

Case T-064

5G spectrum award process

Consultation to reassess interest and demand

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1 Overview and summary

The duties of the Jersey Competition Regulatory Authority (the **Authority**) include assessing demand for radio spectrum needed to operate local mobile and wireless services and making subsequent recommendations to UK communications regulator Ofcom for any required spectrum licences. The Authority is presently progressing the award of spectrum designated for use by 5G services.

The 5G spectrum award process commenced in 2018. Begun by the Channel Islands Competition and Regulatory Authority (CICRA), it encompassed the Channel Islands and followed the publication of telecoms strategies by the Guernsey and Jersey governments. As part of this original process, CICRA published draft and final statements of intent in 2019 setting out its planned approach to the 5G spectrum award process.

Because of the developing Covid-19 pandemic and concerns expressed over the security of 5G infrastructure the original award process was placed on hold in 2020. Following a request from the Minister for Economic Development, Tourism, Sport and Culture, the Authority restarted the 5G spectrum award process in January 2022 - solely for Jersey.

As a first step, and in view of time passed since the original award process, the Authority is carrying out a consultation to reassess interest in and demand for spectrum designated for use by 5G services. The responses received will help shape an updated statement of intent to be published setting-out the Authority's planned approach to awarding 5G spectrum.

This document provides context for reassessing interest and demand in 5G spectrum, explains why the Authority believes it necessary and describes planned next steps in the process. It also contains several questions for consideration with the closing date for responses being 29 April 2022.

2 Introduction and background

- 2.1 This section introduces and provides context for the consultation. Its contents include:
 - About 5G
 - 5G spectrum licensing and the role of the JCRA
 - The original 5G spectrum award process
 - The restarted process

About 5G

- 2.2 Since first becoming available in the 1970s, mobile phones and the cellular telephony networks they use have evolved to offer increasingly sophisticated services. Underpinning this development path has been a series of common international mobile standards, broadly termed First Generation, or 1G, Second Generation, or 2G, and so on. The most recent is Fifth Generation, or 5G.
- 2.3 Responsibility for defining these mobile telecoms standards rests with the 3rd Generation Partnership Project (**3GPP**), which is a consortium formed from regional standards bodies and industry participants. It released the 5G standard in 2016, with widespread 5G network deployment starting in 2019¹ and leading to at least 170 5G commercial networks operating globally by the start of 2022².
- 2.4 For telecoms operators and mobile users, 5G offers a quantum step forward for mobile data services with the potential for higher connectivity speeds, much greater capacity for data traffic and lower latency on connections. This allows the continuing development of mainstream services including mobile broadband and IoT (Internet of Things), and potential for future niche or vertical services in sectors such as transport, medicine and logistics.

5G spectrum licensing and the role of the JCRA

- 2.5 Radio spectrum is an invisible but essential resource required to provide numerous wireless services ranging from electronic car key fobs through to broadcast television channels. There are constraints on the amount of overall spectrum available for these and other services, however, and limitations within the bands allocated for specific purposes, including to enable mobile services.
- 2.6 For mobile services, spectrum allows connections between mobile phones / terminals and mobile operator's network transmitters or base stations. To enable the development of 5G,

¹ https://www.3gpp.org/release-15

² https://www.gsma.com/futurenetworks/ip_services/understanding-5g/

international standards bodies have identified several spectrum bands, including in the 700MHz and 3.4-3.8 GHz ranges³. These are the spectrum bands presently being considered for allocation in Jersey.

- 2.7 UK legislation governs the allocation and use of spectrum in Jersey. Under the Wireless Telegraphy Act 2006 and the Communications Act 2003, which is extended to cover the Island⁴, communications regulator Ofcom awards the licences needed to operate 5G services in Jersey. This follows recommendations made by the Authority subject to them being consistent with Ofcom's own legal responsibilities. The award by Ofcom of a spectrum licence is also conditional on the operator holding an appropriate telecommunications licence from the Authority.
- 2.8 There is a longstanding agreement between the Authority and Ofcom covering the local spectrum licensing process. Under this, the Authority carries out a structured assessment of demand for available spectrum using an approach best suited to local circumstances. Once complete the Authority makes a recommendation for Ofcom to issue licences, which it does subject to any recommendation being consistent with its legal responsibilities.

The original 5G spectrum award process

- 2.9 The governments of both Jersey and Guernsey published strategies in 2018 setting out policies to shape the broad development of telecommunications in respective islands⁵. Both emphasised the desirability of achieving an early launch of 5G services and the benefits of network sharing arrangements to avoid the proliferation of new network infrastructure.
- 2.10 Taking government policy into account, pan-CI telecoms regulator CICRA⁶ subsequently commenced a process in 2019 (the **Original Process**) to establish demand for 5G spectrum in Guernsey and Jersey and then make a recommendation to Ofcom for awards to be made and licences issued.
- 2.11 This process resulted in a 5G Spectrum: Draft Statement of Intent published in May 2019 for consultation⁷, with its prominent proposal being that Ofcom award 5G spectrum to one operator in Guernsey and one in Jersey, with other service providers gaining access to the single radio network through commercial agreement.

