, by virtue of the powers given to it by the Wireless Telegraphy Act 2006 (WTA) and the Communications Act 2003³.

Ofcom's principal and secondary duties are in Section 3 of the Communications Act 2003 ('General duties of Ofcom'), which provides that:

- (1) *It shall be the principal duty of OFCOM, in carrying out their functions—*
- (a) to further the interests of citizens in relation to communications matters;*
 - and*
 - (b) to further the interests of consumers in relevant markets, where appropriate by promoting competition.*

² Amended by The Guernsey Competition and Regulatory Authority Ordinance, 2012

³ For the Channel Islands, as and to the extent that these Acts are extended to Jersey and Guernsey respectively by Orders in Council.

(2) *The things which, by virtue of subsection (1), OFCOM are required to secure in the carrying out of their functions include, in particular, each of the following—*

(a) the optimal use for wireless telegraphy of the electro-magnetic spectrum;
(...)

Moreover, Section 3 of the WTA ('Duties of OFCOM when carrying out functions') further specifies Ofcom's duties as follows:

(1) *In carrying out their radio spectrum functions, OFCOM must have regard, in particular, to—*

(a) the extent to which the electromagnetic spectrum is available for use, or further use, for wireless telegraphy;
(b) the demand for use of the spectrum for wireless telegraphy; and
(c) the demand that is likely to arise in future for the use of the spectrum for wireless telegraphy.

(2) *In carrying out those functions, they must also have regard, in particular, to the desirability of promoting—*

(a) the efficient management and use of the part of the electromagnetic spectrum available for wireless telegraphy;
(b) the economic and other benefits that may arise from the use of wireless telegraphy;
(c) the development of innovative services; and
(d) competition in the provision of electronic communications services.

For the purposes of the spectrum relevant to this consultation, the respective roles of CICRA and Ofcom in coordinating the award of spectrum licences in the Channel Islands are as follows:

- CICRA ascertains the level and nature of demand for the spectrum which is on offer and recommends an allocation of it by means to be determined in its decision planned for December 2013. Methods such as a call for expressions of interest or an invitation to bid, in particular, could identify whether demand exceeds supply and a selection process is needed. Eventually, when the assessment and selection process is completed, a recommendation is provided to Ofcom; and
- Ofcom may issue licences for spectrum use under the WTA where it is satisfied CICRA's recommendation is consistent with its own statutory duties.

4. CICRA's objectives

As set out in section 3, the legislative background relevant to the process initiated by this consultation covers several pieces of legislation. The joint letter from the States of Jersey and States of Guernsey (Annex A) to CICRA makes clear that the Channel Island governments are looking to a common approach for the allocation of the available 800 MHz and 2.6 GHz spectrum.

As the JCRA and the GCRA have separate duties, CICRA needs to ensure that it has joint objectives for this spectrum allocation process which accurately reflect those of its two constituent authorities. It proposes that the following common objectives should guide the process and criteria for the joint allocation of spectrum in the Channel Islands:

- to further consumers' interests in the short and long term, having regard to prices and costs, and the availability and range of services suitable to consumers' different needs;
- to promote competition as a mechanism to further the consumer interest objective;
- to have regard to and, where it lies within its powers and is practicable, to lessen the impact of the spectrum-dependent activities it regulates on the environment;
- to the extent allowed by legislation, to deal with the Jersey and Guernsey Bailiwicks as a single economic and social entity;
- to seek to ensure the processes and criteria adopted by CICRA are consistent with Ofcom's duties, including the duty to secure the optimal use for wireless telegraphy of the electro-magnetic spectrum.

The first three objectives summarise the duties that CICRA has, in one form or another, in the islands' respective legislation. The last one is relevant to Ofcom acting on CICRA's recommendations. As with Ofcom, CICRA understands its objectives also to include taking account of the impact on other spectrum users of telecommunication activities to which it recommends spectrum be allocated.

Q1. Respondents' views are sought on the above objectives. In particular, CICRA seeks views on the balance it should strike between these objectives and what that might mean in practice for potential applicants and users of the spectrum. These views are intended to inform the services to which CICRA should give greater priority and what obligations should be imposed on potential applicants in allocating the 800 MHz and 2.6 GHz spectrum.

5. Current spectrum allocations and spectrum availability

The purpose of this section is to describe the current situation in the Channel Islands relevant to the use and allocation of the 800 MHz and 2.6 GHz spectrum. This section also includes references to developments elsewhere to the extent that they affect the Channel Islands.

Existing licensed spectrum

The frequencies presently licensed for use in the Channel Islands are set out in Annex B. Together, these frequencies will be referred to in the rest of this document as the 'existing licensed telecoms spectrum'. Within the Channel Islands, the total allocation of sub-1 GHz spectrum for licensed telecom services is presently 2x34.6 MHz in Guernsey and 2x34.8 MHz in Jersey.

Above 1 GHz, some 2x56.2 MHz of combined 1800, 1900 and 2100 MHz band spectrum have been allocated in Guernsey and 2x81.6 MHz in Jersey. In addition there is some un-allocated spectrum in the 3.4 GHz to 3.8 GHz bands that could also support telecom services, typically fixed wireless services, in both Bailiwicks. CICRA is currently considering applications for spectrum in these bands but, so far, there does not appear to be more demand than supply in these bands.

Changes in Spectrum Availability

A number of technological and regulatory developments have now made the 800 MHz and 2.6 GHz bands available for telecommunications use. The availability of this new spectrum is likely to bring a step change in the provision of services to customers for several reasons, including the sheer quantity of spectrum becoming available, the specific characteristics of the two frequency bands and the development of international standards that expand the range of available services that can be provided on the new spectrum. Various factors, none of which may be determinant on their own, therefore combine to create significant opportunities for telecommunication customers and their providers.

The importance of this opportunity is shown, for instance, in Ofcom's consultation paper of March 2011⁴, which says that the availability of 800 MHz and 2.6 GHz spectrum constitutes the largest ever single auction of additional spectrum for mobile services in the UK, equivalent to three quarters of the mobile spectrum in use at the time and 80% more than the 3G auction which took place in 2000. The Analysys Mason report in Annex D also provides useful insights in the value of this spectrum.

This new spectrum is essential to meet the rapid increase in mobile traffic, fuelled by the growth of smartphones and mobile broadband data services such as video streaming, email, messenger services, mapping services and social networking sites. All of these require increased quantities of spectrum – the airwaves that carry information between customers' mobile handsets and the internet. For the UK, typically, the new spectrum will provide much needed capacity for the 4th generation (4G) of mobile technology, set to deliver significantly faster mobile broadband services – approaching today's ADSL home broadband speeds. In other jurisdictions, such as the Channel Islands, use of the spectrum to complement fixed wire services is also a consideration given its potential to provide alternative network competition at the local loop level, in the absence of existing fixed line wholesale access products or competing cable infrastructure such as we see in the UK, for example.

