

Proposed Multi Band Spectrum Award

Preliminary consultation on which spectrum bands to award

Executive Summary

The Joint Radio Company (JRC) welcomes the opportunity to respond to this consultation. JRC supports the actions of the Commission for Communications Regulation (ComReg) for the proposed release of the radio spectrum noted and the establishment of a combined award of the bands identified to ensure that complementary bands are made available at the same time.

JRC supports ComReg's proposal to exclude the following frequencies from the multi-band award process;

- 700 MHz Duplex Gap & Guard Band;
- 1.4 GHz Band, both Centre and Extension Bands; and
- 26 GHz Band.

The potential characteristics of use of these bands are different to those considered relevant to the multi-band award and therefore should be treated separately.

Background

Joint Radio Company Ltd is a wholly owned joint venture between the UK electricity and gas industries specifically created to manage the radio spectrum allocations for these industries 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. These networks provide comprehensive geographical coverage to support installation, maintenance 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 industry plant and equipment throughout the country. These networks provide resilient and reliable communications at all times to unmanned sites and plant in remote locations to maintain the integrity of the UK's energy generation, transmission and distribution.

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 also manages microwave fixed link and satellite licences on behalf of the utility sector.

JRC works with the Energy Networks Association's Future Energy Networks Groups assessing ICT implications of Smart Networks, Smart Grids & Smart Meters and is an acknowledged knowledge source for cyber-security in respect of radio networks.

JRC's detailed response

JRC observes the following with regard to the bands that ComReg are proposing to exclude from the multiband award;

700 MHz Duplex Gap and Guard Band

The diversity of uses that both the Duplex Gap and Guard Band may be put to, in particular the deployment of SDL services in the Duplex Gap, warrant further detailed analysis to establish the appropriate combination of services to be accommodated. In the event that it were deemed appropriate that PPDR services were to be accommodated then this would likely involve some form of policy intervention and as such this further justifies ComReg's decision to reserve its position on this band.

1.4GHz Centre and Extension Bands

Whilst the 1.4 GHz Centre Band has been given over to SDL based services in some Member States services within the band have not been forthcoming and as ComReg has noted 1.4 GHz SDL capable devices are low in number. We support ComReg's perspective that based on a lack of compelling demand for SDL capability in the 1.4GHz Centre Band they have chosen to reserve their position in terms of releasing this band at this time particularly as this band is not complementary to the multi-band award. ComReg also acknowledges that there are incumbent users in the Extension Band, which include fixed links that are critical to the operational performance of the National Electricity Grid in Ireland. JRC therefore encourages ComReg to seek to protect the incumbent use within the Extension Band. To this end, any future consideration of the displacement of services from the extension band should be subject demonstrable evidence that the 1.4 GHz Centre Band (+ other SDL bands) are insufficient to service market demand.

26 GHz Band

JRC endorse the guidance for the deployment of high bandwidth mobile services in the 26 GHz band as very much a targeted hot spot model as outlined by ComReg. We therefore endorse the position being adopted by ComReg that until there is greater clarity on the potential uses / users of the band, development of equipment for the band, and its role relative to other mmWave bands to delay its release.

Recognising that there are significant incumbent uses in the band and that there is a considerable amount of spectrum within the band that is available and can be made available to the Mobile Service without impacting incumbent uses the RSPG Second Opinion¹ advises that;

"Member States should make a sufficiently large portion of the 26 GHz Band (e.g. 1 GHz) available for 5G by 2020, in response to market demand, taking into account that 5G deployment in this frequency range is expected to be used for local coverage"; and

"The 26 GHz Band is likely to be deployed in areas with very high demand, for example transport hubs, entertainment venues, industrial or retail sites and similar..."

¹ RSPG Second Opinion on 5G networks (Strategic Spectrum Road Map Towards 5G for Europe), Document RSPF 18-005, 30 January 2018.



"Regulatory flexibility for the progressive release of the 26 GHz band will facilitate an efficient introduction of 5G without having an unnecessary negative impact on the current users of the band."

When ComReg does seek to make the 26 GHz band available for 5G services we encourage them to take account of the RSPG position and seek to accommodate incumbent uses in the design of the award.