



New Build Investment Guidance on Telecoms Regulation

Guidance Note

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Introduction

- 1.1 New build super-fast broadband networks represent a unique opportunity to invest in telecoms infrastructure. Ofcom is keen to ensure that prospective new investors are able to make the most of these opportunities and consumers gain maximum benefit from the delivery of new high speed services.
- 1.2 This guidance note is intended to highlight how telecoms regulations in the UK apply to new build investment. We outline the main elements of Ofcom's policy and the regulatory processes that are most relevant to investment in new build fixed telecoms networks. This note is targeted at senior management of companies who are considering investing in new build telecoms networks, as well as prospective financiers of such investments.
- 1.3 It should be read alongside the statement we published on New Build as well as the glossary of terms which can be found at:
http://www.ofcom.org.uk/consult/condocs/nga_future_broadband/glossary/
- 1.4 We recognise that investments in telecoms networks may involve large sunk costs and potentially long payback periods, and therefore prospective investors seek certainty over the regulatory landscape, particularly with respect to regulation of product charges.
- 1.5 On this basis, we have published statements with a view of setting out the regulatory principles in relation to next generation access (NGA) deployments, in order to provide regulatory certainty. These principles have already been published in a number of documents. On this basis we are publishing this Guidance Note which draws from the following documents:
 - 1.5.1 Delivering super-fast broadband in the UK, policy statement, 3 March 2009, "Super-fast broadband statement"
(http://www.ofcom.org.uk/consult/condocs/nga_future_broadband/statements/statement.pdf)
 - 1.5.2 Next Generation New Build, Policy statement, 23 September 2008, "New build statement",
(http://www.ofcom.org.uk/consult/condocs/newbuild/statement/new_build_statement.pdf)
 - 1.5.3 The Communications Act 2003, "The Act",
(http://www.opsi.gov.uk/ACTS/acts2003/ukpga_20030021_en_1)
- 1.6 This guidance note is provided for ease of reference only. It provides a summary of existing policy documentation and does not set out new policies or regulation.

Ofcom's principal duties

- 1.7 Ofcom's principal duties¹, as defined by section 3(1) of the Act, are:
 - 1.7.1 to further the interests of citizens in relation to communications matters;
 - and

¹ Ofcom takes account of all its relevant statutory duties in the Communications Act, including other general duties in section 3, duties for the purpose of fulfilling community obligations (section 4) and duties to review the burden of regulations (section 6).

- 1.7.2 to further the interests of consumers in relevant markets, where appropriate by promoting competition.
- 1.8 In addition, we have a number of statutory duties relevant to next generation access deployments. Among other things, Ofcom²:
 - 1.8.1 is required to secure the availability throughout the UK of a wide range of electronic communications services;
 - 1.8.2 must have regard, where relevant, to the desirability of encouraging investment and innovation in relevant markets; and
 - 1.8.3 must have regard, where relevant, to the desirability of encouraging the availability and use of high speed data transfer services throughout the United Kingdom.
- 1.9 We believe that our duties with respect to consumers and citizens can be best met by both³:
 - 1.9.1 promoting investment to support early deployment and widespread availability of super-fast broadband; and
 - 1.9.2 securing competition at the deepest level that is effective and sustainable, particularly in the longer term.

In practise these translate into the five principles outlined below.

Ofcom's principles for NGA regulation

- 1.10 Underpinning our regulatory approach in both new build (where there is no pre-existing telecommunications infrastructure) and overlay (where there is) next generation access networks are five regulatory principles⁴. These are based on the original regulatory principles outlined in our 2005 Strategic Review of Telecommunications⁵ but are expanded to reflect the differing characteristics of next generation fibre based networks compared to current generation copper networks⁶:
 - 1.10.1 contestability: creating conditions that allow any player who sees a case for deploying next generation access infrastructure to invest, as soon as they wish;
 - 1.10.2 maximising potential for innovation: scope for innovation and differentiation is essential for competition in next generation access;
 - 1.10.3 equivalence: in order to deliver effective competition, we must ensure all players have equal opportunities to access wholesale services at the levels where competition can be effective and sustainable;
 - 1.10.4 reflecting risk in returns: investors in next generation access must have the opportunity to earn returns on investment that reflect the level of risk incurred; and

² The Act, sections 3(2) and 3(4)

