



GIBRALTAR REGULATORY  
AUTHORITY

## **Consultation on the Licensing of 4G Mobile Services & Liberalisation of Mobile Bands in Gibraltar**

### **Response to Consultation and Decision Document No. 02/14**

**(Response to Public Consultation 03/13)**

**21<sup>st</sup> March 2014**

**Gibraltar Regulatory Authority**

**Spectrum Management**

Suite 603, Europort

Gibraltar

Telephone +350 20074636 Fax +350 20072166

Email: [radio@gra.gi](mailto:radio@gra.gi)

Web: <http://www.gra.gi>

## **Contents**

<b>1. Introduction .....</b>	<b>3</b>
<b>2. Public Consultation .....</b>	<b>4</b>
<b>3. Mobile Services.....</b>	<b>5</b>
<b>900 MHz Band .....</b>	<b>5</b>
<b>1800 MHz Band .....</b>	<b>6</b>
<b>2100 MHz Band .....</b>	<b>7</b>
<b>800 MHz Band .....</b>	<b>7</b>
<b>2600 MHz Band Channel Plan .....</b>	<b>8</b>
<b>2600 MHz Band .....</b>	<b>9</b>
Spectrum liberalisation.....	<b>10</b>
700 MHz Band.....	<b>10</b>
Equalisation of spectrum holdings.....	<b>11</b>
<b>4. 4G and Mobile Spectrum Fees (Part VI Licence).....</b>	<b>13</b>
Proposed Fee Structure.....	<b>13</b>
<b>5. Award process to provide 4G services .....</b>	<b>15</b>
<b>Service Criteria .....</b>	<b>15</b>
<b>6. General Replies .....</b>	<b>18</b>
<b>7. Part VI Mobile Licence .....</b>	<b>19</b>
<b>Annex A: Summary of Decisions .....</b>	<b>19</b>

## 1. Introduction

The Gibraltar Regulatory Authority (the "GRA") is responsible for the regulation of the electronic communications sector in Gibraltar in accordance with Gibraltar and EU legislation.

Under the Communications Act 2006, the GRA manages the electromagnetic spectrum on behalf of Her Majesty's Government of Gibraltar, which includes issuing licences for telecommunications and broadcasting services in Gibraltar. The GRA's powers include:

- specifying the nature of the telecommunications systems and services which operators are permitted to operate and provide under licence; and
- setting conditions on such operation and provision.

On the 3<sup>rd</sup> December 2013, the GRA issued a Public Consultation (the "consultation") proposing the procedure to license the provision of 4G mobile communications services in Gibraltar.

As explained, the introduction of 4G mobile is particularly suited to the provision of better mobile data services, faster speeds and improved quality of service, which means that, potentially, broadband delivered over mobile networks could be as good as or, in some circumstances, even better than broadband delivered over the fixed network.

The focus of the consultation is on the process for licensing 4G services in Gibraltar and, in this context, to set out the GRA's plans for the spectrum bands which should be granted access for the provision of 4G services. In this regard, the GRA considered current spectrum assignments, the spectrum available, and how this may best be offered to mobile operators.

The GRA proposed that spectrum should be made available in the 800 MHz and 2600 MHz bands to support the provision of 4G services and was of the view that there is not sufficient spectrum to allow operators to offer higher data rates of 4G in the 900 MHz and 1800 MHz bands. In order to ensure that such awards can be made, the GRA proposed to license up to three 4G operators. Furthermore, the GRA also suggested that, in parallel with the 4G awards, spectrum already allocated should be liberalised, so that operators can choose which technologies to use for the services they provide.

In relation to the regulatory framework for the licensing of 4G service, operators will have notified the GRA as a network provider under Regulation 4(10) of the Communications (Authorisation and Licensing) Regulations 2006 (the "Regulation") and hold the respective Part VI Licence granted under the Communications Act 2006 (the "Act") for use of the electromagnetic spectrum, or will have to notify under the Regulation prior to obtaining a Part VI licence.

The GRA proposed to insert new conditions into the Part VI Licences issued under the Act, as being the best route to secure licensing consistency between incumbents and any new licensees, regulatory control and speedy delivery of 4G services. Thus, each of the successful applicants will be ultimately operating under a consistent set of licence conditions relevant to their provision of any mobile services, including 4G.

The fees to charge for the use of 4G spectrum have also been considered and the current fees for 2G and 3G have been re-evaluated. The proposed fees were arrived at

considering, but not limited to, the following factors:

- Demand for spectrum,
- Availability of the required bands,
- Interoperability of technology allowed in the band due to sharing constraints or international sharing agreements.

The GRA built into the award process a methodology that takes account of the possibility of interest from new operators as well as current mobile operators. The GRA proposed to define a set of service and performance criteria, which all applicants are expected to meet. Should there be more than three valid applications from suitably qualified bidders, the GRA, after examining the market sustainability of more than three operators, could propose to invite sealed bids setting out detailed business plans and implementation schedules with an aim to award spectrum to the best proposals.

