

Your response

Question	Your response
Question 1: Do you agree with our proposed set of 88 high density areas for 6 GHz authorisation? If you disagree, please provide your reasoning and evidence.	None
Question 2: Do you agree with our proposal to clear fixed links from the Upper 6 GHz band in and around high density areas, and to leave the band open to new fixed link licence applications outside of high density areas, subject to coordination?	We broadly agree with Ofcom's preferred approach of targeted clearance in and around high-density areas, rather than nationwide clearance of the Upper 6 GHz band. We consider that this is, in principle, a more proportionate approach, provided that its implementation remains sufficiently targeted and takes account of cases where the general assumptions in the consultation may not apply. In particular, we consider there are two issues that should be considered further: The first issue relates to the methodology used to identify links outside the proposed high-density areas that may be affected. In some cases, the criteria used to identify affected links may be broader than necessary and may include specific fixed link assignments where continued operation could be possible following more detailed engineering assessment. We discuss this further in response to Question 3. The second issue is that some offshore fixed links may be affected by the proposal even though the general assumptions in the consultation regarding alternative spectrum, alternative routing or additional intermediate hops may not be applicable. Changing offshore microwave infrastructure is materially different from many terrestrial fixed link deployments. In many offshore cases there may be no practical intermediate locations for additional hops, because there are no suitable platforms, towers or other structures available. This may be further complicated by platform decommissioning, where potential intermediate structures may not remain available over the relevant timeframe. Alternative spectrum may be available in some cases, but [REDACTED] much of the spectrum in potentially

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	substitutable bands is already in use or may not provide sufficient capacity for replacement links. This position may also be affected by future spectrum developments, including those arising from WRC-27 Agenda Item 1.7. Where neither alternative spectrum nor additional hops are practicable, subsea fibre may become the main alternative. Offshore fibre is not directly comparable with terrestrial deployments. It typically demands significant engineering design, seabed route assessment, coordination with existing subsea infrastructure, environmental and permitting processes, and installation during limited weather windows. Costs and logistics scale far better when several links are installed in one campaign; accordingly, offshore fibre is inherently a multi-year undertaking and is generally justified only when bundled as a multi-link project, rather than to replace a single microwave hop. The affected offshore links may also support operationally critical communications for offshore energy infrastructure. In some cases, reliable communications may be relevant to continued production and operational safety. Although many offshore installations use diverse communications technologies, including fibre and microwave, there remain areas where microwave links alone form an important part of the resilient routing architecture [REDACTED]. We therefore welcome Ofcom's recognition that some fixed links may require case-by-case consideration where alternative solutions are not possible or appropriate. We consider that some offshore links may fall within this category, particularly where they support critical offshore infrastructure, where no practical intermediate hop exists, and where alternative spectrum or fibre cannot be implemented within the notice period. We also consider that timescales should be assessed carefully. Offshore telecommunications projects may take several years to plan and implement. Work may be constrained by weather windows, vessel availability, production shutdown periods, access restrictions and competition with other safety-critical offshore works. In some cases, planned work may be delayed by a year or

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	more due to operational or weather-related factors outside the control of the licensee. For these reasons, we consider that Ofcom should allow sufficient time for detailed link-by-link assessment before revocation decisions are finalised. In some cases, limited re-engineering may allow a link to remain serviceable without materially constraining future mobile use. In other cases, an exception or extended transition period may be appropriate, potentially aligned with the remaining operational life of the affected offshore assets. We would welcome an offshore-specific review process for the affected links and stand ready to work closely with Ofcom, supplying detailed engineering information to support a timely, evidence-based assessment.
Question 3: Do you agree with the approach we have set out to identify the links which will be affected by the proposed revocation?	We consider that further detail on Ofcom's technical assessment would be useful, particularly for links outside the proposed high-density areas that have nevertheless been identified as potentially affected. In particular, it would be helpful to understand the predicted interference at the relevant fixed-link receivers, together with more detail on the mobile deployment model, propagation model parameters, and receiver-protection criteria. This information would assist licensees in assessing whether specific links are genuinely incompatible with future mobile deployment, or whether engineering mitigations may be available. In some cases, the modelling may be conservative. For example, some deployed fixed link antenna systems may have better discrimination than the antenna models assumed in the study, particularly where the interference path is outside the main beam of the fixed link antenna. Conversely, where lower performance antennas are currently deployed, it may be possible in some cases to upgrade antenna systems to improve off-axis rejection. We recognise that where a future mobile deployment is aligned with the main beam of a fixed link receiver, mitigation may be difficult. However, in other cases, particularly marginal cases or off-axis cases, mitigation may be possible. Depending on the specific link, this could include higher performance antennas, revised frequency

