Rivada Space Networks GmbH: application for non-geostationary earth station network licence

Decision

Statement

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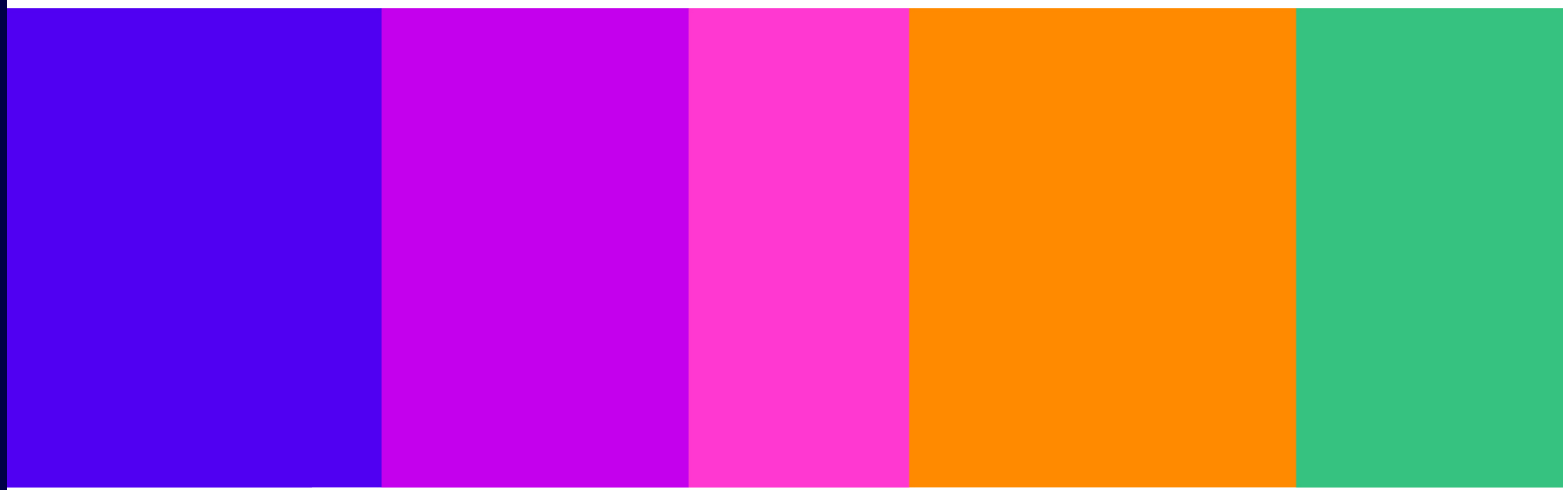

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Overview

This document sets out our decision on an application by Rivada Space Networks GmbH ("Rivada") for a UK wireless telegraphy Earth Station Network licence.

The licence is to allow Rivada to operate user terminals in the UK - such as a customer's satellite dish or mobile device - for links to its planned non-geostationary orbiting (NGSO) satellite system.

We set out our original assessment of Rivada's application in a consultation in October, in which we said we were inclined to grant the licence. We have now assessed stakeholder responses about Rivada's ability to coexist with other current and future NGSO licence holders, as well as other services, and considered the competition issues raised by stakeholders in their submissions.

What we have decided – in brief

This document sets out Ofcom's decision to grant a non-geostationary Earth Station Network licence to Rivada Space Networks GmbH.

On coexistence, we consider that Rivada's system is capable of coexisting with both existing wireless telegraphy NGSO licence holders and future NGSO systems.

We further consider its system is capable of coexisting with other services, including fixed links, radio astronomy, and GSO services.

We also assess that granting the application will not create a material risk to competition, and that the proposed services would benefit UK consumers and business.

This decision will enable Rivada to provide satellite connectivity services to people and businesses in the UK. We will now proceed to issue Rivada with its new licence, subject to payment of the licence fee. A copy of the licence will also be available under the "Existing licences" section of our website.

The overview section in this document is a simplified high-level summary only. The decision we have taken and our reasoning are set out in the full document.