## 2. Public consultation

The consultation was structured into a number of main sections, as follows: -

- **Section 3** Identified spectrum bands which may be made available in the proposed award process. Section 3 also set out the GRA's proposals on the specific spectrum allocations which could be awarded.
- **Section 4** Proposed spectrum charge for licensing of 4G spectrum and proposed fee changes to existing mobile frequencies bands.
- **Section 5** set out the GRA's proposals for the process which will be followed in awarding the 4G licences.
- **Section 6** contained a summary of questions for interested parties to answer.

The full consultation can be found on the GRA's website<sup>1</sup>.

The consultation invited comments from all interested parties on questions relating to the licensing of 4G mobile services and the liberalisation of mobile bands in Gibraltar.

A draft Part VI mobile licence was also included as Appendix 1.

By the close of the consultation period, the GRA received responses from five interested parties as listed below:

- Eazi Telecom Ltd ("Eazitelecom")
- Gibtelecom
- BryMedia
- Mr Charles Scott
- Mr Dieter Wood

The GRA thanks all respondents for their submissions. Copies of all responses have been published on the GRA's website.

---

<sup>1</sup> [http://www.gra.gi/sites/communications/downloads/369/pc\\_4G\\_mob\\_021213.pdf](http://www.gra.gi/sites/communications/downloads/369/pc_4G_mob_021213.pdf)

Having considered all views, the GRA sets out in this Decision Notice its conclusions regarding the licensing of 4G mobile services and the liberalisation of mobile bands.

### **3. Mobile Services**

#### **900 MHz Band**

The consultation stated that due to the lack of co-ordination and spectrum sharing with neighbouring countries, the channels available in this band are extremely fragmented and availability is poor. Therefore, any spectrum re-farming would involve international co-ordination which could take some time. The GRA is of the view there is no available spectrum to allow a second local operator to have a reliable 2G network in this band and noted that Gibtelecom currently have allocated 33 x 200 kHz channels (6.6 MHz fragmented).

Views on the following question was sought.

#### **Q1. Do you agree with the GRA's evaluation of the 900 MHz band?**

##### *Views of Respondents*

BryMedia stated that 6.6 MHz out of 900 MHz band is sufficient for one operator in Gibraltar, that other operators should have equivalence to this and that in general no one operator should be awarded more spectrum capacity than another. There should also be more spectrum available in the 900 MHz frequency for issue to other licensed operators and claimed that due to the paucity of 900 MHz spectrum in Gibraltar, it is not viable to re-farm any capacity for 4G purposes.

Eazitelecom stated they understood the problems regarding the 900 MHz frequency band and said that this bands will increasingly be re-farmed for mobile data use in the EU<sup>2</sup> and Gibraltar needs to be part of this process.

Gibtelecom stated it did not share the GRA's view that there is no available spectrum to allow a second local operator to have a reliable 2G network in this band and even though it recognised that channel use is currently fragmented, it could be possible to consolidate all used spectrum within the 900 MHz band to its upper ranges. This would assist in freeing up a number of contiguous channels in this band for use by an alternative mobile operator. They also argued that the GRA's approach should ensure that they would be able to retain their existing assignment of 900 MHz channels, something of much importance for the correct operation of their current GSM system.

##### *GRA's Position*

The GRA has taken all replies on board and is of the view that there is potential for, at least, one additional allocation in the 900 MHz band for a second operator. However, a detailed analysis is required before any decision is reached.

---

<sup>2</sup> Ofcom Mobile Data Strategy 21<sup>st</sup> November 2013.

## **Decision No. 1**

**The GRA will investigate, in consultation with mobile operators, the 900 MHz band usage to determine the feasibility of allocating additional spectrum to a second or third operator. Please note this process will not form part of a public consultation.**

### 1800 MHz Band

Both Gibtelecom and Eazitelecom have several channel allocations in this band but the spectrum is fragmented and it is the GRA's view that it will be hard to amalgamate a sufficiently large number of 200 kHz channels contiguously to be able to provide 3G or 4G services in this band without international co-ordination. There seems to be very little spectrum available to allow a third 2G operator to have a reliable 2G network on this band.

In the consultation, the following question was asked:

#### **Q2: Do you agree with the GRA's evaluation of the 1800 MHz band?**

##### Views of Respondents

BryMedia responded that EU countries are moving to re-farm 1800 MHz spectrum and stated that 16.8 MHz of out the 75MHz 1800 MHz band is inadequate for 4G utilisation.

Eazitelecom noted they understood the problems regarding the fragmentation of the 1800 MHz and that the same requirement for re-farming as for the 900 MHz band should apply.

