



# **Satellite Licensing Framework: Satellite User Terminals and Earth Station Gateways**

**T1539G**

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**Consultation & Call for Expressions of Interest**

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**Date: 14 December 2021**

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# 1. Overview

## Summary

- 1.1 Interest has been expressed in providing satellite broadband services to user terminals located in Guernsey and in operating satellite earth stations on Guernsey. Spectrum will be required for both activities to transmit data to and from satellites. In this consultation, the Guernsey Competition and Regulatory Authority (the **GCRA**) proposes a framework and process for awarding licences on Guernsey for these purposes.
- 1.2 The GCRA's role in this area is twofold. The first is to ensure an efficient and effective telecommunications licensing regime under *The Telecommunications (Bailiwick of Guernsey) Law, 2001 (Telecommunications Law)* is in place: one that promotes competition and delivers value and choice for Guernsey consumers to the benefit of the Guernsey economy.
- 1.3 The second is to ensure optimal use of spectrum in Guernsey. The GCRA generally ascertains the level and nature of available spectrum, and then makes a recommendation to Ofcom for an award to be made. If satisfied that the GCRA's recommendation is in line with its own duties, Ofcom issues spectrum licences under the *Wireless Telegraphy Act 2006 (WTA)*. Where it identifies that demand exceeds supply, the GCRA usually carries out a competitive selection process to ensure that optimal use is made of spectrum.
- 1.4 This consultation is seeking feedback on the proposed satellite services licencing framework for user terminals and earth station gateways set out in this paper. It also invites Expressions of Interest from parties interested in being licensed to provide satellite services in Guernsey. The deadline for submissions and Expressions of Interest is **4pm Thursday, 10 February 2022**.
- 1.5 This consultation process is expected to conclude with issuing the successful bidder with a telecommunications licence authorising the provision of satellite services in Guernsey and a recommendation to Ofcom to award the relevant spectrum.

### Summary of proposals

#### Proposed changes to telecommunications licenses to authorise satellite services

The key changes proposed are:

- For new entrants a new Part will be attached to the standard fixed licence that specifically authorises satellite services and links to the relevant WTA licence.
- For licences that authorise satellite earth stations, regular transmissions should commence within 18 months of licence issue and be maintained thereafter.
- Modification of existing fixed licences to amend and insert certain definitions.

#### Proposed award process for satellite telecommunications licence and access to spectrum

The GCRA is proposing a two-stage contingent award mechanism:

- Stage 1: Test for excess demand through an Expression of Interest (part of this consultation).
- Stage 2: In the event there is excess demand, a competitive award process will be implemented to ensure optimal use is made of the spectrum. In the event there is no excess demand, the GCRA intends to proceed on a first-come, first-served basis.

## **Structure of the rest of this paper**

1.6 The remainder of this paper is structured as follows:

- Section 2 sets out the reason for this consultation and call for Expressions of Interest and provides relevant information on satellite service systems.
- Section 3 describes how this consultation fits in with Government telecom policy considerations.
- Section 4 describes the legal and regulatory bases for the GCRA's role in the licensing of telecommunications companies and allocation of spectrum for telecom purposes as well as Ofcom's role under United Kingdom (UK) legislation in this area.
- Section 5 briefly describes Ofcom's user terminal and NGSO satellite licensing process.
- Section 6 sets out proposals concerning the structure and form of licences under the Telecommunications Act to authorise the provision of satellite services.
- Section 7 describes the proposed award process for telecommunications licences and recommending spectrum awards for satellite service providers to Ofcom.
- Section 8 sets out licence fee and other charges for telecommunications and WTA licences.
- Section 9 provides instructions on how to provide comments on the proposals in this document and submit an Expression of Interest.
- Section 10 concludes with the next steps.

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## 2. Consultation purpose and background

### Reason for consultation

- 2.1. Interest has been expressed in providing satellite broadband services to user terminals located in Guernsey and in operating satellite earth stations (gateways) on Guernsey, using satellites in a non-geostationary satellite orbit (NGSO). The provision of user terminal and gateway satellite services requires two licences: a telecommunications licence from the GCRA and a spectrum licence from Ofcom under the WTA, the latter informed by a recommendation from the GCRA.
- 2.2. The GCRA does not currently have a specific framework for licensing satellite services, and existing mobile telecommunications licences restrict the provision of such services. In July 2021, Ofcom suspended NGSO satellite licensing while it and consulted on updates to its licensing process to mitigate the increased risks of harmful radio interference between NGSO systems.<sup>1</sup> Ofcom published its final decision on 10 December 2021.<sup>2</sup>
- 2.3. Ofcom's consultation highlighted the need to guard against barriers to competition that may arise if granting a licence could prevent subsequent parties from entering the market. Ofcom noted an increased competition risk arising from a scarcity of NGSO gateway sites should there need to be a substantial separation distance to protect an earth station gateway from interference.
- 2.4. This consultation invites comments from interested parties to inform the development of a framework for licensing satellite services on Guernsey, including the basis for recommendations to Ofcom on spectrum allocations for such services. It also invites Expressions of Interest from parties interested in being licensed to provide satellite services in Guernsey.

### Satellite services<sup>3</sup>

- 2.5. This section briefly describes the key elements of a satellite system, in particular distinguishing between user terminal and gateway services, and explains the difference between GSO and NGSO satellite systems. The three key elements of a satellite system are shown in Figure 1.