Availability of spectrum in the 800 MHz band for mobile communication services has specifically arisen because of a change in the technology used to broadcast terrestrial television services. These were formerly delivered using analogue technology, which entailed greater bandwidth than needed when using digital technology. This switchover to digital technology has released some 70 MHz of harmonised spectrum in the 800 MHz band⁵. European Commission Decisions on the 2.6 GHz band have led to a common standard and framework understood by EU Member States, which enables the use of this band for telecommunications and provides a basis on which technology using this band can be developed and made available. Some 190 MHz of spectrum in the 2.6 GHz band is potentially available over the coming years.

⁴ <http://stakeholders.ofcom.org.uk/binaries/consultations/combined-award/summary/combined-award.pdf>

⁵ The harmonised frequency arrangement for the 800 MHz band in Commission Decision 2010/267/EU is 2x30 MHz with a duplex gap of 11 MHz, based on a block size of 5 MHz, paired and with a guard band at 790-791 MHz. The Frequency Division Duplex (FDD) downlink starts at 791 and the MHz FDD uplink starts at 832 MHz.

This available spectrum in the 800 MHz and 2.6 GHz bands is not currently licensed for use in Guernsey or in Jersey but the JCRA recommended to Ofcom in 2009 that it issue a licence to, among others, Clear Mobitel (Jersey) Ltd (CMJ) for four FDD paired channels of 5 MHz each (equivalent to approximately 2x20 MHz) in the 2.6 GHz band. This is discussed below.

Previous Regulatory Activity in Jersey

In June 2009 the JCRA commenced an exercise by way of a consultation document whereby it asked for expressions of interest from those who wished to be considered for an allocation of spectrum in the 2.6 GHz band. In September 2009 the JCRA informed the respondents to that consultation of its decision to recommend to Ofcom that parts of the 2.6 GHz spectrum in Jersey should be allocated to several telecom operators. As described below, a dispute between the JCRA and one of these telecom operators was settled by a Royal Court judgment on 22 September 2011⁶. The judgment noted, in particular: “The JCRA explained in its letter to Ofcom that it had a duty to ensure that telecommunications services in Jersey satisfied all current and prospective demands and it also had a secondary duty to further both the short term and long term economic interests of Jersey through promoting competition where appropriate. It was therefore of the opinion that the rapid deployment of technologies that would enhance both the availability and quality of broadband services in Jersey was of prime importance. This suggested that applicants that had shown short term business deployment plans for the proposed Spectrum [2.6 GHz] should take precedence in the allocation of licences (...); hence the greater allocation to those two companies.”⁷

In its response in October 2009, Ofcom considered that, before it could proceed with licensing the 2.6 GHz spectrum, it needed the JCRA to clarify whether all five respondents were content to accept their allocated amounts or whether demand exceeded supply. In the absence of response, Ofcom has not to date issued Wireless Telegraphy licences for the 2.6 GHz band in Jersey. Ofcom also noted that engineering and coordinating conditions for this frequency band needed to be clearly defined.

Following a review by the JCRA of the recommendations for the award of the 2.6 GHz spectrum in March 2011, the JCRA wrote to all operators included in the

⁶ http://www.jerseylaw.je/judgments/unreportedjudgments/documents/display.aspx?url=2011/11-09-22_Clear_Mobitel-v-JCRA_181.htm

⁷ http://www.jerseylaw.je/judgments/unreportedjudgments/documents/display.aspx?url=2011/11-09-22_Clear_Mobitel-v-JCRA_181.htm, at paragraph 13

recommendation informing them that the recommendation made in September 2009 would be revoked and that there would be a fresh consultation on the allocation of the spectrum. CMJ commenced proceedings to judicially review the JCRA's decision to revoke the recommendation made in respect of CMJ.

The Royal Court of Jersey quashed the JCRA's decision to revoke the recommendation in relation to CMJ. The consequence of this is that the JCRA's recommendation in relation to CMJ remains in place while the recommendations in respect of the other operators have been revoked.

The judgment stated that because the Court had quashed the decision on procedural grounds, it was open to the JCRA, if it so wished, to reconsider whether to revoke the recommendation in relation to CMJ and that before doing so it may be helpful to obtain greater clarity as to Ofcom's position. The judgment also stated that, if the JCRA decided that it was minded once again to revoke the recommendation, it should write to CMJ indicating the preliminary view which it had reached and setting out the reasons for that view in sufficient detail as would enable CMJ to respond. CMJ should then be given an opportunity to seek to persuade the JCRA to maintain the recommendation. If such a situation arose the JCRA would be required to give proper consideration in good faith to any arguments which CMJ may put forward at that stage.

The Court also stated it was clear that the final authority in respect of spectrum licensing rested with Ofcom and that, as a matter of technicality, Ofcom was not bound by any recommendation of the JCRA, but the Court was satisfied that any recommendation from the JCRA would normally play an extremely significant part in any final decision by Ofcom. Ofcom's position as to the existing JCRA recommendation is summarised on page 15 of this consultation document.

Previous Regulatory Activity in Guernsey

In November 2008, the GCRA invited expressions of interest in available 2.6 GHz spectrum in Guernsey and in June 2009 issued a further request to clarify demands. Responses suggested that what operators sought in aggregate exceeded the spectrum available. The GCRA view was that in circumstances where reasonable demand exceeds availability and alternatives are not available, a competitive process may be necessary to make allocation decisions. The GCRA noted that a competitive process, in particular an auction, would potentially involve significant funding diverted to some extent from investment in services and infrastructure to support such bids and it therefore indicated that it did not favour the auction route given the existing economic context at that time.

In February 2010 the GCRA issued a consultation document setting out the issues and possible options for the award of 2.6 GHz spectrum. However, the GCRA also notified parties that Ofcom had recently informed the GCRA of issues that had implications for the use of spectrum in this range. Recent work at that time indicated a potentially significant compatibility problem for aeronautical navigation radars in the 2.7 GHz band with existing and potential new services in adjacent bands. Given this, in the immediate future, operational use of the 2.6 GHz spectrum band was likely to be severely constrained. Ofcom informed the GCRA that spectrum allocations for Guernsey might still be considered in principle for eventual operational use but applicants should note that in the immediate future any use, whether on a technology development or an operational basis (if appropriate), would have to comply with a coordination protocol for protection of the airport radars that would limit emissions for 2.6 GHz systems.