Due to the fact that there are already two mobile operators with assignments in the 1800 MHz band, Gibtelecom are of the view that providing the spectrum slots necessary to offer the higher bandwidths associated with UMTS (3G) or LTE/4G services would be challenging. Technically, they say, it would be difficult to accommodate a third mobile operator in the 1800 MHz range due to interference issues.

With regards to the re-farming of this band, the incumbent states that the current mobile networks of the two existing mobile operators are designed and constructed to operate this spectrum and a deviation from such frequency would have negative repercussions, both financially and operationally, and would also affect consumers.

##### GRA's Position

The GRA has taken all replies on board and is of the view that the potential for the re-farming of this band for 3G or 4G use is fairly limited and an allocation to a third operator could be even more challenging. Therefore, the GRA will be examining its usage in detail in conjunction with the 900 MHz band usage.

## **Decision No. 2**

**The GRA will investigate, in consultation with mobile operators, the 1800 MHz band usage to determine the feasibility of allocating additional spectrum to a second or third operator. Please note this process will not form part of a public consultation.**

## 2100 MHz Band

Both Gibtelecom and Eazitelecom have equal allocations of 5 MHz FDD spectrum in this band used for 3G services. There is an additional 10 MHz reserved to each operator as well as an extra 10 MHz for a potential third operator in this band.

The following question was asked:

### **Q3: Do you consider this band (2100 MHz) suitable for 4G?**

#### Views of Respondents

BryMedia do not consider the 2100 MHz band suitable for 4G due to inadequate channel availability and because it is not an international standard. They claim that a minimum of 30 MHz of either or both LTE FDD and LTE TDD is required for each operator.

Eazitelecom are of the view that as the 2100 MHz band is widely used for 3G at present, it should continue to be used for this purpose at least for the next 5 years due to the current number of 3G terminals used right now contrary to the smaller numbers of user terminals on the market for 4G terminals. Furthermore, in respect of the reservation of an extra 10 MHz of spectrum in this band for a third operator, they suggest it is more useful to assign this spectrum to the existing 2 operators allowing a theoretical 25 MHz available for each operator in the event of re-farming to LTE.

Gibtelecom note that, even though the 2100 MHz range is defined as global LTE band 1 by the ITU (International Telecommunications Union), this band has not yet been widely adopted throughout the industry and this may drive mobile manufacturers away from developing handsets for said band and at the same time roaming agreements may be affected. Thus, they do not consider the 2100 MHz band suitable for the provision of 4G services.

#### GRA's Position

After going over all replies, the GRA is of the view that this band is not currently suitable for the introduction of 4G services in Gibraltar.

### **Decision No. 3**

**The GRA will maintain the current usage of the 2100 MHz band, but will review this position in future if required to do so by operators.**

## 800 MHz Band

The GRA explained that this band has been identified by the ITU as a global harmonised band for the provision of International Mobile Telecommunications (IMT) services. The band comprises the so-called 'Digital Dividend' spectrum that has been freed up for re-use arising from the digital TV switchover to support the deployment of advanced mobile broadband services. As such, the 800 MHz band is now available for allocation to 4G services.

A European Commission Decision in 2010 confirmed the recommendation contained in a

CEPT report in 2013 that the 800 MHz band plan be based on a channel arrangement whereby 2 x 30 MHz of spectrum be made available in six FDD paired blocks of 2 x 5 MHz bandwidth. This band plan, which is mandatory within the EU, has now been implemented in a number of Member States.

The GRA proposes the use of the 800 MHz band as the main low-frequency band to be used in the deployment of mobile services with an interest in 4G services. Operators deploying 4G networks in Gibraltar are likely to want to do so using the harmonized 800 MHz band and it therefore makes sense for the GRA to provide access to this spectrum.

In making access available to the 800 MHz band, the GRA warns of the possible need to mitigate interference from mobile services to Digital Terrestrial Television (DTT) services in the band below 790 MHz. Although no DTT services in Gibraltar will be affected, any interference issue could affect DTT services in neighbouring countries. The GRA will endeavour to resolve such issues via international agreements with neighbouring countries.

#### **Q4: Do you agree with the GRA's evaluation of the 800 MHz band?**

##### *Views of Respondents*

BryMedia agree with the GRA's evaluation of the 800 MHz band but say that digital TV relocation will be required in the neighbouring three countries.

Eazitelecom are also in agreement and note that the 700 MHz band may also be considered as a main low-frequency band for mobile use in the future.

Gibtelecom accept the GRA's proposal for use of the 800 MHz band and recognise that a global 60 MHz (2 x 30 MHz) allocation is deemed sufficient for the provision of "base" LTE services.

Having said this, they point out that 2 x 5 MHz assignment blocks in the 800 MHz band would not be sufficient to provide a full coverage layer with satisfactory data speeds and is of relevance when considering the GRA's proposed service criteria to be met by operators being awarded 4G spectrum. They agree that any interference problems under the 790 MHz will be dealt by the GRA via international agreements with neighbouring countries.

