

# **New build developments: delivering gigabit-capable connections**

## **Public Consultation Analysis Report**

May 2024

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## **Introduction**

The Scottish Government recognises the ever-increasing importance of digital connectivity in our daily lives. The COVID-19 pandemic demonstrated how important this was for keeping in touch with friends and family, working from home or accessing digital public services. Our Digital Strategy outlines the role of digital infrastructure in ensuring economic, social and environmental wellbeing of Scotland.

Access to digital infrastructure is a key building block in transforming our economy. The adoption of digital technology underpins multiple strands of activity from the reform of public services, digital healthcare and tackling digital exclusion to ensure no one is left behind.

As a key component of this it is important that we take steps to ensure that new build housing developments are future proofed with digital connectivity that supports our wider ambitions.

## **Background**

The consultation period ran from 19 September 2023 to 12 December 2023 and was published on the Scottish Government's Citizen Space website. Interested parties could submit responses online, by email or by post.

## **The Consultation**

This consultation outlined proposals to amend building standards to ensure that all new build homes are equipped with gigabit-capable digital infrastructure (e.g. infrastructure able to support broadband speeds faster than 1,000 megabits per second (Mbps)) from the outset, with a physical connection made available between a dwelling and the network operators infrastructure, subject to a cost cap. In cases where a connection cannot be provided within the cost cap there will be a requirement to install the passive infrastructure (e.g. ducts) required to facilitate a connection at a later date.

A three-month long consultation was launched to gather views about the proposed regulations and how they would be implemented.

The proposals would amend building standards to require developers to ensure that:

- all new build homes are installed with the gigabit-ready physical infrastructure necessary for gigabit-capable connections
- a gigabit-capable connection is installed in a new build home subject to a £2,000 cost cap per dwelling
- or where a gigabit-capable connection is not being installed, the next fastest broadband connection is installed within the £2,000 cost cap

## **Overview of Responses**

20 responses were received via Citizen Space and 2 were received via email. Email responses did not address each question in turn although have been considered alongside those received via Citizen Space.

## **Analysis of Responses**

Respondents were not required to answer every question - as such the total number of respondents varies for each question. Some of the questions incorporated a 'closed' agree or disagree response although all gave respondents an opportunity to provide a written comment if they wished.

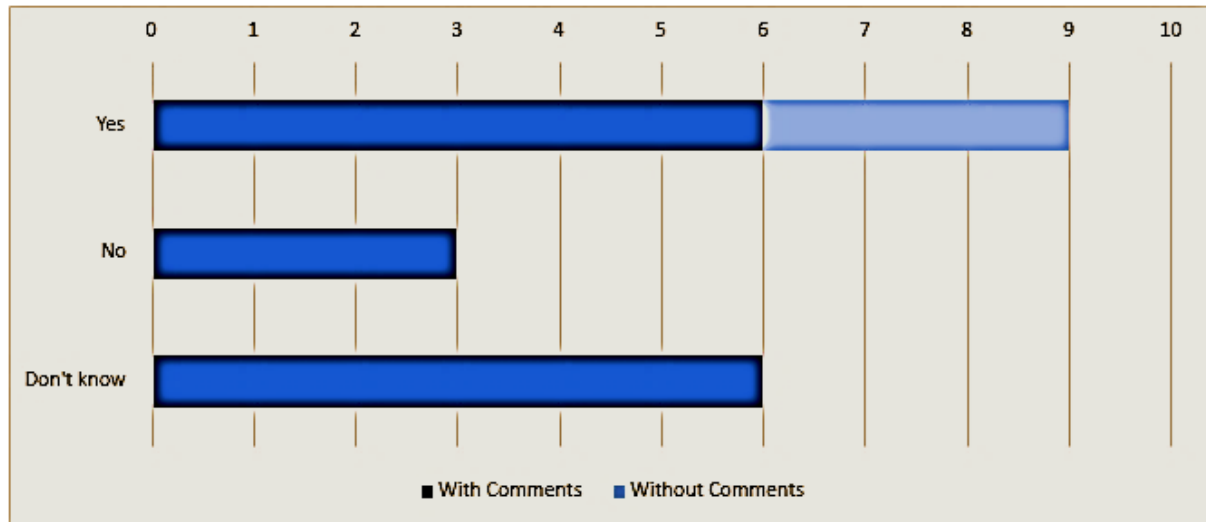
Of the 22 responses, 7 (32%) were happy for their responses to be published with their name. A further 14 (64%) were happy for their responses to be published, but did not want their name to be attributed to the response. Where this is the case these responses have been included in the overall analysis but the response has been anonymised prior to being published. Any comments or quotes made within this report have been included in a way which maintains their anonymity. 1 respondent (5%) did not give permission for their response to be published.

