



Pan-Channel Island Consultation on Spectrum Awards in the 2.1 and 3.6 GHz Bands

Consultation Document

Channel Islands Competition and Regulatory Authorities

Document No: CICRA 14/21

April 2014

*Guernsey Competition & Regulatory Authority
Suites B1 & B2, Hirzel Court,
St Peter Port, Guernsey, GY1 2NH
Tel: +44 (0)1481 711120
Web: www.cicra.gg*

*Jersey Competition Regulatory Authority
2nd Floor Salisbury House, 1-9 Union Street,
St Helier, Jersey, JE2 3RF
Tel: +44 (0)1534 514990
Web: www.cicra.je*

CONTENTS

1. Introduction 3

2. Structure of the Consultation 4

3. Legislative and Licensing Background 5

4. CICRA’s objectives 7

5. Spectrum sought by Clear Mobitel 8

Spectrum Considered in this Consultation..... 8

Spectrum Availability in the bands sought..... 8

6. Limitations to the Use to which Spectrum in the 2.1 and 3.6 GHz Bands should be put 10

Spectrum Use in the 2.1 and 3.6 GHz Bands..... 10

7. Next Steps..... 11

Annex A – Spectrum Allocation in the Channel Islands – July 2013 12

1. Introduction

The purpose of this document is to set out a consultation to assess demand for spectrum in the 2.1 GHz band and 3.6 GHz bands. CICRA¹ (the Channel Islands Competition and Regulatory Authorities) has received a request by Clear Mobitel for spectrum in these bands and this consultation therefore invites comments from parties to assess whether there is demand for such spectrum and the extent of such demand to inform any decision by CICRA to make such an award.

CICRA also launched a process in July 2013 consulting on the demand for spectrum generally referred to as 4G or LTE² spectrum. The process commenced with a consultation in July 2013 and is expected to conclude with a recommendation to Ofcom of the award of LTE spectrum to successful applicants at the end of the second quarter of 2014. To this end an Invitation To Bid (ITB) seeking formal applications for spectrum capable of supporting the provision of LTE services (800 MHz, 1,800 MHz and 2,600 MHz spectrum) is being issued by CICRA (see CICRA 14/??) in April 2014.

Following an assessment of responses to this consultation regarding spectrum in the 2.1 GHz and 3.6 GHz bands, CICRA will determine whether to proceed to an initial notice in Jersey and a draft decision in Guernsey to award such spectrum, or whether a competitive process is required.

Disclaimer

This document does not constitute legal, technical or commercial advice; CICRA is 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 CICRA to exercise regulatory powers generally.

¹ The Jersey Competition Regulatory Authority (JCRA) and the Guernsey Competition and Regulatory Authority (GCRA) are together referred to as CICRA and unless otherwise stated, all references to CICRA in this Decision are to each of the JCRA and GCRA

² As the spectrum under consideration for allocation may be used for a variety of services – mobile or fixed or hybrid – the term ‘LTE’ is used to describe, generically, the services that the use of LTE or 4G standards allows on spectrum that support LTE standards.

2. Structure of the Consultation

The consultation document is structured as follows:

Section 3:	This section outlines the legal bases for the GCRA's and the JCRA's roles and, therefore, for CICRA's role in the allocation of spectrum for telecoms purposes as well as the role of UK legislation in this area.
Section 4:	Records the set of objectives that guide CICRA's processes of determining spectrum allocation generally and, also, of assessing how to respond to Clear Mobitel's request.
Section 5:	Discusses spectrum availability in Guernsey and Jersey to the extent it is relevant in assessing Clear Mobitel's request.
Section 6:	Provides an assessment of other issues that may be relevant to a decision on spectrum allocation in the 2.1 and 3.6 GHz bands.
Section 7	Sets out CICRA's provisional conclusions.

Interested parties are invited to submit comments to CICRA in writing or by email on the matters set out in this paper to the following addresses:

Suites B1 & B2 Hirzel Court St Peter Port Guernsey GY1 2NH Email: info@bicra.gg	2 nd Floor, Salisbury House 1-9 Union Street St Helier Jersey JE2 3RF Email: info@bicra.je
---	---

All comments should be clearly marked "*Pan-Channel Island Consultation on Spectrum Awards in the 2.1 and 3.6 GHz Bands*" and should arrive by 5pm on Monday 30 June 2014.

In line with CICRA's consultation policy, the regulators intend to make responses to the consultation available on the CICRA website, the combined website of the GCRA and JCRA. 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, 2001, The Guernsey Competition and Regulatory Authority Ordinance, 2012 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 relevant duties of the JCRA in the telecommunications sector are those defined in Article 7 of the Telecommunications (Jersey) Law 2002; the relevant duties of the GCRA are those defined in Section 2 of The Regulation of Utilities (Bailiwick of Guernsey) Law, 2001 and transferred to it by Section 5 of the 2012 Ordinance mentioned above. In addition, there is scope for the States of Guernsey and States of 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 that has been extended to Guernsey and Jersey, as well as by 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 the Office of Communications (Ofcom), 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) 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;*

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

(...)

