



**Land Securities Response to Ofcom
Consultation:**

**New Generation New Build:
Promoting higher speed broadband
in new build housing development**



1. Introduction

The government has set an ambitious target to build an additional three million homes by 2020, requiring a build rate of around 250,000 per annum. Many of these will be in large developments such as Ebbsfleet Valley, where the first residents will be in their homes by the end of summer 2008. Land Securities alone has three further large parcels of land at Stansted, Harlow and Chattenden with a potential for 45,000 homes between them. We are aware of other large developments, such as the Titanic Quarter in Belfast, the Government's 10 Eco Town developments and the Olympic Village, which will be handed over to residential use after the games are over in 2012.

Ofcom's consultation on "Next generation new build" is therefore both timely and important and we welcome this consultation and Ofcom's dialogue with the industry over the past few months which we hope will continue in the future.

Land Securities has been at the forefront of promoting Next Generation Access (NGA) in new build developments: Ebbsfleet Valley contains the first homes to be connected by fibre in the UK. We expect our other developments also to be fibred. Our experience of some of the practical issues of new developments will, we hope, be of benefit to Ofcom and other stakeholders.

Our interest is that new developments can be built efficiently, that the infrastructure provided to residents is future-proof and that competitive service supply can be supported. Our overall concern therefore is that Ofcom does not impose obligations on network builders which inefficiently raise the cost of building a next generation network and which therefore might make the business case for fibre less attractive.

2. Consultation Questions

Question 1: What can Ofcom do to encourage timely standards development for new build NGA wholesale access products and interfaces? Which industry body is best placed to undertake the standardisation of these products and interfaces? What action should Ofcom take if these standards fail to materialise?

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In Section 4 Ofcom discusses promoting consumer choice. We have always been keen to see consumer choice for residents of new build areas and have ensured that

Openreach provides a platform in Ebbsfleet Valley that will support multiple service providers.

However, there are also space considerations within each residential unit which need to be taken into account. Ebbsfleet Valley will be a mixed development comprising detached houses and multi-dwelling units, some of which will be one bedroom studios and flats, and this combination is likely to be the same in other new building developments. The Customer Premises Equipment (CPE) which terminates the fibre network in the home is somewhat larger than the simple RJ11 socket at the end of a copper line, and requires its own power source. In the smaller housing units the space taken up by this equipment is at a premium and so we would not want to see any mandating of multiple fibres, each of which would require its own CPE, into the home as appears to be implied in paragraph 4.7. Multiple CPE may require an excessive amount of space to be provided to house the equipment.

In para. 4.13 Ofcom mentions two ways to address the issue of barriers to entry: minimising the difference between old and new products, and increasing the size of the addressable market by having similar access products in different housing developments. Land Securities is to an extent indifferent between these options, provided that residents can access competing service providers. However, NGA development is at a very early stage and we would not want to see a winning infrastructure being picked too early. In particular, we would not want to see a winning infrastructure being selected by a regulator rather than the market.

We believe that Ofcom should allow the development of multiple approaches in different housing developments, leaving the choice of infrastructure to the developer and the network operator. This way the market will determine which is the most appropriate approach which delivers most value to consumers. We accept that there might be a short term cost to this if, say, Ebbsfleet Valley and the Titanic Quarter installed different technologies, but we argue that competition between infrastructure approaches is the best way to establish a long term standard offering the best trade-off between cost and features for the consumer.

In para. 4.15 Ofcom says that one of the benefits of a standard approach is that customers in new build areas will not face higher prices than customer elsewhere. We do not agree with Ofcom. We accept that basic Universal Service Obligation products (voice and fax communications) should be provided at the same price to consumers nationwide. However, if the quality of service of other fibre based products, especially broadband access, is higher than copper based access, then we see no reason why consumers should not be willing to pay for that additional quality.

Within an exclusively fibred community consumers will not have the choice between fibre and copper based products at different prices. However, provided that the consumer is made aware at the time he or she buys or rents a house in a fibred area of any price differences between communications products, then Communications Providers should be able to make services available at differential prices in copper and fibre areas.