## Question Response Analysis

### Question 1: Are costs of providing the gigabit-ready physical infrastructure element reasonable?

1. The total number answering this question was 18.

9 respondents (50%) answered yes to this question. 3 respondents (16.7%) answered no, with 6 responding they did not know (33.3%).



Option	Responses	Percent	With Comments	Without Comments
Yes	9	50.0%	6	3
No	3	16.7%	3	0
Don't know	6	33.3%	6	0

Figure 2: Question 1 responses

### Summary of responses to Question 1:

2. Responses agreeing that the costs were reasonable highlighted that the cost of the physical infrastructure itself at larger housing developments is not usually prohibitive to providing a connection. It was however noted that off-site costs in particular in rural areas and for single plots smaller housing developments might prove a constraint.

“The costs of providing physical infrastructure to homes are not prohibitive and are being provided to most sites at present to facilitate telecommunications connections when appropriate.” – Public sector

“It should be recognised that delivering gigabit services to single plots will more often than not cost more than £2,000 to complete. Therefore, it would be advantageous to include some form of exception review or opportunity for

greater funding contribution for developers when they compete to build in the more costly rural and very rural areas.” – Organisation

3. One individual response raised around competition and the potential for exclusivity arrangements with one single internet service provider or one owned by the housebuilder themselves.

“It must not be by the use of "connected" parties - with a financial interest in shutting out competition (by stifling the access of unconnected parties) eg. if HousebuilderISP has provided gigabit to all properties there is a vanishingly small chance a competitor is going to even consider building there - thus holding all the householders to ransom with a single provider.” – Individual

4. All three of the respondents who answered no left comments highlighting the concerns around the additional cost for self builders although there was a split with two highlighting the increased costs and one that took the view that it was not a significant undertaking to make the infrastructure available.

“This will add unnecessary cost for self builders on a budget.” – Individual

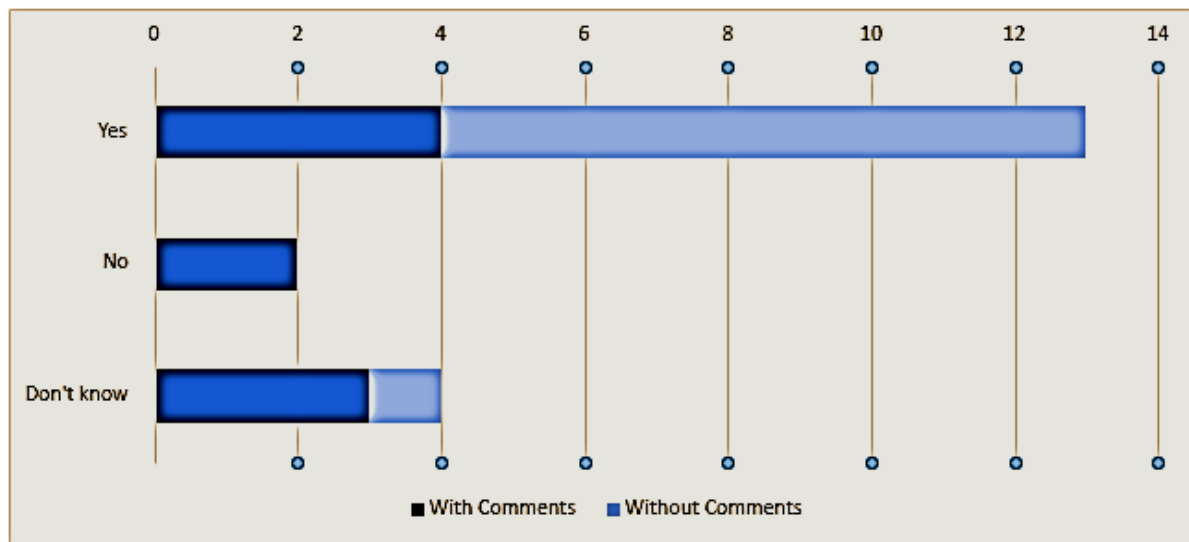
5. Public sector responses recognised the positives of the proposals in supporting modern, sustainable living and hybrid working however raised concerns that the increased costs in rural and island communities could reduce the viability of marginal developments. It was noted that existing publicly subsidised interventions already exceed £2,000 in rural areas, and in areas where there is a low density of housing.

