Dear Clive

**Delivering super-fast broadband in the UK**

I am writing to provide SSE’s comments on the above consultation. As you may know, SSE entered the market for provision of retail telephony services a few years ago based on use of the regulated wholesale products available and now principally uses wholesale line rental (WLR) for this. We have been involved in some of the industry and Ofcom-hosted discussions on the next generation access (NGA) developments and are aware of the significance of the technological change that the move to fibre-based access networks represents.

We welcome Ofcom’s further consultation on this topic and the developing clarity around regulatory expectations for new build fibre developments as set out in the statement published at the same time as this further consultation. We have provided responses to the specific consultation questions in an appendix and set out our main further comments below, grouped under the headings of competition and governance. However, we also have some specific comments on the new build fibre statement and cover these first.

**Comments on Ofcom’s new build statement**

We welcome many comments in this statement – in particular the separation between service provision and infrastructure provision and the emphasis on promoting competition in both elements where feasible. We believe that competition in service provision is very important initially in order to promote a framework where customers can choose their suppliers of NGA products and services. We strongly agree that the development of standardised active wholesale products will be needed to support competition in service provision, assisted by standardisation of processes and interfaces.

However, we have a few comments on detailed points raised in the document, where we believe that further development of regulatory thinking will be required:
We believe that there may well be interest from various parties in providing elements of new, competitive NGA infrastructure in new build areas – for example, from multi-utility providers. If this is to be encouraged then the needs of these new providers, in terms of being able to connect in to existing infrastructure and secure a return on their investment in the fibre needs to be considered. We discuss this further in the section on competition below.

In the above situation of competitive infrastructure provision, we believe it would be disproportionate for duct access to also be required as a further means of providing passive infrastructure competition as this could undermine the investment case for initial provision of a potential NGA communications link. Furthermore, once that link is provided, it could be used to provide active access to a variety of communications providers as envisaged in the discussions in the document on that way of supporting competition.

We note the discussion in the document about the implications of the Universal Service Obligation (USO) in new build developments and support Ofcom’s stance that USO providers such as BT can be considered to fulfil their obligations by contracting with a third party provider of the local access infrastructure (who may in some cases be the same as the person who installed and continues to own the physical fibre asset). This approach supports competition and choice in infrastructure provision, as well as choice for the end customer in service provision. We believe that it would be useful if this aspect was well understood in the house-building community and therefore also believe, as suggested in earlier responses, that it would be helpful for Ofcom to produce a factsheet for house building developers, building trade associations and relevant advisory bodies, setting out the facts on this and other matters relevant to a new build development. For example, such a factsheet could provide clarity for this audience that the USO on BT does not mean that Openreach has to lay or adopt the communications infrastructure in the development.

There are a number of issues around the continuing provision and funding of USO in a competitive NGA market and indeed in the communications markets as a whole. We would support a review of this at an appropriate time and understand that Ofcom is planning to undertake this. In our view, it is another example of a market issue that could be considered within the context of a governance framework – as discussed in more detail under a separate heading below.

Finally, there is discussion in the statement about Ofcom’s requirement for the provision of battery back-up at customer premises connected to fibre networks to support access to emergency services in the event of local power failure. Ofcom also describes BT’s proposals for different back-up units (one for the network and one for the customer premises equipment) which may become integrated into one unit over time. It is still early days in developing how the requirement for line powering will be met but we would observe that the evolution of this requirement and how it is met should, as in other details of product roll-out, continue to support competition between service providers. On the face of it, development of an integrated back up power supply may create a technological barrier to a
customer switching between different service providers unless use of the integrated power supply was also made available to competing service providers.

We turn now to our comments on the current, more general consultation on NGA developments.

**Competition**

We welcome many of Ofcom’s comments in relation to the need to encourage competition. In particular, we welcome Ofcom’s comments on:

- The need to support effective and sustainable competition where feasible at different points in the value chain of services provided to customers;
- The distinction between infrastructure providers and service providers (including content providers) that use the infrastructure to deliver their services;
- The important role of equivalence of access in encouraging competition – we believe this should also apply to mobile networks, as we have argued in our recent response to the mobile sector assessment;
- The need for customers to be able to choose between one service provider and another and have the benefit of good quality migration processes (including bulk processes) that operate seamlessly between different access networks and service offerings – we agree that this is an important priority from the early stages of discussions on NGA implementation;
- Its commitment to continue to work with industry; and
- The importance of providing regulatory transparency and consistency.