Given the seriousness of the issues at that time and the time horizons involved to resolve these, the GCRA decided against moving ahead with any recommendation and related work until there was greater certainty and resolution of the issues.

Implications for the determination of any future recommendation for spectrum allocation

The purpose of this document is to inform the broader regulatory decision framework and the basis for any future recommendation of spectrum allocation for the available 800 MHz and 2.6 GHz spectrum. This framework must support CICRA in achieving its objectives for this spectrum allocation exercise. Although the JCRA has not yet considered whether the existing recommendation regarding CMJ is consistent with the proposed objectives of CICRA, it recognises that it will at some stage need to consider again whether to revoke or modify the CMJ recommendation. In so doing, it is committed to complying with the requirements of the judgment of the Royal Court of Jersey in this regard.

As recognised in the judgment of the Royal Court, allocation of spectrum goes far beyond the interests of one or more telecommunications operators and it is a matter of public policy to ensure that licences to use the spectrum are granted in such a way as to make the most efficient use of it and render the maximum benefit to both the jurisdictions. Since CICRA, including the JCRA, is seeking to act in the best interests of the islands, which is a matter of public policy, it is appropriate that before the JCRA comes to any view on whether or not it is minded to revoke the recommendation for CMJ, a consultation with all stakeholders is held on the wider issues to assist in informing its view. To the extent that information is of a commercial or sensitive nature to respondents, these are not necessarily required to be made public. Nevertheless, it is appropriate that as much transparency and opportunity can be

given to all stakeholders in order to inform any consideration in this area of public policy.

It should be noted that the JCRA has not decided that it is minded to revoke the CMJ recommendation but, should it be minded to do so, it fully intends to write to CMJ indicating any preliminary view which it has reached and set out the reasons for that view in sufficient detail as will enable CMJ to respond. CMJ will be given the opportunity to seek to persuade the JCRA to maintain the recommendation, as required by the Royal Court and set out in its judgment.

Given a proposed objective outlined in section 4 is to seek to ensure CICRA's processes and criteria are consistent with Ofcom's duties, the next subsection outlines Ofcom's position on the JCRA recommendation concerning CMJ and seeks views on the matters raised by Ofcom.

Ofcom's position

As suggested by the Royal Court in its judgment, the JCRA sought clarification of Ofcom's position as to the current JCRA recommendation in relation to CMJ. Ofcom wrote to the JCRA on the 28th of February 2012 stating that there were a number of factors Ofcom would need to resolve before being able to take any licensing decision in relation to the 2.6 GHz spectrum in Jersey. These include:

1. Any indication from the JCRA (in light of the Royal Court's judgment) that it is minded to consider revoking the existing recommendation in relation to CMJ, and the JCRA's proposed process for engaging with CMJ in that regard.
2. The fact that Ofcom raised a number of concerns with the original JCRA recommendation including, in particular, the lack of clarity as to whether demand for the 2.6 GHz spectrum in fact exceeded supply, such that it would have been appropriate for some form of competitive or comparative process to be adopted to determine how the spectrum should be allocated.
3. The fact that Ofcom would expect the JCRA also to recommend the details of which frequencies it considers should be awarded to any individual operator before Ofcom would be in a position to grant spectrum licences. The JCRA had not advised Ofcom of specific frequencies, including those regarding the recommendation for CMJ, which could have been used to assist in the award of WT licences.

Ofcom also explained that it was aware that since the original JCRA recommendation was made (in September 2009), a number of the operators who were to receive spectrum allocations had raised concerns about the nature and/or the amount of spectrum that would have been allocated to them. Ofcom has also received

representations from at least one interested party arguing that an allocation to CMJ alone (in accordance with the existing recommendation) would not be consistent with its statutory duties in that it might adversely affect the position of other stakeholders as regards any future award of related spectrum by JCRA. Ofcom noted that, without taking any position as to the merits or otherwise of such arguments, the position as to the level of demand for the spectrum remained unclear.

In light of this, Ofcom requested the JCRA to inform it how the JCRA intended to proceed with regard to the reinstated recommendation for CMJ. As this matter is likely to affect a number of interested stakeholders, including of course CMJ, Ofcom believed it important that they were made aware of the JCRA's general position as soon as possible. As a consequence, when CICRA was getting ready to issue the consultation that preceded the present document (April 2012), the JCRA sent an open letter (Annex C) to telecommunication operators that hold licences in Jersey to inform them of the consultation and the wider process for the allocation of spectrum, and Ofcom has been kept informed of this.

In light of Ofcom's position and the views of the Court, CICRA seeks comments from operators and other stakeholders on the specific issues below:

- (a) **Commercial decisions based on the JCRA recommendation** – The extent to which operators may have made commercial decisions on the basis of the JCRA's recommended spectrum allocations is a factor to be considered in any decision in this area. The Royal Court judgment quoted above says at paragraph 67: "It seems to us clear in those circumstances that this [the investment of substantial funds on the strength of the Recommendation] is a factor which at least ought to be weighed in the balance when deciding whether to revoke the Recommendation. We are not saying for one moment that it would be determinative but it is surely a factor that ought to be taken into consideration." CICRA seeks further details of the extent of any investment by operators arising from the JCRA recommendation in 2009. Responses should be sufficiently detailed – indicating the rationale for any investment, the amounts involved, the time period over which the investment was made and a clear description of the nature of those investments so as to provide an understanding of their purpose and how those decisions relied on the recommendation and the extent to which they could have been incurred independently of the recommendation – to allow the JCRA to conduct a proper assessment of what should be included in any further review of the CMJ recommendation, should it be minded to do so.
- (b) **Developments since the JCRA recommendations** – There is a question as to whether technology or further developments, given the passage of time, have led to the emergence of other factors than those considered in 2009,

which are material and which CICRA should now take into account. CICRA is seeking views as to what such developments or issues might be, their materiality and how these might inform any assessment by CICRA on how to progress with the future award of the relevant spectrum.