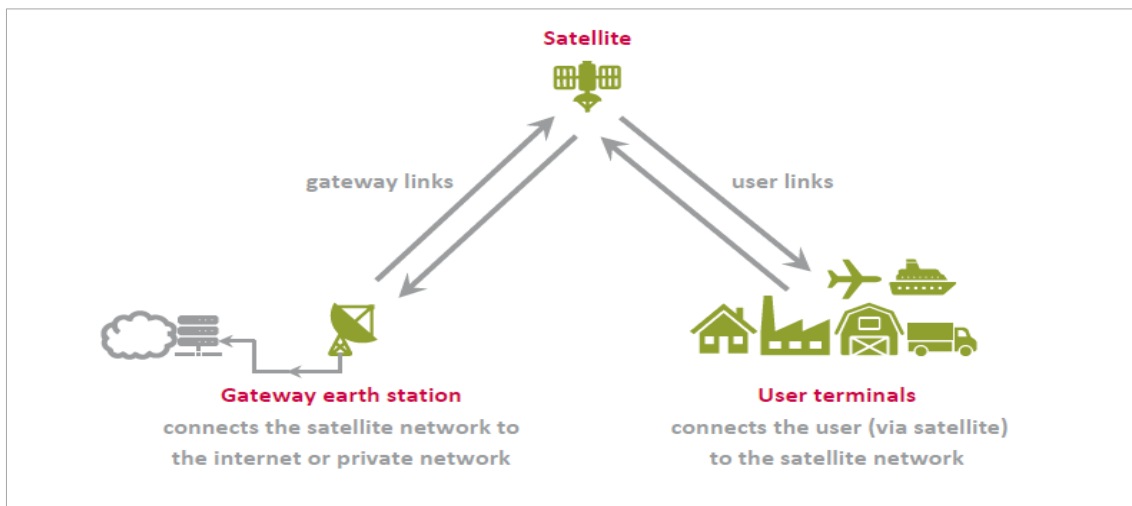
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<sup>1</sup> Ofcom (2021a). *Consultation: Non-geostationary satellite systems – Licensing updates*, 26 July 2021: [https://www.ofcom.org.uk/\\_data/assets/pdf\\_file/0015/222450/ngso-licensing-consultation.pdf](https://www.ofcom.org.uk/_data/assets/pdf_file/0015/222450/ngso-licensing-consultation.pdf)

<sup>2</sup> Ofcom (2021b). *Statement: Non-geostationary satellite systems – Licensing updates*, 10 December 2021: [https://www.ofcom.org.uk/\\_data/assets/pdf\\_file/0018/229311/statement-ngso-licensing.pdf](https://www.ofcom.org.uk/_data/assets/pdf_file/0018/229311/statement-ngso-licensing.pdf)

<sup>3</sup> This section draws heavily on Ofcom (2021a).

Figure 1: Satellite system example

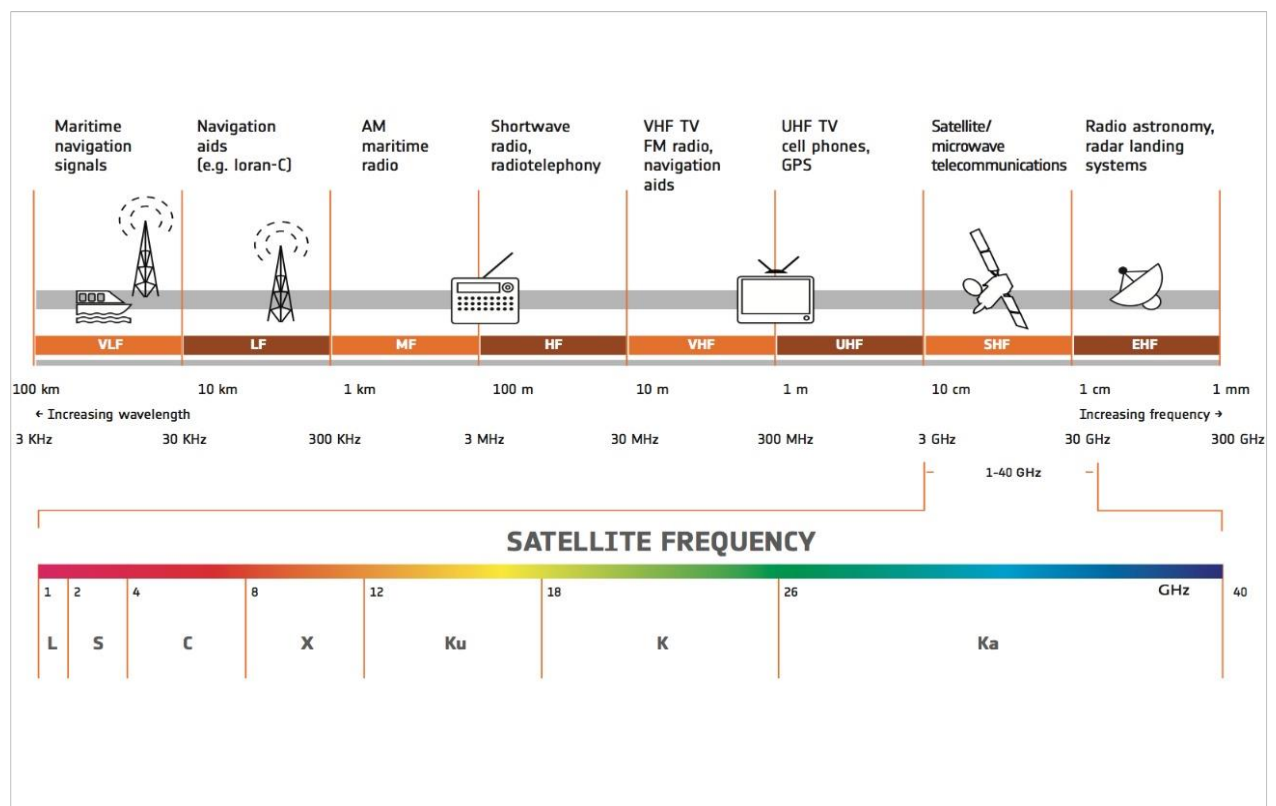


Source: Ofcom (2021a): page 40.

### User terminals

2.6. User terminals typically comprise a small antenna and associated equipment. User terminals can communicate with satellites in geostationary orbit (**GSO**) or NGSO in certain frequency bands allocated to the fixed-satellite service. These include commonly used frequencies in the Ku band (13.78 – 14.5 GHz), globally one of the most heavily used satellite uplink bands, and Ka band (26 – 40 GHz).