Question 2: Do you agree with Ofcom's approach to promoting competition and consumer choice in new build fibre access deployments?

Land Securities is mostly concerned that residents have access to competing service providers and we are perhaps less concerned than Communications Providers with how that competition is provided. However, we have some reservations concerning duct access.

At the time the network is built, and the ductwork laid, the developer needs to have some forecast as to how many cables will be laid in the duct to determine the size of the duct or whether an additional duct is required. It is of course simplest for the developer to provide duct capacity for only the number of network operators who commit to using the duct at the time of building. If there is limited specific commitment the question of what spare capacity should be provided and who bears the cost.

We estimate the cost of laying spare duct at £300 - £500 per dwelling unit depending on density. This cost would have to be borne by the property developer until such time as the duct is utilised, if at all. In a residential area we believe that these costs cannot be justified and will deter uptake of NGA if infrastructure costs with no obvious value are forced on property developers. It should be noted that the Ebbsfleet Valley network will allow residents to have a choice of service provider and the network architecture configured so that residents can have two service providers simultaneously if they so choose. This kind of network architecture is sufficient to provide choice to consumers without increasing costs of the provision of spare ductwork.

For competing networks in residential areas, in addition to physical space requirements in both the duct systems and the home and the associated costs, they will require significant investment to establish, operate and maintain the networks. There are limits on revenue potential for domestic services within the bounds of existing pricing and relative pricing for enhanced products and thus limits on domestic network revenue. The indications are that the residential network revenue potential is unlikely to support the investment in competing networks and if such competition is mandated then either domestic pricing will need to increase or investment in NGA will stall, neither of which is desirable. We are firmly of the view that in residential areas the focus needs to be on competing service provision.

The comments above do not apply to new build business districts, such as the area around Ebbsfleet International station. In such areas there is an economic justification for multiple ducts being laid as business users will buy services from several communications providers and will require independent routing for security purposes.

In para. 4.21 Ofcom says that it will “initially focus (its) regulatory approach on ensuring that consumers have access to existing regulated services at existing prices”. Whilst largely supporting this, bearing in mind that there is only a minimal set of regulated retail services for consumers, we suggest that Ofcom should also bear in mind that fibre based products will almost certainly be of higher quality and therefore deliver a higher quality service to consumers which they may be willing to pay extra for. Flexible pricing should be allowed to capture additional consumer value and therefore encourage investment in next generation access. However, we would support the view that it would be appropriate for an entry level price option that is broadly similar to existing pricing.

Question 3: (a) Do you believe that the existing obligations must be met by replicating the existing copper products, or that an alternative approach could be satisfactory? What are the implications of replicating existing products on fibre?

If any part of BT is required to replicate existing copper services on fibre that might add to the cost of fibre and so act as a disincentive to further investment in fibre. Fibre is not copper and we do not believe that Ofcom should look perfectly to emulate services on fibre which run on copper, but should allow differentiated services to develop which deliver greater value to both CPs and end consumers, provided that a competitive CP market is supported. Network developers and CPs should be allowed to maximise the consumer benefit from fibre and not be required to retro-fit services from the copper world which may be inappropriate.

(b): Do you agree that SMP holders rolling out fibre do not need to roll out a copper network in parallel solely to meet their LLU obligation?

Yes. If SMP holders were required to roll out copper in parallel this would completely destroy the economic case for FttP, even in new build areas, which would substantially set back the development of NGA in the UK and the expected social and economic benefits.

(c): Do you agree with Ofcom's approach in relation to WBA and new build areas?

Broadly we agree with Ofcom that each new build area should be considered on its merits as to whether there is sufficient competition at the WBA level to allow no finding

of SMP. However, we also suggest that Ofcom takes a proportionate approach to this question. Some new building developments will be small and we would not want to see excessive regulatory cost imposed on SMP providers in the WBA market which may mean that it becomes more economic to install copper rather than fibre networks in smaller developments.

(d) Do you believe that the WLR obligation must be met by replicating the existing copper product, or that an alternative approach based on an ALA-type product would be satisfactory?