- (c) **Benefits of a pan-Channel Island approach** – The letter from the States of Jersey and States of Guernsey clearly indicates that the Channel Island governments expect CICRA to take into account pan-Channel Island benefits in recommending any spectrum allocation. The efficient use of spectrum and the maximisation of the benefit to the islands are key objectives for CICRA and form part of the duties of the JCRA and GCRA in their respective jurisdictions. CICRA is therefore seeking views on the importance and significance/materiality of a pan-Channel Island approach to awarding spectrum.
- (d) **Scale of the available 2.6 GHz spectrum** – Stakeholders may be of the view that the existing CMJ recommendation for 2.6 GHz spectrum has little bearing on the allocation of the wider spectrum awards discussed in this consultation. The scale of 2.6 GHz spectrum, some 190 MHz, is such that there could be awards for the remaining 2.6 GHz spectrum (190 MHz less CMJ's recommendation of 2x20MHz) without any need to revisit the existing CMJ recommendation, which can then be confirmed and a licence awarded by Ofcom. Views are therefore sought on this.

Q2. Respondents' views are sought on the above issues, namely:

- **Commercial decisions based on the JCRA recommendation**
- **Developments since the JCRA recommendation**
- **Benefits of a pan-Channel Island approach**
- **Scale of the available 2.6 GHz spectrum**

Q3. Views are also sought on any other relevant factors respondents believe CICRA should take into account regarding existing recommendations to the extent they are relevant to future spectrum awards.

CICRA notes that the judgment of the Royal Court expressly requires the JCRA to engage with CMJ in the event that it proposes to take any steps with regard to the current recommendation to CMJ. This current consultation is designed to assist the JCRA in determining whether to take any such steps. CICRA therefore considers it entirely appropriate that this is a public and open consultation at this time.

6. Issues relevant to further spectrum awards in 800 MHz and 2.6 GHz bands

As outlined in section 5, development around available radio spectrum in the 800 MHz and 2.6 GHz bands has wide-ranging implications for the services provided in the Channel Islands. This raises a number of fundamental questions on how those benefits can best be harnessed for Jersey and Guernsey and, in particular for the purposes of this consultation process, how they might inform a decision framework and the recommendation to Ofcom for spectrum allocation.

The precise nature of the benefits of allocating the spectrum will depend on innovation, design and availability of new applications, which may not yet be in the market. It is however appropriate that CICRA at this stage gives consideration to the specific features of the Channel Islands in developing a decision framework and basis for recommendations of spectrum allocation rather than wholly adopt approaches used elsewhere.

In the Channel Islands, the following aspects appear particularly relevant.

1. A high proportion of sub-1 GHz spectrum is held by the two local incumbents, Sure (Guernsey) Limited in Guernsey and JT (Jersey) Limited in Jersey;
2. Reliance is still placed on using the incumbent's fixed network in each island;
3. Environmental concerns exist around the number and size of masts;
4. There is a desire to maintain consistency with the approach and timing of awards in larger consumer markets;
5. The small scale of the Channel Islands has potential implications for the number of competitors feasible in these markets; and
6. The option of an auction approach in allocating spectrum may be less attractive for smaller jurisdictions.

Q4. Respondents' views are sought on the above aspects and on any other which respondents consider relevant. Views are also sought on the weight that should be given to each of these in any decision around spectrum awards and what these mean in practice for the construction of any award process.

In order to assist respondents in identifying the extent of the issues on which CICRA seeks views, further discussion on a number of these aspects is set out below.

The assessment in the UK as to the number of potential competitors that are feasible is based on a population more than 400 times the size of the two Bailiwicks of Jersey and Guernsey, while the population of Ireland, though smaller, is still over 30 times that of the Channel Islands. The related potential market for services is therefore considerably smaller in the Channel Islands.

In the UK, Ofcom has carefully structured its spectrum auction in such a way that, as a result of the auction, there are four holders of a spectrum portfolio that credibly allows the holders the means of providing high quality wholesale mobile and broadband services. In Ireland, similarly, the telecommunication regulator organised and ran a 4G spectrum auction in such a way that it resulted in four holders of the spectrum portfolio.

Whether there should be a similar approach to packaging the spectrum to be made available in the Channel Islands is a question on which CICRA seeks views.

A further issue is that there may be a need for larger contiguous units of spectrum to be made available than is currently on offer. Smaller units of spectrum may not be appropriate for some uses of the spectrum or it may disadvantage some service providers if they do not have sufficiently large units of such spectrum. The issue of how this might be dealt with as part of any award process is therefore an area on which respondents may be able to comment.

It may also be the case that individual operators seek substantial amounts of spectrum in order to deliver the services they propose. As spectrum is a scarce resource, this may reduce the amount of available spectrum for other purposes and choices may need to be made in favour of certain potential uses of the spectrum over others. It may be that the number of operators requiring new spectrum is such that it may lead to a situation where an award to all operators of equal amounts of spectrum risks a dilution of spectrum that reduces the utility of the spectrum for all parties and for the islands as a whole. Should this be the case, CICRA would need means of objectively weighing the costs and benefits of each approach, balancing needs and assessing competing demands.

Q5. CICRA seeks views on whether it should structure its work so as to encourage a fourth telecommunication operator to provide mobile services in the Channel Islands.

Q6. CICRA seeks views on whether spectrum caps should apply as part of any award process and to what extent the issue of contiguity of any existing or new allocation is material to any decision process. If caps are seen to be appropriate or the need for contiguity of spectrum is important, respondents are asked to set out their preferred approach to dealing with these areas and reasons.

Traditionally, spectrum licences have been subject to stricter government controls than other types of licences because they involve the use of a scarce resource and can be hampered by interference. Policy-makers and regulators are, however, in the process of introducing changes within spectrum regulations to grant the right to use spectrum without regard to the type of technology being used (i.e., technology-neutral approach).

In Guernsey, the GCRA's predecessor (the OUR) modified mobile licences in preparation for the next stage in mobile telecoms development by issuing licences that give operators more choice in the use of radio spectrum for the provision of 2G and 3G services. In Jersey, the JCRA issues various licences according to the market power of the licensees; these licences do not distinguish between mobile and fixed telecommunication services and are neutral as to the technology that can be used by licensees. In light of technology developments and standards, for the purposes of this award, there is a case for considering the potential for spectrum use beyond the limits of specific bands and for CICRA to adopt a more holistic approach.

Lower frequencies such as those in the 800 MHz band are suited for widespread and indoor mobile coverage. Higher frequencies such as the 2.6 GHz band are suited to providing the capacity needed to deliver higher speeds and provide services simultaneously to many users. It is therefore generally accepted that sub-1 GHz frequencies and those over 1 GHz are complementary. The complementary nature of these bands might suggest that award of any new spectrum should take into account the aggregate spectrum held by operators after any new award and not only the quantity of new spectrum an operator might receive.