We believe all of these items will assist in developing a framework where competition will thrive to the benefit of end customers. However, there are a couple of areas where we have further comments relating to the development of competition and we set these out below.

**Development of Access Channels to Customer Premises**

Industry discussions continue on the logical architecture underpinning the technical delivery of products to a customer’s premises in NGA networks. In a previous response on next generation new build, we argued for the pursuit of the “unbundled” option, which would allow multiple service providers to provide their products over the access network using different “channels” of the available bandwidth. We still believe that, in order to support competition in provision of different services to the customer, this option should be developed as part of the technical specification of how NGA developments will support retail competition.

The alternative that we are aware has been proposed is an “overlaid” scenario where one retail provider “owns” the physical link to the customer’s premises and would allow other suppliers’ products, where compatible, to be overlaid on their own use of the communications link. This would provide a significant advantage to the “first owner” of the link, with potentially detrimental effects on competition. We also believe it would result in an inferior customer experience where, for example, certain “incompatible” products could not be provided or commercial issues between the customer and the “owner” of the link lead to interruptions in services provided by other suppliers.
The diagram below presents a high level view of how the unbundled layering of products could look in logical terms, illustrating how it supports customer choice in the provision of multiple retail products from different suppliers.
Development of Openreach Access Products
We have been attending the Openreach NGA Forum and two aspects of recent discussions cause us concern from the perspective of developing fair competition:

- As a service provider using NGA products, we would want to control the look and feel of the discussions with our customers about services based on a new Openreach access product. However, Openreach have indicated that they want to have a dialogue with end users at the point of ordering. We believe the principles governing these interfaces should be, as has developed in the WLR framework, that the retail service provider controls discussions with the customer about his service.

- Figures such as £40-70 for a migration of a customer between providers on a fibre-based platform have been mentioned. This is far in excess of an economic charge for normal customer churn and would have a detrimental effect on competition, in our view.

As a general point, we note the references (for example in paragraph 4.31) to points raised by stakeholders on the need for flexibility in trialling and piloting of new services and technologies. While there may be a place for some types of regulatory flexibility in these conditions, we believe that caution is needed around the design and groundrules for trials and pilot studies, in order to make sure that any potential anti-competitive effects are minimised. For example, it should not be possible for a first-mover trialling a retail product to be able to tie customers in beyond the reasonable length of the trial period. Given these considerations, we advocate that the design of proposed trials should be subject to review and comment by other industry players – perhaps through the industry governance arrangements that we discuss in a later section of this response.

Competition in Fibre Laying
We support Ofcom’s assertion in section 5 that a regulatory framework can be designed to promote both effective competition and network investment. We continue to believe that customer demands within a competitive environment do lead to investment (as Ofcom has stated in previous documents) initially by suppliers and, through their links with wholesale providers, into the infrastructure area as well. However, in our view, that investment could not be regarded as sustainable if it depends on customers being locked in to a particular set of retail products, with other retail options being blocked by the infrastructure provider. Thus we support Ofcom’s intention to see NGA infrastructure developed in ways that promote competition.

One way of developing infrastructure competition is in having a clear framework for the contestability of investment in new infrastructure provision. We support this and believe that a number of different parties could then come into the market. In our view, the key question is how these new providers can develop a sustainable business so they can earn an ongoing return on their investment – e.g. what rights do they have to require connection to the existing infrastructure? We believe that key to delivering effective competition and investment in the infrastructure is actually for the new provider to be able to establish connectivity with the rest of the network and benefit from commercially negotiated ongoing rental revenue from communications providers (CPs) providing higher level “communications” products using the new
passive infrastructure. This might on the face of it be a business model attractive to some multi-utility infrastructure provision companies, for example.