1. Introduction and background

1.1 Our process for considering applications for NGSO spectrum licences is set out in our statement on non-geostationary satellite systems. We consider applications for the following types of Earth station licence:

- Satellite (Earth Station Network) licence: this authorises an unlimited number of user terminals to connect to the NGSO system (subject to certain conditions). It also places certain conditions on the licence holder (typically a satellite operator) to coordinate with other licence-holders.
- Satellite (Non-Geostationary Earth Station) licence: this authorises gateway Earth stations, which connect the NGSO system to the internet or to a private network.

1.2 This decision document relates to the first of these licences: Satellite (Earth Station Network) licence. We refer to this licence in the rest of this document as the "NGSO network licence".

1.3 The licence covers the use of all user terminals for a range of different services: fixed or static terminals (e.g. for a home broadband service); land mobile (e.g. on a train or a road vehicle); or on an aircraft or a drone. The licence permits uplinks from user terminals to the satellite - in the case of this application, Rivada's planned constellation. We require the holder of these licences to have control of the whole satellite network, so this licence is typically held by the satellite operator.

1.4 When considering applications for these licences, we conduct checks (amongst other things) on the impact that granting a licence may have on technical coexistence and on competition for existing and future NGSO systems. If necessary, we can request clarifications or additional information from the applicant. We then publish a consultation and invite comments on any applications we are considering for authorisation.

1.5 In reaching our decision on whether to grant the licence we take account of our technical coexistence check, our competition check, and our statutory duties and objectives. If further assessment is warranted, we may obtain further information from the applicant and/or other stakeholders. We also take account of all available relevant evidence, including responses to the invitation to comment.

Rivada's Application

1.6 Ofcom received an application from Rivada dated 25 August 2023 for an NGSO network licence to operate ground-based user terminals. It intends to use the Ka frequencies 27.5 – 27.8185 GHz, 28.4545 – 28.8265 GHz and 29.5 – 30 GHz.

1.7 Rivada is proposing to provide government communications, maritime and aviation connectivity, enterprise networking, and backhaul services for telecommunications networks.

1.8 The Rivada constellation will consist of 300 satellites launched by July 2026 and 600 satellites launched by July 2028, including 576 active satellites and 24 in-orbit spares. The satellites will orbit on 24 planes with 24 satellites per plane, at an altitude of 1,050km and an inclination of 89 degrees. Satellites are also connected using optical inter-satellite links.

1.9 Taking account of the arguments and evidence presented by Rivada, we published a consultation on 19 October 2023 setting out our preliminary view that Rivada's licence application should be granted.

Consultation and summary of responses

1.10 The Rivada consultation opened on 19 October 2023 and closed on 16 November 2023. We invited comments on the application and on our preliminary views. We said we would take into account all comments received, and that we were open to changing those views depending on responses and evidence submitted to us as part of this process.

1.11 We received three responses that were relevant to this consultation, of which two were submitted confidentially. The non-confidential response is published alongside the application and consultation on our website. We have established through our routine industry engagement that other licence-holders and key stakeholders did not wish to raise particular issues over this application.

1.12 In response to some of the responses we received, we requested additional information from Rivada, including clarifications regarding assumptions made in its coexistence studies, and further detail on its methods for mitigating interference with other NGSO systems. Rivada's reply is published on our website alongside its original licence application. We have taken the reply into account in reaching our decision.

1.13 We have considered carefully all relevant consultation responses in finalising our decision on the licence application. This document summarises the main points made by stakeholders in their submissions and sets out our assessment of those points.

1.14 We address the issues raised by respondents under headings prompted by the four questions we asked in the consultation. Answers are collated under the most appropriate heading. In some cases, this means comments are addressed under different headings to those used by respondents in making their comments.

2. Consultation responses on NGSO coexistence

Coexistence with existing NGSO systems

2.1 When issuing new licences, one of Ofcom's objectives is that all authorised systems are able to coexist in frequency bands they are using in common i.e., all operators can provide services to their users without experiencing harmful interference.

2.2 Our NGSO licensing process focuses on the mitigation of interference between different NGSO systems. This is because NGSO satellites are dynamic by nature, creating a complex spectrum management environment - both in space and on the ground - and thereby increasing the risk of interference. Details of all current NGSO licences can be found in the "Existing licences" section of our website.

2.3 There is also the potential for interference between NGSO and other services which use the same frequencies, specifically GSO networks, fixed links and radio astronomy. International rules and our own licence conditions are intended to prevent this - and also address the management of any issues should they arise. We address this in section 4 of this document.

