



# Office of Utility Regulation

## 2.6 GHz - Licence Award

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### Consultation Document

**Document No:** OUR 10/02

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**Office of Utility Regulation**  
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# 1. Introduction

2.6GHz spectrum offers existing fixed and mobile operators a means of utilising further developments in mobile technology to develop their service offerings at some future point. It also offers a means of addressing a key existing impediment to competition in the fixed market, namely the local loop owned by C&WG. 2.6GHz spectrum could facilitate an alternative fixed wireless network to the existing fixed wire network, with benefits in terms of keener price competition. The potential this offers for improved broadband access speeds and improvements in innovation appears substantial.

The Director General of the OUR (“DG”) invited expressions of interest in available 2.6GHz spectrum in November 2008 and in June 2009 issued a further request to clarify demands. Those five responses suggested that what operators sought in aggregate exceeded the spectrum available. In circumstances where reasonable demand exceeds availability and alternatives are not available, a competitive process may be necessary to make such decisions. However, the responses to these predate the recently concluded acquisition of Newtel Guernsey by Wave Telecom.

A competitive process, in particular an auction, will inevitably involve significant funding diverted to some extent from investment in services and infrastructure to support such bids. This is not a route the DG favours given the existing economic context. It is also the case that since Wave Telecom already operates in Guernsey the acquisition of Newtel Guernsey by Jersey Telecoms might address the issue of oversubscription of this spectrum by respondents.

The DG places a priority on meeting the reasonable aspirations of existing operators looking to ensure they keep up with technology development. At the same time, his duties also place importance on addressing barriers to competition, where the existing local loop is a key bottleneck in the fixed telecoms market in Guernsey. He has therefore sought in this document to set out an approach to assessing and managing the stated requirements of the various operators who have indicated an interest in the spectrum, while looking to balance the potential benefits provided by the various alternatives.

*This document does not constitute legal, technical or commercial advice; the Director General 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 the Director General to regulate the market generally.*

## **2. Structure of Paper and Process**

### **2.1. Structure of Paper**

The paper is structured as follows:

- Section 3 provides background information on the statutory framework for the telecoms market in Guernsey;
- Section 4 sets out a summary of responses to the calls for expressions of interest;
- Section 5 gives the DG's assessment of the issues; and
- Section 6 explains the next steps proposed.

### **2.2. Responses to the Consultation**

Responses to this document should be submitted in writing and should be received by the OUR before 5.00pm on **9<sup>th</sup> April 2010**. Written comments should be submitted to:

Office of Utility Regulation  
Suites B1 & B2,  
Hirzel Court,  
St Peter Port,  
Guernsey, GY1 2NH.

All comments should be clearly marked: "*Licensing of 2.6GHz spectrum – Consultation Paper*".

In accordance with the OUR's policy on consultation set out in Document OUR 05/28 – "Regulation in Guernsey; the OUR Approach and Consultation Procedures", non-confidential responses to the consultation will be made available on the OUR's website ([www.regutil.gg](http://www.regutil.gg)) and for inspection at the OUR's Office during normal working hours. Any material that is confidential should be put in a separate annex and clearly marked so that it can be kept confidential. However, the DG regrets that he is not in a position to respond individually to the responses to this consultation.

### **3. Background Information**

#### **3.1. Statutory Requirements**

Section 2 (1) of the Telecommunications (Bailiwick of Guernsey) Law 2001 (“Telecoms Law”) describes the DG’s responsibilities regarding the granting of licences for telecommunications networks and services. Having regard to the objectives set out in section 2 of the Regulation Law, and subject to the provisions of any States Directions, the DG may grant a licence authorising any person to establish, operate and maintain a telecommunications network or to provide telecommunications services of any class or description specified in the licence.

Section 5(1) of the Telecoms Law provides for the DG to include conditions in licences granted to an operator to the extent that such conditions are necessary to ensure compliance with the various Laws and to enable the DG meet his objectives under the Regulation Law. All licences granted to-date have included a condition relating to the management of radio spectrum and requiring operators to comply with the conditions of their Wireless Telegraphy (“WT”) licences issued by Ofcom.

