WHP Telecoms response to Government's Consultation on

The Statement of Strategic Priorities for telecommunications, the management of radio spectrum and postal services

About WHP Telecoms Ltd.

WHP Telecoms Ltd is a UK headquartered and leading supplier of end to end systems integration services for communications infrastructure – from network design, site planning and acquisition and negotiating local regulatory permissions to building, testing and commissioning of all manner of (mainly) wireless and satellite communications infrastructure. We cover a range of sectors from mobile communications to utilities, rail and Local Government. In doing so, we work with all the main wireless equipment vendors as well as a number of specialist technology providers. This diversity of experience gives us a cross-cutting and relatively independent perspective on the key issues in digital communications infrastructure and markets: we are not tied to any particular technology, equipment vendor or network philosophy. Thus we are able to apply learning across sectors, technologies and suppliers to device optimum networks / infrastructure solutions for the connectivity challenge at hand.

Response

Summary :

WHP very much supports the Government's ambitions on 5G and fibre. However, the Statement currently omits an important facet of telecommunications infrastructure and spectrum which indirectly affects wider Government policy and consumers. The implementation of smart grid by electricity generation and distribution companies is a national imperative to meet electricity demand and carbon emission targets. The increased need for control and automation in smart grids, entails a significantly increased requirement for telecommunications and connectivity. The increasing importance of security and resilience means that a core element of this connectivity will continue to be delivered by private / self provided (wireless) networks. In upgrading their networks, the electricity companies often seek to use IP based technologies (such as LTE or CDMA). In the UK however due to the historic use in it, the traditional go-to band for private business radio (450 – 470 MHz) cannot accommodate such new systems. Access to spectrum is therefore needed in the short term in form of temporary test and development licences to facilitate trials and in the medium term (2 – 3 Years) operational licences in a suitable alternative band. Proper co-ordination between Government, Ofcom and Ofgem with their respective policy and regulatory interests in relation to expediting the matter is needed to ensure that associated decisions are made at the appropriate timescales.

Question 1: Do you agree with the Government's strategic priorities and desired policy outcomes for telecommunications, the management of radio spectrum and postal services?

WHP agrees with the Government's overall ambition for the UK to be the world's best place to start and grow a digital business. As part of this, we support the Government's desire to

enable a world class communications infrastructure and the focus on widening the availability of fibre and achieving leadership in 5G technology, services and applications.

However, while the attention on 5G and fibre is entirely justified, telecommunications and spectrum contain a much broader set of important policy issues which a Government's statement of priorities for telecommunications and spectrum should recognise. One such issue is the interrelationship and mutual dependency between the electricity sector and telecommunications. Without electricity, telecoms networks and devices cannot function and without communications, security and stability of our electricity supply will be undermined. The latter is of course a matter of significant policy and societal importance for the 2020s in all countries including UK.

The expected increase in demand for electricity (eg. due to the proliferation of electric vehicles) and the Government's own stringent carbon emission targets makes the transition to smart grid electricity networks by the companies involved in the generation and distribution of electricity an imperative. The increased complexity of such networks means that there is a step change in the need for monitoring, control and automation. This in turn entails a major increase in the telecommunications and connectivity requirements for electricity generation and distribution companies.

This future-fit communications services (for electricity networks and indeed for the wider utility sector) will be drawn from a mix of technologies, from publicly available telecoms services to private / self-provided wireless networks and using fixed line, wireless and satellite technologies. The increasing need for security and resilience however means that the role of private wireless networks will continue, if not increase. This brings with it a spectrum challenge in the UK: the traditional 450 – 470 MHz band used for private business radio, with its diverse incumbent systems and reverse duplex format (to continental Europe) will not accommodate the electricity / utility sectors' future needs – given their logical desire to upgrade to IP based and internationally harmonised technologies such as LTE or CDMA. Thus identification of an alternative spectrum in the vicinity of 450 – 470 MHz spectrum (and thus within the spectrum range considered ideally suited for the topology and characteristics of utility networks) is needed. Given the largely fixed nature of the terminals in such networks, there is scope for this spectrum to be on a shared basis, provided this is carefully planned.

With their budgetary planning cycles, the energy utilities will need to have formulated their proposals and plans for (upgrading) communications provision by around 2023. To inform this process, they are all currently investigating, trialling and developing plans for the upgrade.

Other countries in Europe and beyond are implementing initiatives to make spectrum available for smart grid applications, often in 450 – 470 MHz band where possible or in 410 – 430 MHz spectrum. For example, The Commission for Communications Regulation (ComReg), the communications regulator in the Republic of Ireland, has recently issued a consultation[1] on the release of the 410 – 415.5 / 420 – 425.5 MHz spectrum, with a proposal to assign 2 X 3 MHz within this, on a service specific basis, to enable 'Smart Grid' activities in Ireland.

We welcome Ofcom's current informal dialogue with the UK energy sector to understand their future requirements for spectrum. We understand that the conclusions from this dialogue might be made publicly available in early summer. Given the inherent lead times needed for

[1] ComReg Consultation Ref 18/92 issued 24/10/2018, 'Further Consultation on the Release of the 410 – 415.5 / 420 – 425.5 MHz Sub-band.'

manufacturers to make equipment available in new spectrum bands, clarity is urgently needed on both

- what spectrum will be available for T&D spectrum licences are available now, and
- a roadmap for the availability of operations spectrum licences from approximately 2023 onwards

to enable the requirement for private IP based networks for smart grids.

Given the respective policy and regulatory interests, we urge Government, Ofgem and Ofcom to co-ordinate matters to ensure that these spectrum decisions are made at the appropriate time for the wider set of priorities.

Question 2: Does this document set out clearly the role of Ofcom in contributing to the Government's strategic priorities and desired outcomes ?

Yes.

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