³ Super-fast broadband statement, paragraph 4.12

⁴ New build statement, paragraph 3.3

⁵ http://www.ofcom.org.uk/static/telecoms_review/index.htm

⁶ Super-fast broadband statement, paragraph 4.8

- 1.10.5 regulatory certainty: the regulatory regime must be clear and in place for a reasonable period of time. This will give investors the clarity that they need to invest with confidence.
- 1.11 In relation to the final principle of regulatory clarity, we consider that ensuring a clear and consistent regulatory environment and rules is vital to securing investment. We aim to deliver regulatory certainty by committing to ensuring our decisions are clear, timely and consistent over the longer term wherever the underlying competitive conditions remain unchanged⁷.
- 1.12 Regulators are unable to commit legally to specific regulatory approaches (policies) beyond the period of the market reviews carried out in accordance with the European Framework as described in sections 1.21- 1.24 of this note. This potentially risks increased investor uncertainty on future policies. As such, the only way to provide certainty to investors is through transparent and timely commitment to a clear regulatory framework based on the prevailing competitive conditions. Changes to these regulatory positions would need to be justified by the underlying competitive environment⁸.
- 1.13 Following consultation with industry, it is clear to Ofcom that supporting investment and competition in super-fast broadband networks means⁹:
- 1.13.1 providing a clear, consistent and transparent regime that reflects the underlying competitive dynamics;
 - 1.13.2 ensuring that Ofcom takes account of the uncertainty and risk in investment, faced by a variety of players;
 - 1.13.3 providing flexibility in trialling and piloting super-fast broadband services to help develop and test new technologies, commercial relationships and services, while retaining a long term focus on the aims of regulation;
 - 1.13.4 supporting experimentation by new entrants, the public sector and community broadband projects in the delivery of super-fast broadband services; and
 - 1.13.5 minimising barriers to entry wherever possible, through spectrum release (or release of the UK's limited airwaves), spectrum liberalisation and trading as well as maintaining options for future fixed network investment by all parties.
- 1.14 Ofcom recognises that there are a number of challenges associated with investment in next generation access and has considered a policy position for each. These are outlined in the table below¹⁰:

Figure 1: Policy responses to investment challenges

| Investment challenge | | Ofcom's policy position |
|----------------------|--------------------|---|
| Business case | Demand uncertainty | <ul style="list-style-type: none"> • Enabling a flexible environment for experimentation and trialling of new technologies, products and services • Enabling suitable pricing approaches to account of risk levels |

⁷ Super-fast broadband statement, paragraph 4.9

⁸ Super-fast broadband statement, paragraph 4.10

⁹ Super-fast broadband statement, paragraph 4.11

¹⁰ Super-fast broadband statement, paragraph 4.22

| Investment challenge | | Ofcom's policy position |
|----------------------|--|--|
| | Ability of business models to support investment | <ul style="list-style-type: none"> This is not an area for Ofcom to become directly involved in. However, we support the development of new business models that balance incentives to invest and consumer interest. Regulation should not prevent innovation and experimentation in new business models where this does not result in substantial consumer harm |
| Build | Technology uncertainty | <ul style="list-style-type: none"> Continued belief in the principle of technology neutrality where Ofcom does not support one particular technology over another Spectrum release and other means of market entry Importance of standardisation of technology to allow interoperability and reduced inefficiencies Design principles and early engagement on 'how' these networks can be built most cost efficiently but still with scope to support passive based competition |
| | Most efficient time for investment | <ul style="list-style-type: none"> We favour enabling industry, through a clear regulatory framework, to make earlier investment wherever this is efficient |
| | Opportunities for cost savings | <ul style="list-style-type: none"> Managed transition at the most efficient time |
| Regulation | Cost recovery and rate of return | <ul style="list-style-type: none"> Pricing flexibility on active products ¹¹ Returns on passives ¹²products that reflect risks Cost recovery principles applied to active and passive wholesale products Ensuring downstream providers can earn suitable returns – monitoring for margin squeeze |
| | Competitive intensity | <ul style="list-style-type: none"> Clear expression of regulatory interest in maintaining both active and passive competition Continued requirement [for SMP operators] to meet reasonable demand for access, either at the same time or at a later stage, as well as a requirement to conduct appropriate industry consultation Options for effective and sustainable passive competition based on –co-ordinated investment, design principles that make later market entry possible and through the provision of passive inputs on the same basis where reasonably practicable or otherwise to the same specifications, functionality and outcomes as the inputs Openreach uses itself |
| | Wholesale competition | <ul style="list-style-type: none"> Support for high quality fit-for-purpose active products Support for effective and sustainable passive competition through the obligation to meet reasonable demand, and the adoption of design principles that enable future market entry on the most cost-effective basis possible |
| | Existing regulation | <ul style="list-style-type: none"> Ongoing commitment to ensure the appropriateness of regulatory policy and the burdens they impose against the benefits they bring |

Specific expectations for new build developers

1.15 In our “Next Generation New Build” statement we outlined our regulatory approach specifically for next generation access networks deployed where no telecoms infrastructure yet exists, in other words new build fibre deployments¹³.