2.4 As of publication, there are two existing NGSO Earth Station Network licence holders with terminal frequencies in the Ka band: Mangata Edge Ltd and Telesat LEO Inc.

2.5 Furthermore, there are seven existing NGSO Gateway sites, licensed to operate in the Ka band. Licences for five sites are held by Starlink Internet Services Limited, one by Arqiva Ltd and one by Goonhilly Earth Station Limited. All seven gateways connect to the Starlink constellation.

2.6 The Rivada consultation noted that the company had not yet reached coordination agreements with any of these other operators. However, Rivada's application provided technical coexistence analyses to demonstrate that the impact of their constellation on other NGSO licence holders would be minimal, even without interference mitigation techniques.

2.7 The consultation set out our preliminary view that Rivada's network should be able to coexist with existing NGSO licence holders. However, we reiterated that all parties should continue coordinating in good faith before the launch of the Rivada Space Networks NGSO constellation, and that our licence conditions require licensees to cooperate with each other so they can coexist.

2.8 We asked the following consultation question:

Consultation question 1

Do you anticipate this satellite network will pose coexistence challenges to existing services?

Consultation responses

2.9 One respondent, who wished their response to remain confidential, stated that Rivada did not provide a full description of how they carried out their coexistence analyses.

2.10 Two other stakeholders raised concerns relating to GSO coexistence which we will address in section 3.

Ofcom assessment

2.11 As set out in our Space Spectrum Strategy, we want to enable as many NGSO systems as possible, to provide services and increase choice for people and businesses in the UK. However, we recognise the importance of ensuring that different networks are able to operate alongside each other without undue interference.

2.12 Our NGSO licensing process does not require applicants to have reached a coordination agreement, as set out by the ITU, but we do want to see evidence of proactive engagement with other licensees; a plan to cooperate so that the risk of interference to services in the UK is minimised; and a willingness to reach coordination agreements. Firms must also ensure that their coordination discussions and agreements comply with relevant competition law.

2.13 Moreover, condition 8.2 of the NGSO ESN licence requires that:

> "The Licensee shall cooperate with all NGSO licensees such that each satellite system (comprising the satellites, Earth stations and user terminals) can co-exist and operate within the United Kingdom without causing harmful radio interference to each other, such that network services can be provided to end users."

2.14 In light of consultation responses, we asked Rivada to provide additional information about assumptions made in its coexistence studies. Rivada's reply provided this additional information, including assumptions on the number of co-frequency satellites simulated. They explained that "the number of active co-frequency satellites in Rivada's system is set at one for both directions, which also reflects the planned operations". Their full response is published on our website.

2.15 Having taken account of all consultation responses, we remain of the view that the approach to coexistence set out in the annex to Rivada's licence application – and in the further details submitted in response to our request for additional information – enables Rivada to coexist with existing NGSO licence holders.

2.16 We encourage all licence holders to engage in coordination discussions in good faith, according to the terms of their licence, ahead of the launch of Rivada's services.

Coexistence with future NGSO systems

2.17 Although we do not expect applicants to foresee the characteristics or the number of systems that will be subject to a future licence application in the UK, we require applicants to:

i. explain how their existing network design and operating model might facilitate coexistence with future NGSO satellite systems and any limitations; and
ii. outline any additional measures, which would allow improved coexistence with future systems.

2.18 We also request applicants to be aware that they may be expected to take reasonable measures to accommodate such future systems, in order to avoid material degradation to services in the UK.

2.19 Rivada proposes in its application to manage coexistence with future systems by monitoring and adjusting power levels, carrier bandwidth, and beam positions to greatly reduce the possibility of inline events.

2.20 Its application also set out proposals to deploy mitigation measures, including a technique known as 'lookaside', to reduce the risk of interference and facilitate coexistence with future systems. This is achieved by ensuring Earth stations (gateways or user terminals) do not point at satellites that are too close (in angular separation) to satellites of another system.

2.21 They expect all stakeholders to be capable of mitigation methods such as lookaside, avoidance of overlapping frequency bands, and use of opposite polarisation. The exact procedure for avoiding inline events would be negotiated during coordination negotiations.

2.22 After consideration of Rivada's proposed approach, we set out our initial view in the consultation that the techniques described should be sufficient to enable coexistence with future systems. We asked the following question in the consultation to gather further input from stakeholders.