##### *GRA's Position*

The GRA has taken all replies on board and is of the view that there is general agreement between operators in the proposed evaluation of the 800 MHz band.

#### **Decision No. 4**

**The GRA allocates the 800 MHz band for the provisioning of LTE services.**

#### **2600 MHz Band Channel Plan**

The 2600 MHz band, encompassing spectrum in the range 2500 MHz to 2690 MHz, has also been identified both by the ITU and the European Commission as a spectrum band that is suitable for use in the provision of terrestrial electronic communications services, including mobile broadband services.



Spectrum in the 2600 MHz band has been allocated within Europe for both FDD and TDD use. The GRA confirmed that, in the UK, the 2600 MHz band plan accords with that set out in the annex a European Commission's Decision in 2008.

Views on the following question were sought:

**Q5: Should the channel plan be the same as the UK for the 2600 MHz Band?**

*Views of Respondents*

Eazitecom are of the view that the channel plan should be the same as that of the UK as it accords with an EU Commission Decision.

Gibtelecom are of the view in that there is no reason why the GRA's channel plan for the 2600 MHz band should be different to the UK's.

*GRA's Position*

The GRA is of the view that, in line with the replies received, that the channel plan should be the same one as in the UK.

**Decision No. 5**

**The 2600 MHz band channel plan will follow the UK's channel plan and implement EU Commission Decision 208/477/EC.**

2600 MHz Band

In relation to the use of the 2600 MHz band for 4G mobile services the GRA pointed out the possible interference with radar equipment, an issue which has arisen in the UK and elsewhere. However, in the Gibraltar Frequency Register there are no reservations or assignments of any frequencies in this band. Therefore, problems are not envisaged if the 2600 MHz band is allocated to the mobile operators for 4G usage. The 2600 MHz band is currently unallocated within Gibraltar and would be available for assignment for 4G services.

The following question was asked:

**Question 6: Do you agree with the GRA's evaluation of the 2600 MHz band?**

*Views of Respondents*

BryMedia and Eazitecom agree with the GRA's evaluation of the 2600 MHz band.

Gibtelecom support the use of 2600 MHz for the provision of a capacity and speed layer and that this would be working in conjunction with a base layer working in the 800 MHz band as they pointed out in Question 4 above.

*GRA's Position*

The GRA has considered all replies and is of the view that there is general agreement in the evaluation of the 2600 MHz band.

## **Decision No. 6**

**The GRA allocates the 2600 MHz band for the provisioning of LTE services.**

### Spectrum Liberalisation

The consultation discussed whether the GRA should liberalise spectrum rights of use in all mobile bands. This would mean that all the bands would be freed from service and technology restrictions, leaving operators free to make their own operational choices regarding which services to provide in which bands. This will ultimately be restricted only by the conditions agreed in international agreements with neighbouring countries.

The liberalisation of current 2G and 3G spectrum allocations would require an editorial variation in the current and future Part VI licence schedules, so that they are no longer technology-specific.

Views on the following question were sought:

**Q7: Should the GRA proceed to liberalise the mobile bands?**

#### Views of Respondents

BryMedia and Eazitelecom agree with the GRA's proposal on liberalisation of the mobile bands and, in relation to interference from neighbouring countries, the latter adds that this may give operators the opportunity of selecting technologies that ameliorate the impact of any interference in particular band.

Gibtelecom stressed that, even though they have no current interest to take advantage of any liberalisation of the mobile bands, they are supportive of the notion of making spectrum technology agnostic.

#### GRA's Position

After analysing the replies, the GRA has decided that mobile licences should be technology neutral.

## **Decision No. 7**

**The GRA will amend the current GSM & UMTS Part VI licence conditions to make them technology neutral as per the draft Part VI Licence included in the consultation.**

### 700 MHz Band

As mentioned in the consultation, television channel 56 (750 MHz – 758 MHz) is assigned to Gibraltar under the Geneva 2006 Digital Broadcasting Plan. As channel 56 is in the 700 MHz band which may be allocated internationally to mobile services, it may need to be migrated to a lower frequency. A substantial investment has already been made in the current DTT network and any migration to another channel could constitute a major

expense. The GRA proposes that this expense be offset by the mobile operators or future users of this band.

**Q8: Do you agree with the GRA's position regarding the 700 MHz band?**

Views on the following question were sought:

Views of Respondents

BryMedia agreed with the GRA's decision in relation to the 700 MHz band.

However, Eazitelecom did not agree with the proposal that the cost of 'restacking' TV Channel 56 should be borne by the future users of this band because the allocation to mobile is made at international level and to levy the cost of such a change in allocation would be inappropriate.

