JRC Response to Ofcom Consultation JRC Response to Ofcom Consultation 'Future authorization of the 1900 – 1920 MHz band'

1.0 Executive Summary

JRC and its Members welcome the opportunity to respond to this consultation. As noted by Ofcom in the consultation, the utilities sector and in particular the energy sector have growing communication needs and have requested access to spectrum to support a private wide-area network to meet those needs. However as indicated in previous responses we believe that access to a sub-1 GHz band is preferable for the UK Energy Network Operators to cost effectively enable the wide area coverage and capacity needed. Whilst the 1900 MHz band may be useful as a complementary spectrum band to address local capacity expansion requirements of the Energy Network Operators, it is not appropriate to address the full wide area requirements.

However we are encouraged that Ofcom is enabling access to this spectrum band to support solutions for other Critical National Infrastructure requirements such as FRMS and the ESN Gateway requirement and in so doing we encourage Ofcom to continue to consider the needs of the Energy Network Operators in future spectrum allocations, subject to Government guidance.

We acknowledge the AIP approach to spectrum pricing on the grounds of excess demand, however we believe it is also important to take account of the relevant use cases when determining the spectrum value. In order to ensure the final pricing scheme is appropriate for the intended purpose, the application of the proposed spectrum should considered at the heart of the AIP determination to ensure the social benefit to the UK is not overlooked.

2.0 - Background - The Joint Radio Company (JRC, www.jrc.co.uk)

Joint Radio Company Ltd is a wholly owned joint venture between the UK electricity and gas network operators created to manage the radio spectrum allocations for these networks used to support operational, safety and emergency communications.

JRC manages blocks of VHF and UHF spectrum for Private Business Radio applications, telemetry & telecontrol services and network operations. JRC created and manages a national cellular plan for co-ordinating frequency assignments for several large radio networks in the UK.

The VHF and UHF frequency allocations managed by JRC support telecommunications networks to keep the electricity and gas industries in touch with their field engineers and remote assets. These networks provide comprehensive geographical coverage to support installation, maintenance, operation and repair of plant in all weather conditions on 24 hour/365 days per year basis.

JRC's Scanning Telemetry Service is used by radio based Supervisory Control And Data Acquisition (SCADA) networks which control and monitor safety critical gas and electricity assets throughout the country. These networks provide resilient and reliable communications at all times to unmanned sites and assets in remote locations to maintain the integrity of the UK's energy transmission and distribution. JRC also manages microwave fixed link and satellite licences on behalf of UK energy networks.

JRC supports the European Utility Telecommunications Council's Radio Spectrum Group and participates in other global utility telecom organisations. JRC participates in European Telecommunications Standards Institute (ETSI) working groups developing new radio standards, and European telecommunications regulatory groups and workshops.

JRC works with the Energy Networks Association's Future Energy Networks Groups assessing ICT implications of Smart Networks, Smart Grids & Smart Meters, is an active member of the Energy

Networks Association Strategic Telecoms Group and is an acknowledged knowledge source for cyber-security in respect of radio networks.

As noted in other dialogue with Ofcom, JRC & ENA-STG are striving to gain access to additional dedicated radio spectrum to allow the deployment of a Private LTE based smart grid connectivity FAN (Field Area Network)[1]. We welcome Ofcom's proposal to target the 1900 MHz spectrum for FRMCS (aligned with the rest of Europe) and the ESN Gateway requirement to support the needs of this Critical National Infrastructure and hope that this signals the way for a similar CNI requirements, such as the Operational Telecommunications needs of the Energy Network Operators, to be addressed.

[1] Call for Input: Potential spectrum bands to support utilities sector transformation https://www.ofcom.org.uk/consultations-and-statements/category-1/potential-spectrum-bands-to-support-utilities

3.0 Detailed Responses to Questions

Question 1: Do you agree with our analysis of potential demand for the 1900 MHz band? Are you aware of any other potential demand for this spectrum, including any demand specific to Northern Ireland?

Q 1. JRC Response

Confidential? No.

As noted by Ofcom in the consultation, the utilities sector, particularly the energy sector, have expanding operational telecommunication needs and have requested access to spectrum to support a private wide-area network to meet those needs. However as indicated in previous responses we believe that access to a sub-1 GHz band is preferable for the UK Energy Network Operators to cost effectively provide the wide area coverage needed. Whilst the 1900 MHz band may be useful as a complementary spectrum band to address local capacity expansion requirements of the Energy Network Operators, it is not appropriate to address the full wide area requirements. On this basis we are encouraged to see Ofcom using this spectrum band to support solutions for other Critical Infrastructure requirements such as FRMS and the ESN Gateway application.