We understand Ofcom’s interest in pursuing passive infrastructure access. However, we are not convinced that passive wholesale inputs such as sub-loop unbundling and/or duct access, which potentially allow competing infrastructures to be laid, will provide a long term basis for competition. It could be argued that the best environmental outcome for the development of communications networks would be the evolution of a single logical infrastructure, albeit with sufficient resilience built in. There could be multiple asset owners and infrastructure providers in this scenario (thereby providing competition in passive infrastructure provision), linked via principles of inter-operability with other elements of the infrastructure. As Ofcom envisages, a mixture of different technologies and networks could develop in different locations depending on customer demand and the characteristics of each location. Provided that the framework for infrastructure investment remained contestable, as discussed above, this would provide a safeguard against customers becoming locked in to using an infrastructure that could be more economically provided by a feasible technical alternative. We do not believe that customers would want multiple network terminations installed at their premises.

**Governance**

We share Ofcom’s view that there are likely to be benefits for citizens and consumers as NGA networks are rolled out, allowing the development of super-fast broadband and of new services and applications based on this technology. However, we believe there are also features of the technology and the way that it could be used that could lead to concerns over privacy, security of information and the potential vulnerability of networks supporting increasing volumes of critical applications to external events and threats. Similar points were made in relation to the future path of mobile technology in Ofcom’s recent consultation on the development of regulation in that sector.

Against this background, we believe it is increasingly urgent that Ofcom develops the mechanisms for governance of the safe operation, development and coordination of the communications markets for the benefit of citizens and end customers of mass-market services supplied over communications infrastructure. Some areas where we believe this is needed are not specific to NGA development but part of a wider market need such as the development of customer switching mechanisms and the governance of numbering information and portability. Other areas, more specific to NGA technology, include the development of technical standards, the design of new access products, the development and oversight of the “anchor product” pricing approach and the timelines for trialling, rolling out and migrating customers onto the new access networks.

We understand from discussions with Ofcom at industry meetings that the need for a mechanism to govern the evolution of the market has been accepted. There is still perhaps some debate on how this should be achieved. In our view, there needs to be a formal framework involving relevant market players which looks after a set of “market rules”. Proposals to develop these rules could arise for a variety of reasons: for example, to accommodate a new product; to adopt a new technology; to address
issues of customer detriment or inconvenience in current arrangements; and to seek to avert or minimise newly identified risks affecting certain sectors of the market. The governance mechanism would allow proposals to be put forward, debated and consensus to be established on the changes needed in a transparent, efficient and impartial manner.

Two items are of particular importance, in our view, in establishing a suitable governance mechanism: firstly, a means to enforce the consensus way forward on all relevant participants and secondly, the involvement of Ofcom, at a high level, in order to ensure that the market evolves in a manner compatible with consumer and citizen interests. We believe that both these objectives can be achieved if Ofcom sets a General Condition requiring relevant CPs to belong to a co-regulatory body whose aims and objectives are set, at high level, in the Condition. Proposed changes to the “market rules” would be tested against their contribution towards better achieving these high level objectives, with Ofcom potentially having some power of veto or approval of more fundamental changes but essentially leaving the industry to develop the market arrangements within this framework. In this way, Ofcom’s involvement would be devised such that it had sufficient input to and oversight of the evolution of the market but without an ongoing need to be involved in the details.

If this framework were to be established, we believe that many of the detailed questions that Ofcom poses in the consultation would be addressed within the governance framework, according to the particular evolving circumstances of the market and in light of the high level principles set out in the relevant objectives. In fact, if the framework was already in existence, the current development and integration of NGA technology would be exactly the sort of market development – albeit a very significant one – that the industry had become accustomed to addressing within the governance framework. We anticipate that issues such as the maintenance and enhancement of competition; the development of appropriate access arrangements; the migration processes for customers to switch between new and older technology products would all be embodied within the objectives of the co-regulatory body, becoming yardsticks against which any proposed development would be assessed. If this process of assessing incremental developments was in place, we believe that even major technology changes could be addressed in an evolutionary rather than revolutionary manner.

Of all the issues mentioned above, we believe that the framework for maintaining and developing customer migration processes is of fundamental importance for the stability of the retail communications market. This framework essentially defines how the competitive retail market works as it governs how customers can be gained and lost to individual retailers. We believe that all market and product developments should logically start by considering what the implications are for current migration processes as most, if not all, such developments will have some effect on the customer interface.