(e): Do you believe that the CPS obligation must be met by replicating the existing copper product or that an alternative approach based on an ALA type product would be satisfactory?

(f): Do you believe that the IA obligation must be met by replicating the existing copper product or that an alternative approach based on an ALA type product would be satisfactory?

If the costs of replicating the WLR, CPS and IA obligations were disproportionate and likely to increase the cost of FttP for little or no discernable benefit to consumers then we would prefer to see an ALA type product being made available to CPs to provide services to consumers. Overall, we do not want to see excessive burdens being placed on providers of a NGA such that it becomes uneconomic to install NGA.

(g): Do you agree with our proposal to interpret GC 3.1 (c) as being met through the provision and use of a battery backup facility to maintain uninterrupted access to emergency services in new build developments?

We have written separately to Ofcom on the subject of a lifeline service to consumers in the event of an emergency coinciding with a power failure (see Annex). Whilst we of course would not want to see residents of Ebbsfleet Valley, or other new developments, left without a communications option in the event of a power failure, we believe that the battery back-up option is disproportionate and has the potential of being confusing to customers. It may lead customers to expect emergency access will be available when it won't. In our letter we proposed that the householder should be informed that telecommunications may not be available in the event of a power failure and the householder should be informed of various choices to ensure a lifeline service is available. That would require the landlord/vendor of the property to provide such information to tenants/purchasers. In the event of the sale of a property this may require the Home Information Pack (HIP) to include relevant information about emergency communications cover.

We believe that the issue of provision of lifeline services is sufficiently important that Ofcom should hold a stakeholder meeting on this subject to gather views and suggested approaches.

Question 4: Do you think access to the duct network, including non telecoms duct, is a potentially feasible means of promoting competition in new build? If so what types of commercial and operational models could successfully support such access arrangements in the UK?

We have outlined above in response to Question 2 our concerns concerning duct access in new build areas. Specifically, we do not agree with Ofcom's statement in para 6.21 that the practical challenges of accessing existing ducts "diminish or completely disappear when the network is built from scratch using new duct". Even new duct cannot house an infinite number of cables and so physical space in the duct may become a bottleneck, in a similar way to co-location space in exchange buildings. Also we have pointed out that the cost of laying additional duct is substantial and will have to be borne by the property developer until such time as the duct is used, which we believe will not happen in residential areas as the market will not support multiple infrastructures.

Annex 1: Letter to Ofcom re: Battery Back-Up

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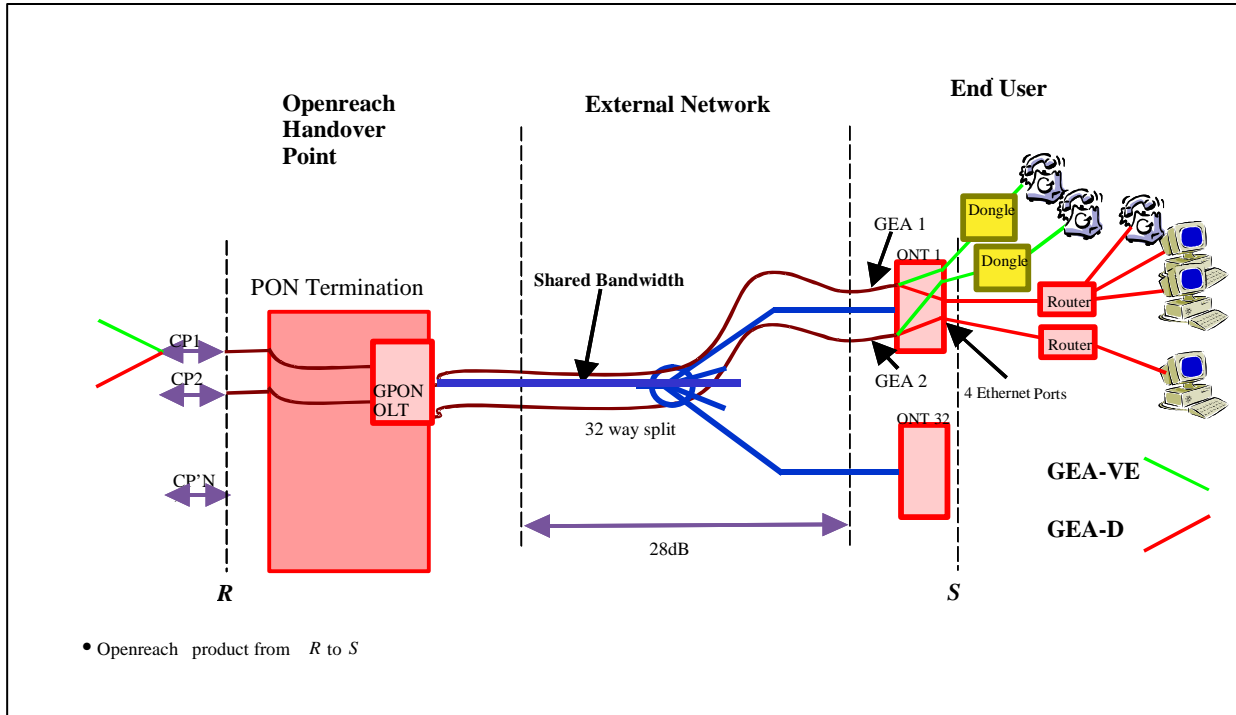
Dear Chinyelu