Figure 2: Satellite frequency bands



Source: The European Space Agency.<sup>4</sup>

<sup>4</sup> [https://www.esa.int/Applications/Telecommunications\\_Integrated\\_Applications/Satellite\\_frequency\\_bands](https://www.esa.int/Applications/Telecommunications_Integrated_Applications/Satellite_frequency_bands)

### *Gateway earth stations*

- 2.7. Gateway earth stations are hubs that connect the GSO and NGSO satellite system to the internet and/or to private networks.<sup>5</sup> The frequency bands allocated to the fixed-satellite service are defined by the ITU Radio Regulations and commonly include frequencies in Ku band (approximately 14 GHz for the uplink and 11 GHz for the downlink) and Ka band (approximately 28 GHz for the uplink and 18 GHz for the downlink). The parts of spectrum in the UK between 27.5 – 30 GHz that are routinely made available by Ofcom for transmitting earth stations, are: 27.5 – 27.8185 GHz, 28.4545 – 27.8185 GHz and 29.4625 – 30 GHz.
- 2.8. Ofcom notes that there are a number of companies developing NGSO systems comprising constellations of satellites, including Amazon, Kepler, OneWeb, SpaceX, and Telesat.<sup>6</sup>

### *Satellites*

- 2.9. GSO satellites remain in a stationary position relative to the earth's surface because they are orbiting at same speed and direction as the earth is rotating. This means they stay in the same spot in the sky, and so satellite dishes can be fixed to point at them without needing to track them. Multiple GSO gateways can be located on a single site, each communicating with a different satellite system in a different orbital location, without causing harmful interference to each other. As such, GSO operators do not need to be concerned about the location of other GSO operators' gateway earth stations.
- 2.10. In contrast, NGSO satellites, such as medium earth orbit (MEO) or low earth orbit (LEO) satellites, move around the earth along predefined 'orbital planes'. There may be hundreds or thousands of satellites strategically spaced so that, from any point on the surface, at least one satellite is always visible on a direct line of sight. To achieve a continuous connection, NGSO gateway earth stations and user terminals are required to track these satellites as they move across the sky, transmitting and receiving information as they do so. NGSO gateways are therefore likely to require large minimum separation distances (for example 10s of kilometres or more) from the gateways of other systems, in order to avoid harmful interference, even if there is agreement on coordination of the satellite systems as a whole.
- 2.11. Ofcom notes that if the separation distances needed between NGSO gateways were to be very large (say much greater than 100 km) and/or demand for sites were sufficiently high, then this introduces the possibility of a scarcity of sites within the UK.<sup>7</sup> Such scarcity could contribute to competition being restricted if enough sites were acquired by a single player (or concentrated number of players) such that other operators requiring UK sited gateways could not enter the market.
- 2.12. This matter is relevant to Guernsey, as even with a small separation distance of only tens of kilometres, this would imply that only one NGSO gateway on Guernsey (and potentially Guernsey, Jersey and parts of France) would be feasible to avoid harmful interference.
- 2.13. Spectrum use by satellites in space, which is coordinated by the International Telecommunication Union (ITU),<sup>8</sup> is not licenced by Ofcom.

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<sup>5</sup> In the Guernsey context, a gateway earth station is likely to comprise an array of about 10 antennas on a 0.3 to 0.8 acre site.

<sup>6</sup> Ofcom (2021a): page 7.

<sup>7</sup> Ofcom (2021a): page 16.

<sup>8</sup> For more information see: <https://www.itu.int/en/mediacentre/backgrounders/Pages/itu-r-managing-the-radio-frequency-spectrum-for-the-world.aspx>



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### 3. Government policy considerations

- 3.1. The States of Guernsey published a telecoms strategy, *The Future of Telecoms*, in June 2018.<sup>9</sup> The strategy sets out three key objectives in relation to broadband services, namely provision of:
- fibre to business districts within 2-3 years;
  - high quality super-fast broadband up to 100 Megabits per second (Mbps) to all residential properties within 2-3 years; and
  - next generation mobile technology in line, or earlier than the UK (5G).
- 3.2. This was followed by a policy letter: *Delivering Next Generation Digital Infrastructure*, published in September 2021, which sets out a proposal to speed up the island-wide rollout of fibre and reaffirms support for next generation mobile as a medium-term objective.<sup>10</sup>
- 3.3. While satellite broadband services are not a major focus, the strategy notes that alternative networks also have a role to play in expanding network coverage and capacity and encourages industry to engage with providers of innovative new solutions, such as satellites, on how to deliver ubiquitous, high-quality, broadband connectivity.<sup>11</sup>
- 3.4. For example, satellites may provide a cost-effective alternative mode of high-speed broadband service delivery for remote parts of the Bailiwick where laying fibre is uneconomic.<sup>12</sup> The emergence of high throughput satellites has also expanded the use and business cases for satellite backhaul connectivity for mobile networks, a potential future alternative to using high speed leased lines.<sup>13</sup>
- 3.5. As such, the GCRA is confident that the proposals in this paper to develop an efficient and effective framework to license satellite services in Guernsey are consistent with States of Guernsey telecoms policy.

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### 4. Legal and regulatory framework

#### Guernsey

- 4.1. In previous spectrum allocation award processes, the GCRA followed certain objectives to guide the process and criteria for allocation of spectrum, most which remain relevant for the purposes of this consultation:<sup>14</sup>

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<sup>9</sup> States of Guernsey (2018). *The Future of Telecoms*, Committee for Economic Development, June 2018: <https://www.gov.gg/article/165840/Guernseys-first-ever-Telecoms-strategy-published>

<sup>10</sup> States of Guernsey (2021). *Delivering Next Generation Digital Infrastructure*, Committee for Economic Development, September 2021: <https://www.gov.gg/article/185510/Delivering-Next-Generation-Digital-Infrastructure>

<sup>11</sup> States of Guernsey, 2018: page 17.

<sup>12</sup> See, for example, Eutelsat Konnect, which provides satellite broadband services at 'average speeds of up to 75 Mbps to customers anywhere in the UK', using a geo-stationary satellite: <https://www.freedomsat.co.uk/satellite-broadband-internet>

<sup>13</sup> See, for example, Vodafone and Telesat LEO satellite 5G backhaul trial at the University of Surrey: <https://www.vodafone.com/news/technology/first-5g-backhaul-demo>

<sup>14</sup> The principle 'To the extent allowed by legislation, to deal with the Jersey and Guernsey Bailiwicks as a single economic and social entity' has been removed following the reversion to separate regulatory authorities.