1.16 The cornerstone of our approach to new build fibre developments is that consumers should have a choice between competing service providers. Due to the small size and requirement for flexibility of the new build market, we have adopted an approach to regulation based on setting out our expectations at this stage rather than formal regulatory intervention. We have chosen this approach in order to help to avoid that operators incur unnecessary network re-engineering costs at a later stage in order to meet any regulatory requirements after network roll-out. Signalling our expectations up front is likely to secure more benefit for consumers and be less disruptive and

¹¹ Please see glossary for a definition of active and passive products

¹² Please see glossary for a definition of active and passive products

¹³ New build statement, paragraph 2.5

costly for the industry. This will also provide greater regulatory certainty for prospective investors¹⁴.

- 1.17 It is important to note that at this stage these are expectations and not formal regulatory requirements. At the same time, it is important to emphasise that, should this approach of signalling prove ineffective in particular cases, we would be prepared to undertake the relevant market reviews, and to impose appropriate formal Significant Market Power (SMP) obligations where relevant, in the event of an SMP finding (see below)¹⁵.
- 1.18 Based on our analysis and responses received to our “Next Generation New Build” consultation, our expectations are as follows¹⁶:
- 1.18.1 In a new build environment, if it is apparent that only one telecommunications access network is viable then we would expect the operator of that network to provide access to it on a fair, reasonable and non-discriminatory basis through fit for purpose wholesale products. This will include access by the Universal Service Providers for the fulfilment of Universal Service Obligation (USO) obligations¹⁷.
- 1.18.2 We would encourage operators to use open standards when developing wholesale access products and to agree the implementation with prospective wholesale customers. In addition, standardised wholesale access products need to be supported by standardised ordering, provisioning, management and migration processes and interfaces.
- 1.18.3 We would expect new build developers to install spare duct capacity and use sub-ducting, the adoption of which should ensure that the capacity of the installed duct would be sufficient to support duct sharing in the future, should that prove necessary for effective competition.
- 1.18.4 In addition, we would expect operators to consider the provision of an Active Line Access (ALA)-based product, which is capable of supporting effective competition between service providers. The characteristics of such a product are detailed in the “Updated Technical Requirements for Ethernet Active Line Access”¹⁸.
- 1.19 These expectations apply equally to all new build developments and operators¹⁹.
- 1.20 We have a key concern for the protection and safety of consumers, and require that consumers in new build fibre deployments have a fixed telephony service available to them that can provide uninterrupted access to the emergency services²⁰.
- 1.20.1 We would advise that the Public Telephone Network (PTN)²¹ provider initially supplies customer premise equipment with a backup power supply.

¹⁴ New build statement, paragraph 3.15

¹⁵ New build statement, paragraph 3.18

¹⁶ New build statement, paragraph 3.16

¹⁷ New build statement, paragraph 3.31

¹⁸ <http://www.ofcom.org.uk/telecoms/discussnga/eala/updated/updated.pdf>

¹⁹ New build statement, paragraph 3.17

²⁰ New build statement, paragraph 6.20

²¹ An electronic communications network which is used to provide publicly available telephone services and supports the transfer between network termination points of speech communications,

However, the maintenance and replacement of this equipment after initial installation could, subject to relevant agreements between the PTN provider and the Publicly Available Telephone Service (PATS)²² provider, lie with the PATS provider and/or end customer²³.

- 1.20.2 We would expect the PATS provider to take all reasonably practicable steps to maintain to the greatest extent possible, network integrity and service reliability but only for the aspects of the network it controls²⁴.
- 1.20.3 We expect PTN and PATS providers to come to their own agreements about how long backup should last in order for them to feel comfortable that they have taken all reasonable practicable steps to provide uninterrupted access to emergency services. However, to provide an indication of what level of time we would consider practicable and reasonable, we support the option chosen by many new build fibre providers that are generally initially supplying backup lasting 4 hours. It is recognised that this solution may change over time²⁵.

Ofcom follows a defined process for finding and setting SMP conditions

- 1.21 The focus for regulation is on areas where effective and sustainable competition is unlikely to emerge - specifically where companies have market power. For example, regulation of current generation broadband was necessary as the physical access network represented an enduring economic bottleneck, giving the owner of the access network market power. The focus of *ex ante* regulation is on addressing positions of Significant Market Power (SMP)²⁶.
- 1.22 The process for identifying market power and implementing regulatory remedies to tackle this is undertaking a market review. Under the European Common Regulatory Framework for electronic communications networks and services ("European Framework")²⁷ and UK legislation, we are required to undertake market reviews at frequent intervals, and each must be conducted on its merits according to a strictly-defined legal process²⁸.
- 1.23 One of the key steps of these reviews is establishing whether an operator has SMP in a particular market. To identify market power, it is essential to establish a market definition within the scope of a market review. Defining the market involves identifying relevant competitive constraints that may apply to products and services. It is necessary to consider how far each constraint may apply to the new products and services. In each case, it is necessary to consider the constraints on the product first, and then to consider the way in which constraints may vary by geography²⁹.

