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**Freshwave’s response to Ofcom’s consultation “Notice of proposal to make the Wireless Telegraphy (Mobile Repeater) (Exemption) Regulations 2022” dated 24<sup>th</sup> March 2022**

Freshwave welcomes the opportunity to respond to the above consultation (‘the 2022 Consultation’).

Freshwave invests expertise and capital in digital infrastructure. We are a leading network service provider, bringing together mobile operators, public authorities and real estate providers to extend high quality coverage and capacity in thousands of locations across the UK, including within 2000+ buildings.

We support Ofcom’s objective to secure the optimal use of spectrum and the availability of a wide range of electronic communications services, and its priority for ‘Getting everyone connected’.

The small cell and distributed antenna systems Freshwave designs, deploys and manages extend coverage without adversely affecting the quality of service (QoS) of the existing mobile networks. They are built with the collaboration of the mobile network operators (MNOs) to ensure inbuilding coverage does not interfere with outdoor coverage, and use dedicated connections to the MNO cores. Repeaters, by contrast, share capacity with the existing MNO cell, affecting the QoS for other users. We do deploy repeaters in certain circumstances, however only with the permission of the MNO or under their instruction, so they are able to manage the impact on their network.

Freshwave responded to Ofcom’s previous consultation “Mobile phone repeaters” dated 19<sup>th</sup> May 2021 (‘the 2021 Consultation’) in which we expressed our concerns at the proposed further loosening of the regulations to allow licence-exempt provider specific and multi-operator repeaters. In summary our response<sup>1</sup> stated:

- In our view Ofcom should leave the decision on whether to allow repeaters, and under what conditions, to each MNO
- We are not convinced Ofcom’s proposals will significantly reduce the deployment of illegal repeaters
- A repeater registration process would help Ofcom’s Spectrum Compliance Team when investigating interference cases
- Our understanding in 2017 was that repeater regulations were targeted at homeowners, however we note that large repeater systems have been proposed or are operating in buildings with close to 1000 desks. We believe the regulations should limit the size of licence-exempt repeater systems, using a limit definition to be agreed with the MNOs. It is firmly our view that one or more repeaters within a single MNO cell used by potentially hundreds of users would have a significant detrimental impact on QoS
- Globally the UK is almost unique in allowing licence-exempt repeaters

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<sup>1</sup> [https://www.ofcom.org.uk/data/assets/pdf\\_file/0025/223828/Freshwave.pdf](https://www.ofcom.org.uk/data/assets/pdf_file/0025/223828/Freshwave.pdf)

- The relaxation of regulations comes only a short time after implementation of the 2017 repeater statement and gives little time for analysis of the impact. We remain unconvinced of the urgency for any further loosening of the regulations

We note since submitting our response to the 2021 Consultation, that three UK MNOs responded, all expressing their own concerns on further relaxation of the repeater regulations as proposed in the 2021 Consultation. BT<sup>2</sup> wrote “We are particularly concerned that some larger scale deployments, that the proposed broadening of scope could facilitate, may adversely affect the performance of our mobile network and would not be in the overall interests of consumers”. Telefonica<sup>3</sup> wrote “We have consistently expressed the strong view that any repeaters authorised for use must be required to be registered in order that MNOs are able to identify where a repeater is located, as is the case currently with any repeaters that are preauthorised by MNOs”. Vodafone<sup>4</sup> wrote “we propose that Ofcom adopts a light-licensing approach, in order that mobile repeaters are used only where they represent an appropriate solution, and so that where they are implemented, the mobile networks have knowledge so can appropriately adapt our macro networks”.

We were therefore disappointed to see in Ofcom’s subsequent statement that the 2021 Consultation proposals are to be adopted largely unaltered.

Furthermore we note additional recent developments which Ofcom should consider before implementing the proposed regulations. Earlier this year Ofcom released a separate discussion paper on mobile spectrum demand<sup>5</sup>, pointing out that that networks will need to densify, use more spectrum and/or increase spectrum efficiency to meet this capacity demand. The cost of deploying indoor capacity solutions is sometimes an issue, however costs could be reduced significantly for multi-operator indoor solutions if the MNOs were able to share indoor small cell infrastructure and spectrum, or to allow roaming onto indoor private networks.

We believe Ofcom should be working constructively with the MNOs to encourage indoor solutions which add capacity, rather than enabling increased use of repeaters which don’t.

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<sup>2</sup> [https://www.ofcom.org.uk/data/assets/pdf\\_file/0017/223820/BT.pdf](https://www.ofcom.org.uk/data/assets/pdf_file/0017/223820/BT.pdf)

<sup>3</sup> [https://www.ofcom.org.uk/data/assets/pdf\\_file/0019/223840/Telefonica.pdf](https://www.ofcom.org.uk/data/assets/pdf_file/0019/223840/Telefonica.pdf)

<sup>4</sup> [https://www.ofcom.org.uk/data/assets/pdf\\_file/0022/223843/Vodafone-.pdf](https://www.ofcom.org.uk/data/assets/pdf_file/0022/223843/Vodafone-.pdf)

<sup>5</sup> <https://www.ofcom.org.uk/consultations-and-statements/category-3/discussion-paper-meeting-future-demand-for-mobile-data>