- 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 the GCRA are consistent with Ofcom's duties, including the duty to secure the optimal use of wireless telegraphy of the electromagnetic spectrum.
- 4.2. The first three objectives relate to the duties that GCRA has under *The Regulation of Utilities (Bailiwick of Guernsey) Law, 2001* (the **Regulation Law**), as shown in [Annex 1](#). The last one is necessary to ensure that Ofcom is able to act on the GCRA's recommendations, as they need to be made in furtherance of objectives consistent with those assigned to Ofcom.
- 4.3. Detailed provision for the regulation of telecommunications in Guernsey is contained in the Telecommunications Law. Section 2 provides for the GCRA to grant licences authorising the establishment, operation and maintenance of a telecommunications network and the provision of telecommunications services. Section 5 permits the GCRA to include in licences such conditions as it considers appropriate, having regard to objectives set out in Section 2 of the Regulation Law.
- 4.4. In developing this licensing framework, the GCRA is also mindful of the six principles for economic regulation it is required to follow viz. accountability, focus, predictability, coherence, adaptability and efficiency, as summarised in [Annex 1](#).

#### **UK legislation relevant to spectrum in Guernsey**

- 4.5. The use of spectrum in Guernsey is governed by Orders in Council extending certain provisions of UK legislation to Guernsey, 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 Guernsey, is carried out by Ofcom, by virtue of the powers given to it by the WTA and the *Communications Act 2003* (the **Communications Act**).
- 4.6. The GCRA does not have authority to allocate spectrum in Guernsey but may determine a proposed allocation of spectrum, which it then forwards to Ofcom as a recommendation, for Ofcom to issue spectrum licences with powers held under the WTA.
- 4.7. The Communications Act sets out Ofcom's principal and secondary duties (see [Annex 2](#)), which include a requirement to further consumer interests, where appropriate by promoting competition and secure the optimal use for wireless telegraphy of the electro-magnetic spectrum.
- 4.8. The WTA places further duties on Ofcom (see [Annex 2](#)) when carrying out its radio spectrum functions. These include having regard to current and future demand for spectrum and the desirability of promoting the efficient management and use of spectrum, economic and other benefits that may arise from that use, the development of innovative services and competition in the provision electronic communications services.

4.9. Ofcom authorises satellite user terminals by a **Satellite (Earth Station Network)**<sup>15</sup> licence, which permits any number of fixed or moving user terminals that operate within the satellite network. Gateway earth stations are authorised by a **Satellite (Non-Geostationary Earth Station)**<sup>16</sup> or **Satellite (Permanent Earth Station)**<sup>17</sup> licence. Such licences specify the allocated spectrum authorised for use along with a range of licence conditions, such as national and international obligations and apparatus requirements.

### Guernsey spectrum allocation

4.10. Spectrum that has been allocated by Ofcom for use in Guernsey to date is published on the Ofcom website.<sup>18</sup> There are currently no telecommunications licensees operating in the Ka or Ku band frequencies, and Ofcom has not issued any satellite user terminal or earth station licences for Guernsey.

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## 5. Ofcom's NGSO satellite licensing changes

5.1. In December 2021, Ofcom announced the following key changes that will affect Satellite (Earth Station Network) and Satellite (Non-Geostationary Station) licences:<sup>19</sup>

- A new application process that will:
  - include a check that systems being licensed can coexist without degrading consumer services;
  - include a check to guard against any restriction of competition that could arise if granting the licence could prevent subsequent parties entering the market;
  - publish licence applications and allow a period for comments for stakeholders to provide information regarding interference or competitive impact.
- New licence conditions that will:
  - require technical cooperation between operators;
  - for gateway licences, require regular transmissions to commence within 12 months of licence issue and be maintained thereafter;
  - require gateways to only operate with an NGSO satellite system authorised under a network licence;

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<sup>15</sup> Ofcom (2018a). *Licensing Procedures Manual For Satellite (Earth Station Network) Applications*, January 2018: [https://www.ofcom.org.uk/\\_data/assets/pdf\\_file/0021/19434/networkearthstation.pdf](https://www.ofcom.org.uk/_data/assets/pdf_file/0021/19434/networkearthstation.pdf)

<sup>16</sup> Ofcom (2018b). *Licensing Procedures Manual for Satellite (Non-Geostationary Earth Station) Applications*, January 2018: [https://www.ofcom.org.uk/\\_data/assets/pdf\\_file/0028/78274/non-geo-licensing-procedures-manual.pdf](https://www.ofcom.org.uk/_data/assets/pdf_file/0028/78274/non-geo-licensing-procedures-manual.pdf)

<sup>17</sup> Ofcom (2018c). *Licensing Procedures Manual for Satellite (Permanent Earth Station) Applications*, January 2018: [https://www.ofcom.org.uk/\\_data/assets/pdf\\_file/0016/60604/pes\\_licensing\\_procedures\\_ma1.pdf](https://www.ofcom.org.uk/_data/assets/pdf_file/0016/60604/pes_licensing_procedures_ma1.pdf)

<sup>18</sup> [https://www.ofcom.org.uk/\\_data/assets/pdf\\_file/0014/100670/channel-islands-frequency-chart.pdf](https://www.ofcom.org.uk/_data/assets/pdf_file/0014/100670/channel-islands-frequency-chart.pdf)

<sup>19</sup> Ofcom (2021b): page 1.

- enable Ofcom, where required, to manage local cases of interference that are impacting services.
- 5.2. To ensure that all relevant satellite equipment will be subject to these updated rules, Ofcom will also begin the process to remove an existing licence exemption for user terminals operating in Ka band.
  - 5.3. In relation to its competition check, Ofcom will continue to issue licences as they are requested, provided Ofcom has the opportunity to consider any competition concerns arising from an application that would limit options for others to the extent they could not enter the market. As an example, Ofcom cites one or a number of operators seeking to acquire licences for a large number of sites.
  - 5.4. Ofcom notes that in considering whether acquisition of additional gateways could restrict competition, a relevant factor would be the extent to which the satellite system has the flexibility to accommodate other operators deploying gateways near to them in the future. For example, Ofcom indicates that systems which are likely to require other gateways to be at least 200 km away would likely raise greater competition concerns than those that are flexible enough to accommodate others much closer.