“The aim is laudable and will help support modern sustainable living, business connectivity and hybrid working. The practicality is the cost, the time delay associated with technical information and feedback from network suppliers. There is a likelihood this pushes very marginal development proposals into the red and prevents them happening. It may make it harder for Registered Social Landlords building to meet the Scottish Government benchmark. and increase development costs in rural and island communities particularly as building costs in Argyll and Bute are the highest in mainland Scotland (exceeded only by Shetland).” – Public sector

**Question 2: Will the proposals help ensure that gigabit-ready physical infrastructure is placed in the best location to connect to a network distribution point?**

1. The total number answering this question was 19.

13 respondents (68.4%) answered yes to this question. 2 respondents (10.5%) answered no, with 4 responding they did not know (21.1%).



Option	Responses	Percent	With Comments	Without Comments
Yes	13	68.4%	4	9
No	2	10.5%	2	0
Don't know	4	21.1%	3	1

Figure 3: Question 2 responses

**Summary of responses to question 2:**

2. The majority of respondents took the view that the proposals would help in ensuring that gigabit-capable infrastructure is placed in the best location to connect to a distribution point. Concerns raised were by both public sector organisations and network operators primarily around early engagement between housing developers and network operators to ensure that a collaborative approach is taken to the deployment. One response also queried what steps would be required by a building standards verifier to evidence this.

“Yes, we agree that the proposals will help to ensure that gigabit-ready infrastructure is placed in the best position, particularly if early collaboration is carried out with the network operator.” – Public sector



“If the developer consults a competent telecoms infrastructure provider at the site planning stage then all relevant and necessary infrastructure will be located in the optimum location available.” – Organisation

### **Question 3: How common is it for third party land issues to prevent connectivity to new build homes?**

#### **Please give us your views**

1. There were 14 responses to this question. 4 responses were from individuals, 5 from the public sector and 5 from organisations.

#### **Summary of responses to Question 3:**

2. There was recognition among responses that third party land issues can occur in relation to the deployment of telecoms infrastructure and also for the essential utilities.
3. Responses from the public sector and organisations in both the housebuilding and telecoms sectors responded that Electronic Communications Code ('the Code') powers generally leave this as the responsibility of the telecoms operator with the housing developer unable to negotiate a wayleave on behalf of a telecoms operator. Public sector responses broadly did not have views specifically on how common the issue was however noted that these would extend to other utilities not just digital infrastructure.

"Whilst we have no data on this we can comment that, although this may happen occasionally, we are of the view that it would be a rare occurrence." – Public sector

"No specific information relating to connectivity but third party land issues can hinder development in terms of access and services (e.g. water and sewerage)" – Public sector

4. Operators generally flagged the issue as uncommon but recognised that in cases of retrofitting or repurposing the same issues can arise so it is not exclusively a new build issue. One operator did respond that this was the most common blocker with their deployment.

"We do not have statistics on the occurrence in new sites, but it is not very common. However, when retrofitting or repurposing sites, wayleaves or consent issues can often lead to problems if access requirements vary from previous permissions.

We do have existing processes when a third-party wayleave would be required as permission to cross land between the public highway and the new site. The proposals in this consultation would not impact the frequency of how often we encounter this already." – Organisation

**Question 4: How are third party land issues resolved where they do take place?**

**Please give us your views**

1. There were 12 responses to this part of the question – 2 from individuals, 4 from the public sector and 6 from organisations.