The importance of sub-1 GHz spectrum on efficiency grounds as well as environmental grounds is also relevant to such considerations. It has been noted in reviews in neighbouring jurisdictions that the sub-1 GHz band has particularly advantageous propagation characteristics, with the potential to create significant cost savings for operators in providing advanced data services using fewer, larger cells, than higher frequency bands. ComReg, the Irish communications regulator, commissioned a study of these efficiencies and concluded that the cost savings to be gained by an operator deploying UMTS infrastructure at 900 MHz in Ireland are estimated in the region of 35% compared to using the 2.1 GHz band. Such estimates must however be considered with a degree of caution in the Channel Islands where similar studies have not been carried out.

The supply of spectrum in the 900 MHz band is also limited compared to the likely future requirements of operators in the Channel Islands. The vast majority of this spectrum is held by the respective incumbents in either island for historical reasons.

Of the sub-1 GHz spectrum already allocated, JT (Jersey) Limited holds more than 70% in Jersey, while Sure (Guernsey) Limited holds 57% in Guernsey. Where 800 MHz and 900 MHz band spectrum is substitutable, there is therefore an argument that the availability of this new spectrum might best be used to even the competitive playing field by placing a cap on the amount of sub-1 GHz spectrum any one operator might hold in either jurisdiction.

Q7. Views are sought on whether a sub 1 GHz spectrum cap is appropriate as a criterion for making any award, and the appropriate level of such a cap, if any.

At the same time as CICRA might seek to even the distribution of sub-1 GHz spectrum between operators, it is also proposing to seek to rationalise frequency allocations to ensure that the same spectrum is used throughout the Channel Islands by the same operators (although the final decision on this matter rests with Ofcom). Such an alignment of spectrum across both Jersey and Guernsey is likely to promote efficiency for operators. It is also likely to facilitate decisions and innovation for telecommunication operators by ensuring that any course of action can be undertaken in both Islands simultaneously, thereby increasing the size of the market available for new or improved products. CICRA has already succeeded in rationalising the 2.1 GHz spectrum across both Islands with the cooperation of existing telecommunication operators and it believes the process should be extended to all other spectrum bands.

Q8. Do you agree that CICRA should use the opportunity provided by the allocation of new spectrum to rationalise other parts of the spectrum?

Charges on telecommunications activities using radio spectrum

In May 2013, the Commerce and Employment Department of the States of Guernsey (C&E) published a consultation on its 'in principle' decision to set a new charge on telecommunication activities using radio spectrum in Guernsey⁸. The essential reason for such a charge, as described in the consultation document, is as follows: "The Board believes that because radio spectrum is a limited Island resource which is utilised for commercial gain by the mobile network operators, it would be appropriate for them to make a financial contribution to the Island in recognition of this fact."

The C&E Board has now taken a decision in principle to proceed with a charge but, at present, there is no further decision as to the basis on which it will be levied, or any

⁸ Consultation: Charge on telecommunications activities utilising radio spectrum at www.gov.gg/spectrum

other specific provision. For the avoidance of doubt, such a charge will be separate and distinct from the Ofcom wireless telegraphy licence fee. It is likely, whatever the details of the charge, that it will add to telecommunication operators' costs and, to an as yet undefined extent, to the prices customers pay for services depending on radio spectrum.

Q9. Views are sought on whether the charge proposed by the States of Guernsey raises special issues for CICRA in determining an appropriate allocation of spectrum in Guernsey or in the Channel Islands.

Fixed wireless and mobile broadband

The new spectrum is expected to facilitate the provision of new services utilising the additional spectrum and a distinction might be made between mobile broadband and fixed wireless services.

The latter, in some countries and in some circumstances more than in others, is becoming a substitute for fixed networks, substituting wireless technology. Similarly, the former may offer a degree of substitution for fixed network technology, though presently the pricing differential acts as a barrier to pure substitution.

2.6 GHz spectrum has the potential to support the evolution of mobile services to the next and subsequent stages in the development of mobile telecommunication services. Access to suitable amounts of spectrum is seen as necessary for mobile operators to facilitate future growth as greater demand is made on networks given increased use of data services and the nature of these services. These benefits are discussed in considerable detail in any number of consultations in other jurisdictions and form a major consideration in deciding how best to allocate such spectrum.

This spectrum may also enable the delivery of services currently provided through fixed telecommunication infrastructure. The potential for 2.6 GHz spectrum to offer competition at the 'local loop' level appears to be less of a consideration in jurisdictions such as the UK. This may be explained by the existence of cable competition and wholesale access in other jurisdictions. However, in the Channel Islands potential alternative infrastructure providers face particular difficulty in circumstances where economies of scale are not present. In both Guernsey and Jersey, the existing local loop, for example, is a legacy of the respective States-owned companies' exclusive right to build the initial fixed network and, in the absence of wholesale access products, market entrants must continue to rely extensively on the incumbent to provide competing services through the wire network.

While there is some alternative fixed network infrastructure to that of the incumbents in the Islands, and plans to develop new wholesale access products,

competing fixed telecom service providers continue to rely for the most part on the technical specifications and speed of investment of the incumbent when attempting to provide competing fixed services. Certainly, the 'local loop' element of the incumbent's wire network is a particular key barrier to the development of competition in the provision of fixed services in Guernsey and Jersey.

LTE⁹ is the technology cited by telecommunication experts as potentially facilitating both the above developments, as is WiMAX¹⁰ technology. Allowing sufficient spectrum for the provision of increasingly sophisticated mobile services to support the innovations that go with them is a material consideration in any spectrum allocation in view of the potential benefit to the islands of access to such services. The prospect of weakening a key barrier to competition in the fixed market through the utilisation of 2.6 GHz spectrum in providing a competitive network to the fixed wireless services is also a key issue in moving the market forward in the interests of both the Jersey and Guernsey economies.

Consumers in the Channel Islands have for some time raised concerns regarding existing broadband service offerings, both in terms of speed and cost. While the Islands have competing fixed service operators, there are limitations on their ability to innovate, given the network specifications and wholesale prices charged by the incumbent.

It is CICRA's view that competition ultimately offers a more effective means of lowering costs, driving innovation and ensuring the pace of investment is set by consumer requirements. This seems particularly relevant to the challenges faced in the Channel Island jurisdictions. The potential for improved broadband access speeds and improvements in innovation appear substantial. Given the above, the prospects for innovation, price and higher capacity for consumers may be considerable where the 2.6 GHz band is deployed to deliver high speed services comparable to that of the current local loop.