This type of approach to market governance has been used and developed in the energy industries since privatisation. It is also part of the emerging framework for developing competition in the water industry: national codes and switching mechanisms existed prior to the opening of the non-domestic water market in
Scotland and have been advocated in the interim report by Martin Cave\(^1\) on the prospects for competition in water in England and Wales. On this theme, we note that there are a number of references in the consultation document to the recent report by Francesco Ciao\(^2\). In this report, there are a number of references to broadband, with the NGA developments now in focus, becoming “an essential digital utility” in the future. If this is the aspiration of Government and the communications industry, we submit that the time is right for serious consideration to be given to adopting some suitable elements of utility-style regulation in the developing communications markets and in particular, the elements that allow for coordination and governance of proposed developments for the ultimate benefit of citizens and consumers.

I hope these comments are of interest and we would be happy to discuss them further if that would be useful.

Yours sincerely

Aileen Boyd
Regulation Manager

\(^1\) “Independent Review of Competition and Innovation in Water Markets” Interim report issued in November 2008

Consultation Questions

Section 3: What will super-fast broadband mean for consumers and businesses?
Question 1 - Is there further evidence available on the applications and services or consumer benefits that may be supported by next generation access?
We believe that, once service provider competition is established in the market, the wishes and interests of end customers will drive the demand for services through their suppliers. Suppliers, in turn, will seek infrastructure arrangements that best support the services their customers want. Some specific applications for communications bandwidth that we have become aware of are utility smart metering and hospital monitoring of patients in their own homes.

Question 2 - Who should lead on defining and implementing a process for migrations to and from next generation access networks? What roles should industry, Ofcom and other bodies play?
As discussed in our covering letter, we believe that defining and implementing a process for all migrations should take place within an overall governance framework, mandated by a General Condition. As customer migrations are such a fundamental part of the end customer experience, it may make sense for a specific body to be set up within that framework, answerable to industry (and to Ofcom through the co-regulatory nature of the framework). Such a body could maintain the documentation that describes how the migration processes work and undertake any other role in the process that seems appropriate to the industry – in any event, all market players should then be able to find out the current state of migration procedures and participate in discussions about developments to these if they wish.

Thus, in short, we believe that Ofcom should seek to develop the co-regulatory framework through implementation of the appropriate General Condition and industry should work co-operatively within that framework to develop the necessary processes, perhaps setting up a specific body if consensus develops through the governance framework that this is the best way forward.

Section 4: Our vision for the future and the regulation should play
Question 3 - What role is there for Ofcom in the ongoing debate on next generation access versus industry’s role in progressing this debate through multi-lateral and bi-lateral discussion?
We consider that it is important for Ofcom to remain involved in the current debates on next generation access in order to protect the interests of smaller players. We support Ofcom’s concern for the protection of competition at all feasible stages of the supply chain. There are many smaller companies who bring, or could bring, competitive pressures to the market but whose size gives them unequal power in bilateral discussion and limits their ability to engage in long-running bilateral or multi-lateral discussions. As and when the governance structures that we have advocated in our covering letter are set up, we expect that Ofcom could allow industry to work more independently within that framework, while maintaining its overview of what is being developed and the general direction of that development.
Question 4 - How far does current regulation, including market definitions, equivalence and the BT’s Undertakings, need to evolve as result of next generation access deployment?

We believe that there is a case for changing the emphasis of regulation in the communications market in order to:

- facilitate the further development of competition in service provision; and
- promote greater coordination between market participants to manage market developments for the benefit of citizens and consumers.

Next generation access, both in the planning and deployment, represents a significant technological change in the market and brings a number of risks to end customer experiences (for example, the ability to migrate services through house moves etc; and use of new technology in customer premises equipment) and potentially to citizens in the sense of a developing dependency on a critical national infrastructure supporting an increasing number of digital applications.

We understand that many of Ofcom’s formal powers to impose regulation are based on the outcome of market reviews, findings of significant market power (SMP) and devising appropriate regulatory remedies. This is an essentially reactive framework once a market has become established and necessarily takes some time to complete, during which damage to competition and individual market participants could already have occurred if competitive conditions have been unfavourable.

Given the range of different potential investors outlined in the consultation, we believe that markets and customers would be better served by continuing proactive involvement from Ofcom and we welcome Ofcom’s engagement and stimulation of the debate so far. It is very helpful that Ofcom has used consultation documents such as this one to highlight its regulatory expectations from different market participants in different situations. In particular, the statements on the principles of protecting competition and developing effective customer migration processes at the outset of NGA developments are very welcome. We also support the continuing emphasis on “equivalence” of access to wholesale products to support the experience of downstream customers in being able to choose and migrate between different product offerings.