**Summary of responses to Question 4:**

2. Respondents identified that third party land issues are primarily resolved by negotiation between landowners and telecoms operators. Operators can resort to legal avenues using the Code where they are unable to reach an agreement with a landowner. The Code provides a framework for telecoms operators to have an agreement imposed by the courts if one cannot be reached with a landowner.

“Through negotiation and legal avenues where possible. Otherwise, it stalls any development opportunities” – Public sector

“Therefore, developers should work with an Code infrastructure provider to ensure that any potential access to land issues are mitigated.” – Organisation

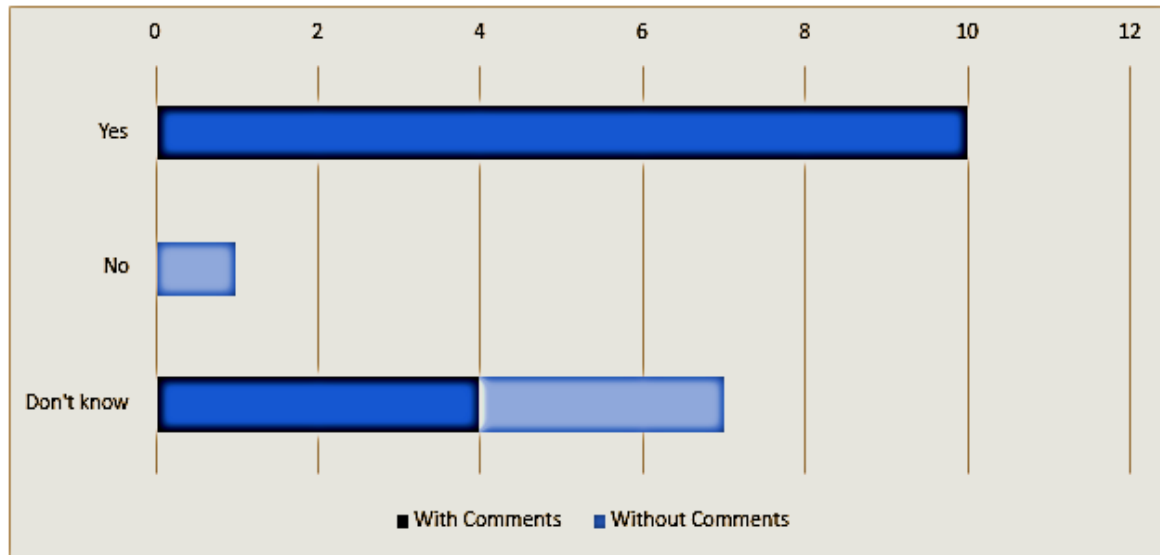
3. Operators outlined options available such as changing the type or route of infrastructure as an alternative to using Code powers although this can often include more complex engineering and greater disruption during the installation process.

“Where possible it has meant finding workarounds, which can be time consuming such as building underground ducts instead of being able to access existing infrastructure. It can ultimately cause avoidable disruptions to roads, pedestrians, and vehicles.” – Organisation

**Question 5: Are there circumstances where it would be difficult to meet the gigabit-ready physical infrastructure requirements?**

1. The total number answering this question was 18.

10 respondents (55.6%) answered yes to this question. 1 respondent (5.6%) answered no, with 7 responding they did not know (38.9%).



Option	Responses	Percent	With Comments	Without Comments
<b>Yes</b>	10	55.6%	10	0
<b>No</b>	1	5.6%	0	1
<b>Don't know</b>	7	38.9%	4	3

Figure 4: Question 5 responses

**Summary of responses to question 5:**

2. Just over half of the responses received agreed there would be difficulties in some circumstances. Responses identified difficulties relating to the provision of a gigabit-capable connection – third party land, distance from the nearest infrastructure and in island communities.
3. There was a recognition by one local authority response that in their particular area some premises are unlikely to be economically viable for the provision of a gigabit-capable fixed line connection therefore the passive infrastructure requirement would be redundant if alternative technologies – fixed wireless access, 4G or 5G mobile and low earth orbit satellites – are deployed to satisfy the provision of the next best connection.