The award of the right to utilised spectrum by licensed operators in Guernsey is managed jointly by the OUR and Ofcom. The practice to date has generally been for the OUR to determine the nature of any spectrum allocation to be made to an individual operator, either following a competition in the case of mobile spectrum or following a consultation in the case of fixed wireless spectrum. The OUR then advises Ofcom of our proposal and subject to its agreement and ensuring operators comply with its process for the award of WT licences, Guernsey operators are licensed to utilise the radio spectrum in question.

The DG intends to follow a similar process for the award of any spectrum that might arise from this consultation.

## **4. Summary of Responses**

### **4.1. Cable and Wireless**

C&WG believes the allocation of 2.6GHz spectrum will be essential if Guernsey is to benefit from the next generation of wireless services in the form of 4G/LTE services. C&WG responded that it cannot make a binding and specific request at the time of its response but it does have an expectation of an award in future. It must also consider its position as a mobile operator and particularly the implications of the OUR mobile review and the ability of C&WG to offer 3G services.

C&WG note that the roll out of higher speed, competitive broadband services to compete with existing fixed line broadband is only one potential usage of the 2.6GHz spectrum. The spectrum also has potential application and relevance to both “mobile operators going indoors” and “fixed operators going outdoors”. C&WG must consider the potential benefit and cost impact of both types of application given its business.

C&WG considers the 2.6GHz band as the main extension band for IMT-2000 since it is seen as a capacity band to the IMT-2000 networks. In C&WG’s view the data traffic in mobile networks is expected to increase significantly in the near future and additional capacity is needed to be able to fulfil user demand.

Based on its assumption that the DG intends to make 2.6GHz spectrum rather than licences tradeable, C&WG presumes that the OUR has in mind regulations of the type proposed by Ofcom in the UK auction of such spectrum. C&WG believe it necessary that for the purposes of trading in the Bailiwick of Guernsey, any such regulations must include a requirement that the trading parties, whether for a complete or partial trade, must hold a telecommunications licence issued by the OUR.

It is also unclear to C&WG what role Ofcom will take in the award of 2.6GHz spectrum and welcomes clarification from the OUR on these issues.

C&WG believe ‘use it or lose it’ conditions are reasonable provided a sufficient period of time is allowed for planning, installation, development and launch of services, which should be no shorter than 2 years, and possibly considerably longer. However, C&WG is unclear how a tradeable licence could also be subject to a “use it or lose it” condition, and believes that the use of both types of provision could be confusing and potentially open to abuse. It is also unclear to C&WG whether existing licensed operators would require a new telecommunications licence in order to provide services over the 2.6GHz frequency. As long as the current mobile licences are made technology neutral, and given that fixed licences already are, C&WG anticipates that no further licence would be required for any existing licence holders.

In response to views sought as to how the availability of 2.6GHz spectrum would contribute to the DG’s overall duties as provided for in the Regulation Law, in C&WG’s

view such availability would assist the DG in meeting the requirements of several of his general duties, in particular General Duty (e) – to improve the quality and coverage of utility services and to facilitate the availability of new services within the Bailiwick. Further, C&WG states that the EU has recognised the importance of the 2.6GHz spectrum to the continued improvement of wireless services in the Community, through its adoption of the Decision on the harmonisation of the 2.6GHz band, which obliges Member States to open up the 2500-2690 MHz band on a technology neutral basis. Even though the Bailiwick is not part of the EU, and therefore not obliged to comply with or adopt such decisions, C&WG's view is that it is important the OUR is seen as striving to offer consumers in the Bailiwick services that are on a par with those available in the EC.

C&WG makes the point that the DG also has a duty to introduce, maintain and promote effective competition (General Duty (d)) and the DG should give equal weight to this expression of interest from C&WG as to that made by any existing or new competitors to C&WG because competition is not only important between competing technologies but also between providers of services utilising the same technology. C&WG believes that the DG should endeavour to set the principles of spectrum packaging with sufficient flexibility and innovation such that no technology is blocked or no market participant – actual or potential - is unduly favoured.

C&WG understands that Guernsey Airport currently uses spectrum in the 2.7 to 2.9 GHz range for its radar equipment and that its implications will be taken into account in decisions around the award of spectrum.

