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Dear Clive

Policy Approach to Next Generation Access

I am writing in response to Ofcom's recent consultation on the above topic.

SSE is primarily an energy company but has a presence in the communications market both as a code operator providing business to business bandwidth services and as a reseller of telephony products. We are interested in the development of next generation access networks and are generally supportive of the development of competition where feasible as this new infrastructure is deployed. We would expect to see the extension of reseller-based retail competition to these new types of network without any economic or technological barriers. As a reseller, we would hope to be able to develop and sustain products that can be delivered seamlessly over a range of different network infrastructures as these are developed.

We welcome the consultation as an important part of promoting debate on this important topic. The one item that we would add to Ofcom's suggested list of principles for regulating next generation access is that of "promoting coordination of industry developments". As noted in a number of places in this response, our belief is that much needs to be coordinated in the development of a NGA framework and that a formal governance arrangement is the best and most transparent way of achieving this. Our detailed answers to the consultation questions are attached as an appendix and we discuss our main further comments on the subject below.

Competition

SSE supports the development of competition at different levels of the supply chain for the provision of "public" next generation access (NGA) networks serving customers, where this is feasible. At the fringes of the existing communications networks, where new infrastructure is to

be laid, there may be scope for different technologies and for different parties to invest. For the mass of residential customers, however, we expect that the most economic option in many locations would be for Openreach to provide NGA networks in a regulated manner, as the economics allow. However, we support Ofcom's emphasis on maintaining contestability to allow for the possibility that other infrastructures could be economically developed.

Our main concerns, as resellers of communications products with a significant base and potential base of domestic customers, are as follows:

- The existence of reseller based competition, based on high level wholesale access products such as WLR, should be protected in any move to NGA networks. While many of the issues around NGA are of a technical nature, the same comments about the need for effective systems and processes as are made in paragraph 6.11 of the consultation document, also apply to the provision of these high level access products. These are an essential pre-requisite in enabling resellers to participate in the retail market for communications services.
- In our view, the customer lifecycle experience is an essential focus in the development of new access arrangements. In particular, arrangements should be developed at the outset to ensure as smooth a transition as possible for the customer seeking to move (or "migrate") between different providers' retail product offerings. We are well aware that the development of competition in the provision of infrastructure to date has led to a fragmentation of the retail markets for telephony and broadband such that customers who, for example, choose retail packages based on an LLU based infrastructure, face additional costs and delays in moving back to products based on the Openreach infrastructure. The co-ordination of retail migrations in a framework where competition is encouraged at retail and wholesale level is best addressed, in our view, through the establishment of an inclusive and transparent governance arrangement for the development of mass market communications products. We return to this topic below.

A final observation under this heading would be that it appears that it may be efficient for some parties to lay fibre access networks in areas of new development, which other parties such as Openreach may be able to light and integrate into the wider wireline network. This possibility, along with the general promotion of contestability of infrastructure, might lead to the situation of multiple owners in a physically connected network path. This could then lead to the development of a centrally coordinating "system operator" role for a party such as Openreach, which would have the remit of coordinating the logical communications "path" through wireline networks in different ownership.

Access Obligations

We agree with Ofcom's assessment that the appropriate regulatory remedy to develop and highlight, as various parties consider their scope to invest in NGA networks, is that of access by third parties to relevant parts of the networks built by others. Much of the document considers the type of economic access that should be made available and the network location at which it should be made available, with particular reference to BT networks. We have comments on the

type of access that could be required, who should be required to provide access and how this could be imposed. We discuss these aspects in turn below.

Type of access

Building on the experience of other industries where network access is required in order to provide retail services, we suggest that “third party access” is also considered whereby a “use of system” charge is made by an access network owner to carry the traffic of a different wholesaler or retailer. This is different from the concept of “unbundling” where passive access to infrastructure is provided for another party to set up their own communications systems. Instead, we believe it is more similar to the idea of interoperability, where another party’s higher-level communications traffic is accepted and routed by the host network’s systems. It is also perhaps similar to, but at higher network level than, the “active” access products considered in the document. We understand that this notion is gaining ground in discussion at wholesale level in the industry and that it would logically build on the ideas of technical and commercial interoperability that have been important principles of the work of the NGNuk body in relation to next generation core networks.