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## 6. Proposed changes to GCRA telecommunications licences

### Current licence types

- 6.1. The GCRA currently issues two types of telecommunications licences under the Telecommunications Act:
  - Licence to establish, operate and maintain a Licensed Telecommunications Network and provide Licensed Telecommunications Services (referred to as a **fixed telecommunications licence**); and
  - Licence to establish, operate and maintain a Licensed Mobile Telecommunications Network and provide Licensed Mobile Telecommunications Services (referred to as a **mobile telecommunications licence**).
- 6.2. The GCRA has issued 15 telecommunications licenses to 12 licensees, three of which have fixed and mobile licenses, as shown in Table 1.

**Table 1: Guernsey telecommunications licences on issue**

Fixed & mobile	Fixed only	Mobile only
Guernsey Airtel Limited	Gamma Telecom Holdings Limited	5 <sup>th</sup> Dimension (Guernsey) Limited
JT (Guernsey) Limited	Links Communication (Richard Bird)	Flo Connect Limited
Sure (Guernsey) Limited	Logicalis (Guernsey) Limited	
	Business Telecom Limited	
	BT Jersey (Guernsey) Limited	
	Clear Mobitel Guernsey Limited	
	C5 IT Services	

Source: <https://www.gcra.gg/licensees-and-licences/?sectcorId=1136&page=0>

6.3. The current ‘standard’ fixed telecommunications licences issued in Guernsey do not explicitly refer to the provision of satellite services,<sup>20</sup> and the definition of Licensed Mobile Telecommunications Services specifically excludes such services (see [Annex 3](#)).

### **Proposed licence changes to authorise satellite service provision in Guernsey**

#### *New market entrants*

- 6.4. The first consideration facing the GCRA is whether to create an additional type of telecommunications licence specifically for satellite services, or adapt the standard fixed licence to authorise provision of satellite services. The GCRA is minded to implement the latter approach, for two reasons. The first is administrative ease. The second is to transparently ensure that licenced satellite service providers are treated the same as other fixed licensees in respect of standard, relevant licence conditions.
- 6.5. The second consideration is how to adapt the fixed telecommunications licence to authorise the provision of satellite services by a new market entrant. Two options are considered.
- 6.6. The first is to simply amend the definition of ‘Licensed Telecommunications Services’ in the standard fixed licence to explicitly include satellite services. This amendment would clarify that satellite services are authorised under the licence (while remaining excluded from the standard mobile licence).
- 6.7. The second option is to attach a new Part to the standard fixed licence that specifically authorises satellite services. This option has two key advantages over the first. It provides a means to clearly distinguish those licensees that, having provided the necessary supporting information in their license applications to the GCRA, are authorised to provide satellite services, from standard ‘land based’ fixed licensees. It also provides a means to clearly link the telecommunications licence to the relevant WTA satellite licence(s) issued by Ofcom i.e. Satellite (Earth Station Network),

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<sup>20</sup> Section 1(3) of the Telecommunications Act provides for the GCRA by direction to grant a licence exemption a particular person or class of persons. In the 2001 Office of Utility Regulation (the GCRA’s predecessor) consultation on a licensing framework for a competitive market, the Director-General’s final decision was, if needed, to exempt Receive Only VSAT (Very Small Aperture Terminals) from telecommunications licensing (<https://www.gcra.gg/media/3753/t01g-telecoms-in-guernsey-licensing-framework-for-a-competitive-market-final-decision.pdf>). No subsequent direction to this effect was issued. Note that any exemption would not affect the obligation on any person to obtain the necessary WTA licence from Ofcom to operate the VSAT.

Satellite (Non-Geostationary Earth Station) or Satellite (Permanent Earth Station) licence. This option requires consequential amendments to the definitions in clause 1 for all fixed licences.

- 6.8. The GCRA is minded to implement the second option, with draft text of the proposed new licence Part set out in [Annex 4](#) and consequential amendments to clause 1 shown in [Annex 5](#).
- 6.9. The GCRA is not proposing to replicate, or add additional technical conditions or restrictions to those in Ofcom’s satellite licences in the proposed new Part. Ofcom is responsible for the management and licensing of radio spectrum in Guernsey on behalf of the GCRA and is best placed to determine the appropriate technical conditions and restrictions that may be placed on WTA licences. In addition, any person licensed to provide satellite services in Guernsey will be required to comply with the licence conditions in both their GCRA telecommunications licence and Ofcom satellite license.
- 6.10. The proposed new Part contains a clause that relates to Ofcom proposals for satellite earth station licenses, which is that regular transmissions should commence within 12 months of licence issue and be maintained thereafter. The new Part proposes a commencement date of 18 months after the issue of the telecommunications licence, to allow time for the licensee to apply for a WTA licence after the telecommunication licence is issued by the GCRA.

#### *Existing licences*

- 6.11. The GCRA is not proposing to modify existing fixed telecommunications licences as part of this process to authorise provision of satellite services, save for consequential amendments to the definitions in clause 1. Should an existing licensee wish to provide satellite services, and is successful in its application to the GCRA following the process that will result from this consultation, a licence modification process to vary the licence to include the new Part would be undertaken.

#### **Consultation question**

**Question 1:** Do you have any general comments on our proposed changes to GCRA telecommunications licences to authorise the provision of satellite services?

**Question 2:** Do you have any specific comments on the draft text of the proposed new licence Part set out in [Annex 4](#).