It believes it is imperative that key principles are established by the OUR/Ofcom with respect to packaging of the spectrum. Harmonised availability of 2.6GHz spectrum with larger jurisdictions and with Jersey is seen to develop market opportunities and facilitate roaming, as well as cost-efficient equipment and greater customer choice.

Consultation on technical principles with interested parties on use of the band, in CEPT and EU regulatory groups, with the EC, industry members and other EU Member States, is considered necessary. In particular, C&WG supports the adoption of the structure of the 2500-2690 MHz band as outlined by Ofcom and endorsed by the CEPT ECC Decision 05(05) for UMTS/IMT-2000 ). C&WG argues it is imperative that the spectrum packaging structure enables licensed operators to evolve and develop services for customers and for the OUR/Ofcom to recognise spectrum harmonisation not just across Europe but also across the Channel Islands. In its view, harmonised availability of 2.6GHz spectrum across Europe and the Channel Islands will further develop market opportunities and importantly, will allow customers to roam as easily as they are accustomed to on other networks and, more locally, stimulates and further enhances the value of the MNP investments. It argues that a harmonized approach also guarantees the timely availability of cost efficient equipment due to economies of scale and brings more choice for customers in terms of handset device brands and models.

C&WG supports technology neutrality, when it refers to the issue that a certain band is not limited to a certain technology but all technologies that fulfil the 'rules of the band'

can be used. However, its view is that for reasons of spectrum efficiency, harmonized band plans designating the paired (FDD) and unpaired (TDD) bands should be respected. Mixing FDD and TDD would in C&WG's view only decrease the available spectrum to all users. C&WG therefore support technology neutrality provided it does not increase fragmentation of the market or violate basic spectrum usage conditions (such as causing harmful interference) or violate consumer rights or other public interests. In C&WG's view, technology neutrality brings value only if interoperability is not compromised, and it supports a coherent regulatory regime for services/ networks/ applications that are offering the same kind of services in different frequency bands. Neutrality in terms of content is therefore supported by C&WG.

C&WG also states it is imperative that the spectrum packaging structure enables licensed operators to evolve and develop services for customers and it is vitally important for OUR/Ofcom to recognise spectrum harmonisation across Europe and the Channel Islands. Its view is that a harmonised approach guarantees the timely availability of cost efficient equipment due to economies of scale and also brings more choice for customers in terms of handset device brands and models.

In its view, assuming there is sufficient spectrum to meet all of the operators' requirements, allocation on a first come first served basis, as suggested by the OUR, would be fair.

#### **4.2. Guernsey Airtel-Vodafone**

GAL stated it was focussed and committed to evolving the application of mobile broadband technologies to further enhance the delivery of advanced mobile broadband products, services and applications. In GAL's view, it has already demonstrated that its mobile 3G broadband services are a highly effective alternative to conventional wireline broadband products. It considers utilising a potential allocation of the 2.6GHz spectrum for enhancing the delivery of leading edge ultra-high speed mobile broadband services to the Guernsey market place could further enhance the benefits to the island.

In its view, potential LTE deployment differs from the GSM and UMTS infrastructure currently deployed in GAL's network. It understands that LTE related technologies could potentially use different base station equipment and require enhanced transmission backhaul arrangements. To the extent that the delivery of future LTE related services in Guernsey could be via the allocation of the higher 2.6GHz frequency, then achievement of full island-wide coverage may require further sites or network expansion, due to the relationship between frequency and coverage. GAL states that it would require a minimum 2x20MHz of the 2.6GHz spectrum to be able to deliver an effective LTE based ultra-high speed broadband service across the Bailiwick of Guernsey.

GAL's suggests due to availability of LTE network equipment and the need for trials as well as implementation timescales, launch of a LTE based ultra-high speed broadband service in the Guernsey market place is not likely to be earlier than the next 24 – 36 months.



GAL states it is difficult to comment specifically at this stage on Block Edge Masks since the 3GPP have only recently frozen the specifications for LTE and these have not been published for general review or comment. However, it understands the LTE equipment vendors have requested that 3GPP relax the LTE specifications to enable the optimum performance of LTE to be realised. GAL welcomes the introduction of suitable mechanisms for managing interference between spectrum users, but maintains there should be an acceptable balance between LTE performance optimization and interference management. GAL will be in a position to comment further in this matter, once the current specifications have been reviewed and network vendors have updated their views accordingly.