Depending on the scale of demand from operators looking to deliver either fixed wireless based services or mobile broadband, the spectrum award on which CICRA is

⁹ Long Term Evolution (LTE) is a 4G wireless broadband technology developed by the industry trade group 3GPP. Unlike its predecessor technologies, LTE's upper layers use TCP/IP, enabling all traffic -- data, voice, video and messaging -- to be carried over an all-IP network. LTE provides significantly higher peak data rates than the earlier 3GPP technologies, with the potential for 100Mbps downstream and 30 Mbps upstream, reduced latency, scalable bandwidth capacity, and backwards compatibility with existing GSM and UMTS technology. Future developments could yield peak throughput on the order of 300 Mbps.

¹⁰ WiMAX (Worldwide Interoperability for Microwave Access) is a communication technology for wirelessly delivering high-speed Internet service to large geographical areas. The 2005 WiMAX revision provided bit rates up to 40 Mbit/s[1][2] with the 2011 update up to 1 Gbit/s for fixed stations.[3] It is a part of a "fourth generation," or 4G, of wireless-communication technology, WiMax far surpasses the 30-metre (100-foot) wireless range of a conventional Wi-Fi local area network (LAN), offering a metropolitan area network with a signal radius of about 50 km (30 miles).

consulting may involve a choice between allocating spectrum to fixed wireless services at the expense of future mobile broadband services, or vice versa, depending on which best serves the interests of the islands. Alternatively, if there is more demand for spectrum than there is available, this may result in one of the two services, mobile or fixed wireless, given more opportunities to expand than the other.

Q10. Views are sought on the benefits of these two areas in which spectrum can be deployed and to what extent a strategic choice between them may be needed in any allocation decision.

Environmental considerations

The possibility that the new spectrum might enable the building of complete new networks competing with existing ones, fixed or mobile, may have an impact on the environment in the islands. The presence of mobile masts has raised concerns in both jurisdictions. CICRA conducts regular audits of mast sites and mobile emission levels to ensure these comply with appropriate standards, and in particular meet ICNIRP standards, and a full audit of all mast sites on the Islands took place in 2012¹¹.

The GCRA is under a duty to promote the objectives set out in section 2 of The Regulation of Utilities (Bailiwick of Guernsey) Law, 2001, including “to lessen, where practicable, any adverse impact of utility activities on the environment”. The JCRA is also subject to a direction from the Minister for Economic Development, requiring it to have due regard for the States’ strategic environmental objectives when carrying out its functions. Both authorities must consider whether the award of further spectrum contributes to discharging those duties.

These duties will have a key role in determining the relative weight that might be given to the alternative options available to CICRA in setting up the process for evaluating spectrum awards. CICRA invites views on the environmental duties of the regulators in particular and on how CICRA may take account of these environmental duties, when framing any award process.

Q11. Respondents’ views are sought on the issues in this section and, where additional considerations are identified, they are invited to set these out also. In particular, CICRA seeks views on the environmental factors – including actions in which telecommunication companies should engage –

¹¹ The results of the audit can be viewed on CICRA’s website:
http://www.cicra.qg/telecoms/consumer_information.aspx#Mast

that might inform the construction of any award process and the weights or priorities it should give these factors in deciding on awards.

Structure of allocations

Annex B sets out the current licensed spectrum in the Channel Islands. The options pursued in other jurisdictions include combinations of 800 MHz and 2.6 GHz spectrum and it may be that a similar approach would be appropriate for these awards in the Channel Islands. CICRA is therefore seeking views on what combinations of 800 MHz and 2.6 GHz spectrum may be appropriate. The choice of combinations will have implications for efficiency and the environment, as well as for the number of operators that could feasibly be included in any award.

Q12. Respondents' views are sought on the above issues and, in particular, what specific combinations of 800 MHz and 2.6 GHz spectrum should be made available, or whether spectrum in these two bands should be made available as separate awards. Operators that intend to seek spectrum awards are requested to set out, in as detailed a manner as possible, what spectrum is sought and to what purpose.

Tradeable licences

There are uncertainties as to the benefits and costs of delivering the services which the new spectrum facilitates. In order to lessen such risk and encourage innovation and investment, there is a suggestion that – subject to the appropriate legislation being in place in Jersey and Guernsey – licences issued by Ofcom should be tradeable. Licence trading would ensure that operators have exit routes and opportunities to re-organise their portfolios. While the licensing of spectrum is Ofcom's responsibility, CICRA may wish to ensure that there are no obstacles to licence trading that it may be in its control to remove.

Q13. Views are therefore sought on whether this approach is desirable and what CICRA might need to ensure is in place to give effect to any such approach.

Interference with aviation radars

The provision of mobile services in the 2.6 GHz band requires the use of special filters by aviation radars operating in the 2.7 GHz band. International agreements to

which the Channel Islands are party (as represented by Ofcom) expect aviation radars to be fitted with such filters in line with world-wide government policy to free up as much spectrum as possible to promote mobile and wireless communications.

In the UK, accordingly, the provision of filters has been the responsibility of the radar operators, largely financed by direct grants from the UK government. Guernsey Airport is in the process of installing new radars equipped with appropriate filters. In Jersey, the States have indicated they believe the cost of radar filters should be borne by telecommunication operators which cause these filters to be needed. However, there is an argument that telecommunication operators in the Channel Islands are not the key drivers for the need to install filters. Radar filters may be needed in any case since French telecommunication operators are building a 2.6 GHz network that will reach French coasts near the Channel Islands by autumn 2014.

CICRA is in touch with Ofcom to obtain further clarity on the situation.

As Guernsey residents have already contributed to the cost of installing filters on Guernsey airport radars, it seems fair, as a general principle, that telecom operators in Guernsey – and, therefore, their customers – should not be paying for the installation of radar filters in Jersey.

It should be noted that the installation of filters to airport radars do not remove an obligation on telecommunication operators to coordinate their antennae installation with radar operators and abide by the specific conditions in the spectrum licences issued by Ofcom to ensure radar protection.

Q14. Views are sought on whether responsibility, if any, for the cost of filters for the Jersey airport radars should be on telecommunication operators in Jersey only.

Q15. Views are sought on how the cost of installing filters at Jersey Airport should be shared among telecommunication operators, whether it should be the operators active in the 2.6 GHz band only, or those operating in all the bands that could be substituted for the 2.6 GHz band, or those offering 4G services, or operators using other spectrum also.

Interference with digital terrestrial television (DTT) broadcasting

The 800 MHz spectrum is adjacent to the frequencies used for digital terrestrial television (DTT) broadcasting. Due to this proximity, signals between phones and base stations used for the next generation of mobile services might interfere with set top boxes and digital television transmission when it is delivered through an aerial. In advance of issuing 800 MHz spectrum licences, Ofcom estimated that this interference could potentially affect up to 10% of DTT viewers in the UK if no

measures were put in place to solve the problem. Experience since 800 MHz networks have been tested in practice to date suggests that less interference than initially predicted may actually be experienced¹². Also, it appears that some of the DTT customers who complain of interference may suffer it for reasons not necessarily related to use of the 800 MHz band by telecoms operators.