We believe that Ofcom could now make a significant contribution to the course of NGA development by devising a General Condition that requires certain types of market participant to belong to a co-regulatory body that is charged, via a set of “relevant objectives” (such a protection/promotion of the interests of end customers) to develop and implement the necessary framework, products and processes to support the implementation of NGA. This should, in our view, take place within an inclusive, transparent governance process. We have discussed the benefits of this approach in response to other questions and in our covering letter. We imagine much could be developed through consensus: however, not all CPs will have the same corporate interest in, for example, effective migration processes to, from and within the new networks. Thus, one of the key benefits of a co-regulatory approach would be recourse to enforcement of solutions if needed.

Separately, we believe that an evolution of BT’s Undertakings to deal explicitly with NGA issues is appropriate and look forward to Ofcom’s further consultation on this subject.
Scottish and Southern Energy plc

Section 6: Competition remains key to delivering the benefits of next generation access
Question 5 - How important are passive products such as forms of sub-loop unbundling and duct access? Can the economics of these products support the promotion of effective and sustainable competition at this level? Which passive products should Ofcom pursue?
Question 6 - What are the characteristics of high quality, fit for purpose active wholesale products? How far can active products with these characteristics support effective and sustainable competition?
Question 7 - Are there other options for promoting competition through regulated access that have not been considered here?
Question 8 - How far may options for joint investment provide greater opportunities for competition based on passive inputs? Are there lessons that can be learned from similar ventures in other industries? What are the risks and advantages of such approaches?
Question 9 - What should be the respective roles of Ofcom and industry in defining and implementing product standards?

We agree with Ofcom’s overall theme in this section of the key role of effective and sustainable competition in delivering the benefits of NGA. Our main immediate interest is in active wholesale products. In order to be able to serve customers on NGA networks in a similar manner to those we currently serve on BT networks, we would expect similar interfaces and functionality, as a minimum, to the existing WLR wholesale access product. We are not sure how much interest there will be from the industry in passive products. We would expect that a properly designed framework for interconnectivity between networks would allow the greatest economic and efficient use of initially laid infrastructure, without the environmental disbenefits of multiple infrastructure roll-out.

We have also always supported Ofcom’s emphasis on developing open standards for wholesale products. We believe that standards setting and development forms a natural part of an overall governance structure that we have advocated be set up for NGA development and implementation. We have discussed in responses to other questions and in our covering letter how Ofcom and the industry would respectively be involved in such an arrangement. As and when this was established, we believe that many of the detailed questions in this section could be addressed by the industry in a transparent manner through that framework for discussion and the development of consensus.

On a point of detail within this section, there is a comment in paragraph 6.33 on the need for mains power at street cabinets to support sub loop unbundling. We believe a review of the street furniture requirements of the developing communications networks might be useful and would be prepared to help in identifying the necessary contacts so that the development of the electricity infrastructure can support the anticipated requirements from the communications networks.

Section 7: Key to delivering effective competition and investment is pricing
Question 10 - How far do stakeholders consider the pricing approach outlined here of pricing flexibility for active products and cost orientation plus considerations for risk is appropriate at this stage of market development?
Question 11 - Will indirect constraints allow for an approach based on more price flexibility for active products? How will such an approach affect the incentives of different operators to invest and deliver super-fast broadband services to end customers?

Question 12 - What period of time would be appropriate for such an approach to ensure a balance between the need for longer term regulatory certainty with the inherent demand and supply side uncertainty in super-fast broadband and next generation access?

Question 13 - What are the key factors that could make a review of any pricing approach necessary?

We support the following elements of Ofcom’s discussion in this section:

- the regulatory focus on pricing at the wholesale rather than the retail level;
- the need for network operators to provide wholesale products on an equivalent basis;
- the emphasis on effective customer choice at the retail level; and
- a requirement for a non-discriminatory approach by operators with market power to pricing and the development of new commercial models.

We also agree with the general proposed approach that the pricing of passive access products could be developed on a traditional price controlled basis, while active access products could be subject to the “anchor product” pricing basis that Ofcom has proposed.