Consultation question 2

Are the measures set out by the applicant to enable coexistence with future systems reasonable?

Consultation responses

2.23 Only two respondents commented on Rivada's capabilities to coexist with future systems.

2.24 Viasat stated they believe Rivada's measures will help to enable coexistence with future NGSO systems.

2.25 One respondent, who wished their response to be confidential, requested more information on Rivada's lookaside technique.

Ofcom assessment

2.26 Our process for considering NGSO licence applications recognises that it is not possible for an applicant to know the future plans of other operators. An applicant's proposed approach to coexistence cannot therefore be detailed and specific at this stage. Nevertheless, an application should set out clear principles for appropriate mitigation of any issues and we expect licensed operators to discuss cooperation arrangements in detail prior to deploying services.

2.27 In response to the request for more information on the lookaside technique, we asked Rivada for further clarifications. They responded that lookaside is one of the highly accepted techniques (featured in recommendation ITU-R S.1431) used to mitigate interference and facilitate coexistence, and explained further how it would be implemented. The complete response is available on the website.

2.28 We assess that the proposed general approach to future coexistence set out by Rivada, both in its licence application and in response to our request for additional information provides sufficient comfort that Rivada's system will be capable of coexisting with future NGSO gateway and terminal operators.

Conclusion on NGSO coexistence

2.29 In conclusion, we continue to believe that Rivada has the technical ability to coexist with existing and future NGSO licensees, and that granting the application is unlikely to degrade consumer services.

2.30 We note the early stage of coordination discussions and urge all parties to engage proactively in these conversations. We also reiterate that the conditions in our licence provide us with the necessary powers to intervene to resolve harmful interference if required.

3. Coexistence with other services

3.1 To assure the quality of the service of other existing UK services, applicants for NGSO network licences must demonstrate, where relevant, how their NGSO system will protect the following users of spectrum in the UK:

- geostationary satellite systems (GSO systems);
- radio astronomy in the 10.6-10.7 GHz band; and
- fixed links in the 17.7-19.7 GHz band.

3.2 In their application Rivada outlined how it would protect GSO systems, radio astronomy and fixed links.

3.3 With regards to GSO systems, Rivada stated that its constellation 'complies with the equivalent power flux-density (EPFD) limits in Article 22 of the ITU Radio Regulations', and that in frequency bands where these limits do not apply, it will coordinate 'with GSO satellite operators in good faith and in accordance with ITU Radio regulations'. Rivada also asserted in its application that it was committed to respecting the EPFD limits and stressed that its system has all the capabilities to do so (e.g. through power level adjustment, implementation of the GEO arc avoidance angle, beam sizing).

3.4 Rivada noted that its system will not operate in the Ku band, and therefore will not interfere with radio astronomy.

3.5 With respect to fixed links, Rivada stated that its system complies with the power flux density limits in place to protect fixed links at all relevant angles. Further, they can dynamically adjust satellite downlink power as necessary to protect fixed links.

3.6 In the consultation we set out our initial view that Rivada's system would be capable of protecting both GSO services and fixed wireless services. We asked the following question in the consultation to gather further input from stakeholders.

Consultation question 3

Do you assess that the measures put forward will allow this satellite network to coexist with other services?

Consultation responses

3.7 The responses received mainly concentrated on the potential for interference from the Rivada Network into GSO networks. We received no comments regarding interference into Fixed Links and, as noted by Rivada, Radio Astronomy does not operate in the bands in which they plan to operate. Accordingly, the rest of this section concerns coexistence with GSO systems.

3.8 Viasat recognised Rivada's commitment to complying with EPFD limits established in Article 22 of the ITU Radio Regulations. However, they were concerned about aggregate EPFD levels produced by all co-frequency NGSO systems.

3.9 Viasat invited Ofcom to ensure that NGSOs comply with Article 22 EPFD limits "independently of the worst-case geometry", and to reassess EPFD compliance "should Rivada submit new or modified filings or PFD masks to the ITU", including at latitudes covering the UK. They provided figures (see their published response) which, they stated, "show that the exclusion angle of 4° submitted in the SRS database is not consistent with the PFD masks in the Rivada ITU filings. "Viasat further expressed concern at the number of UK NGSO licensees and applicants and encouraged Ofcom to ensure that aggregate EPFD limits defined in ITU Resolution 76 are met.