In most cases, interference problems due to use of the 800 MHz band are resolved by a filter fitted to individual TV aerials. These filters block the signals that interfere with TV reception. Where these filters do not solve the problem, affected viewers need to receive support to change platforms; for instance, to move to a satellite set-top box instead of a Freeview set-top box.

It is a priority for CICRA, the States of Jersey and States of Guernsey that DTT viewers who suffer interference from mobile services are helped in an effective and timely fashion. As in the UK, it is proposed that telecommunication operators in the Channel Islands be responsible for the cost of so doing. In the UK, telecommunication operators have set up and are financing a company – called at800 – which is responsible for carrying out the work on their behalf and operates to demanding standards of customer response.

CICRA is working with the States of Jersey and States of Guernsey in preparation of taking action on DTT interference. It has identified a number of issues on which decisions are needed.

- In view of the comparatively – relative to the UK – small size of the Channel Islands, it is important to determine whether it is necessary to develop a forecasting model of likely interferences. As it could cost between £80,000 and £100,000 simply to produce a forecast, which experience in the UK suggests may be conservative, it may be preferable to keep resources for actual mitigation.
- There need to be effective Key Performance Indicators (KPIs) for the telecom operators responsible for mitigating interference so they prepare to respond effectively and quickly to reports of interference. KPIs should be such as to be re-assuring for members of the public who are worried about the quality of their DTT services.
- It may be useful to undertake a survey of the extent to which DTT is actually used in the Channel Islands and the existing DTT quality of reception perceived by customers. It is at800's experience in the UK that some

¹² See <https://at800.tv/press-releases/at800-updates-estimate-of-likely-impact-of-4g-at-800-mhz-on-freeview/>

customers may complain of DTT interference which is not related to mobile use in the 800 MHz band.

- The possibility of extending at800 activities to the Channel Islands or of using at800's expertise and experience to set up a similar central body – in either case, financed by local telecom operators – needs to be investigated.
- CICRA needs to determine which operators, and which users of spectrum, should bear the cost of dealing with DTT interference. Options include making liable all holders of 800 MHz band, or those that also use the 900 MHz band since it is a close substitute to the 800 MHz band, or those that use any spectrum frequency for the purpose of providing 4G services, or other users of spectrum.

Q16. Respondents' views are sought on all five points above: value of forecasting model, KPIs, survey of existing DTT services, the setting up of a central delivery service, and the allocation of DTT mitigation costs.

Competitive process

It is possible that the bids expected late in 2013 or early in 2014, in total, ask for more spectrum than is available to allocate at the time. In such a case, CICRA will need to use a mechanism – some form of competitive process – that enables it to determine how the spectrum should be allocated. Essentially, two approaches are open to CICRA: an auction-based approach or a comparative selection process, often referred to as a 'beauty parade'. Larger jurisdictions have awarded spectrum in the past often on the basis of an auction. However, the Channel Island regulators have so far avoided the auction approach.

CICRA's provisional view is that allocation should not be by means of an auction. A key reason for this is that the set-up costs of an auction are of a scale more appropriate to much larger markets and may not be justified in a small jurisdiction, where those costs would be, potentially, disproportionate to the benefits. Another reason is that CICRA is keen to ensure telecommunication companies' funds should not be diverted away from investment in networks and services that will benefit islanders. Both the Economic Development Department in Jersey and C&E in Guernsey have made clear that the award of spectrum, as such and as distinct from the annual charge proposed by the States of Guernsey, should not have a purpose of raising funds and any monies raised should cover the costs of the allocation process only.

Q17. Views are sought on an appropriate competitive or comparative selection process and how best it might be structured to achieve the benefits sought.

7. Process and Timing

It is a matter of some importance that the Channel Islands do not fall behind developments in the main jurisdictions with which they deal. Ofcom first allowed the provision of 4G services in September 2012 (using the 1,800 MHz band assigned to Everything Everywhere) and issued licences for the use of spectrum in the 800 MHz and 2.6 GHz bands on 1 March 2013. The grant of new spectrum usage rights and the re-organisation of already allocated spectrum rights is expected to be carried out in accordance with the timetable below, which is as fast as possible while respecting due process.

Stage 1 – CICRA issues consultation in July 2013 with a deadline for responses of 9 September 2013.

Stage 2 – CICRA issues a draft decision in October 2013. This would set out the proposed process for making any awards, further detail on the proposed quantity and mix of spectrum to be awarded, and proposals for the criteria that will be used in recommending an allocation of this spectrum.

Stage 3 – A final decision is issued in December 2013 regarding the above.

Stage 4 – CICRA will issue draft tender documents in November 2013 inviting more specific views on the criteria and relative weights given to the benefits and costs on the basis of which it will assess bids from operators seeking additional spectrum.

Stage 5 – CICRA publishes final tender documents and invites bids by the end of 2013 or early in 2014, with a deadline for bids early in spring 2014. It is intended that CICRA would make a recommendation to Ofcom in the first half of 2014.

Annex A - Letter from the States of Jersey and States of Guernsey



Andrew Riseley
Chief Executive
CICRA
2nd Floor
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St Helier
JE2 3RF

01 May 2013

Dear Andrew

Award of 800 MHz and 2.6 GHz spectrum

As you will recall, in December 2011 the Economic Development Department in Jersey and the Commerce and Employment Department Board in Guernsey formally requested the JCRA and OUR to run the process of spectrum allocation in the 800MHz and 2.6GHz bands on behalf of our departments.

Following this request, the Jersey Competition Regulatory Authority (JCRA) and the Office of Utility Regulation (OUR) initiated a joint consultation on the allocation of radio spectrum to telecommunications operators in the Channel Islands.

This consultation was deferred on request from our Departments. The deferral was to allow us to give more thought to the issues relating to the use of the available spectrum and the policies that should be followed in its allocation. To assist with this we commissioned the consultants Analysys Mason to conduct an assessment of the spectrum requirements for fourth-generation (4G) services in the Channel Islands and to advise on the appropriate framework for 4G spectrum award.