GAL believes that the auction approach is not appropriate for the Bailiwick of Guernsey. Because of the high investment costs of LTE and WiMAX networks, combined with the limited size of the Guernsey broadband market, it maintains this could discourage both new entrants and existing operators from investing in these technologies, thereby denying or constraining the availability of ultra-high speed broadband services to the Guernsey consumer. It concurs with the OUR's view that the allocation of the 2.6GHz spectrum should be on a "use it or lose it" basis but is of the view that the definition of "use it" would need to be further expanded and defined by the OUR.

In GAL's view it is clear that effective 4G based ultra high-speed service delivery requires scalable bandwidth to support the expected rise in service speeds as 4G related services evolve. Consequently, in its view it is critical that sufficient spectrum is made available to GAL from the outset of the launch of 4G services in Guernsey to meet the anticipated medium-long term business and network needs. It considers that 2x20MHz of allocated spectrum would not be an excessive requirement to deliver quality 4G (LTE or WiMax) related services using the 2.6GHz spectrum.

In terms of the potential benefits, GAL's response states that current 3.5G HSDPA technologies are capable of delivering Downlink peak speeds of up to 14.8Mbps and Uplink peak speeds of up to 5.8Mbps using 2x5 MHz channels bandwidth. However, current predictions are that 4G (LTE or WiMAX) related technologies will evolve to deliver Downlink speeds in excess of 100Mbps and Uplink speeds of in excess of 20Mbps. Whilst GAL would expect technological evolution to deliver improvements in spectrum utilization, where speeds are expected to increase by factors of between 5 and 8 times current capabilities, then it is not unreasonable to predict to require 2x20 MHz (20MHz in Downlink and 20MHz in Uplink) 2.6Ghz spectrum to deliver 4G related services. GAL believes the proposed GAL 2.6GHz requirement compares favourably to existing spectrum allocations made to other Channel Islands operators for spectrum used to provide services which are independent of technology (for voice, data, TV) , for instance 3.5MHz and 3.6MHz spectrum bands etc

### **4.3. Newtel Guernsey**

Newtel expressed an interest in 2.6GHz spectrum for the delivery of services over a broadband Fixed Wireless Access ("FWA") network in Guernsey. Its primary interest in utilising the spectrum was to:

- reduce dependence on C&WG for “last mile” customer access;
- give access to over 50% of its current broadband customer base, enabling significant cost reductions in access costs to C&WG;
- allow enhancement in the quality of service, the committed information rates and other aspects of services to customers;
- lowering prices for services, benefitting customers and increasing competitiveness;
- develop a range of new “next generation” services to be delivered over a FWA network.

The availability of the 2.6GHz spectrum, operating to internationally agreed standards in the United Kingdom and the rest of Europe, is seen to result in the availability of reliable systems and equipment from manufacturers. In its view, the cost of building networks will reduce substantially with economies of scale as operators build new FWA networks in the 2.6GHz spectrum.

It is Newtel’s understanding that Ofcom will leave the operators who are awarded licences in the United Kingdom to decide whether they implement Time Division Duplex (“TDD”) or Frequency Division Duplex (“FDD”) standards on their networks. At the time of its response, Newtel’s stated interest was as follows:

- Deployment of a FWA network using Time Division Duplex (“TDD”) standards;
- License and utilise 70 MHz within the 2.5 GHz to 2.69 GHz range available;
- A minimum of 30 MHz if the spectrum is only available for TDD systems, but ideally 60 MHz;
- A minimum of 40 MHz of spectrum if the entire spectrum is available for both TDD and FDD systems to allow a safety guard band in order to avoid interference between TDD and FDD;
- 70MHz of spectrum if the entire spectrum is available for TDD and FDD systems to allow a safety guard band in order to avoid interference between TDD and FDD.
- A preference for access to bandwidth starting from 2500 MHz to optimise penetration and resiliency for future services.

Newtel stated it had various assets in place that would allow rapid build of network and estimates it will be able to roll out a FWA network covering 80% of the Island within 24 months of licensing, subject to confirmation of equipment and system availability from preferred vendor, the final spectrum awarded and the number of competitors entering the market utilising the same spectrum.

It is noted that Newtel’s expression of interest pre-dated its acquisition by Wave Telecom.