Gibtelecom do not agree and refer to their replies to questions 4 and 6. In their view, 4G services could be introduced in the 800 and 2600 MHz bands and do not foresee a requirement for the use of the 700 MHz band for mobile services.

GRA's Position

The GRA has considered all replies and observes that although there may not be an imminent need for the use of the 700 MHz band, demand for LTE will grow with time and this band may complement the 800 MHz band. Therefore, there is a requirement to start the process of migration of current television services operating in the 700 MHz band.

**Decision No. 8**

**The GRA will investigate the process of migrating current television services from the 700 MHz band and evaluate cost of migration to current band users. The cost of migration will be met by the GRA.**

Equalisation of Spectrum Holdings

The GRA stated that when dealing with the award of 4G licences, it wanted to ensure that at the end of the process all three potential mobile operators, including a new one, have usage rights over equal amounts of spectrum in the same bands. The GRA would seek to equalise current holdings with the consent of the Minister and in consultation with existing operators.

At present Gibtelecom has allocations in 900 MHz, 1800 MHz and 2100 MHz and Eazitelecom has spectrum in the 1800 MHz and 2100 MHz.

The following question was asked:

**Q9: Should the GRA research in detail the potential of spectrum equalisation between local mobile operators before re-farming the 900 MHz & 1800 MHz bands?**

### Views of Respondents

BryMedia agreed to the research and added that there is a necessity to create equal competitiveness for any green field operator, and referred to the special characteristics in Gibraltar that make re-farming of these bands non-viable. They claim it would be important to make 800 MHz and 2600 MHz spectrum available for 4G/LTE on suitable terms and conditions, to encourage investment by both incumbent operators and potential new licensees.

Eazitelecom replied that the GRA has to ensure that consumers are able to have choice and quality of service, and it is therefore correct to research the issue of usage of spectrum.

Gibtelecom agreed to the research and suggested to the GRA to commence with the re-farming of the 900 & 1800 MHz bands. They claim that for any re-farming exercise to be supported by the industry, the research would need to demonstrate that doing so would carry a net economic benefit, as Gibtelecom would be the only operator required to relinquish spectrum in the 900 MHz band. They again questioned the licensing of a third operator.

### GRA's Position

The GRA has considered all replies and it is clear that operators welcome a detailed analysis on spectrum equalisation. Furthermore, this will also be applied under Decision number 1 and 2 above.

### **Decision No. 9**

**The GRA will research the potential of spectrum equalisation between local mobile operators before re-farming the 900 MHz & 1800 MHz bands.**

## 4. 4G and Mobile Spectrum Fees (Part VI Licence)

### Proposed Fee Structure

As provided in the consultation, the table below shows the current<sup>3</sup> and proposed related spectrum fees for each respective band under consideration for the current period 1<sup>st</sup> April 2013 – 31<sup>st</sup> March 2014. A cumulative annual 4% increase effective on the 1<sup>st</sup> April will still be applied.

#### Mobile Public Operator

1st April 2013  
31st March 2014

Per 200kHz                      Per 5 MHz

#### 900 MHz

Current GSM 900 Licence fee		£ 3,028.00	£ 75,700.00
Proposed fee		£ 3,100.00	£ 77,500.00

#### 1800 MHz

Current GSM 1800 Licence fee		£ 3,028.00	£ 75,700.00
Proposed fee		£ 2,800.00	£ 70,000.00

#### 2100MHz

Current 3G Licence fee -		£ 4,737.00	£ 118,425.00
Proposed fee		£ 1,600.00	£ 40,000.00

#### Proposed 4G Spectrum

Proposed fee 800 MHz		£ 1,600.00	£ 40,000.00
Proposed fee 2600 MHz		£ 1,600.00	£ 40,000.00

When setting the fees, the following criteria have been taken into consideration:

- Spectrum availability in the respective bands;
- Spectrum requirements to be able to provide an effective network;
- Total estimated cost of Mobile Spectrum fees each operator would pay. This has a direct bearing on the operational expenditure of each individual network and ultimately influences the price end consumers pay. By reducing costs in certain bands and increasing them in others, the GRA aims to encourage a shift to more available spectrum and at the same time offer the operators an opportunity to reduce the cost to the consumer.

In relation to 3G UMTS spectrum fees (2100 MHz), the current fee is £4,737.00 per 2 x 200 kHz including a cumulative annual 4% increase effective on the 1<sup>st</sup> April of each year. Currently the fee for each 5 MHz block is £118,425.00, but taking into account 4G requirements of 15 MHz, the total fee of £355,275.00 is considered by the GRA to be excessive.

<sup>3</sup> Direction Concerning Fees for Certain Part VI Licences M01/2011  
[http://www.gra.gi/sites/communications/downloads/312/dir\\_m01\\_2011.pdf](http://www.gra.gi/sites/communications/downloads/312/dir_m01_2011.pdf)

It is the GRA's view that the proposed bands above have the potential to meet 4G spectrum requirements of three operators. Therefore, the proposed fee structure should help promote the launch of 4G networks and services in Gibraltar.