3.10 In a confidential response, one stakeholder expressed concern that the World Radio Conference (WRC-23), which was ongoing during the request for comments period, could result in changes to the relevant regulatory environment, specifically Article 22 and Resolution 76 of the ITU Radio Regulations.

Ofcom Assessment

International obligations

3.11 It is reasonable for us to expect that Rivada will comply with the ITU Radio Regulations and protect GSO networks according to the relevant provisions, specifically those in Article 22 and Resolution 76. The notifying administration responsible for the NGSO system is ultimately responsible to ensure such compliance.

3.12 Rivada has received favourable findings from the ITU for the filings under which they operate their system. This gives us comfort that Rivada's non-GSO satellite system has the capability to comply with the single entry EPFD limits in Article 22 of the ITU Radio Regulations by operating in accordance with the parameters that they have filed. Moreover Rivada set out in their application technical capabilities that would allow them to meet these limits, including power level adjustment, implementation of the GEO arc avoidance angle, and beam-sizing.

3.13 It is worth noting that Resolution 76 was updated at WRC-23, resolving that administrations responsible for NGSO systems will hold consultation meetings regularly to ensure compliance with the existing aggregate limits for the protection of GSO networks. If needed, administrations shall agree on modifications to their systems so that these limits are not exceeded.

3.14 Following the conclusion of WRC-23, we can also confirm that there were no technical changes to the EPFD limits concerning Article 22 and Resolution 76.

National licence conditions and enforcement

3.15 Regarding operations within the UK, we updated our Earth Station Network licences in September 2023 to better protect existing services. The NGSO ESN licence now includes an explicit condition requiring compliance to Article 22. Specifically, condition 3.7 (p) states:

> "Non-geostationary satellites and earth stations communicating with non-geostationary satellite(s) shall ensure compliance with the relevant equivalent power flux-density limitations specified in Article 22 of the ITU Radio Regulations in both the Earth-to-space and space-to-Earth directions."

3.16 We expect licensees to comply with this condition in the bands where it applies and to always protect GSO networks when operating within the UK, irrespective of the number of

filings under which they operate or of the details of such filings. This condition is also valid if the operator modifies their filings.

3.17 With respect to Viasat's concerns regarding "worst case geometry", our NGSO licensing process does not require applicants to provide information on the exact EPFD levels in the so-called worst-case geometry or in any other geometries. However, as explained above, our licence conditions do require NGSO operators to always protect GSO networks in the UK, thereby addressing the concerns raised by Viasat.

3.18 Issues of harmful interference to UK licensed earth stations can be raised directly to the Spectrum Monitoring Centre by the GSO operator or its responsible administration. Upon receiving a report, we will use our investigation powers and, if needed, reach out to the relevant filing administration to have the interference removed.

3.19 In addition, the new conditions in our licence (see condition 3.7 (p) above) allow us to expedite the resolution of interference, as they give us powers to intervene directly on the licensee if they fail to protect GSO networks.

3.20 In response to the point made about the exclusion angle, we provided Rivada with an opportunity to submit their response. In their view, "the PFD mask of the Rivada filings submitted to the ITU-R Bureau reflects the power levels, taking into account the sidelobes of the satellite antenna". They also mentioned that the ITU-R Bureau has published favourable finding for their system, verifying compliance with the EPFD limits, and emphasized their commitment to meeting Article 22 EPFD limits by leveraging their technical capabilities.

3.21 We expect licensees to comply with the new conditions in our licence (see condition 3.7 (p) above) and to always protect GSO networks when operating within the UK, irrespective of the details of their filing.

3.22 Having assessed Rivada's application, stakeholder responses and the additional information submitted by Rivada, we remain of the view that Rivada's system is capable of protecting other services. We also assess that our existing licence conditions would give us the necessary powers to intervene should that not be the case.

4. Assessment of competition issues

4.1 Competition concerns can arise from the constraints that an NGSO network applicant's system might impose on existing and subsequent entrants, due to the technical barriers to coexistence between their systems (e.g. due to a lack of flexibility to respond to or avoid altogether potential interference in the design of the applicant's systems).

4.2 If there was a limited prospect of the applicant's system being able to technically coexist with existing and future systems, then this could lead to weakened competition and worse outcomes for consumers, such as higher prices or lower quality of service.

