Proposed guidance consultation

Question	Your response
Question 1: Do you consider the measures in the proposed guidance relating to the resilience of the physical infrastructure domains to be appropriate and proportionate?	Confidential? – ¥ / N. Not sure – the problem is that when one network "goes down", the other networks get swamped by the additional traffic.
Question 2: Do you consider the measures in the proposed guidance relating to the resilience at the Control Plane to be appropriate and proportionate?	
Question 3: Do you consider the measures in the proposed guidance relating to the resilience of the Management Plane to be appropriate and proportionate?	
Question 4: Do you consider the measures in the proposed guidance relating to communications providers' own managed services to be appropriate and proportionate?	Natural and man made disasters should be mitigated with duplication or triplication of routes and network equipment.
Question 5: Do you consider the measures in the proposed guidance relating to communications providers' arrangements for preparing for adequate process, skills and training to be appropriate and proportionate?	

Call for Input

Question	Your response
CFI question 1: Does this framework accurately capture the factors relevant to assessing what is an appropriate and proportionate measure for MNOs to take with regards to power resilience for RAN cell sites?	Confidential? – ¥ / N. Not just RAN cell sites but PoPs that might be used in the backhaul.

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CFI question 2: Do you agree that at a minimum MNO's networks should be able to operationally withstand short term power-related incidents?	Yes. Broadband services have little room in DSLAM cabinets for any battery back up of value, so the network of last resort is the mobile network.
CFI question 3: What mobile services should consumers be able to expect during a power outage, what consumer harms should power backup up focus on mitigating and does this vary depending on the type or duration of the outage?	In a recent power outage near high Wycombe, mobile services became almost non-existent. Broadband services were lost so auto back up onto mobile network. Wi-Fi calling also stopped. Extra load on mobile network meant it provided limited service to subscribers.
CFI question 4: What technical choices are available to MNOs to reduce power consumption, and should be considered as part of assessment of appropriate and proportionate measures?	Use of solar and wind at sites where each can provide some level of top-up to the battery backup (understood that surface area of solar will be very limited and so will its contribution)
CFI question 5: How many sites would it be feasible to upgrade and maintain and why?	
CFI question 6: Do you consider that providing a minimum of 1 hr backup to all RAN cell sites would to be proportionate to meet the security duties under s.105A to D of the Communications Act 2003?	Yes, if users were aware of that limitation. Old telephony lead acid back ups were huge and so gave a longer period of backup
CFI question 7: What cost effective solutions do you consider could meet consumers' needs during a power outage?	
CFI question 8: **a) Is it more cost efficient to increase power backup up to any space, weight, or planning limitations, i.e., increasing power backup as much as is feasible provides the lowest £ per hour?** **b) do the benefits of any power backup solution have diminishing returns, i.e., the benefit per hour decreases as you increase the amount of power backup?**	To some extent, mobile operators are now utilities and there will be some services that are dependent on connectivity. This may change the maths for standard RoI models!

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CFI question 9: Does the mobile market fail to capture the value or importance of power backup, and if so, why?	Power outages have been so infrequent that people have tended to not think about this. With climate change plus greater reliance on mobile services SMEs may need educating on USPs for wired equipment.
CFI question 10: Should improvements in power backup be focused on solutions at sites which are identified as higher risk of outages?	Sites that make up critical infrastructure (water treatment, railways, data centres, hospitals) should all have access to mobile services with longer periods of backup.
CFI question 11: Why would any requirement lower than a minimum of 1 hour be sufficient in future? What duration do you consider would be sufficient and why?	
CFI question 12: Over what time period could industry make upgrades to provide a minimum of 1 hour at every cell site or other cost-effective solutions to address potential consumer harm?	

Please complete this form in full and return to resilience.team@ofcom.org.uk.