The Commerce and Employment Department Board and the Department of Economic Development have now given matters relating to spectrum allocation for 4G services further consideration and have reached an agreed policy position. Key elements of this position are that:

- We expect the roll-out of 4G services will deliver benefits to mobile consumers in the Channel Islands, as well as to the economies of Guernsey and Jersey.
- We are agreed that it will be beneficial to operators and consumers if spectrum used for 4G services in the Channel Islands is aligned with that of the UK and France (800MHz, 1800MHz and 2.6GHz).
- We expect that the benefits of this spectrum should be sufficient to allow licensees to meet the cost of the roll-out of services including mitigating potential interference to digital terrestrial television (DTT) and air traffic control (ATC) radar.

1 of 2

- We also consider it is appropriate to review opportunities to re-organise existing 900MHz and 1800MHz assignments. We recognise that re-organisation may be more difficult in the 900MHz band, given the more limited amount of bandwidth available. Hence consideration should be given to the best approach for dealing with sub 1GHz spectrum.

As a separate matter, in recognition of the fact that radio spectrum is a limited Island resource which is utilised for commercial gain by the mobile network operators, Guernsey's Commerce and Employment Department Board is considering the introduction of an annual charge on spectrum usage. This charge would be in the order of 5% of operators' revenue arising from all activities which utilise spectrum for telecommunications purposes in Guernsey – including, but not limited to, 2G, 3G, 4G and fixed wireless access services. The Commerce and Employment Department is in the process of consulting with the industry on this specific matter and will advise CICRA of the Board's final decision in due course.

The Economic Development Department of Jersey is not seeking to raise revenue above and beyond that necessary to offset costs and to mitigate any potential interference. Its primary policy goal is to ensure the island can take full advantage of the benefits offered by 4G.

Therefore, we are now writing formally to ask CICRA to recommence the process of spectrum allocation on behalf of our Departments. In doing so we have in mind the respective, but broadly similar, duties of both the Minister/States and the Authority/Director General under:

- a) Article 7 of the Telecommunications (Jersey) Law 2002; and
- b) section 2 of The Regulation of Utilities (Bailiwick of Guernsey) Law, 2001

to further, among other things, the interests of consumers and the economic well-being of each Island.

As part of this process CICRA should consider approaches for mitigating interference to DTT and ATC radar. CICRA should also take into account, as appropriate, the report delivered by Analysis Mason.

We look forward to continuing to work with you in this important and valuable area.

Yours sincerely



Senator Alan Maclean
Minister for Economic Development
States of Jersey



Deputy Kevin Stewart
Minister, Commerce and Employment
Department
States of Guernsey

Annex C – JCRA letter to telecommunication operators

Ref: T757JJ/11



Please quote the JCRA reference
in all correspondence

7 March 2012

Dear Licensed Operator

As you will be aware, the Jersey Competition Regulatory Authority (JCRA) made a recommendation for the award of 2600MHz spectrum in a letter of 15 September 2009 to Ofcom. On 14 March 2011, the JCRA wrote to all operators included in the recommendation, informing them that the recommendation had been revoked. Following a judicial review, the decision to revoke the recommendation in respect of Clear Mobitel Jersey Ltd ("CMJ") was quashed by the Royal Court of Jersey on 22 September 2011, and therefore the recommendation in respect of CMJ remains in place. The recommendation in respect of the other operators (Airtel-Vodafone, C&W Jersey, Jersey Telecom and Newtel Jersey) remains revoked given there was no application before the Royal Court in respect of those portions of the recommendation.

The Royal Court in its judgement noted that it may be helpful for the JCRA to obtain greater clarity on Ofcom's position with regard to its position on the recommendation. The JCRA has since been in correspondence with Ofcom to obtain such greater clarity. Having made this request and received further clarity from Ofcom, the JCRA is minded to consider whether to revoke, modify or maintain the existing recommendation in respect of the 2600MHz spectrum for CMJ. It is intended that this assessment would form part of a wider consultation process in assessing the nature of demand from operators for 800MHz and 2600MHz band spectrum, the extent of available spectrum, and the appropriate basis on which to make any future awards.

In the interests of ensuring all interested parties are as informed as possible, and as requested by Ofcom, I attach to this letter a copy of Ofcom's recent letter to the JCRA which sets out certain matters which impact upon its ability to act on the recommendation; in particular, the precise frequencies to which each licence should pertain, and whether demand for the 2600MHz spectrum in fact now exceeds supply, such that it would have been appropriate for some form of competitive or comparative process to be adopted to determine how the spectrum should be allocated. The JCRA notes Ofcom's expectation that the JCRA should provide further information on these matters before Ofcom would be in a position to take a decision on awarding wireless telegraphy licences for the spectrum in due course.

The JCRA intends to consult on a range of matters associated with the award of the 800MHz and 2600MHz spectrum, in co-operation with the Office of Utility Regulation (OUR) in Guernsey, with the consultation process commencing in late April 2012. At this point in time, it is proposed that the process will consist of three stages:

1. a consultation on the principles that should be adopted by the JCRA and OUR when recommending an allocation to Ofcom in respect of 800MHz and 2600MHz spectrum (including matters associated with the recommendation in respect of CMJ);

JERSEY COMPETITION REGULATORY AUTHORITY

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2. a draft decision, setting out detailed proposals on the process for making any awards, further detail on the quantity and mix of spectrum to be awarded (including the JCRA's intention in respect of the recommendation), and the criteria that it is intended will be used in allocating that spectrum; and
3. a final decision on these matters (including in respect of the recommendation), and consultation on the precise weights to be given to the allocation criteria.

The consultation process would be followed by the allocation process itself.

The JCRA proposes to make a final decision as set out in point 3 above in Autumn 2012. Currently, it is envisaged that a recommendation on the allocation of relevant 800MHz and 2600MHz spectrum would be made in Spring 2013. This timing is consistent with that currently proposed by Ofcom for the award of such spectrum in the UK.

It should be noted that all of the above proposals are subject to consultation and the requirements which the Royal Court set out in its judgment in respect of the judicial review. I am therefore writing to operators to inform them of the above position, and in particular, the consultation process that the JCRA, along with the OUR, intends to initiate, in order to provide greater certainty to all parties as to the way forward following the outcome of the Royal Court proceedings in 2011. Given the proposed approach outlined above, we have requested that Ofcom not issue any wireless telegraphy licences in respect of 2600MHz spectrum in Jersey at this time, pending the outcome of this consultation process.

Yours sincerely



John Curran
Executive Director

Copy to: Lisa Moyse, Airtel-Vodafone; Chris Durnell, Cable & Wireless; Andy Elston, Clear Mobitel Jersey; Daragh McDermott, JT; James Devaney, Newtel

Annex D – Analysys Mason Report (redacted)

This report stands alone as a separate document