Dear Mr Donoghue,

Thank you for the opportunity to respond to Ofcom's proposals for the release of the spectrum 870-876 MHz and 915-921 MHz on a licence-exempt basis. The Wi-SUN Alliance warmly welcomes Ofcom's plans to make these bands available and thereby release the potential of this radio spectrum.

The Wi-SUN Alliance is a global industry alliance of utility companies, product vendors, semiconductor manufacturers and governmental organizations with the purpose of promoting interoperable wireless solutions for Smart Utility applications, as well as providing a robust testing and certification program for wireless products meeting these application needs.

The Alliance strongly agrees with and supports the release of the bands 870-876 MHz and 915-921 MHz on a licence-exempt basis. In addition, with reference to item 1.5 in the consultation summary, the Alliance believes that Network Relay Points (NRPs) are an important component of networks for Smart Utility applications. The Wi-SUN Alliance therefore encourages Ofcom to prepare the necessary legislation and processes for NRPs to be deployed on a licensed basis, at least to the 10% duty cycle, as discussed in the CEPT reports.

The Alliance has followed the relevant work in CEPT with interest and is encouraged by the results and conclusions. The Alliance believes that the proposed regulation for the 870-876 MHz and 915-921 MHz bands will add significant resources at useful transmit powers and duty cycles to the limited sub-GHz spectrum currently available for licence-exempt use in Europe.

The two bands are viewed as analogous to the highly successful 902-928 MHz ISM band used in many countries around the world for a host of applications that are bringing economic and social benefits. Separation of access rules for the two sub-bands is a sensible compromise to safeguard all applications. The 870-876 MHz band is the *de facto* high-power band, whilst the 915-921 MHz band, being closer to commercial GSM bands, will be used for lower power applications; the exception being the four RFID channels.

The UK is leading the way in the use of these bands and will have a significant influence on their wider use across Europe.

Reliable operation of electricity networks is crucial to the operation of modern society. Recent inclement weather in the UK has demonstrated the potential negative impact when these systems are disrupted. Energy networks are facing the further challenges of limited generation resources and the need to amalgamate renewable, but intermittent, energy

sources. The creation of a Smart Grid which can address these challenges is, therefore, an imperative for all industrialised nations.

The Smart Grid will monitor and control electricity flows and leverage modern communication technologies, based on open standards. It will enable consumers to manage their energy use better, facilitate the integration of renewable energy sources and electric vehicles, and prepare for intelligent energy management over the next ten years. This will require many tens of thousands of devices to communicate with one another anywhere, reliably, securely and affordably.

In the US and Australia utilities serving over 50 million homes are now implementing wireless mesh-based communications platforms for Smart Grid, almost all in the 902-928 MHz ISM band. These networks have been designed to meet the Smart Grid communications requirements described above. UK utilities have shown strong interest in these deployments and are actively experimenting with wireless mesh as an option for the UK Smart Grid. In countries where licence-exempt spectrum was previously unavailable for these applications, regulatory authorities have taken steps to allocate sub-GHz spectrum (i.e., Japan, China).

Smart Grid standards have been developed in IEEE, TIA, ETSI and IETF. These guidelines will create a worldwide ecosystem, expanding choice and driving down cost. The Wi-SUN Alliance is actively pursuing test and certification programs for application profiles that are based on such standards. ETSI standards supporting sub-GHz wireless mesh have been recorded as valid technologies in responses to European Community Mandates for both Smart Metering (M/441) and Smart Grids (M/490) reference architectures.

The availability of this spectrum will facilitate communications at the physical (PHY) and medium access control (MAC) layers of these networks. This will accelerate application deployment and ensure that significant economic and societal benefits will be realised.

In conclusion, the Wi-SUN Alliance strongly supports the release of the 870-876 MHz and 915-921 MHz bands and believes that UK consumers, energy suppliers and distribution network operators will all significantly benefit from access to this needed additional spectrum.

 