We believe that if this type of access was readily and economically available and backed by clear standards for such contestable ancillary services as provisioning and repair, it might reduce the need for operators to build their own parallel infrastructures to reach customers, with consequent environmental benefits. Providing this form of access should align with a network provider’s incentives to maximise and develop the use of his network in the absence of any considerations related to ambitions in downstream markets. With the appropriate safeguards around interoperability and, if appropriate, equivalence of inputs, we believe that developing this framework would reduce the potential for “lock-in” of customers to the products of retailers associated with the network providers, with the consequent fragmentation of retail markets. Further safeguards are available if the network investment is contestable. Finally, Ofcom has powers to investigate unreasonable charges under the Competition Act and to resolve disputes.

Obligations to provide access

We believe that Ofcom should set out clearly the circumstances where it will expect access to be provided by investors in NGA infrastructure. While various exemptions (such as private networks and “de minimis” small networks) will be needed, we believe the general rule should be that anyone who invests in infrastructure for the delivery of public communications services should expect to bear obligations associated with allowing access to that infrastructure to other parties on reasonable terms and with appropriate levels of service.

Even networks covering a relatively small geographic area can effectively be natural monopolies due to the bottleneck comprised in the underground access routes that have been used to develop the network. A market could be defined locally and the operator of that network found to have significant market power (SMP) due to the absence of sustainable alternatives to the first created access network in the local area.

Where an access network operator also has associated divisions or companies involved in providing wholesale or retail services on the network, then further access-related obligations are appropriate. In this respect, “equivalence of inputs”, as Ofcom puts forward in the paper, is an important principle to underpin the detailed requirements. We see such requirements as

including: functional separation; separate accounting for these separated functions; audit assurance; equitability of charging arrangements; transparency of the high-level accounting details of the access-providing entity and its product development plans.

Powers to impose access requirements

We understand that there may be considered to be an issue in relation to Ofcom's powers to impose the type of obligations discussed above. In particular, we note that Ofcom, as mentioned for example, in paragraph 8.7 of the document, has formally to rely on a finding of SMP in a market review before it can impose regulatory remedies such as regulated access products. The document also mentions that in the specific case of Openreach, however, BT's Undertakings to Ofcom provide that Openreach has further obligations to provide access without a finding of SMP. We note also that BT, in its response to Ofcom's previous NGA discussion document suggests that Article 5 of the Access Directive is capable of being used "to ensure interoperability and connectivity through mechanisms that are not dependent on a finding of SMP." This may be worth exploring, as we appreciate that that full market reviews place a significant regulatory overhead on Ofcom and the industry. These reviews also appear to have the disadvantage that they must, by definition, review a market situation that already exists and any remedies that arise from them must necessarily be "after the event", by which time the competitive market might have been irreparably damaged through the actions of one or more parties.

In our view, Ofcom is likely to have sufficient power to impose access remedies in individual cases of NGA development, through a combination of market reviews on a "local" level if required, Competition Act investigations and its power to resolve disputes under the Communications Act. However, these routes take significant time and resource to reach their conclusions. We therefore believe that Ofcom should set out clearly that it would be minded to require access remedies in the event of any such disputes, as a result of this consultation. This would do much to increase regulatory certainty amongst those who are considering NGA investment and as a result, investment should only proceed where parties (except for the exemptions noted above) can make a business case based on **access network revenues alone**, without "tying in" the retail customers to the offerings of any associated retail service provider. We believe that this would result in a healthier competitive market, where retailers were more likely to be able to offer their products over the complete range of available access networks. Indeed, from the point of view of the network provider, the business case for providing such network access is improved and environmental damage reduced where its charges and services are set such that fewer competing networks are built.