The following question was asked:

**Q10: Do you agree with the proposed fee structure?**

Views of Respondents

BryMedia agreed that 4G fees should be in the range of the 3G fee structure.

Eazitelecom welcomed the decision to lower the price for 2100 MHz and recognised that Gibraltar's spectrum pricing needs to be special due to the size of Gibraltar and propagation disadvantages. Furthermore, they state that pricing should be consistent on a band by band basis and fees should be no higher than those required to recover the cost of spectrum management and monitoring. As a new entrant, they also point out that their customer numbers are much lower than Gibtelecom's and therefore they will have a much higher cost per customer for spectrum fees.

Gibtelecom's view is that, in their case, the proposed fees do not reflect the reality of operating three different mobile networks over five spectrum allotments. They suggest that the current 2G GSM network must remain to provide (specifically with regards the 900 MHz range) umbrella voice services over LTE and notes that LTE has not been defined with a voice provision.

Gibtelecom say that the introduction of LTE would require further financial investment from them and would only extend Gibtelecom's current UMTS infrastructure. Gibraltar operators would find it difficult to recover any type of investment over a reasonable time period and should spectrum fees not reflect this reality, this will only serve to erode incentives for the industry to invest in 4G services.

The incumbent also suggest that the 900 MHz and 1800 MHz bands are priced at the same level as the proposed fee for the 2100 MHz allocation. They add that the fees for the 4G spectrum should be structured in a manner that will allow operators to maximise the LTE speed offerings and suggest the GRA considers modifying the proposed pricing schedule so that the cost of acquiring 30 MHz (2 x 10 MHz in 800MHz and 2 x 20 MHz in 2600 MHz) of 4G spectrum remains as per the cumulative cost of the proposed 4G fees.

GRA's Position

The GRA would like to point out that licence fees are set by the Minister for Communications. The Minister has been made aware of the replies received on this matter and is of the view of maintaining the fees as provided in the consultation. However, these fees will come into effect as from the 1<sup>st</sup> April 2014. Although an annual cumulative 4% increase is applicable, the fees for the 800 MHz and 2600 MHz will not be increased until 1<sup>st</sup> April 2015

## Decision No. 10

The revised fee structure is included in the “Direction concerning fees for certain Part VI Licences – Direction M01/2014” and can be found at the end of this document.

## 5. Award process to provide 4G services

### Service Criteria

The consultation provided information on the GRA’s proposed award process, taking into account the following:

- The Application Stage
- Qualification Stage
- Sealed Bids Stage
- Award Stage

Furthermore, the GRA plans to specify within each of the 4G licences the minimum service criteria that will apply to the provision of 4G services in Gibraltar. The GRA proposes that service criteria are included in conditions inserted into the Part VI licences.

In this respect, the GRA intends to include the following service characteristics within each of the 4G licences:

- **Launch date:** 4G operators will be obliged to launch commercial services within nine months of licence award;
- **Coverage at launch:** 4G operators will be obliged to provide at least 70% population coverage at launch;
- **Population coverage to be achieved:** 4G operators will be obliged to provide at least 95% population coverage within two years of service launch;
- **Minimum mobile broadband data speed provided:** 4G operators will be obliged to offer minimum download speeds of at least 5 Mbps over their networks.

Views of the following question were sought:

**Q11: Do you agree with the GRA proposal to include a number of service criteria in the areas outlined above within the 4G licences? Respondents are invited to provide views on the proposed characteristics, including what parameters they believe would be appropriate for each and on the award process.**

### Views of Respondents

In relation to the proposed service criteria, BryMedia are of the view that the launch obligation should be extended to twelve months after the licence award and agree on both the 70% population coverage at launch and the 95% population coverage within 2 years of service launch. Furthermore, they also agree on the minimum download speeds of at least 5 Mbps but if an agnostic approach is to be taken by the GRA, they claim that consideration might be given to minimum speed/s for broadband/4G fixed wireless services.

Eazitelecom are of the view that the launch date should be within eighteen months of the licence award and that the nine months proposed may only be achievable by the incumbent who already have a large number of sites. They add that new entrants, like themselves, do not have this advantage taking into account the increased cost and difficulties in obtaining transmission sites in Gibraltar.

Eazitelecom has no objection to the proposed 70% population coverage at launch, subject to this being achieved in eighteen months. They also state that the 95% population coverage target should be achieved within two and a half years rather than two years and have no objection to the proposal that 4G operators should offer minimum download speeds of at least 5 Mbps.

With respect to the award process, Eazitelecom say that this results in a competitive tender if more than three valid applications are received. They say that the only frequencies clearly available for 4G at this point are the 800/2600 MHz bands which are the subject of the proposed competitive process. They add that Gibraltar is a very small market with significant risks posed by the behaviour of neighbouring countries.