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 in the bands related to the spectrum requested by Clear Mobitel. It identifies whether demand exceeds supply and a selection process is needed. Eventually, when the assessment and selection process is completed, it recommends an allocation 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 includes several pieces of legislation. The GCRA and the JCRA have separate duties and objectives set by law that are very similar. CICRA believes that a joint allocation of spectrum across the Channel Islands – in particular, an allocation that is aligned across the Islands – contributes to the achievement of the GCRA's and the JCRA's particular objectives.

In its first consultation relevant to the allocation of spectrum for the purpose of providing LTE services (July 2013), CICRA consulted on the objectives that should guide the process and criteria for the joint allocation of spectrum in the Channel Islands. Respondents supported CICRA's proposed objectives. CICRA's work on spectrum allocation is, therefore and from now on, informed by the following objectives:

- 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 its 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 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; and
- to the extent allowed by legislation, to deal with the Jersey and Guernsey Bailiwicks as a single economic and social entity.

The first three objectives summarise the duties that CICRA has, in one form or another, in the Islands' respective legislation. The fourth objective reflects Ofcom's own duties and seeks to ensure that CICRA's recommendations are acceptable to Ofcom. The last one translates the intention of the States of Jersey and Guernsey that there should be joint regulation of the radio spectrum available to both islands.

5. Spectrum sought by Clear Mobitel

The purpose of this section is to describe the spectrum which is the object of this consultation, how it is used now, and ascertain the extent of demand that may exist.

Spectrum Considered in this Consultation

CICRA has received a request from Clear Mobitel for a harmonised spectrum allocation in Jersey and Guernsey of 2 x 10 MHz of spectrum in the 2.1 GHz band and 2 x 30 MHz of spectrum in the 3.6 GHz band. Specifically, Clear Mobitel seeks the bands:

- 2130-2140 MHz (matched with 1940-1950 MHz)
- 3630-3660 MHz (matched with 3730-3760 MHz)

Both of these bands are currently unallocated in the Channel Islands.

Before CICRA can determine whether an allocation is advisable, it wishes to consult parties that may be interested in the use to which the requested and related spectrum may be put. Such consultation should in particular identify whether there is more demand for spectrum in the relevant bands than is available and, therefore, the appropriate method of allocating spectrum in this case.

This consultation is taking place in parallel with the wider LTE spectrum allocation exercise in which CICRA has been engaged. CICRA considers that it is appropriate to conduct this wider process and this consultation in parallel. In particular, it believes there is no need to delay dealing with Clear Mobitel's application as, if successful, it will widen the provision of telecommunication services in the Channel Islands.

Spectrum Availability in the bands sought

CICRA is aware that some spectrum is currently available in the 2.1 and 3.6-3.8 GHz bands in Guernsey and Jersey for the purpose of mobile telecommunication services:

- In the 2.1 GHz range, there are two unallocated 2 x 10 MHz bands in Guernsey and Jersey and an additional 2 x 5 MHz in Guernsey
- In the 3.6-3.8 GHz range, there is a 2 x 70 MHz band that is currently unallocated.

CICRA understands the rest of the 3.6-3.8 GHz spectrum is used by the Ministry of Defence in the UK, which is in the process of clearing most of it in order to release it for civil use. It is expected that this will happen around 2015 in the UK. It is expected that this spectrum may also become available in the Channel Islands.

CICRA notes that its objective in determining spectrum allocation, generally, is to ensure that spectrum bands with specific characteristics are available to a number of operators so that healthy competition in the provision of services to end customers can flourish. CICRA therefore needs to identify the range of spectrum bands that, from the perspective of telecommunication operators, can be substituted for one another and used interchangeably.

Concerning Clear Mobitel's request for 2.1 GHz spectrum, CICRA notes that responses to its consultations concerning 2.6 GHz spectrum indicate that there will be spare spectrum after it has completed its current allocation exercise. CICRA therefore believes there may not be excess demand for spectrum in the 2.1 GHz band.

With regard to Clear Mobitel's request for 3.6 GHz spectrum, CICRA considers that the spectrum bands between 3.4 GHz and 3.8 GHz – to the extent that they are available for telecommunication purposes – can be used interchangeably by telecommunication operators. Demand for spectrum in this whole range, and availability of spectrum, therefore, needs to be considered in assessing Clear Mobitel's request for 2 x 30 MHz in this range.

Q1. Do you agree that there is no excess demand for spectrum in the 2.1 GHz and 3.6 GHz bands and that Clear Mobitel's request, in principle, can be satisfied without it being at the expense of other operators' requirements?