However, the interoperability between networks upon which such an outcome would depend, needs to be developed by industry participants. The document mentions the development of Ethernet networking standards to support active network access in chapters 6 and 9. We fully agree with the comments at paragraph 6.27 that such networking standards need to be carefully designed and implemented and believe that resellers should also have an input to these developments. This is best achieved by means of an inclusive and transparent governance arrangement and we comment on this further below.

Governance

As discussed above, considerations relating to both the maintenance of retail competition and the development of access arrangements in an NGA investment environment lead us to the view that governance of this very significant market development is vital. There are a number of paragraphs within the consultation document where the need for coordination, review or input from the industry generally is mentioned and we list some of these below.

- 5.37 comments on “the need for cooperation amongst stakeholders in the negotiation and agreement of access terms”;
- the final part of the table at 6.19 comments that, for GPON development, “reaching consensus on a new product that will form a key input for many independent businesses presents significant challenges”.
- 6.27 comments that development of an active line access product will need to be “carefully designed and implemented” which will “pose a significant challenge to the industry”;
- 6.51 sees there being a risk in “the inability to foresee what retail services” the wholesale access products may need to support and we would suggest that involving parties close to the end customer would help to mitigate this risk;
- 8.19 notes that “transparency in any decision to remove regulated wholesale products, including suitable signalling of intent and a well defined migration period for operators and consumers using these products is fundamental.” – we would also add resellers to the list of interested parties;
- 9.14 in Ebbsfleet, “the selection of technology should be an issue for broad industry discussion and debate in advance of deployment”;
- 9.17 “there should be significant debate” on whether Ethernet access is an appropriate interface;
- 9.23 On BT meeting its regulatory obligations at Ebbsfleet, Ofcom expects BT Group to “engage and consult with the full range of its customers to ensure that their requirements are met as far as possible”

We also consider that the points mentioned at the following paragraphs:

- 4.26 – the visibility of plans for removal of existing regulatory remedies, which can have a significant effect on competition;
- 6.58 – monitoring the potential development of wavelength unbundling technology; and
- 6.29 - the risk that wholesale products are designed to meet the needs of associated retail businesses, but which might foreclose other service provider’s options to provide a differentiated service to customers

are also areas that could be reviewed as part of a governance mechanism.

In our view, the extensive coordination required to develop and maintain the technology and products supporting the provision of NGA network services to customers is best achieved through a mandated governance arrangement that applies to all relevant parties involved in providing public “mass market” products. This would ensure that clear rules were established for all these parties, which could be developed as required, under the ownership of the industry itself.

We would envisage this being set up in as economic a manner as possible, backed by a requirement under an appropriate General Condition, avoiding any unnecessary bureaucracy or market overhead. For the avoidance of doubt, we are not proposing the exact forms of governance that pertain in the energy markets (with which we are familiar) and which, in any case, are currently being reviewed. Some aspects of these arrangements serve other purposes such as the provision of settlement functions, which would be irrelevant to the communications market.

We see the benefits of governance as including transparency and formal change management for appropriate industry documentation, backed by the right of appeal if any industry party has sufficient cause. We envisage that some form of constituency representation would give non-SMP resellers, network operators and other stakeholders an appropriate voice as developments are proposed and discussed. We anticipate that this approach to formalising the development of consensus within the industry would also bring benefits to Ofcom in terms of the opportunity to interface at high level with only one industry body for two-way communication about industry and regulatory developments and step back from day-to-day involvement at detailed levels.

Anchor product regulation

We can understand the advantages of the “anchor” wholesale product approach to establishing the price and quality of initial NGA products without the need for intrusive regulation and we believe that this approach merits further investigation. In developing this concept, we agree that anchor products need to be carefully defined and we are also of the view that safeguards would be needed. Some of the issues and queries that occur to us are set out below.