#### **4.4. Clear Mobitel Guernsey**

AETCS submitted a response on behalf of Clear Mobitel Guernsey (CMG). CMG proposes to operate a broadband fixed wireless access network in Guernsey.

CMG argue that if competition for true high bandwidth services is to be fostered in Guernsey, any FWA network must be operated under a licence that provides a significantly large enough RF bandwidth to cater for both current and future bandwidth-intensive services as well as being able to adequately support simultaneous usage of the network. CMG argue it will therefore require a relatively high allocation of spectrum in the 2.6GHz band in order to compete effectively with both C&WG and OLOs who would look to provide their customer services via ADSL2 technology.

Some of these services would be aimed at the business community, such as high bit rate data and Internet connections whilst others will be more tailored to suit residential customers such as HDTV and ability to support next generation online gaming. However, in all instances, CMG is looking to provide high bandwidth connectivity to its customer base and, in its view, it requires significant radio frequency (RF) bandwidth allocation to achieve this as it is looking to deploy a network capable of delivering significant downstream bandwidths. If this were to be the case, CMG believes it could compete effectively with both C&WG and OLOs who would look to provide their customer services via ADSL2 technology.

CMG commitment to environmental considerations is in its view aided by the extensive deployment of appropriate technology to achieve its reach and bandwidth requirements. However, there are other environmental issues which CMG states it will look to when deploying any such networks, mainly pertaining to the late generation and design of the chosen LTE radio technology.

CMG is happy to provide undertakings on both willingness and ability to deploy in a reasonable timescale as required by both the OUR and Ofcom, believing this approach is a necessary step to build confidence with both the OUR and Ofcom regarding the timely utilisation of a spectrum grant under license, as well as publicising its planned approach to a network rollout so that the community as a whole in Guernsey can remain well informed from the outset.

#### **4.5. Wave Telecom**

Wave Telecom expressed an interest in the 2.6GHz spectrum through a response containing confidential information, which has been redacted for purpose of this consultation. Wave Telecom proposes to provide future data services utilising the LTE standard. Wave's view is that LTE is expected to be commercially available in Q4 2009 although rollouts are more likely to commence during 2010 and that the introduction of LTE will compliment HSDPA by providing additional capacity and speed for mobile broadband. However, it argues the network standards for LTE are still evolving and consequently there are currently no products available from its suppliers. As such it is too

early for Wave to specify uplink and downlink channels for 2.6GHz spectrum as it hasn't got a clear roadmap on its deployment plans of LTE technology.

## 5. DG's Assessment of Expressions of Interest

The duties of the DG are set out in Part II of the Regulation of Utilities (Bailiwick of Guernsey) Law, 2001. In addition a States Direction on Telecommunications states that *“The provision of telecommunications networks and services in the Bailiwick of Guernsey shall be opened up to competition at the earliest possible time consistent with the Regulation of Utilities (Bailiwick of Guernsey) Law, 2001”*. The DG must therefore have regard to these duties and obligations in considering the allocation of licences for the utilisation of 2.6GHz spectrum.

It is apparent from responses to the OUR's Invitation for Expressions of Interest in 2.6GHz spectrum, that a considerable level of interest in the spectrum exists. This interest is, broadly speaking, in two areas.

The first area of interest is in the use of the spectrum for the evolution of mobile services to the next and subsequent stages in the development of mobile telecommunication services, and possibly, fixed telecommunication services. Also, some respondents' view is that access to suitable amounts of spectrum will be needed in future to facilitate growth as greater demand is made on networks given increased use of data services.

The second area is in the proposed development of a competitive access network, independent of the current fixed wire line network of the incumbent. While there is some alternative fixed network infrastructure to that of C&WG, primarily built by Wave Telecom, for the most part competing fixed telecom service providers continue to rely 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.

LTE is the technology cited by respondents as potentially facilitating both the above developments. Licences that allow sufficient spectrum for the provision of increasingly sophisticated mobile services to support the innovations that go with that are in the DG's view a material consideration in any spectrum allocation going forward given the benefit to Guernsey of access to such services. The prospect of weakening a key barrier to competition in the fixed market through the utilisation of 2.6GHz 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 the Guernsey economy.