and also other forms of communications, such as facsimile and data (<http://www.opsi.gov.uk/SI/si2003/20031904.htm>)

²² A service available to the public for originating and receiving national and international calls and access to emergency services through a telephone number or numbers in a national or international telephone numbering plan (<http://www.opsi.gov.uk/SI/si2003/20031904.htm>)

²³ New build statement, paragraph 6.32

²⁴ New build statement, paragraph 6.33

²⁵ New build statement, paragraph 6.37

²⁶ Super-fast broadband statement, paragraph 4.40

²⁷ See, Directives 2002/21/EC, 2002/19/EC, 2002/20/EC, 2002/22/EC, 2002/58/EC (http://ec.europa.eu/information_society/policy/ecomms/library/legislation/index_en.htm)

²⁸ Super-fast broadband statement, paragraph 4.41

²⁹ Super-fast broadband statement, paragraph 4.43

- 1.24 The process for setting SMP conditions is set out in sections 45-50 and 78-93 of the Act. Specifically, in the context of price related SMP conditions such as price controls and cost orientation obligations, the Act states that Ofcom is not to set such a condition except where it appears to it that there is a relevant risk of adverse effects arising from price distortion and that the setting of the condition is appropriate for the purposes of promoting efficiency, promoting sustainable competition and conferring the greatest possible benefits on end-users of public electronic communications services.

Ofcom follows the provisions of competition law

- 1.25 In the event that Ofcom decides to undertake action in this area under ex-post competition law, we will follow the provisions of the Competition Act 1998³⁰, while taking account, as appropriate, of any relevant guidance or recommendations issued at EC or UK level.

Our approach is consistent with European guidance

- 1.26 In deciding whether to undertake any market review, Ofcom will also follow the regulatory framework for electronic communications and services as set out in the European Framework. Ofcom would also consider any additional documentation issued by the European Commission and European Regulators Group.
- 1.27 The European Commission closed its consultation on a proposed Recommendation on Next Generation Access networks on 14 November 2008³¹. The aim of the proposed Recommendation was to provide guidance to national regulators on the treatment of regulated access to next generation access networks, to prevent fragmentation of the internal market, incentivise investment in next generation access networks, and foster competition in the new super-fast broadband environment. Whilst not bound to follow a Commission Recommendation, we are required to take utmost account of its contents³².
- 1.28 At this time, the exact timetable for the final publication of the Recommendation is unclear. However, our policy positions have been formed taking into account the general direction and contents of the proposed Recommendation³³.
- 1.29 In addition to the European Commission's draft Recommendation, the European Regulators' Group (ERG) published its Opinion on the Regulatory Principles for Next Generation Access in October 2007³⁴, ("The Opinion"). The Opinion explicitly focused on implementation issues and regulatory principles for fixed next generation, based on the European Framework. The Opinion recognised that next generation access may impact on the definition of relevant markets at both the retail and wholesale level, but that today's market definitions may be appropriate for super-fast broadband. It also recognised that for an effective transition, it would be important that national regulators ensure that there is transparency surrounding any planned deployment of super-fast broadband. The Opinion also recommended that regulators

³⁰ http://www.opsi.gov.uk/acts/acts1998/ukpga_19980041_en_1

³¹

http://ec.europa.eu/information_society/policy/ecomms/doc/library/public_consult/nga/dr_recomm_nga.pdf

³² Super-fast broadband statement, paragraph 4.35

³³ Super-fast broadband statement, paragraph 4.37

³⁴ http://www.erg.eu.int/doc/publications/erg07_16rev2_opinion_on_nga.pdf

need to develop their regulatory approach early in the deployment process to provide the necessary predictability to all market players³⁵.

- 1.30 From the outset Ofcom has taken utmost account of the direction and contents of the Opinion. The key principles that it sets out closely match those outlined by Ofcom both in terms of overall regulatory strategy for telecommunications networks and in relation to the specific issues arising in relation to super-fast broadband³⁶.

Summary

- 1.31 Ofcom believes that its duties to consumers and citizens can be best met through both securing competition and promoting investment. Our regulatory framework promotes investment by ensuring contestability, recognising risk and giving certainty. We have given specific consideration to investment in new build telecoms networks, setting out expectations in advance of the market developing to provide further assurance. Finally, Ofcom adheres to defined procedures in regulating the market to ensure that we act proportionately and effectively, in line with our regulatory principles³⁷.

³⁵ Super-fast broadband statement, paragraph 4.38

³⁶ Super-fast broadband statement, paragraph 4.39

³⁷ <http://www.ofcom.org.uk/about/sdrp/>