- We would expect there to be transparency about the availability of wholesale anchor products and for these to be available on an equivalent basis across interested parties.
- We believe that anchor products would be needed at various points in the supply chain, corresponding to the places in that chain where competition is possible.
- In particular, resellers need a high-level anchor product in order to be able to provide a service to end customers on the NGA networks. Paragraph 5.37 of the document comments that only access services that support differentiation require anchor products. We have commented in response to question 2 about the innovation that resellers can provide in the market and trust that this is included in the range of anchor products that Ofcom has in mind. Elsewhere in the document, innovation and service differentiation appear to be viewed as technological issues alone, which might rule out resellers if this view prevails in the development of the suite of anchor products. We would not support such a view.
- Appropriate charging methodologies should be developed for the new NGA environment, which do not add additional transaction-based charges to retailers.
- If there is a substantial fall in cost for an existing access network provider as a result of the adoption of NGA technology, we would expect the price of the anchor product to fall rather than continue to reflect the “old” wholesale product prices. If this does not happen, there would be concerns about an access operator with an associated retail business being able to take supernormal profits in its access network to set off minimal margins in its associated retail business, which nonetheless undermine retail competition. Similarly,

such an access operator has the option to react to the arrival of a potential alternative infrastructure investment by dropping the anchor product price at that later stage when it might then damage infrastructure competition. We believe that transparency of high-level accounting information of the access entity would be needed to check for this.

Overall, the complexities of defining and developing anchor products makes it even more imperative, in our view, that this aspect of NGA regulatory policy is developed in full collaboration with all relevant parties in the industry. As with other topics mentioned above, we believe it should be subject to transparent governance.

Other points

We believe it would be appropriate to review the application of the Universal Service Obligation in the context of NGA investments. Sharing this obligation amongst NGA infrastructure providers might be more appropriate than leaving the obligation with one retail entity against a background that it might be used to undermine other infrastructure developments. The principle of interoperability that we have discussed above in relation to access networks should ensure that any end-user on any network could then link with his choice of retail provider.

I hope these comments are helpful. We would be happy to come to your offices to discuss this issue in more detail if that would be helpful.

Yours sincerely

Aileen Boyd
Regulation Manager

Response to Consultation Questions

Question 1 When do you consider it would be timely and efficient for next generation access investment to take place in the UK?

We believe that, provided there is clarity on the regulatory framework for next generation access (NGA) investment, which Ofcom is intending to achieve through this consultation process, investment in high capacity access networks could take place almost immediately in the new housing development sector. We agree that the case for large scale deployment to overlay or replace existing copper access networks does not appear conclusive at present. In this sector also, we believe that clarity on regulatory requirements will facilitate timely investment by existing operators and potential new entrants when the business case can be made.

We therefore support Ofcom's focus on establishing the regulatory principles that will apply to NGA investment and have discussed in our covering letter our views on how these can be applied. We agree that competition and investment are appropriate angles to consider. We would also emphasise the need to consider the customer experience and the sustainability of access solutions.

Question 2 Do you agree with the principles outlined for regulating next generation access?

We believe that Ofcom has identified the right aspects to consider when developing the principles for regulating NGA - namely: approach to investment; protection and promotion of competition and protection of consumer and citizen interests. It is interesting to note that Ofcom's research has highlighted that the highest levels of net investment are seen in countries with the most competitive telecoms industries. This finding undermines any suggestion that investment is inhibited by the promotion of competition. We agree with the specific principles which have been listed and comment on these individually below. However, we also suggest that a further principle of "promoting coordination of industry developments" is added to the proposed list and we also discuss this further below.

Principles for regulating NGA

1. contestability: we agree that this is an important principle to encourage investment and innovation by parties other than dominant communications providers. In practical terms, contestability can only be achieved if parties making investments are confident that they will be able to interconnect to existing communications infrastructure at appropriate points and levels of the network on reasonable and equivalent terms. Equally, the parties making the investments should be clear about the circumstances in which they are likely to be required to provide access to their networks, as discussed in our covering letter.
2. reflecting risk in returns: we agree that a reasonable return on investment should reflect the degree of risk undertaken. We also support Ofcom's view that investment in NGA is likely to be undertaken by a range of different players in a number of different geographic locations using different technologies and that it is best left to the market, rather than a regulator, to decide when such investments would be efficient and timely. However, in our view, such an approach needs safeguards against the potential abuse of market power and we discuss this

further in our covering letter in the comments on anchor product regulation.