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## **7. Proposed award process for satellite telecommunications licence and access to spectrum**

### **Introduction**

- 7.1. In developing an appropriate award mechanism for licensing satellite services – one that encompasses a telecommunications licence and a recommendation to Ofcom to award spectrum – the GCRA is guided by two imperatives. The first is the need to meet our duties in respect of furthering consumer interests, including through promoting competition. The second is to ensure the GCRA’s mechanism is consistent with Ofcom’s duties, including the duty to secure the optimal spectrum use. In addition, the GCRA is keen to ensure the proposed mechanism is administratively efficient, transparent and open to all parties interested in providing satellite services in Guernsey.
- 7.2. Spectrum is a finite resource. Where the supply of spectrum is sufficient to meet demand (and the operator is compliant with relevant technical standards, including those related to interference), Ofcom’s standard approach to allocating spectrum is first-come, first-served.

Ofcom has determined that is the most efficient basis for awarding spectrum in such circumstances.

- 7.3. Where there is excess demand in that the use of spectrum for one purpose denies its availability to other users, a competitive process is warranted to ensure efficient allocation. Such a process might entail a market-based approach such as an auction, which employs a price mechanism, or an administrative method such as a beauty contest.<sup>21</sup>
- 7.4. In past spectrum allocation exercises, the GCRA has used a beauty contest process,<sup>22</sup> in contrast to larger jurisdictions that commonly use auctions. Where it finds excess demand, in addition to auctions, Ofcom uses its Administered Incentive Pricing (AIP) mechanism, which applies market disciplines to the holding and use of spectrum rights by prompting users to consider their spectrum needs in light of the AIP fees payable. AIP is paid by most private sector users of spectrum, except where upfront payments have been set at auction.
- 7.5. In the case of NGSO gateways, excess demand may also arise in respect of sites. As the GCRA will be applying its licensing framework to both the telecommunications licence and spectrum allocation recommendation, a market-based or administrative mechanism will equally apply to site scarcity.
- 7.6. The GCRA is proposing a two-stage contingent award mechanism, an approach that has been used previously by the GCRA.<sup>23</sup> Stage 1 will test for excess demand. In the event there is excess demand, a second stage, competitive award process will be triggered to ensure optimal use is made of the spectrum. If there is no excess demand, the GCRA intends to proceed on a first-come, first-served basis, with parties responding to the call for Expressions of Interest at the head of the queue (noting that the GCRA is under no obligation to accept all or any of the proposals received in response to this call for Expression of Interest).

### **Stage 1: Expressions of Interest**

- 7.7. The first stage, as set out in this paper, is a Call for Expressions of Interest. Parties with an interest in being licenced to provide user terminal and/ or satellite gateway services in Guernsey are invited to submit a written Expression of Interest as per the details set out in the [Consultation](#) section.
- 7.8. As detailed in the [Consultation](#) section, respondents will be required to provide sufficient information on their plans to enable the GCRA to assess the likely impact on competition, now and in the future, as well as test for excess demand.

### **Stage 2: Competitive process**

- 7.9. Should, following an evaluation of the Expression of Interests received, there be excess demand, the GCRA will implement a suitable competitive award process.

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<sup>21</sup> In a beauty contest (or beauty parade), a number of evaluation criteria are set, possibly with different weightings. One or more applicants' offers are then evaluated with the proposals that demonstrate the best "mix" of those criteria, usually the highest weightings, selected.

<sup>22</sup> See, for example, CICRA (2014). *Pan-Channel Island Award of 800 MHz, 1800 MHz and 2.6 GHz Spectrum Information Notice*: <https://www.gcra.gg/media/3596/t1020gj-award-of-800-mhz-1800-mhz-and-2.6-ghz-spectrum-information-note.pdf>

<sup>23</sup> See, for example, CICRA (2108). *Pan-Channel Islands Consultation on Spectrum Awards in the 2.6GHz Band: Recommendation*. Document No: CICRA 18/18 25 April 2018: <https://www.gcra.gg/media/597823/t1309gj-2.6ghz-spectrum-award-recommendation-final-decision.pdf>. In this instance, there was no evidence of excess demand and the GCRA proceeded with a recommendation to Ofcom.

7.10. In the past the GCRA has relied on beauty contests. In relation to the postponed 5G spectrum allocation process, the GCRA cited the key reason for this was that set-up costs were considered of a scale more appropriate to larger markets and may not be justified in a small jurisdiction where the costs may be disproportionate to the benefits. At the time, the GCRA was also keen to ensure funds should not be diverted away from investment in networks and services that will benefit local consumers. Whether these arguments remain valid in the present context will be considered by the GCRA should there be excess demand.

7.11. The details of the competitive process for satellite licensing purposes, which may utilise a market-based approach or administrative method, is beyond the scope of this paper.

### Ofcom process

7.12. For avoidance of doubt, any satellite telecommunications service authorised under the process set out above would be subject to that applicant successfully obtaining the relevant Ofcom NGSO spectrum licence(s). Ofcom's assessments for those licences are independent of GCRA processes.

### Consultation question

**Question 3:** Do you have any comments on our proposed two-stage award process for a satellite telecommunications licence and access to spectrum?

**Question 4:** Do you have any views on the optimal competitive method for awarding a satellite telecommunications licence and access to spectrum, should there be excess demand – an auction, a comparative selection process ('beauty contest') or alternative method.

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## 8. Licence fees and other charges

### Introduction

8.1. There are a number of fees payable in relation to the award of telecommunications and WTA licences. Expression of Interests are required to be accompanied by a non-refundable fee of £500 (see [Consultation](#) section). Should the process move to a competitive award, there may be additional one-off fees and charges.

### GCRA

8.2. The GCRA sets telecommunications licence fees to recover administrative costs, as required under section 6 of the Telecommunications Law, subject to the provisions of section 4(3) of the Regulation Law:

(3) *The fees, levies, interest and penalties which may be determined and prescribed by [the Authority] under subsection (1)(d) shall be of such an amount as may be necessary to defray the costs and expenditure incurred or anticipated by [the Authority], over the term of the licence in question, in connection with the exercise of [its] functions and powers [under this Law and any Sector Law].*

8.3. The GCRA currently levies a one-off application fee of £500 and an annual licence fee over the term of the telecommunications licence. The approach to calculating annual licence fees is set out in CICRA 13/45.<sup>24</sup> The annual fee for 2021 is calculated on 1.2 per cent of Relevant Turnover,

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<sup>24</sup> CICRA (2013). *Channel Islands Telecoms Licence Fees: Report on the Consultation and Decision Document*. CICRA 13/45, October 2013.



with a minimum fee of £500. The percentage rate varies each year depending on the GCRA's anticipated costs. Relevant Turnover is the gross revenue paid to the licensees in respect of all telecommunications services for which a telecoms licence is required, subject to a number of exclusions including revenue from services carried out in their entirety outside Guernsey's legal jurisdiction.