However, anchor product pricing is a new concept and we believe its development should be kept under review by the co-regulatory body we have advocated in our covering letter and in response to earlier questions. This should be supported by appropriate levels of transparency in the regulatory accounting information of the CPs providing the active access products. For example, if there was to be a substantial fall in a network provider’s costs as a result of the adoption of NGA technology (which, as Ofcom has set out in section 5, is one of the reasons for operators to invest in the technology), we would expect the price of the anchor product to fall rather than continue to reflect the “old” wholesale product prices. Overall, we would expect that the approach to access product pricing would need to be evolutionary as experience is gained of the new market, with transitions debated through the proposed governance mechanism.

On some points of detail with in this section, we would welcome more clarity on how the types of wholesale products that we currently use – such as WLR – are to be replicated in the NGA environment. We also note Ofcom’s discussion in paragraphs 7.38-7.42 on the potential for margin squeeze and in paragraph 7.48 about potential network developments that may undermine the ability of the copper-based services to provide a constraint on the pricing of the new products. In our view, the disruptive possibilities that Ofcom has identified illustrate the need for a forum where industry representatives can raise concerns with the way the market is working. We believe that the co-regulatory approach we have proposed would be an ideal framework for this.

Section 8: Eventually there will be a transition from copper to fibre

Question 14 - How far can the generic model for transition outlined here deliver both incentives to invest in next generation access while ensuring existing competition is not undermined?

Question 15 - What triggers would be appropriate for the commencement of any transition process?
Question 16 - Once triggers or circumstances for transition are achieved, what would be an appropriate period for the various phases of transition (consultation, notice period, transition)?

Question 17 - Over what geographic area should any process of transition be managed, for example region by region or nationally?

We generally support Ofcom's proposed model for transition between old and new networks and agree that consultation with end customers is important. However, as in our response to some of the earlier questions, we believe that the detail of proposed migrations (such as transition periods etc) should be considered on a case by case basis within the governance framework we have proposed. Beyond this, we have only two specific comments on the contents of this section:

- Firstly, in figure 5, we believe there should be time allowed after the “consultation period” stage before the “final plans” are issued, as there should be a period in which the views of the consultees are analysed and the proposed plans adjusted to take into account the views expressed;

- Secondly, where there is a bulk transfer of customers from one wholesale platform to another, we do not believe that retailers should have to seek the “positive consent” of their customers for that move. While there would be an obvious need to inform customers about the migration, we believe that any obligation to achieve consent would be disproportionate, bearing in mind the overall burden on retailers and arguably the unjustifiable inconvenience to the customer.

Section 9: Regulation can play a smaller role in increasing revenues

Question 18 - What actions, if any, should Ofcom undertake to support new revenue models from next generation access?

We agree with Ofcom’s intention to provide guidance about the development of new commercial models and the emphasis on the importance of maintaining customers’ ability to switch as these models are developed. We appreciate that one important part of adopting new commercial models is that customers understand the implications for the characteristics and quality of services they receive so that they can make informed choices. We therefore support Ofcom in developing best practice guidelines on information provision but would not be keen on the imposition of detailed regulation on retail service providers to cover this. As we have argued in relation to other retail obligations, we continue to believe that high level obligations to achieve outcomes are a more appropriate and proportionate form of regulation that detailed prescriptive requirements. In relation to information provision, in particular, we suggest that Ofcom could also help by providing on its website generic information about the types of products available, as the market develops.

Section 11: What role can the public sector play in next generation access deployment

Question 19 - What role should public sector intervention have in delivering next generation access?

We consider that it is probably too early to be clear on exactly how public sector intervention might play a part in delivering NGA. We do feel, however, that if the overall framework for industry coordination of NGA developments that we have suggested was in place, together with clarity on what types of NGA infrastructure provision were feasible and how these could be
accommodated, then targeted public sector support may eventually be able to “fill gaps” in the overall NGA connectivity provided by the market.

**Section 12: A proposed framework for action**

Question 20 - Are these the right actions for Ofcom and other stakeholders to be undertaking at this time? What other actions need to be taken or co-ordinated by Ofcom?

We largely agree with Ofcom’s proposed framework for action. Our major comment would be that in “promoting cooperation”, Ofcom should consider the setting up of a co-regulatory approach, as we have proposed in this response. In its turn, we believe this would be an ideal framework to assist the industry in fulfilling the actions proposed for it in a coordinated and transparent manner.