³ https://www.itu.int/net/pressoffice/press_releases/2015/27.aspx

⁴ By the Communications (Jersey) Order 2003.

⁵ For Guernsey see: https://gov.gg/CHttpHandler.ashx?id=113783&p=0 | for Jersey see:

https://www.gov.je/Industry/TelecomsStrategy/Pages/index.aspx

⁶ In 2012, local regulators in Guernsey and Jersey merged to form the Channel Islands Competition and Regulatory Authority (CICRA). In April 2020, this organisation demerged, reinstating the Guernsey Competition and Regulatory Authority (GCRA) and the Jersey Competition Regulatory Authority (JCRA) as independent organisations.

⁷ https://www.jcra.je/cases/2019/t1462gj-5g-spectrum-statement-of-intent-of-intent-o

- 2.12 Taking feedback received on the published draft statement of intent, CICRA published a final 5G Spectrum: Statement of Intent in November 2019⁸. This determined the principle of single networks was impractical, moving to offering multiple spectrum awards instead and setting out minimum application conditions. Criteria for selection was included, based on a 'beauty parade' rather than 'spectrum auction'⁹. CICRA subsequently consulted on a draft Invitation to Tender (ITT) document in November 2019 in preparation for publishing a final ITT in Q1 2020.
- 2.13 In April 2020, CICRA was dissolved at the Jersey Government's request with the Authority reconstituted as a solely Jersey-focused regulator. Shortly after, in the context of the developing Covid-19 pandemic and concerns expressed regarding the security of 5G infrastructure, the Authority put the process of allocating 5G spectrum on hold¹⁰.

The restarted process

- 2.14 In July 2021, the Minister for Economic Development, Tourism, Sport and Culture¹¹ requested the Authority restart the 5G spectrum allocation process, in view of the pandemic's diminishing impact and increasing clarity of telecoms security requirements.
- 2.15 Subsequently, and in line with a business plan commitment, the Authority restarted the process of allocating 5G spectrum in Jersey (the **Restarted Process**) in January 2022, with this consultation to reassess interest and demand being the first step. The remaining steps and provisional timeline, which may be subject to change, for completion are as follows:

Q1, 2022	Launch consultation to reassess interest and demand
Q2, 2022	Publish Updated Statement of Intent and draft ITT for consultation
Q3, 2022	Publish ITT and receive responses
Q4, 2022	Issue statutory Initial Notice to tender winners and make recommendations for spectrum award to Ofcom
H1, 2023	Issue statutory Final Notice to tender winners and Ofcom issue spectrum licences

⁸ https://www.jcra.je/cases/2019/t1462gj-5g-spectrum-statement-of-intent/t1462gj-5g-statement-of-intent/

⁹ The term 'Beauty Parade' commonly refers to an award process that involves applications from interested parties being judged through a comparative selection process, and the term 'Spectrum Auction' commonly refers to a process that involves applicants submitting financial bids for available spectrum.

¹⁰ https://www.jcra.je/cases/2019/t1468gj-5g-spectrum-award-process-on-hold/

¹¹ Jersey Government minister with responsibility for development of island telecoms policy.

3 Approach to Restarted Process and key influencing factors taken into account

- 3.1 This section explains the Authority's proposed approach to the Restarted Process and the key influencing factors being taken into account. Its contents include:
 - Planned approach
 - Key influencing factors being taken into account

Planned approach to restarting the 5G spectrum award process

- 3.2 During the Original Process, CICRA extensively engaged with stakeholders and interested parties to understand views on and expectations for the local development of 5G, and provided opportunities for structured feedback through a public consultation on a proposed statement of intent.
- 3.3 The Authority believes much of the information gathered and analysis made during the Original Process remains relevant for the Restarted Process, and should continue to be used to shape the approach taken to allocate 5G spectrum.
- 3.4 However, the Authority believes there are several key influencing factors occurring since the Original Process was suspended, and these need taking into account within the approach taken with the Restarted Process.
- 3.5 The Authority therefore plans creating a Revised 5G: Statement of Intent based on the Original Process but reflecting relevant influencing factors occurring since.

Question 1: Do you support the Authority's planned approach to restarting the 5G spectrum award process or have views on alternative approaches?

Key influencing factors being taken into account

- 3.6 The Authority plans taking the following key factors into account within any revised approach and statement of intent:
 - Impact of delay: given nearly five years have passed since Jersey scoped out its initial 5G ambitions, the Restarted Process should focus on ensuring the award of required spectrum does not add any unjustified delay to ensuring certainty for companies intending to offer 5G services in the island and consumers expecting access to services comparable with other jurisdictions.
 - Loss of pan-Cl requirements: while the Original Process accommodated the needs of two
 markets, which had differences due to respective availability of fixed line superfast

broadband, the Restarted Process should focus on meeting present and future connectivity needs of Jersey¹².

