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?	On the whole, the proposed guidance relating to the resilience of the physical infrastructure domains is appropriate and proportionate. However, it is felt that there needs to be a larger emphasis on power resilience within Access/Last Mile elements. A minimum of 4 hours power resilience in the event of power outages is simply not enough for some areas, in some situations. Storm Arwen is referenced in the documents for this consultation, and this event saw power outages over several days for many properties in Aberdeenshire. The guidance states that 4 hour back-up power resilience is typical practice – if this is the case, then new guidance should look to extend that requirement, as well as ensuring its availability across communications providers. A 4 hour minimum for resilience is arguably a good start, but could the guidance have caveats in it, that requires Communication Providers to have policies or procedures in place to allow for extended resilience plans, particularly for locations that have previously suffered from extended power outages (i.e. periods of 48 hours or more)? Additionally, the 4 hour minimum resilience period is referenced to fixed access networks, whilst it states "*MNO's should take some measures to mitigate risks of power outages*." Why is the same power resilience guidance not being applied to mobile networks? In the event of power outages, especially with the retiral of PSTN, mobile networks become ***the*** telecoms network used by the public, and therefore should be challenged to adhere to the same 4 hour resilience measure as fixed access networks.

Question	Your response
Question 2: Do you consider the measures in the proposed guidance relating to the resilience at the Control Plane to be appropriate and proportionate?	No Comments to make on this, proposed guidance is agreed with.
Question 3: Do you consider the measures in the proposed guidance relating to the resilience of the Management Plane to be appropriate and proportionate?	No Comments to make on this, proposed guidance is agreed with.
Question 4: Do you consider the measures in the proposed guidance relating to communications providers' own managed services to be appropriate and proportionate?	The proposed guidance relating to the communications providers' own managed services is appropriate and proportionate. It is particularly welcomed to see that the proposed guidance emphasises the priority of voice services to ensure reliability of access in emergency situations.
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?	No Comments to make on this, proposed guidance is agreed with.

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?	Yes, the framework does capture the relevant factors in assessing appropriate measures for MNO's to take with regards to power resilience.

Question	Your response
CFI question 2: Do you agree that at a minimum MNO's networks should be able to operationally withstand short term power-related incidents?	It is agreed that MNO's should be able to operationally withstand short term power-related incidents (i.e. "up to a few hours"), as an absolute minimum, however, it is felt that there should be more robust guidance around MNO networks being prepared for extended power-outage events, encouraging operators to deploy additional power resilience measures to sites previously affected by such events.
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?	It is essential that voice services are maintained as a priority over data services by MNO's in the event of power outages. This is a matter of public safety and security first and foremost, to ensure that in the event of a power outage, public safety and access to emergency services is not impacted. Data services, although agreed to be required to minimise economic impact of power outages, are not a priority. In all instances, MNO's should prioritise voice services, and even provide only voice services in power outage events that have a risk of becoming an extended outage. This would ensure longer resilience is available in the telecoms network also.
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?	Not able to comment on this question as a non-telecoms industry stakeholder.
CFI question 5: How many sites would it be feasible to upgrade and maintain and why?	Not able to comment on this question as a non-telecoms industry stakeholder.

Question	Your response
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?	"*A network provider must also take all appropriate steps to protect, so far as possible, the availability of the provider's public electronic communications network*." A minimum of 1 hour backup for ***all*** RAN cell sites is definitely a good start, and it is agreed there absolutely should be a minimum expectation in resilience of telecoms networks. However, if fixed access networks are expected to provide a minimum of 4 hours of power back-up, then this should be replicated to mobile networks. To reference both PSTN retirement, as well as extended power-outage event such as Storm Arwen, it is understood that the majority of UK residents (end-users) will start using the mobile networks when the power goes out, and they cannot use fixed access broadband. A minimum expectation of 4 hours resilience would be more appropriate, however there may be reasoning here to provide added guidance and measures for MNO's to provide additional resilience measures and solutions to sites which have a record of experiencing extended power-outages. These are typically more rural locations, and would have the space and feasibility to have more robust power resilience solutions in place.

Question	Your response
CFI question 7: What cost effective solutions do you consider could meet consumers' needs during a power outage?	One MNO could be designated a network of last resort to provide emergency call service to consumers – This would be a strong option to ensure emergency calls can be made in power outages. A subset of cell sites could be identified for enhanced power backup (such as those sites that are at a higher risk of a power outage) – this would be a logical and welcomed option, which should be supported by local stakeholders in identified locations (i.e. Local Authorities). A subset of cell sites could be identified as those sites that are necessary to maintain some basic level of service on each MNO's network (e.g., voice, SMS, video relay access to 999, and a basic data service). MNOs would be best placed to suggest how such cells be identified.
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?**	Not able to comment on this question as a non-telecoms industry stakeholder.

Question	Your response
CFI question 9: Does the mobile market fail to capture the value or importance of power backup, and if so, why?	There is a sense that the importance of power backup is not fully appreciated. Communities and residents, particularly those affected by extended power outages in recent years, feel completely let down by the telecoms industry: 4G networks collapse within the hour, and with the PSTN retirement coming, old analogue phones wont work. This means that in the event of a power cut, there is no ability for rural communities to communicate with emergency services, and severely hinders community resilience planning. There is significant commercial value for telecoms companies to work with rural communities, to work on resilience measures. Where a solution is made possible for power backup, there is no doubt that a community would show loyalty to the telecoms operator that has deployed it.
CFI question 10: Should improvements in power backup be focused on solutions at sites which are identified as higher risk of outages?	Yes. Similar to response to CFI question 7, where sites are at a higher risk of suffering from power outages, either due to location or supporting infrastructure, power resilience solutions should be prioritised to these sites first, and ideally with additional processes and procedures to ensure added resilience in built in as standard, to far exceed any minimum expectations of length of back-up power resilience.
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?	Lower than a minimum of 1 hour would not be sufficient in any circumstance.
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?	Not able to comment on this question as a non-telecoms industry stakeholder.

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