## Ofcom

- 8.4. Ofcom charges WTA licence fees under *The Wireless Telegraphy (Licence Charges) Regulations 2020* (the **Regulations**).<sup>25</sup> For example, fees payable for a Satellite (Permanent Earth Station), calculated by formula, are set out in Schedule 4 of the Regulations. Annual licence charges payable by holders the Spectrum Access 28 GHz licence class are set out in section 7.<sup>26</sup>
- 8.5. Under section 13(2) of the WTA, Ofcom may, if it thinks fit in the light of its duties under section 3 of the WTA, prescribe fees which would be greater than those that would be necessary for the purposes of recovering costs it incurs in connection with its spectrum management functions. In particular, pursuant to section 3, Ofcom may have regard to the desirability of promoting:
- the efficient management and use of the part of the electro-magnetic spectrum available for wireless telegraphy;
  - the economic and other benefits that may arise from the use of wireless telegraphy;
  - the development of innovative services; and
  - competition in the provision of electronic communications services.

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## 9. Consultation

### Comments on the proposed licensing framework

- 9.1. Interested parties are invited to submit written comments on the proposed framework set out in this paper before **4pm Thursday, 10 February 2022**.
- 9.2. All written comments should be clearly marked '*Satellite Licensing Framework Consultation*' and should be delivered by hand or by e-mail to the following address:

GCRA  
Suite 4, 1<sup>st</sup> Floor  
La Plaiderie Chambers  
La Plaiderie  
St Peter Port  
Guernsey  
GY1 1WG

E-mail: [info@gcra.gg](mailto:info@gcra.gg)

- 9.3. In line with the GCRA's consultation policy, it intends to make comments on the proposed framework available on its website. Any material that is confidential should be put in a separate annex and clearly marked as such, in order that it may be kept confidential.

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<sup>25</sup> <https://www.legislation.gov.uk/ukxi/2020/1068/contents/made>

<sup>26</sup> Also see: [https://www.ofcom.org.uk/data/assets/pdf\\_file/0020/27461/fees.pdf](https://www.ofcom.org.uk/data/assets/pdf_file/0020/27461/fees.pdf)

## Expressions of Interest

- 9.4. Parties with an interest in being licensed to provide satellite services in Guernsey are invited to submit a written Expression of Interest before **4pm Thursday, 10 February 2022**.
- 9.5. Expressions of Interest should clearly set out the proponent's plans, including the following information:
- Company name, address and contact details.
  - Type of services the proponent licensee intends to provide i.e. user terminal, NGSO or GSO earth station gateway together with a brief description of the service and the intended customer base.
  - Indicative timeline for commencing provision of services, should the proponent be successful at the conclusion of the licensing framework process.
  - Preferred spectrum frequency range and quantity, uplink and down link.
  - Name and address of the site for earth stations, either British National Grid Reference or decimal Latitude/Longitude (WGS84), if available.
  - Satellite systems and equipment to be employed, including compatibility of equipment to avoid radio interference e.g. separation distance if NGSO gateway.
- 9.6. Expressions of Interest should be clearly marked '*Satellite Services Expression of Interest*' and should be delivered by hand or by e-mail to the address listed above. The GCRA will not publish the Expressions of Interest, but may refer to certain details such as name of the organisation, type of licence and spectrum. Any material that is confidential should be clearly identified as such, in order that it may be kept confidential.
- 9.7. Expressions of Interest must be accompanied by a non-refundable fee of £500. Any such fees will be taken into account when considering either the licence fees for a successful bidder or as part of the deposit required for participation in a competitive award process.
- 9.8. For the avoidance of doubt, the GCRA is under no obligation to accept all or any of the proposals received in response to this call for Expressions of Interest.

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## 10. Next steps

- 10.1. Following consideration of comments on the proposed licencing framework, and an assessment of Expressions of Interest, the GCRA will publish its decision on the final framework and determine the competitive process to be followed, should that be the appropriate course of action.
- 10.2. In the event there is no excess demand, the GCRA intends to proceed with issuing telecommunications licenses and making associated spectrum recommendations to Ofcom on a first-come, first-served basis.

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## Annex 1: GCRA duties under the Regulation Law and Principles of Economic Regulation

Section 2 of *The Regulation of Utilities (Bailiwick of Guernsey) Law, 2001* (the **Regulation Law**), requires the GCRA, in exercising its functions and powers, to promote and, where they conflict, to balance the following objectives:

- a) *to protect the interests of consumers and other users in the Bailiwick in respect of the prices charged for, and the quality, service levels, permanence and variety of, utility services,*
- b) *to secure, so far as practicable, the provision of utility services that satisfy all reasonable demands for such services within the Bailiwick, whether those services are supplied from, within or to the Bailiwick,*
- c) *to ensure that utility activities are carried out in such a way as best to serve and contribute to the economic and social development and well-being of the Bailiwick,*
- d) *to introduce, maintain and promote effective and sustainable competition in the provision of utility services in the Bailiwick, subject to any special or exclusive rights awarded to a licensee by [the Authority] pursuant to States' Directions,*
- e) *to improve the quality and coverage of utility services within the Bailiwick, and*
- f) *to lessen, where practicable, any adverse impact of utility activities on the environment,*

*and, in performing the duty imposed by this section, have equal regard to the interests of the residents of all islands of the Bailiwick.*

*The Regulation of Utilities (States' Directions) (Bailiwick of Guernsey) Ordinance, 2012* sets out six principles of economic regulation, summarised below:<sup>27</sup>

- Accountability – regulate within the framework of duties and policies set by the States.
- Focus – focus on protecting consumer interests through competition where possible, or a system replicating competitive outcomes if not, with a focus on outcomes.
- Predictability – provide a stable and objective regulatory environment.
- Coherence – develop frameworks that are a logical part of States broader policy context and priorities.
- Adaptability – evolve as circumstances change.
- Efficiency – make proportionate, cost-effective, timely and robust interventions and decisions.