- Loss of early mover advantage: given that a reported 170 5G network launches have taken place worldwide¹³, and therefore the opportunity to be an early adopter of 5G services has fallen away, the Restarted Process should focus on mainstream local customer requirements rather than just providing Jersey with reputational positioning.
- Evolving high risk vendor (HRV) requirements: given the ongoing work to develop policies
 and procedures for removing HRV equipment from local telecoms networks, the Restarted
 Process should account for operators still needing to make potentially costly long-term
 network infrastructure procurement decisions.
- Recognition of deployment challenges: given that while improvements in the cost of mobile backhaul are anticipated, and that while the planning application process remains open for new mobile infrastructure, the Restarted Process should recognise that the present cost of backhaul and restrictions on new or replacement mobile infrastructure may present challenges for the widespread deployment of 5G.

Question 2: Please comment on the relevance of these key influencing factors or provide others that you believe the Authority should be taking into account in developing a Revised 5G Spectrum: Statement of Intent?

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¹² The Authority recognises the benefits of pan-Channel Islands 5G spectrum alignment and intends liaising with the GCRA and cooperating to the extent possible to achieve satisfactory alignment arrangements.

¹³ https://www.gsma.com/futurenetworks/ip services/understanding-5g/

4 Reassessment of interest and demand

- 4.1 The Original Process included a consultation through which parties expressed their interest in the 5G spectrum award process and were able to state what spectrum allocation they considered necessary to provide any envisaged services.
- 4.2 To help understand how this interest and any corresponding demand for spectrum may have changed since the Original Process, taking into account the key influencing factors listed in section 3 above or others that may be considered relevant, the Authority welcomes responses to the following questions:

Question 3: Please provide information on yourself or your organisation, and explain your interest in the awarding of 5G spectrum in Jersey.

Question 4: Taking into account the key influencing factors explained in this document, or others that you believe should be taken into account, please state if you are interested in applying for local 5G spectrum through the planned Restarted Process.

Question 5: Considering the specific subject of pan-Channel Islands 5G spectrum alignment, please explain any particular challenges you anticipate if this is not achieved.

Question 6: If interested in 5G spectrum, please state the services you would initially envisage providing or would like seen provided by others.

Question 7: If planning to provide 5G services, please state your ideal spectrum allocation requirement for providing them.

Question 8: Are there any further points you would like to make or information you believe valuable and relevant to the Authority for taking into consideration during this consultation process?

- 4.3 Responses received will be taken into account by the Authority when producing a Revised 5G Spectrum: Statement of Intent setting-out the planned approach to awarding 5G spectrum in Jersey.
- 4.4 The Authority's policy is to publish responses to this consultation on its website (www.jcre.je). Please indicate if you would prefer your submission remains confidential or if you have comments or material within your response considered confidential and therefore not for publication please put in a separate annex and clearly mark as such.

5 Next steps

5.1 The Authority invites written views and comments on the issues and questions raised in this document. All responses to this Call for Information should be submitted in writing, clearly marked 'T-064 5G Spectrum, and received by the Authority before 5.00 pm on 29 April 2022. Submissions can be sent by email to info@jcra.je or alternatively in writing to:

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Jersey Competition Regulatory Authority
2nd Floor Salisbury House
1-9 Union Street
St Helier
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- 5.2 It would be helpful if any response includes direct answers to the questions asked in this document. It would also help if you can explain why you hold your views and how the Authority's proposals would impact on you, supported by any quantitative or qualitative evidence that you hold.
- 5.3 Once this Consultation has closed, the Authority will review responses which may be taken into account when issuing a revised statement of intent. The intention is publishing in line with timetable shown earlier in this document.

Annex A: Consultation questions

Question 1: Do you support the Authority's planned approach to restarting the 5G spectrum award process or have views on alternative approaches?

Question 2: Please comment on the relevance of these key influencing factors or provide others that you believe the Authority should be taking into account in developing a Revised 5G Spectrum: Statement of Intent?

Question 3: Please provide information on yourself or your organisation, and explain your interest in the awarding of 5G spectrum in Jersey.

Question 4: Taking into account the key influencing factors explained in this document, or others that you believe should be taken into account, please state if you are interested in applying for local 5G spectrum through the planned Restarted Process.

Question 5: Considering the specific subject of pan-Channel Islands 5G spectrum alignment, please explain any particular challenges you anticipate if this is not achieved.

Question 6: If interested in 5G spectrum, please state the services you would initially envisage providing or would like seen provided by others.

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Question 8: Are there any further points you would like to make or information you believe valuable and relevant to the Authority for taking into consideration during this consultation process?