“Whilst there is significant amount of funding for Digital Connectivity by both UKG and SG and the aim is for a majority of premises across A&B will

eventually (2028+) get access to Gigabit connection, not everywhere will get access to a full fibre solution due to basic economics. This may require FWA, 4/5G or LEO satellite solutions.” – Public sector

“In exceptional circumstances, such as small developments in very rural areas with lack of backhaul, the cost of providing a fibre connection may be prohibitive. However, there is likely to be an existing wireless mobile operator network that can be utilised to provide connectivity to the development.

A Connectivity Plan, produced by an Infrastructure Code Operator, should be included in the preliminary planning consultation to ensure the best solution is being provided and, should no solution be possible, that the evidence provided in support is robust and can be relied.” – Organisation

4. One public sector response questioned the viability in rural areas of some of the “next best technology” methods proposed and highlighted this might be exacerbated further by population decline.

“FWA providers are generally seen as smaller providers so there is associated risk of business failure due to economies of scale and the ability to upgrade in the future. Furthermore, are the mobile operators going to continue to upgrade remote masts to serve smaller uncommercial locations if they are not provided public funding to do so.” – Public sector

5. One operator highlighted the difficulty in retrospectively deploying to existing buildings and the benefit of being involved with the housebuilder at an early stage to allow sufficient time to incorporate the work into their plans both on and off-site.

“For example, Openreach currently asks developers to register with at least six months’ notice, but ideally nine months, to ensure there is sufficient time to build the offsite network. However, we are often faced with lengthy build times due to local authority noticing periods, as well as extensive upgrades to our underground or overhead network. Smaller developers often register late against this minimum six months.” – Organisation

6. While it was acknowledged that there can be occasions where it is difficult to meet the requirements it was noted that the difficulties mostly relate to off-site factors, such as the distance from existing infrastructure. With the provision of passive infrastructure at the outset it would be possible to lower the cost of future deployment, including through public sector interventions. One operator suggested that this infrastructure be built with the capacity to house cabling from multiple providers.

## **Question 6: What circumstances may necessitate an exemption from the requirement to provide gigabit-ready physical infrastructure?**

1. There were 15 responses to this part of the question. 6 comments were from individuals, 5 from public sector organisations and 4 from organisations in the building or telecoms sectors.

### **Summary of responses to question 6:**

2. Four responses from the public sector noted that lack of nearby infrastructure, technical constraints and cost should be the only factors that necessitate exemptions. To facilitate this it was suggested that the 'next best technology' be defined within the guidance.

“Where gigabit infrastructure is not available, a clear definition of what is deemed to be ‘next best technology connection’ is required. This will be important to ensure that they can be developed in light of future technological advances. The definition of "next best technological connections" requires to be included in the Building Standards Technical Manual to support building standards professionals' to determine and accept a completion certificate.” – Public sector

