Copper retirement – conditions under which copper regulation could be completely withdrawn in ultrafast exchanges

Executive Summary

JRC and its Members welcome the opportunity to respond to this consultation as part of our ongoing engagement both with Ofcom and the Telecommunications industry to address the risk of Operational system failure as a consequence of the withdrawal of copper based services from the UK market.

Specifically JRC and its Members welcome the exclusion of [copper] services that support CNI from Ofcom's proposals, but JRC seeks additional clarification from Ofcom that the definition of CNI relevant to this consultation includes those telecommunications systems that control the infrastructure owned and operated by the utility sector more generally rather than being limited to CNI designated infrastructure, i.e. includes all operational telecommunications and control systems associated with the monitoring and control of electricity and gas infrastructure that are dependent on PSTN.

Overall we are keen to continue working with Ofcom and Communications Providers to ensure that the resilient operation of critical national infrastructure (CNI) and the UK Energy Networks shall not be detrimentally impacted by the migration to fibre based last mile delivery of telecommunication services in the UK.

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 and control their remote assets. 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 Responses to Questions (Non Confidential)

Question 1: Do you agree with our proposals to set conditions under which remaining regulation of existing copper-based services would be withdrawn?

JRC Response

No comment.

Question 2: Do you agree with our proposal that those conditions should take effect two years after Openreach has given notification, in respect of an exchange, notifying that fewer than 10% of relevant premises remain on copper-based services in the completed exchange, and only where measures are in place to support vulnerable consumers?

JRC Response

No comment.

Question 3: Do you support the exclusion of services that support CNI from our proposals allowing for full copper deregulation?

Please set out your reasons and supporting evidence for your response.

Q3. JRC Response

JRC notes that as indicated in section 3.50,

> '*while regulation may be withdrawn in an exchange if all the other conditions are met, we propose that this withdrawal should not apply to Openreach products used by customers to support CNI services, such as utilities or emergency services.'*

JRC welcomes the exclusion of [copper] services that support CNI from Ofcom's proposals, however JRC seeks additional clarification from Ofcom that the definition of CNI relevant to this consultation includes those telecommunications systems that control the infrastructure owned and operated by the utility sector more generally rather than limited to CNI designated infrastructure, i.e. includes all operational telecommunications and control systems associated with the monitoring and control of electricity and gas infrastructure that are dependent on PSTN. Furthermore, JRC notes that the Department for Business, Energy & Industrial Strategy (BEIS) is currently undertaking a review of the definition of CNI and we encourage Ofcom to take this into account.

Price Increase as an Incentive to encourage migration

We endorse the observations made in section 3.51, extracted below,

> '*We are aware that CNI organisations may have complex communications needs and that retail providers and Openreach may need further time from the start of fibre deployment in an exchange to identify suitable replacement services. In those circumstances, it is possible that price increases enabled by the removal of the copper*

charge control may not provide sufficient incentives for some CNIs to migrate services before all copper regulation is removed in an exchange.'

In the case of the use of PSTN for operational control of the Energy Networks price increases will not be an enabler of migration. The use of the PSTN solution offers unique power supply and resilience factors that are not available from other commercial communication systems (Fixed or Mobile), i.e. 'Fibre to the Premise' or 'Fibre to the Cabinet' and after extensive investigation we are not aware of any alternative products that address the specific operational needs of the Gas and Electricity Network Operators.

Continued Provision to the CNI Community

We welcome the observations made in Section 3.52, extracted below, that Openreach has a key role in continuing to support the needs of the CNI community until replacement services are available.

'We acknowledge that continuing to provide suitable communications services to CNIs is not only the responsibility of Openreach. This is a shared responsibility with retail providers and the end-customer, and eventually some services may no longer rely on an Openreach connection; the copper bearer may no longer be needed, may be replaced by a mobile or wireless connection, or may be replaced by a service provided by a competitor. Nonetheless, Openreach is key to continuing to support CNIs until replacement services are available.'

Overall

JRC is keen to continue to work with Ofcom to ensure that the resilient operation of critical national infrastructure (CNI) and the UK Energy Networks shall not be detrimentally impacted by the migration towards fibre based last mile delivery of telecommunication services in the UK. The Energy Network Operators are actively engaged with their Communications Providers' (including Openreach and Virgin Media) to proactively address the transition from copper to fibre-based solutions. As a consequence of this engagement, it is clear that alternative fibre based products to satisfy the industry's requirements are not currently available. Without a credible, resilient and cost-effective alternative to the copper based solution there is a real risk that the Operational Control systems of the Energy Networks will be severely compromised with the subsequent detrimental impact on energy supply to UK consumers.