Non-confidential Response by Sure (Guernsey) Limited and Sure (Jersey) Limited to CICRA's Pan-Channel Islands Consultation on Spectrum Awards in the 2.6GHz Band.

Sure (Guernsey) Limited and Sure (Jersey) Limited, collectively referred to as 'Sure', is pleased to provide this non-confidential response to CICRA's Pan-Channel Islands Consultation on Spectrum Awards in the 2.6GHz Band which was issued on the 5th July 2017.

Sure's responses to CICRA's specific questions

Q1 Respondent views are sought on the continued appropriateness or otherwise of the objectives to guide process and criteria for joint allocation of spectrum in the Channel Islands

Sure believes that the objectives listed within the consultation document remain appropriate but that they could be added to.

Sure notes that within section 1.2 of the consultation document CICRA states "The effective use of the radio spectrum for telecommunications purposes is a matter of public interest for the Islands and, in this context, allocation of spectrum goes beyond the interests of one or more telecommunications operators. It is important that licences to use spectrum are granted in such a way as to make the most efficient use of it and render the maximum benefit to the Islands."

Further to this, the use of spectrum in the Channel Islands is governed by UK legislation. The licensing of spectrum, in the UK and in the Channel Islands, is carried out by the Office of Communications (Ofcom), by virtue of powers given to it by the Wireless Telegraphy Act 2006 (WTA) and the Communications Act 2003 (UK Communications Act).

Two key duties from the UK Communications act, which are missing from CICRA's objectives, and which we believe CICRA must be consistent with, are for the:

- Optimal use for wireless telegraphy of the electro-magnetic spectrum
- Efficient management and use of the part of the electromagnetic spectrum available for wireless telegraphy

We must therefore question whether these duties are being compromised by Clear Mobitel's continued failure to use the spectrum it has been allocated. CICRA must take action with the continued hoarding of spectrum by Clear Mobitel.

Given the small economies of scale within the Channel Islands, it makes sense that existing operators, who make use of spectrum, operate on a pan-island basis. Sure would view any potential new entrants as operating on a similar business model to those which are already in place. In this regard Sure agrees that the joint allocation of spectrum is appropriate in the Channel Islands.

Q2 Respondents are invited to comment on, with supporting evidence and explanation, current and prospective demand for spectrum in the 2.6 GHz Band that CICRA should consider in making any spectrum recommendation to Ofcom.

Mobile data requirements are continually increasing and use of the 2600MHz spectrum will be key to meeting bandwidth requirements in the Channel Islands.

Higher frequencies such as 2600MHz do not travel as well as lower frequencies and as such they are better suited to provide additional bandwidth in urban areas rather than for additional coverage or capacity in rural areas. Increasing customer data demands, ✂ , as well as significant growth in mobile data usage, will necessitate for additional spectrum to be utilised to avoid network congestion and also to improve overall data speeds for customers via increased carrier aggregation (CA).

CA combines multiple spectrum bands in order to improve network performance and increase data rates. Currently, CA allows for network providers to deploy up to 5 x 20 MHz blocks of spectrum to provide enough bandwidth to cope with customer demand without the need for a single contiguous block. Handsets such as the Samsung Galaxy S8 deploying 4CA have recently become commercially available and 5CA handsets certainly won't be far behind.

As different frequencies require different hardware, the wider the spectrum band the more cost effective deployment is. Two 10 MHz bands in different frequency ranges would require twice the number of transmitters compared to one block of 20 MHz in a single spectrum band. Regardless of the cost of deployment, the wider the bandwidth of each carrier, the greater the spectral efficiency of the frequency usage and the greater the benefit to the end user.

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The graph below shows the daily peak data consumption of the Sure Guernsey and Jersey mobile networks over the past twelve months since August 2016, demonstrating the constantly increasing requirements for mobile data.

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In order to satisfy customer data for increased data usage, Sure requests an additional 10MHz of 2600MHz spectrum, across both islands, to allow the use of a single continuous 20MHz LTE carrier. Current 3GPP (3rd Generation Partnership Project) specifications allow an LTE carrier to be 20MHz therefore an additional 10MHz allocation would permit for this whilst enabling other existing operators, who request more spectrum, to have an equal share of the available 40MHz bandwidth remaining. This will allow all current operators to provide a service on 2600MHz at maximum operational and spectral efficiency while leaving a small amount in reserve.

Allocation of a non-fragmented 20MHz is essential to maximise the potential of the additional bandwidth. Given the current allocation of spectrum within this band, and if all operators request additional spectrum, a re-farming exercise will be required. ✂