In these circumstances, the prospects for innovation, price and higher capacity for Guernsey consumers may be considerable. Certainly, consumers have for some time raised strong concerns with existing broadband service offerings, both in terms of speed and cost.

The existing local loop is a legacy from the States owned company's exclusive right to build the initial fixed network in Guernsey on which market entrants continue to rely to provide competing services through the wire network. In common with numerous other jurisdictions, the DG considers it improbable, given investment costs, planning permission issues and general economic feasibility, that a comprehensive alternative competing wire network infrastructure is a likely development Bailiwick-wide, in particular for that element of C&WG's network commonly referred to as the 'local loop'.

While Guernsey has competing fixed service operators, they have for some time argued there are limitations on their ability to innovate, given the network specifications and wholesale prices charged by C&WG. Regulatory control is exercised by the OUR over wholesale broadband costs and through price controls, where appropriate and there is currently a joint Pan CI working group exploring how further competition can be facilitated through access to the C&WG network. Competition ultimately offers a more effective means of lowering costs, driving innovation and ensuring the pace of investment is set by consumer requirements.

In reconciling how best to approach licensing the utilisation of the 2.6GHz spectrum, it seems to the DG that where an interested party has made minimal use of a previous frequency spectrum allocation and is asking for a further allocation in a different band for similar use, there is an argument that such requests should not be accepted. The DG would not wish to see the hoarding of a valuable resource such as spectrum when a previous allocation is not utilised.

It is also the DG's view that given the interest in this spectrum, and his current inclination to assess options outside of an auction route, that if licences to utilise significant amounts of spectrum in the 2.6GHz band are granted through this consultation process, this must be based on a sufficiently detailed and timely business case in order to allow testing of the credibility of the proposed use of the allocation sought. Those parties offering benefits that are timely, advance the DG's duties and help in the achievement of his wider duties under the Regulation Law, have clear commitments on implementation, and where the benefits to consumers are material, should in his view take first priority in granting licences for use of this spectrum.

If, as some parties have indicated, the business cases for using the spectrum have not been fully developed, it seems to the DG more prudent to allocate only a minimal amount of spectrum in the short term and await more substantive business cases in the future. In any event, where the purposes for which the 2.6GHz spectrum are sought can be achieved using alternative spectrum, the DG would not wish to fragment the allocation of 2.6GHz spectrum unnecessarily, and would rather satisfy such demand using alternative spectrum.

C&WG and Airtel-Vodafone each indicated an interest in 2.6 GHz spectrum, while Wave Telecom was not in a position to confirm the scale of its future requirements for this spectrum. In terms of utilising the 2.6GHz spectrum, the business cases appear to be undeveloped for all three existing mobile operators.

Two respondents, namely Newtel and CMG, indicated their interest in significant amounts of 2.6GHz spectrum. Given JCRA approval has been given to the Newtel acquisition by Wave Telecom which already operates in the Guernsey market, the DG's initial view is that he does not believe the spectrum requirements of Newtel are of further relevance in his considerations in respect of future 2.6GHz spectrum allocation.

The DG does not intend to set out a definitive view in this paper on how he proposes to licence the provision of services using this spectrum, but proposes three alternatives below which respondents may wish to consider and comment on, given the different issues they raise. He would also wish to hear from respondents on whether their needs can be met through use of alternative spectrum to the 2.6GHz band in the future which could alleviate a risk of oversubscription of the 2.6GHz spectrum. A further issue on which respondents may wish to comment is the potential benefit of an approach to allocation that allows for efficient usage of the spectrum pan Channel Island.

#### **OPTION A**

Given the demand expressed by the existing operators and CMG, in order to accommodate the future requirements cited by existing mobile operators as well as providing an initial allocation to CMG on which to initiate its business plan, the DG is of the view that one approach might be to grant each of these four operators an initial total allocation of 20MHz of FDD spectrum (i.e. 2x10MHz paired FDD spectrum to each party that has expressed an interest). This would allocate some 57% of the available FDD spectrum, with the remaining 30MHz of FDD and 50MHz of TDD spectrum unallocated. The possibility exists that some operators may wish to rather acquire TDD spectrum of comparable capacity, in which case the DG would have to consider how that might be allocated in place of the FDD spectrum proposed above.