4.3 In the consultation we identified three potential and general risks to competition that could be relevant to the Rivada licence application:

- **Potential risk 1**: User terminals create interference concerns for existing NGSO user terminals and/or gateways, resulting in weakened competition and worse outcomes for consumers.
- **Potential risk 2**: User terminals are unable to coexist with future NGSO systems, creating a barrier to entry to the market and in turn restricting competition.
- **Potential risk 3**: Operators not coordinating in good faith could hinder the ability of current and future operators to provide their services.

4.4 In the consultation, our initial assessment of potential risks 1 and 2 was that coexistence was possible between Rivada's proposed system and both existing and future NGSO systems operated by other licensees. Our provisional view was therefore that these risks were unlikely to develop.

4.5 In respect to potential risk 3, our initial assessment was that Ofcom was equipped through its enforcement powers to remedy situations in which one or more operators failed to coordinate in good faith. This should alleviate any concerns over the potential for competition risk 3 to materialise.

4.6 Our competition assessment also assessed the benefits to UK consumers and businesses arising from the potential future services which Rivada plans to offer, as outlined in Rivada's licence application. As noted in the consultation, Rivada intends to provide satellite connectivity to "large enterprises and governments who require low latency, high data rates and exceptional security".[1] They also intend to deliver "significant quality upgrades in the global market for end-to-end enterprise-grade IP connectivity".[2]

4.7 Our preliminary view was that the Rivada NGSO system had the potential to provide services that would provide further connectivity options to customers in the UK.

4.8 In summary, we considered there would not be a material risk to competition and that the proposed services would benefit UK consumers and business. We asked the following consultation question.

[1] See the Annex to Rivada application, Section 2, p.5.
[2] See the Annex to Rivada application, Section 5, p.21.

Consultation question 4

Do you believe the NGSO system in the application would benefit or harm competition between NGSO services in the UK? Please provide details.

Consultation responses

4.9 None of the respondents had any comments or concerns about Rivada's application with respect to competition.

4.10 In a non-confidential response, Viasat stated they had no competition concerns with the application.

4.11 The two other respondents stated they had no comment in response to this question.

Ofcom assessment

4.12 As already stated above – in our assessment of coexistence issues for both existing and future NGSO systems – we believe Rivada's system is capable of coexisting with both existing NGSO licence holders and future NGSO systems.

4.13 Since we believe the proposed arrangements for coexistence and coordination to be appropriate in this case, we continue to consider there is no material risk to competition relating to NGSO systems and other users (including GSO systems), and that the proposed services would benefit people in the UK.

5. Decision

How we decide whether to grant a licence

5.1 In our NGSO statement we set out how we would decide whether to grant a licence. In this, we referred to our statutory duties, with our principal duty being to further the interests of citizens and consumers in relation to communications matters. In accordance with these statutory duties, when deciding whether to grant a licence application, we said we would be mindful that our objective is to enable citizen and consumer benefits arising from innovative satellite services, such as improved connectivity, and would take all relevant factors into account, as outlined in our NGSO licensing guidance.

5.2 We confirmed that in reaching our decision we would take account of both our technical check, our competition check, and our statutory duties and objectives. In achieving our aim, we would also take account of the available relevant evidence, including responses to the Invitation to Comment.

Our decision

5.3 In light of the evidence presented in the application and additional information submitted by Rivada – and our careful consideration of potential coexistence issues, competition, consultation responses – we have decided to grant Rivada an NGSO network licence.

5.4 The licence will authorise Rivada user terminals in the UK to connect with its planned NGSO constellation. This will enable Rivada to provide satellite services in the UK in future, improving connectivity for UK citizens and consumers. Rivada has indicated that it plans to launch satellites from 2025.

Next steps

5.5 We will now proceed to issue Rivada its new licence, subject to payment of the licence fee[3]. A copy of the licence will also be made available under the "Existing licences" section of our website.

[3] An example NGSO Earth Station Network licence can be found at Annex 1 of our earlier decision on an application by Telesat: Decision: Telesat LEO Inc. NGSO ESN licence application (ofcom.org.uk)

6. Impact assessments

Impact assessment

6.1 Section 7 of the Communications Act 2003 (the Act) requires us to carry out and publish an assessment of the likely impact of implementing a proposal which would be likely to have a significant impact on businesses or the general public, or when there is a major change in Ofcom's activities. Section 4 of our statement on non-geostationary satellite systems also sets out how we assess the impact of applications for Non-Geostationary Earth Stations.