Question 2: Do you agree with our identification of FRMCS as the optimal use of the 1900–1910 MHz spectrum?

Q 2. JRC Response

Confidential? No.

The use of 1900–1910 MHz spectrum for FRMCS aligns with the harmonised approach for critical rail communications in Europe and we agree that any future rail communications services deployed in the UK in this band should benefit from lower costs than if it had to develop a bespoke system to operate in alternative frequencies.

Question 3: Do you agree with our identification of ESN Gateways as the optimal use of the 1910–1915 MHz spectrum in Great Britain? Do you agree that it is too early to identify an optimal use of the 1910–1915 MHz spectrum in Northern Ireland at present?

Q 3. JRC Response

Confidential? No.

No comment

Question 4: Are you aware of any low power use cases suitable for the 1915–1920 MHz spectrum?

Q 4. JRC Response

Confidential? No.

No comment

Question 5: Do you have any comments on our proposed authorisation approach for FRMCS?

Q 5. JRC Response

Confidential? No.

No comment

Question 6: Do you have any views on our proposed non-technical conditions for the new FRMCS licence?

Q 6. JRC Response

Confidential? No.

No comment

Question 7: Do you have any views on our proposed licensing process for the FRMCS licence?

Q 7. JRC Response

Confidential? No.

No comment

Question 8: Are you aware of any uses that can coexist with FRMCS without creating a risk of harmful interference? If so, please provide evidence.

Q 8. JRC Response

Confidential? No.

No comment

Question 9: Do you agree with our proposed approach for authorising ESN gateways in 1910–1915 MHz?

Q 9. JRC Response

Confidential? No.

No comment

Question 10: Do you have any views on our proposed non-technical licence terms for the ESN gateways licence?

Q 10. JRC Response

Confidential? No.

No comment

Question 11: Do you have any views on our proposed licensing process for the ESN gateway licence?

Q 11. JRC Response

Confidential? No.

No comment

Question 12: Are you aware of any uses that can coexist with ESN Gateways without causing risk of harmful interference? If so, please provide evidence

Q 12. JRC Response

Confidential? No.

No comment

Question 13: Do you have any comments on our assessment of the coexistence of FRMCS in 1900–1910 MHz with existing DECT and FDD uplinks?

Q 13. JRC Response

Confidential? No.

No comment

Question 14: Do you have any comments on our assessment of the coexistence of ESN Gateways in 1910–1915 MHz with existing DECT and FDD uplinks?

Q 14. JRC Response

Confidential? No.

No comment

Question 15: Do you have any comments on our assessment of the coexistence of ESN Gateways in 1910–1915 MHz with FRMCS in 1900–1910 MHz?

Q 15. JRC Response

Confidential? No.

No comment

Question 16: Do you have any comments on the feasibility of the additional mitigation measures we have identified, or additional suggestions for measures that could further reduce the likelihood and/or impact of interference?

Q 16. JRC Response

Confidential? No.

No comment

Question 17: Do you have any comments on our proposed technical licence conditions for FRMCS and ESN gateways?

Q 17. JRC Response

Confidential? No.

No comment

Question 18: Do you agree with our provisional conclusion that there is likely to be excess demand for the 1900–1915 MHz band, in future, if cost-based fees were applied; and, therefore, that an AIP fee is appropriate? Please provide any evidence to support your position.

Q 18. JRC Response

Confidential? No.

No.

We acknowledge the AIP approach to spectrum pricing on the grounds of excess demand, however it is also important to take account of the relevant use cases when determining the spectrum value. Noting that the applications being considered for the 1900 MHz spectrum are non-fee generating and the specific outcomes being targeted are aligned to CNI requirements, this is at odds with the typically consumer based fee generating business models considered in the AIP calculation. By using a commercial AIP spectrum pricing approach, the social benefit to the UK is overlooked. In order to ensure the final pricing scheme is appropriate for the intended purpose, the application of the proposed spectrum should considered at the heart of the AIP determination.

Question 19: Do you agree with our approach to fees, including fee level and adjustments? Please provide any evidence to support your position.

Q 19. JRC Response

Confidential? No.

No comment

Please complete this form in full and return to 1900futureuse@ofcom.org.uk