Response to Ofcom Consultation:

Battery back-up for superfast broadband services which use fibre optic technology

Question 1: Do you agree that Ofcom's guidance on battery back-up lifetime needs to be reviewed at this time?

Yes.

With the focus on rural broadband by BDUK and the increasing deployment of FTTP at green field development sites across the UK it is a good time to review battery backup solutions to establish clearer guidelines.

In addition to providing guidance to network infrastructure providers and CPs, it is also beneficial to provide the vendor community with an overview of where the UK market is heading. The FTTP market has been driven by Europe and the USA to a large extent. Both of these markets do not demand battery backup and hence the vendor offerings are not common or mature. Clearly stating the requirements will hopefully create a pull for battery backup units and that will drive vendors to develop cost effective UK biased units that meet our requirements closely. There is a lack of choice today and often the units available are a compromise.

Question 2: Do you agree with the scope of this consultation as set out in Section 4?

IFNL agree with the scope as laid out in the consultation.

However it should be noted that battery backup should be looked at as an end-to-end solution. It is imperative that the central office OLT is also equipped with battery backup that will last at least as long as the ONT. This is obviously the case if the OLT is deployed in a BT local exchange, but a large proportion of these FTTP networks may be deployed in an overbuild scenario and subsequently the OLTs could be located in streetside cabinets or similar.

IFNL agree that FTTC should not be considered as part of this consultation as a local exchange to customer premise copper line is still utilised and therefore the line is powered from a voice perspective.

IFNL believe that to exclude overbuild will create a divide between overbuild and fibre only deployments. This will likely result in increased costs for end users in deployments that are fibre only and compromised end user choice in the overbuild scenario. To exclude overbuild could also complicate where the battery back-up is or is not a requirement; as once a site is fully developed it would not be easy for a consumer to distinguish between what is overbuild and what is historical new-build fibre only. It is therefore our view that both overbuild and fibre only developments should be treated in the same manner and both should be subject to the same requirements.

Question 3: Do you agree that a battery backup facility should always be provided?

IFNL believe that battery backup should be made available as an optional service to end-user.

With the proliferation of mobile telephony and DECT phones a well informed resident should be able to decide on how much importance he places on having a landline that is unaffected by short term power cuts. If the customer is not concerned and happy to rely on mobile telephony, we see no reason why they should be made to accommodate battery backup unit and cover the associated power costs.

IFNL's preferred operational model would be to allow residents to opt into a battery backup unit facility at minimal CAPEX/OPEX cost. With the advent of resident serviceable battery backup units in the future, the network infrastructure owner will have little control on whether the resident equips the unit with or changes the units batteries or not, hence the resident will effectively be able to opt out of battery backup, although not necessarily known by the infrastructure provider.

IFNL is part of the Inexus Group. The Inexus Group offer Next Generation Utility solutions to the UK developer market with a particular focus on green energy. IFNL have always strived to deliver solutions in line with the group's green philosophy and hence have always had particular focus on green IT. The mandatory regulation of the mass deployment of battery backup units causes IFNL a moral dilemma. The expect life of a battery backup unit is approximately 5 years. IFNL will deploy hundreds of thousands of fibre end points across the UK. Any conclusion that results in the mandatory deployment of battery backup units will ultimately result in a mass swap out requirement in years to come. IFNL do not believe this model is environmental sustainable.

Question 4: Do you agree that the proposed minimum battery longevity of 1 hour is appropriate?

IFNL are in broad agreement with Ofcom that a 1 hour battery backup solution provides a good solution.

IFNL have performed a considerable amount of research into power outages and what the preferred battery backup duration should be. In theory 1 hour battery back up provides a good compromise between ensuring residents have access to emergency services at all times, whilst being cost effective and practical from a network operator and resident perspective.

IFNL's vision is that in time, ONTs will evolve so that battery backup is an integral function and not a separate unit. There is no reason why a battery backup of an ONT can not be accomplished in a similar way to a smoke detector, i.e. there is an integral battery that can be easily changed by the resident. In a similar way to a smoke detector, a low battery could cause an audible alarm to be triggered prompting the user to change the battery. Ideally the battery would be a common PP3 or a series of AA batteries as discussed in the consultancy document. Also as discussed in the consultancy GPON technology has the ability to go into power saving mode to conserve battery life, additional mechanisms to increase battery life could also be incorporated into ONT, these mechanisms could include turning data ports off in power fail situations etc.

Until smaller commercially attractive battery backup solutions become available, IFNL will continue to install enhanced backup facilities offering greater than 4 hours backup in all homes.

Question 5: Do you agree with our proposed approach to address the needs of individual customers requiring additional protection?

Additional development would be required to make this approach work as there are a number of influencing factors.

IFNL believe that the battery backup solution should be optional where an informed end user can choose to opt in for a battery backup unit should it be a requirement. In this instance a battery backup solution must be provided, preferably as a single enhanced battery backup solution.

The resource of having to manage a mixed installed base of different duration backup units would not be cost effective. IFNL deploy a battery backup solution into each new home connected to the network. The backup unit is designed to fit into a home hub enclosure along with the ONT and if necessary RF TV solution. This approach lends itself well to a standardised enhanced battery backup approach.
At the time of its installation the type of resident and any potential disabilities are not known. If IFNL deployed a small unit as standard and a customer with disabilities moved in, then a truck roll would be required in order to reconfigure the battery backup unit for increased capacity. This same issue applies when a home is sold or a tenant moves out. The overhead to manage this solution and the possible errors, likely outweighs any commercial savings that could be made by deploying smaller units as default.

This situation would change if a smaller ‘self serviceable’ backup unit became available at a substantially better cost.