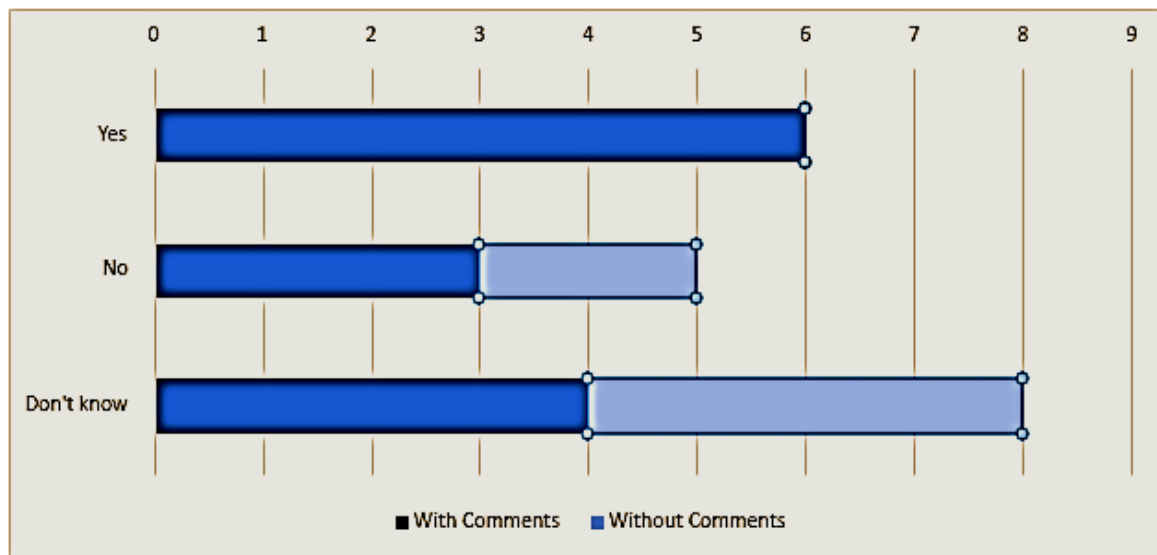
3. Individual responses ranged from including an exemption where a homeowner does not want the infrastructure to opposing satellite infrastructure due to the effect satellite dishes could have in areas of outstanding natural beauty or on listed buildings.
4. Responses from the telecoms sector broadly suggested there should be no blanket exemptions. The cost cap itself would identify cases where it would not be possible to provide connectivity and a condition should require this be revisited at a later date.

“There should not be any exemptions, however if the Connectivity Plan... identifies that connectivity is not possible (for whatever reason), the planning authority should have powers to waive the requirement but with a condition that it must be revisited, and implemented if circumstance has changed, prior to completion of the development.” – Organisation

**Question 7: Do you anticipate any issues with the stepped approach to the gigabit-ready physical infrastructure requirements extending to the network distribution point?**

1. The total number answering this question was 19.

6 respondents (31.6%) answered yes to this question. 5 respondents (26.3%) answered no, with 8 responding they did not know (42.1%).



Option	Responses	Percent	With Comments	Without Comments
Yes	6	31.6%	6	0
No	5	26.3%	3	2
Don't know	8	42.1%	4	4

Figure 5: Question 7 responses

**Summary of responses to question 7:**

2. Among those respondents who answered ‘yes’ to question 7 there were concerns raised around land access and ultimately the enforcement of what locations would be considered as ‘reasonably practical’ for future deployment.

“Consideration should be given to how this is enforced by the building control body, i.e. would the developer be expected to reach an agreement on the termination point of the infrastructure with the network operator and would this be in a prescribed format and a copy of this provided to the building control body? Could consideration be given to this within the ‘connectivity plan’ – Organisation

3. Responses from the telecoms sector highlighted the need for early engagement between developers and network operators to ensure the optimum location for the Network Distribution Point to a development at a later date. One response

from the sector stated there was a risk that if a developer was using a network operator without rights under the Code this would cause difficulties in retrospective deployment.

“There is a degree of risk that if a network operator’s distribution point is out of reach of a new development (or where new physical infrastructure cannot be created) that the build will not meet the gigabit-ready physical infrastructure requirements – or that it will take longer and be a more cumbersome build altogether, denying residents’ access to an essential service.” – Organisation

4. One individual responded that in some areas infrastructure could be oversubscribed causing the fall back position (e.g. a superfast connection) to be unavailable.

5. Responses from those that answered no to question 7 agreed with the principle of the stepped approach and that it should be straightforward to implement.

“Not beyond competence of all qualified electrical contractor using clear online documentation that can be downloaded”. – Individual

“We are in agreement in principle of the approach to the gigabit ready however consideration will require to be site specific going forward.” – Public sector

6. Among respondents who answered ‘don’t know’ one housebuilder agreed with the principle of the approach however this would need to be site specific going forward. One response from the public sector highlighted that in many cases the same infrastructure requirements exist for the distribution of an FTTP or a fibre to the cabinet (FTTC) deployment and gigabit-capable networks.