6. Limitations to the Use to which Spectrum in the 2.1 and 3.6 GHz Bands should be put

Spectrum Use in the 2.1 and 3.6 GHz Bands

According to international and UK specifications, the spectrum sought by Clear Mobitel may be used for the purpose of providing mobile telecommunication services of the type already provided by mobile operators in the Channel Islands, i.e. 2G and 3G, and also for services provided by means of LTE and WiMAX technologies⁴. LTE is particularly useful in providing the means to satisfy the vast increase in mobile data traffic that is now underway.

CICRA understands that new wireless telegraphy licences issued to Clear Mobitel by Ofcom for use for telecommunication services following a recommendation from CICRA would not necessarily specify the technologies and standards for which the spectrum may be used. Operators will be entitled to use the spectrum for mobile or fixed wireless services, as they choose, so as best to respond to customer wishes and market conditions. In principle, therefore, a spectrum licence granted to Clear Mobitel by Ofcom could allow it to provide mobile services as well as fixed wireless services. This would be feasible in Jersey but, in Guernsey, the operating licence held by Clear Mobitel, issued under *The Telecommunications (Bailiwick of Guernsey) Law, 2001*, only allows it to provide fixed services.

CICRA notes, therefore, that Clear Mobitel would provide fixed services in Guernsey only, as long as the current licensing regime in Guernsey limits mobile operators to the three licences that have already been issued.

⁴ LTE: Long Term Evolution, the next evolution of cellular mobile technologies, part of the family of standards developed by standardisation body 3GPP that includes 3G/UMTS/HSPA, designed to provide high speed data services. WiMAX: Worldwide Interoperability for Microwave Access, another wireless technology suitable for high speed data services, developed by standardisation body IEEE.

7. Next Steps

In view of the considerations in Sections 5 and 6 of this document, responses are sought to the above matters in order to inform CICRA's views as to the extent of demand for the spectrum sought.

/ends

Annex A – Spectrum Allocation in the Channel Islands – July 2013

Frequency		J	G	Jersey MHz					Guernsey MHz					MHz
925.1 - 930.1	880.1 - 885.1			5		Airtel(J)			9.8	JT(G)				5
930.1 - 934.9	885.1 - 889.9			5			C&W(J)			JT(G)				4.8
934.9 - 935.1	889.9 - 890.1						C&W(J)							0.2
935.1 - 949.7	890.1 - 904.7			24.8	Jersey T				19.8		C&W(G)			14.6
949.7 - 952.3	904.7 - 907.3				Jersey T				5		C&W(G)	Airtel(G)		2.6
952.3 - 957.5	907.3 - 912.5				Jersey T						C&W(G)	Airtel(G)		5.2
957.5 - 959.9	912.5 - 914.9				Jersey T							Airtel(G)		2.4
1810.1 - 1820.1	1715.1 - 1725.1								10	JT(G)				10
1820.1 - 1825.1	1725.1 - 1730.1			10			C&W(J)		6.2			Airtel(G)		5
1825.1 - 1833.3	1730.1 - 1738.3			5		Airtel(J)						Airtel(G)		8.2
1833.3 - 1835.3	1738.3 - 1740.3													2
1837.3 - 1838.5	1742.3 - 1743.5											Airtel(G)		1.2
1840.5 - 1842.3	1745.5 - 1747.3					Airtel(J)	C&W(J)							1.8
1842.3 - 1845.3	1747.3 - 1750.3													3
1850.7 - 1855.7	1755.7 - 1760.7								5		C&W(G)			5
1864.9 - 1876.5	1769.9 - 1781.5			11.6	Jersey T									11.6
	1900.0 - 1905.0			5				Marathon						5
	1904.9 - 1909.9								5	JT(G)				5
	1905.0 - 1910.0			5		Airtel(J)								5
	1910.0 - 1915.0			5	Jersey T									5
	1915.0 - 1920.0			5			C&W(J)							5
2115.0 - 2120.0	1925.0 - 1930.0			5				Marathon						5
2120.0 - 2130.0	1930.0 - 1940.0			10		Airtel(J)			10			Airtel(G)		10
2130.0 - 2140.0	1940.0 - 1950.0													10
2140.0 - 2150.0	1950.0 - 1960.0			10	Jersey T				10	JT(G)				10
2150.0 - 2160.0	1960.0 - 1970.0			10			C&W(J)		10		C&W(G)			10
2160.0 - 2170.0	1970.0 - 1980.0								10					10
3.480 - 3.500	3.580 - 3.600			20				Newtel(J)	20		Under consultation			20
3.600 - 3.630	3.700 - 3.730			30			C&W(J)		30		C&W(G)			30
3.630 - 3.660	3.730 - 3.760				-									
3.660 - 3.690	3.760 - 3.790				-									
10.125 - 10.165	10.475 - 10.515				-									
10.165 - 10.225	10.515 - 10.575				-				60	JT(G)				60
28.0525 - 28.1645	29.0605 - 29.1725				-				112	JT(G)				112
28.1925 - 28.3045	29.2005 - 29.3125				-									
29.3325 - 28.4445	29.3405 - 29.4525				-									