Due to this, they suggest that their radiocommunications licences together with Gibtelecom's should be amended automatically and include 800/2600 MHz spectrum for 4G. If there is an application for the granting of a third licence, then the competition should be restricted to that for the third licensee.

Gibtelecom back the idea of having service criteria set within the 4G licence. They support their view by claiming that such service criteria will also ensure that only applications from operators who are genuinely capable of complying with 4G rollout obligations are received by the GRA.

However, they add that such criteria can only realistically be met if no more than two 4G licences are awarded as it would be financially unviable to meet the proposed criteria if the Gibraltar mobile market grows further.

Gibtelecom feel that the nine months service launch of award is too short as equipment procurement times are usually defined as twelve to sixteen weeks. This equipment is then installed and tested prior to launching the service and can take up an additional six months. They consider eighteen months as a realistic timeframe.

With respect to the 70% population coverage at launch and the 95% population coverage within two years of service launch, Gibtelecom are confident that both can be achievable, subject to planning approvals. They request further clarification from the GRA whether "coverage" refers to indoor or outdoor coverage.

In relation to the minimum download speeds of at least 5mbps, Gibtelecom request clarification from the GRA as to how this criteria will be applied as they are concerned that such download speeds may not be achievable at all times across the whole of Gibraltar for a number of reasons. Gibtelecom also refer to a measurement that is applied by some regulators to determine acceptable download speeds and question if the GRA will be following the Ofcom approach.



Gibtelecom say that further clarification is also required as to how the GRA proposes to assess compliance with the service criteria and in relation to the awards process agree with the GRA that it should not be entertaining a comparative selection procedure.

#### Section 5

Nevertheless, Gibtelecom express concern as to how the GRA intends to deal with likely "spurious" applications. They take note of the application fee in the "Award" stage and the fact that applicants have to confirm they accept the service criteria as part of the "Application" Stage, but warn that an applicant could simply "tick this box" to get through to the next stage of the process, but without meeting the conditions at a later stage. They ask the question of how the GRA will ensure that any commitments made at the Application stage will be followed through.

They also feel there is little clarity on what would happen should successful applicants not meet the service criteria and ask how the GRA would deal with such instances.

#### GRA's Position

Having taken all the specific replies into consideration, the size and particularities of the Gibraltar market and the feedback received by operators, the GRA has concluded that, subject to agreeing to the minimum criteria specified below, 4G spectrum will be awarded to the two operators which currently hold Part VI licences. A third operator may also be licensed in the 4G bands.

- **Launch date:** 4G operators will be obliged to launch commercial services within nine months of licence award;

It is evident from the replies that the period stated in the consultation is far too ambitious. Therefore, the GRA has decided to extend this to eighteen months, taking into account, inter alia, delays that may arise in respect to town planning decisions and access to certain sites around Gibraltar. The GRA also directs operators and prospective operators to the Notice on the Right to Install Facilities issued under Section 49 of the Communications Act 05/2013<sup>4</sup>. Section 49 of the Communications Act 2006 requires a person authorised to provide a public electronic communications network who requires to install facilities on, over or under public or private land to apply to the Minister for Communications a right to install such facilities.

- **Coverage at launch:** 4G operators will be obliged to provide at least 70% population coverage at launch;

All three respondents agree that this is achievable subject to speedy approval for transmitter sites and securing appropriate permits from relevant departments and landlords.

- **Population coverage to be achieved:** 4G operators will be obliged to provide at least 95% population coverage within two years of service launch;

Again, all three respondents agree that this is achievable subject to speedy approval for transmitter sites and securing appropriate permits from relevant departments and landlords. Having taken this into account and, in the interest of allowing greater flexibility to new operators, the GRA has decided to extend the period to three years.

---

<sup>4</sup><http://www.gra.gi/index.php?article=363&topic=notices&section=documents&site=communications>

- **Minimum mobile broadband data speed provided:** 4G operators will be obliged to offer minimum download speeds of at least 5 Mbps over their networks.

The GRA has defined the term 'at least 5 Mbps' as: the average download speed at an outdoor location to the terminal device. The GRA will not be following OFCOM's approach, a costly exercise and relying on third parties to carry out such work, in verifying the speeds and, if required, would request operators to provide statistical data to demonstrate compliance.

## **Decision No. 11**

**Operators which are currently licensed will have to inform the GRA, in writing, by no later than 12<sup>th</sup> May 2014 that they will be rolling out 4G services and accept the minimum criteria listed below. Failure to do so will result in the GRA commencing an award process and inviting applications for the use of the 800 MHz and 2600 MHz bands.**

- **Launch date:** 4G operators will be obliged to launch commercial services within eighteen months of licence award;
- **Coverage at launch:** 4G operators will be obliged to provide at least 70% population coverage at launch;
- **Population coverage to be achieved:** 4G operators will be obliged to provide at least 95% population coverage within three years of service launch;
- **Minimum mobile broadband data speed provided:** 4G operators will be obliged to offer minimum download speeds of at least 5 Mbps (average download speed at an outdoor location to the terminal device) over their networks.