6.2 More generally, impact assessments form part of good policy making and we therefore expect to carry them out in relation to a large majority of our proposals. Our impact assessment guidance sets out our general approach to how we assess and present the impact of our proposed decisions.

6.3 We assessed the likely impact of granting an NGSO licence to Rivada in Section 2 of our consultation published on 16 November 2023. This assessment considered the benefits of Rivada's proposed NGSO licence on citizens and consumers, as well as the risks posed to coexistence with other services and competition. We have considered these potential impacts throughout the consultation and decision process and Sections 2 – 6 of this decision sets out our assessment and final decision in relation to the likely impacts of granting the licence, taking into account Rivada's application, comments we received in response to our consultation and further information from Rivada.

6.4 In making our decision we have carefully considered the potential impact of granting this licence. We have concluded that our decision is likely to have an overall positive impact for stakeholders, consumers and citizens, providing satellite connectivity to enterprises and government organisations and supporting backhaul services (as outlined in section 5 of this document). We further do not consider that the application will have an undue detrimental impact on stakeholders; in particular, we assess Rivada is unlikely to cause interference to other services in the frequencies Rivada intends to use. This is outlined in sections 3 and 4.

Equality impact assessment

6.5 We have given careful consideration to whether our decision will have a particular impact on persons sharing protected characteristics (broadly including race, age, disability, sex, sexual orientation, gender reassignment, pregnancy and maternity, marriage and civil partnership and religion or belief in the UK and also dependents and political opinion in Northern Ireland), and in particular it they may discriminate against such persons or impact on equality of opportunity or good relations. This assessment helps us comply with our duties under the Equality Act 2010 and the Northern Ireland Act 1998.

6.6 When thinking about equality we think more broadly than persons that share protected characteristics identified in equalities legislation and think about potential impacts on various groups of persons (see paragraph 4.7 of our impact assessment guidance)]

6.7 In particular, section 3(4) of the Communications Act also requires us to have regard to the needs and interests of specific groups of persons when performing our duties, as appear to us to be relevant in the circumstances. These include:

- the vulnerability of children and of others whose circumstances appear to us to put them in need of special protection;
- the needs of persons with disabilities, older persons and persons on low incomes; and
- the different interests of persons in the different parts of the UK, of the different ethnic communities within the UK and of persons living in rural and in urban areas.

6.8 The Rivada constellation intends to provide satellite connectivity to enterprises and governments and support backhaul services for telecommunications (details of this can be found in the annex to Rivada's application).

6.9 Having carefully reviewed Rivada's response and stakeholder responses, we assess that Rivada's network has the potential benefit of facilitating broadband and mobile services in 'hard-to-reach' areas including in Scotland, Wales and Northern Ireland; this may improve equality of opportunity in those areas. We have not identified any adverse impacts on specific groups of persons that are likely to be affected in a different way to the general population.

Welsh language impact assessment

6.10 Ofcom is required to take Welsh language considerations into account when formulating, reviewing, or revising policies which are relevant to Wales (including proposals which are not targeted at Wales specifically but are of interest across the UK). [4]

6.11 Where the Welsh Language Standards are engaged, we consider the potential impact of a policy proposal on (i) opportunities for persons to use the Welsh language; and (ii) treating the Welsh language no less favourably than the English language. We also consider how a proposal could be formulated so as to have, or increase, a positive impact, or not to have adverse effects or to decrease any adverse effects. We do not consider our decision will have any impact on our Welsh language obligations.

6.12 Our decision to grant an NGSO licence to Rivada should improve broadband delivery for people in the UK, including Wales. Our decision also relates to a nationwide licensing regime and the relevant licence products are available to anyone within the UK.

6.13 We note that Ofcom's current practice is to offer to produce spectrum licences in Welsh, and when requested does provide licences in Welsh, in accordance with its obligations set by the Welsh Language Commissioner. Ofcom will continue to take this approach in the future in relation to NGSO network licences.

[4] See Standards 84 – 89 of Hysbysiad cydymffurfio (in Welsh) and compliance notice (in English). Section 7 of the Welsh Language Commissioner's Good Practice Advice Document provides further advice and information on how bodies must comply with the Welsh Language Standards.