Given the early stage of next generation mobile technology, awarding the licence to utilise these initial quantities of spectrum might be argued to appropriately balance the interests of these stakeholders at this time. The DG's approach looks to provide capacity for future demand and should allow existing operators to take advantage of the development of mobile technology over the medium term. Under this option, his intention is that future allocations would be provided on a first come first service basis provided a detailed business plan is submitted that meets the criteria set out in Appendix A.

#### **OPTION B**

The potential benefits offered by CMG's proposals, of which the OUR has had sight and held several discussions with the business, suggest to the DG that a further option is to issue a licence to CMG for the use of a total of 80 MHz (2x40MHz paired FDD) of

2.6GHz spectrum subject to the submission of a detailed business plan that meets the criteria in Appendix A.

The remaining 2x30MHz of 2.6GHz spectrum would be reserved for the three current mobile operators and allocated on a first-come first served basis in future when business plans of the operators are further developed. In particular, when requests for 2.6GHz spectrum are sufficiently detailed to meet the criteria in Appendix A.

This option appears justified where the DG is of the view that a compelling case exists that promotion of competition in the 'local loop' is of such high priority that it justifies such an approach to spectrum allocation.

### **OPTION C**

A further alternative is to allocate this spectrum in the same manner as that adopted in Jersey as recommended by the JCRA to Ofcom. This option would lead to allocating a total of 10 MHz (2x5MHz FDD) to the existing mobile operators and 20MHz in total to Clear Mobitel (2x10MHz). In the Guernsey context this would amount to the allocations set out in Table 1 below.

**Table 1**

<b>Operator</b>	<b>2600 MHz 5 MHz paired FDD Channels</b>
Cable & Wireless Guernsey	2
Clear Mobitel	4
Guernsey Airtel	2
Wave Telecom	2

These would not be subject to commitments from operators. However, subsequent allocations would need to be justified on a first come first service basis provided a detailed business plan is submitted meeting the criteria set out in Appendix A. A key advantage of this approach is that it may more easily facilitate aligning spectrum in this band across the Channel Islands.



## 6. Next Steps

The DG has requested responses to this consultation and welcomes views on the options set out above and the issues they raise for respondents. After consideration of these responses he proposes to meet with the various stakeholders, including Ofcom, before issuing a draft decision.

In preparing responses to this consultation, interested parties should note that Ofcom has also informed the OUR of issues that have implications for the use of spectrum in this range. Recent work indicated a potential significant compatibility problem for aeronautical navigation radars in the 2.7GHz band with existing and potential new services in adjacent bands. In the immediate future, operational use of the 2.6GHz spectrum band is likely to be severely constrained. Work to resolve the radars problem is a priority issue for Ofcom and an information update was published in 11 December<sup>1</sup> with a briefing meeting held on 18 December 2009 and again on 25<sup>th</sup> January 2010.

Ofcom has therefore informed the OUR that spectrum allocations for Guernsey may 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), will have to comply with a coordination protocol for protection of the airport radars, which will limit emissions for 2.6GHz systems.

**ENDS**

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<sup>1</sup> [http://www.ofcom.org.uk/radiocomms/spectrumawards/awardspending/award\\_2010/](http://www.ofcom.org.uk/radiocomms/spectrumawards/awardspending/award_2010/)

## Appendix A

In order to qualify for an allocation beyond that proposed in the options set out in Section 5, it is the DG's view that all interested parties should be required to make a submission meeting minimum requirement to justify their claim for an allocation. The following is a suggested draft of such a requirement on which comments are sought:

- A detailed 3 year Business Plan that clearly shows how an Interested Party will develop the use of any allocation, including a full, detailed justification for the radio frequency bandwidth it is seeking. This should include description of the use of the spectrum, the benefits it will bring to the market, the expected quarterly gross revenue growth and the annualised gross revenue growth expectations of a prospective applicant.
- An unequivocal statement by the Interested Party regarding its willingness, ability and financial resources to develop a network architecture as described in its 3 year Business Plan.
- A clear iteration of timescale over which the Interested Party agrees to develop the network that supports any allocation to it backed by an agreed project plan.

He proposes to licence the use of such spectrum requests subject to meeting the clear commitments encapsulated by the requirements set out above.