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	planning, changes to link parity, operation in lower channels, modest increases in transmit power where permitted, or acceptance of a lower availability objective where operationally acceptable. We therefore consider that affected links should not be treated as a single homogeneous category. A more detailed engineering review may identify cases where revocation is clearly required, cases where mitigation may be sufficient, and cases where continued operation may be possible without materially constraining mobile deployment in the relevant high-density area.
Question 4: Do you agree with our proposal to remove access to the frequencies 7110– 7125 MHz for PMSE use, but to retain the option of allowing users to “borrow” spectrum from the Upper 6 GHz band for occasional major events?	None
Question 5: Do you agree with our proposal to require mobile base stations to protect RAS usage of the band at the levels specified?	None
Question 6: Do you have any comments on how we should manage co-existence between mobile and any other users in the Upper 6 GHz band (i.e., RAS, EESS, SRDs, FSS and MOD use)?	None
Question 7: Do you have any comments on our assessment of the impacts of our proposals (to the extent not covered by previous questions)?	We consider that Ofcom’s cost assessment in Annex A3 may be broadly appropriate for many terrestrial fixed link deployments. However, we consider that some of the assumptions expressed or implied in the economic modelling may not be representative of offshore links and may therefore underestimate both the cost and the time required for migration. In response to Ofcom’s earlier request for information, we provided actual costs from recent offshore projects that were relevant to some of the links identified in this consultation. However, the structure of the information

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	request may not have fully captured the range of costs that can arise when replacing or migrating offshore microwave infrastructure. For example, replacement of antenna systems offshore may require structural assessment and, in some cases, structural strengthening, even where the replacement equipment is broadly similar to the existing equipment. This may be because the supporting structure has deteriorated over time, because design standards have changed, or because the new configuration gives rise to different loading assumptions. These costs may only become clear following detailed surveys and engineering assessment. Offshore projects may also require significant contingency. Microwave antenna work is often undertaken in operationally critical areas and may only be possible during limited production shutdown windows. Planned work may be delayed by weather, vessel availability, access limitations, or higher priority operational and safety work. In some cases, specialist crews may need to remain mobilised offshore for extended periods, creating substantial additional cost. As evidenced in our earlier information request submission, two broadly similar offshore projects using comparable equipment and undertaken as part of the same overall programme differed in cost by approximately a factor of two. This illustrates the extent to which offshore project costs can vary due to site-specific conditions, access constraints and operational requirements. We also note that terrestrial fibre may in some cases be assumed to be a lower cost alternative to fixed links. We do not consider that this assumption can generally be applied offshore. Offshore fibre will involve seabed surveys, route engineering, crossing agreements, permitting, burial assessment, installation vessels and coordination with existing subsea infrastructure. In some cases, the cost and programme duration of offshore fibre may be substantially greater than the cost and programme duration of replacing a terrestrial fixed link. For these reasons, we consider that offshore links should be treated separately within Ofcom's assessment of impacts. A terrestrial cost model should not be applied

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	without adjustment to offshore infrastructure, particularly where the affected links support critical offshore energy operations and where alternative spectrum, intermediate hops or fibre may not be practically available within the standard notice period.
Question 8: Do you have any comments on our Equality impact assessment?	None
Question 9: Do you have any comments on our Welsh Language impact assessment?	None

Please tell us how you came across this consultation.

- ☒ Email from Ofcom
- ☐ Saw it on social media
- ☐ Found it on Ofcom's website
- ☐ Found it on another website
- ☐ Heard about it on TV or radio
- ☐ Read about it in a newspaper or magazine
- ☐ Heard about it at an event
- ☐ Somebody told me or shared it with me
- ☐ Other (please specify)

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