**Once the GRA formally allocates the spectrum, a quarterly update from operators on the progress of the roll out is required. Furthermore, no fee on the use of spectrum is required to be paid until the network is publically available. Failure to meet the criteria above could result in the spectrum allocation being removed and the spectrum made available to other parties.**

**The award of 4G spectrum to a third operator may happen within a period of nine months from the date of this Decision Notice. The minimum criteria would be applied with effect from the date of the award.**

## **6. General Replies**

### GRA's Position

Mr Charles Scott's and Mr Dieter Wood's replies raised matters outside the scope of the consultation. These replies can be read on our website.

However, on this matter, we would like to stress that the GRA is responsible for the management of the Electromagnetic Spectrum in Gibraltar; this includes compliance of EMF (electro magnetic fields) emissions from transmitters to international guidelines (ICNIRP)<sup>5</sup>. As part of the licensing process, the GRA conducts a site inspection on all mobile base stations installations and routinely audits base stations through out Gibraltar for compliance<sup>6</sup>. However, the GRA does not have any duties related to the recommendations for exposure to EMF emissions. The GRA does not set emission safety levels and we have neither the expertise nor the remit to participate in matters concerning biological or health research.

## **7. Part VI Mobile Licence**

No interested party commented on the draft Part VI Mobile Licence included in the consultation as Appendix 1.

### **Summary of Decisions:**

#### **Decision No. 1**

**The GRA will investigate, in consultation with mobile operators, the 900 MHz band usage to determine the feasibility of allocating additional spectrum to a second or third operator. Please note this process will not form part of a public consultation.**

#### **Decision No. 2**

**The GRA will investigate, in consultation with mobile operators, the 1800 MHz band usage to determine the feasibility of allocating additional spectrum to a second or third operator. Please note this process will not form part of a public consultation.**

#### **Decision No. 3**

**The GRA will maintain the current usage of the 2100 MHz band, but will review this position in future if required to do so by operators.**

#### **Decision No. 4**

**The GRA allocates the 800 MHz band for the provisioning of LTE services.**

#### **Decision No. 5**

**The 2600 MHz band channel plan will follow the UK's channel plan and implement EU Commission Decision 208/477/EC.**

---

<sup>5</sup> International Commission on Non-Ionizing Radiation Protection <http://www.icnirp.de/>

<sup>6</sup> GRA GSM Audit reports

<http://www.gra.gi/index.php?topic=monitoring&section=spectrum+use&site=communications>

#### **Decision No. 6**

**The GRA allocates the 2600 MHz band for the provisioning of LTE services.**

#### **Decision No. 7**

**The GRA will amend the current GSM & UMTS Part VI licence conditions to make them technology neutral as per the draft Part VI Licence included in the consultation.**

#### **Decision No. 8**

**The GRA will investigate the process of migrating current television services from the 700 MHz band and evaluate cost of migration to current band users. The cost of migration will be met by the GRA.**

#### **Decision No. 9**

**The GRA will research the potential of spectrum equalisation between local mobile operators before re-farming the 900 MHz & 1800 MHz bands.**

#### **Decision No. 10**

**The revised fee structure is included in the "Direction concerning fees for certain Part VI Licences – Direction MXX/2014" and can be found at the end of this document.**

#### **Decision No. 11**

**Operators which are currently licensed will have to inform the GRA, in writing, by no later than 12<sup>th</sup> May 2014 that they will be rolling out 4G services and accept the minimum criteria listed below. Failure to do so will result in the GRA commencing an award process and inviting applications for the use of the 800 MHz and 2600 MHz bands.**

- **Launch date: 4G operators will be obliged to launch commercial services within eighteen months of licence award;**
- **Coverage at launch: 4G operators will be obliged to provide at least 70% population coverage at launch;**
- **Population coverage to be achieved: 4G operators will be obliged to provide at least 95% population coverage within three years of service launch;**
- **Minimum mobile broadband data speed provided: 4G operators will be obliged to offer minimum download speeds of at least 5 Mbps (average download speed at an outdoor location to the terminal device) over their networks.**

**Once the GRA formally allocates the spectrum, a quarterly update from operators on the progress of the roll out is required. Furthermore, no fee on the use of spectrum is required to be paid until the network is publically available. Failure to meet the criteria above could result in the spectrum allocation being removed and the spectrum made available to other parties.**

**The award of 4G spectrum to a third operator may happen within a period of nine months from the date of this Decision Notice. The minimum criteria would be applied with effect from the date of the award.**