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<sup>27</sup> *The Regulation of Utilities (States' Directions) (Bailiwick of Guernsey) Ordinance, 2012:*  
<https://www.guernseylegalresources.gg/CHttpHandler.ashx?id=75588&p=0>

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## Annex 2: Ofcom duties under the Communications Act and WTA

Ofcom's principal and secondary duties are in Section 3 of the Communications Act ('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;*
  - (...)

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.*

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## Annex 3: Telecommunications licence extract

Current telecommunications licences issued in Guernsey exclude the provision of satellite services. In both licence types, Licence Condition 1 ‘Definitions and Interpretation’ contains the following:<sup>28</sup>

**“Licensed Telecommunication Network”**: means the Telecommunications Network (other than the Licensed Mobile Telecommunications Network) which the Licensee is authorised to establish, operate and maintain in the Bailiwick for the purposes of providing the Licensed Telecommunications Services (other than Licensed Mobile Telecommunications Services);

**“Licensed Telecommunications Services”**: means the provision of any Telecommunications services (other than Mobile Telecommunications Services) to the public;

**“Licensed Mobile Telecommunications Services”**: means services (other than satellite services) the provision of which consists, wholly or partly, in the establishment of radio communications to Users, which makes use wholly or partly of a Mobile Telecommunications Network and which has the characteristic of a pan-European, cellular, digital, land based, mobile telephony service compatible with the European standards;

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<sup>28</sup> See, for example, JT (Guernsey) Limited’s fixed licence, which authorises the Licensee to provide Licensed Telecommunications Services and to establish, operate and maintain a Licensed Telecommunications Network: <https://www.gcra.gg/media/597630/jt-fixed-final.pdf>

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## **Annex 4: DRAFT Telecommunications licence Part authorising satellite services**

### **PART VI: ADDITIONAL CONDITIONS IN RESPECT OF THE PROVISION OF SATELLITE TELECOMMUNICATIONS SERVICES**

#### **1. SCOPE OF THIS PART**

- 1.1 This Part of the Licence authorises the Licensee to establish, operate and maintain the Licensed Satellite Telecommunications Network and provide the Licensed Satellite Telecommunications Services in the Bailiwick of Guernsey for the Term.
- 1.2 Conditions within the other parts of this licence are equally applicable to the establishment, operation and maintenance of the Licensed Satellite Telecommunications Network and provision of the Licensed Satellite Telecommunications Services, except where clearly incapable of such application.

#### **2. DEFINITIONS FOR THIS PART**

- 2.1 For the purposes of this Part, in addition to the general definitions in Clause 1:
  - "Latest Service Launch Date": means eighteen months after the date that this Licence is issued.
  - "Wireless Telegraphy Licence": means a licence issued in terms of the UK Wireless Telegraphy Act, 2006 (as extended to Guernsey).
  - "Earth Station Services": means the provision of Licensed Satellite Telecommunications Services that utilise an earth station in Guernsey.

#### **3. OBLIGATION TO COMPLY WITH WIRELESS TELEGRAPHY LICENCE**

- 3.1 The Licensee shall comply with any other requirement in law or practice to obtain any additional consents, permissions, authorisations or licences as may be necessary for the provision of the Licensed Satellite Telecommunications Services. Such licences shall include, but not be limited to, a Wireless Telegraphy Licence to use appropriate radio frequency spectrum to operate the Licensee's Satellite Telecommunications Network.

#### **4. PROVISION OF EARTH STATION SERVICES**

- 4.1 The Licensee shall ensure that at all times after the Latest Service Launch Date it provides Earth Station Services.

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## Annex 5: DRAFT Amendments to all Fixed Telecommunications Licences

The following changes to clause 1 of all fixed licences:

1. Substituting the definition of “**Licensed Telecommunication Services**” with:

“means the provision of any Telecommunications services to the public, but excluding: Mobile Telecommunications Services and Licensed Satellite Telecommunications Services (save where the latter is additionally and specifically authorised and then regulated by way of a further Part VI to this licence);”

2. Substituting the definition of “**Licensed Telecommunications Network**” with:

“means the Telecommunications Network which the Licensee is authorised to establish, operate and maintain in the Bailiwick for the purposes of providing the Licensed Telecommunications Services, but excluding: the Licensed Mobile Telecommunications Network and any Licensed Satellite Telecommunications Network (save where the latter is additionally and specifically authorised and then regulated by way of a further Part VI to this licence);”

3. Inserting the following new definition “**Licensed Satellite Telecommunications Network**”:

“means any Telecommunications Network which the Licensee may be additionally and specifically authorised by Part VI of this licence to establish, operate and maintain in the Bailiwick for the purposes of providing the Licensed Telecommunications Services”;

4. Inserting the following new definition “**Licensed Satellite Telecommunications Services**”:

“means those Telecommunications Services provided by way of transmissions between satellites and satellite earth stations and/or satellite user terminals, where those earth stations, terminals and, to the extent applicable, any transmissions over them are those which are authorised under and envisaged by the following types of Wireless Telegraphy Licence(s) under the UK Wireless Telegraphy Act 2006 (as this Act has effect in Guernsey) and which have been granted to the Licensee:

- a) Satellite (Earth Station Network) Licence;
- b) Satellite (Non-Geostationary Earth Station) Licence;
- c) Satellite (Permanent Earth Station) Licence.”

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## Annex 6: List of consultation questions

**Question 1:** Do you have any general comments on our proposed changes to GCRA telecommunications licences to authorise the provision of satellite services?

**Question 2:** Do you have any specific comments on the draft text of the proposed new licence Part set out in [Annex 4](#).

**Question 3:** Do you have any comments on our proposed two-stage award process for a satellite telecommunications licence and access to spectrum?

**Question 4:** Do you have any views on the optimal competitive method for awarding a satellite telecommunications licence and access to spectrum, should there be excess demand – an auction, a comparative selection process ('beauty contest') or alternative method.