Re: battery back-up for Next Generation Access in the home

In your consultation on Next Generation New Build you discuss ensuring a continuous power supply (paragraphs 5.37 – 5.40) and propose that a battery back-up facility should be provided to maintain uninterrupted access to emergency services. As the property developer behind Ebbsfleet Valley, which will be the first fibred community in the UK, we are concerned that this requirement will be disproportionate: it will raise costs, is impractical and will deliver little benefit to consumers. We therefore believe that the proposed requirement should not be imposed, but left to informed consumers to make their own choice about how to arrange for cover in the event of an emergency.

Before setting out our arguments against an obligation to provide a battery back-up, it is worth restating how services will be provided in Ebbsfleet Valley and, we would expect, other fibred developments (see diagram below).

The fibre itself will be delivered by Openreach to an Optical Network Termination (ONT) in the customer premises. Openreach will be responsible for provision up to and including the ONT. The Communications Provider (CP) is expected to provide an Analogue Telephone Adaptor (ATA – labelled "Dongle in the diagram below) which may be located within a router. A non-powered telephone could be connected to this ATA.



Source: Openreach

We set out our arguments against requiring a battery back-up below.

1. Raising the Cost

Financial

It has always been our primary concern to ensure that costs are not artificially loaded on to NGA networks so that they become less attractive to invest in. We believe that NGA will offer considerable benefits to consumers and to society as a whole, but we are also aware that there are both demand and supply-side risks that are not present with traditional copper networks (see, for example, our response to Ofcom's consultation on risk in the cost of capital). Anything which unduly raises the cost of fibre access networks may tip the balance for an investor back to copper. The proposed requirement for battery back-up will add costs, for limited rewards.

Of particular concern is the amount of space a battery back-up facility will use within the customer premises. The back-up will need to be housed within the property alongside the ONT, router and other equipment. In a large dwelling, housing the equipment may not be a problem, but in smaller, affordable, properties storage space will be a premium. Using some space for battery back-up may be an issue for residents of smaller properties.

We understand that BT Retail has calculated that running the battery back-up facility at 40w will add an additional £35 per annum to household electricity bill at today's prices. This will add to the consumer's costs of having a fibre connection and we believe will provide little benefit.

Environmental

Land Securities has a strong commitment towards sustainable development and fully supports the government's aim of zero-carbon homes. In the construction of Ebbsfleet Valley we are looking to recycle as much of the construction waste as possible, designing buildings to minimise energy consumption, recycling of water and reducing the need for cars.

The requirement to install additional units, drawing on power from the mains, makes it harder for us our own and the government's environmental objectives.