3. regulatory certainty: we are firmly of the view that the key principles of the regulatory framework affecting NGA investments should be clearly set out and communicated.
4. maximising potential for innovation: in our view, one of the key benefits for citizens and consumers in the operation of competitive markets is the degree of innovation seen in these markets. Competing service providers will be strongly incentivised to find out what customers want and are willing to pay for and to invest accordingly. Thus, innovation is fostered as competition is promoted. However, we believe that there are two further requirements in relation to communications markets before innovation can flourish. These considerations also support the maintenance of a high quality end-user experience.

Firstly, in the provision of infrastructure, innovation should be managed and coordinated such that the viable inter-operability of networks is assured. Otherwise, the development of a new infrastructure medium for communications could lead (as in the cases of cable networks and the unbundling of the local loop) to the fragmentation of the retail markets and the consequent effect on end customers seeking to migrate from a service provided on one network to that provided on another.

Secondly, the potential for innovation in the reseller sector of the market should be recognised and protected in the developing regulatory framework. The consultation document emphasises the requirement for NGA access products at the lowest levels (1 and 2) of the network model and we agree that this supports technical innovation. However, resellers are a valuable source of innovation in a market as they bring knowledge of customer behaviour and preferences and have skills in the bundling and billing of products. The value of this input is recognised at paragraph 6.51 of the document. Reseller competition has been encouraged in the communications market in recent years with the development of products such as CPS/WLR. It is essential for the continuing support of this sector of the service provider market that the requirement for equivalent high level wholesale products appropriate to NGA should be mandated at the outset rather than left to the protracted development processes we have witnessed with respect to the existing products.

5. equivalence: we agree with Ofcom that this remains a fundamental basis for a healthy competitive environment where a provider of wholesale services also provides downstream retail services. This concept needs to be supported by practical measures such as functional separation, transparency of accounting – particularly with respect to transfer pricing, audit assurance and non discrimination requirements.

Our further suggested principle is “promoting coordination of industry developments”. As noted in a number of places in this response, our belief is that much needs to be coordinated in the development of an NGA framework and that a formal governance arrangement is the best and most transparent way of achieving this.

Question 3 How should Ofcom reflect risk in regulated access terms?

We agree with Ofcom that forbearance i.e. the explicit removal of regulatory obligations from owners of NGA networks to provide access to third parties is not appropriate. The concept of

anchor product regulation appears to offer the prospect of providing a clear framework against which operators can decide when to invest with the aim of achieving an appropriate return. This seems to be an approach worth investigating further, although we believe it will not be without issues and we have discussed some of these in our covering letter. The best way of addressing these, in our view, is to develop transparent, inclusive governance of the development of the product set.

Question 4 Do you agree with the need for both passive and active access remedies to promote competition?

Yes. Given the range of players, technologies and geographical differences across the UK, it is inappropriate for Ofcom to build a regulatory framework based on a single, or a small number of, access approaches. The overall regulatory approach should be such as to provide a general framework in which different investments are facilitated. We therefore agree that passive and active remedies are both needed and suggest that the “third party access” approach we have described in our covering letter is also considered to the extent that it is different from the “active” access remedies considered in the consultation. We also believe it is possible that some parties may wish to lay passive NGA infrastructure in new housing developments, for other parties to light, as part of a coordinated infrastructure approach.

Question 5 Do you consider there to be a role of direct regulatory or public policy intervention to create artificial incentives for earlier investment in next generation access?

No. We believe there is plenty of interest in NGA investment. In our view, it would be appropriate for Ofcom to consider measures to stimulate the market if issues of coverage and/or service levels emerge later.