2. Practicality

For the battery back-up to work through the ATA, the customer will need a basic POTS analogue handset. In common with customer premises connected via copper, a mains powered phone cannot be guaranteed to be available in an emergency. Ideally this analogue handset should be located in the same cupboard as the ONT and the ATA to ensure that the home wiring does not play a part in the ensuring the life-line service. If the customer patches the ATA through the home wiring, CPs are likely to say that this is at the customer's risk as the wiring is their responsibility.

The only way therefore in which a life-line service can be guaranteed is if the handset is located in the cupboard close to the ATA. In an emergency the householder would need to locate the cupboard and the analogue handset. It should be considered that the most likely event when a phone is required and power has been lost is a fire. The FttP equipment will be built to the highest safety standards, but the possibility of the electrical equipment in the cupboard being the cause and therefore the seat of the fire should not be ruled out. In any event we are certain that the householder would be better advised to leave the house in the event of a fire rather than search for the single handset that might still function.

3. Marginal Benefit

Given the high penetration of mobile phones, and especially the growing penetration amongst the over 45 age group, we believe that a battery back-up of a landline will deliver little benefit when consumers can easily call 999 (or 112) from their mobile handset.

According to Statistics UK, 80% of households now have at least one mobile handset, up from 20% ten years ago. Over the same period, fixed line household penetration has declined slightly from around 96 – 94%. Ofcom's own data show that 10% of people live in a house with a mobile phone only.

Perhaps more importantly is the continued growth of mobile penetration amongst older people. Ofcom data also show that the 45+ age group increased its take-up of mobile phones from 66% - 70% between 2005 and 2006, whilst penetration amongst under 45s remained steady at 92%.

New building developments are long term projects: Ebbsfleet Valley will take in the region of 20 years to be fully built. Over that period we can expect penetration of mobiles amongst the over 45's to increase substantially as people who are currently in their 30s and 40s grow older and are unlikely to cease owning a mobile phone just because they grow older. The vulnerable, older age group is likely to be less vulnerable in future.

It is our view therefore that, for the vast majority of people, the mobile phone will be an effective back-up to the fixed line and that this majority will get larger over the period of development of areas such as Ebbsfleet Valley. In the event of a fire in the home it is most likely that the householder would leave the premises as soon as possible and call the emergency services from outside the building using his or her mobile.

Further, large scale property developments where fibre is installed will have newly installed power infrastructure. This is more resilient to failure event than existing infrastructure. In Ebbsfleet Valley, for example, Ebbsfleet Valley Utilities is installing a new electricity sub-station is being installed along with new cabling and so forth. This new infrastructure will be highly reliable.

4. International Experience

The UK will not be the first country to have FTTP. We can therefore learn from the approach taken in other countries.

Sweden and Italy are two European countries with relatively large amounts of fibre to the home. Our research indicates that in neither country is a battery back-up required due to the high penetration of mobile phones which the regulator regards as sufficient to provide emergency cover. We also understand that no such obligation exists in Hong Kong. We would expect that Ofcom, with its extensive network of contacts in other regulatory authorities could investigate the obligation in more depth in other countries.

5. Alternative Proposal

Land Securities would not want to see residents in Ebbsfleet Valley or in other fibred developments that get built, left at risk. In this respect a significant risk is posed where residents believe that emergency cover is provided through the regulatory framework when in practice a lack of understanding of their own equipment or responsibility to check / maintain battery status results in potential for lack of telephone service. As such rather than use regulation to impose a costly and potentially unreliable solution, we propose that residents should be fully informed by property vendors that with FTTP in the event of a power failure telephone access is not possible until power is restored and should be advised of the alternatives.

- For residents to maintain their own mobile phone availability
- For residents to request Openreach and the CPs to provide battery back-up, which can be on commercial terms, on the basis that their own equipment will either be separately backed up or specified such that it has powerless operation.
- Residents to arrange for a domestic UPS as a back up to powered equipment which can be provided by vendors on commercial terms.

We are happy to discuss these concerns with you at any time.

Yours sincerely

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