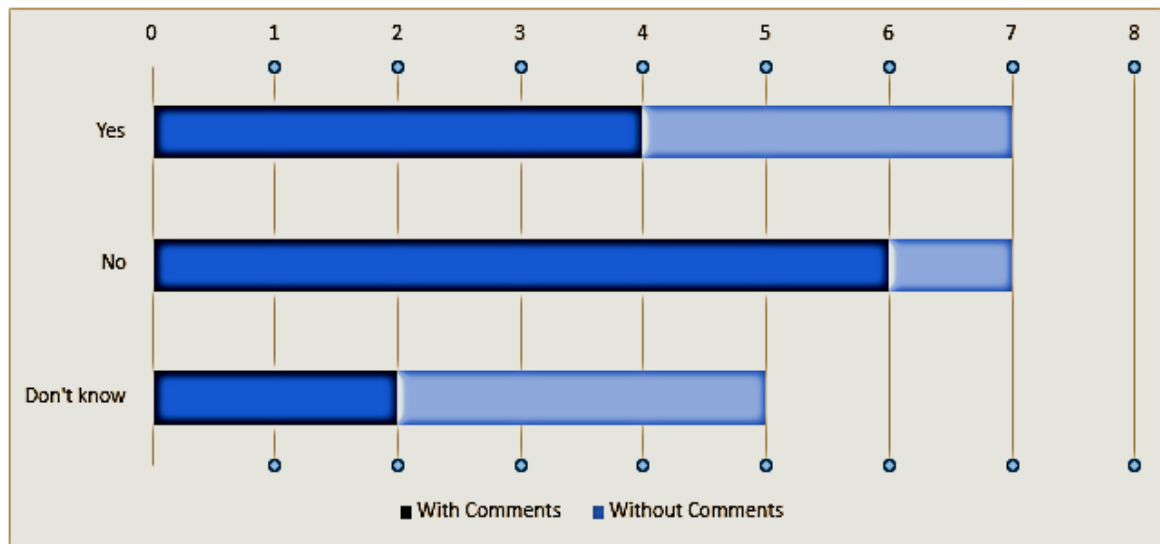
“There is a question here, when talking about the end mile or distribution network, as to whether what we are actually talking about here is FTTP rather than gigabit capable infrastructure. On this basis the same infrastructure will be needed whether supporting superfast or gigabit capabilities.” – Public sector



**Question 8: Is the Universal Service Obligation an appropriate reference point for lower speed services?**

1. The total number answering this question was 19.

7 respondents (36.8%) answered yes to this question. 7 respondents (36.8%) answered no, with 5 responding they did not know (26.3%).



Option	Responses	Percent	With Comments	Without Comments
Yes	7	36.8%	4	3
No	7	36.8%	6	1
Don't know	5	26.3%	2	3

Figure 6: Question 8 responses

**Summary of responses to question 8:**

2. Among those that responded ‘yes’ to question 8 there was a recognition that while it would be sensible to align the fall back position to the minimum standards it was noted that steps should be taken to ensure that alternative technologies have been considered.

“Yes, but consideration should be given to alternative technologies such as fixed wireless access or satellite equipment that may provide better connectivity than a Universal Service Obligation connection.” – Public sector

3. The Universal Service Obligation at 10 megabits per second (Mbps) was criticised by respondents answering no as a dated technology. It was noted that it falls below existing Government commitments around superfast and gigabit-capable connectivity. One response suggested that the fall back position should be indexed in some way – suggesting the lowest quartile within a local authority area.

“Whilst 10M is a good start point - it is rooted in the past already. The minimum speed needs to be indexed somehow - perhaps the lowest quartile of the local authority it falls under?” – Individual

4. Among those disagreeing that the Universal Service Obligation would be an appropriate reference point it was also noted that the lower speed threshold carries a risk of increasing the digital divide over time and that 30 megabits per second would be a more useable speed for future use cases and in line with Scottish Government interventions.

“This a dramatic difference in offering and will increase the digital divide across Scotland between the ‘haves’ and ‘have nots’. The provision of 10Mbps will become sub-standard in the next 5 years, extending the divide over time. A more useful target would be 30Mbps in line with previous SG interventions and targets and a useable speed for future use cases.” – Public sector

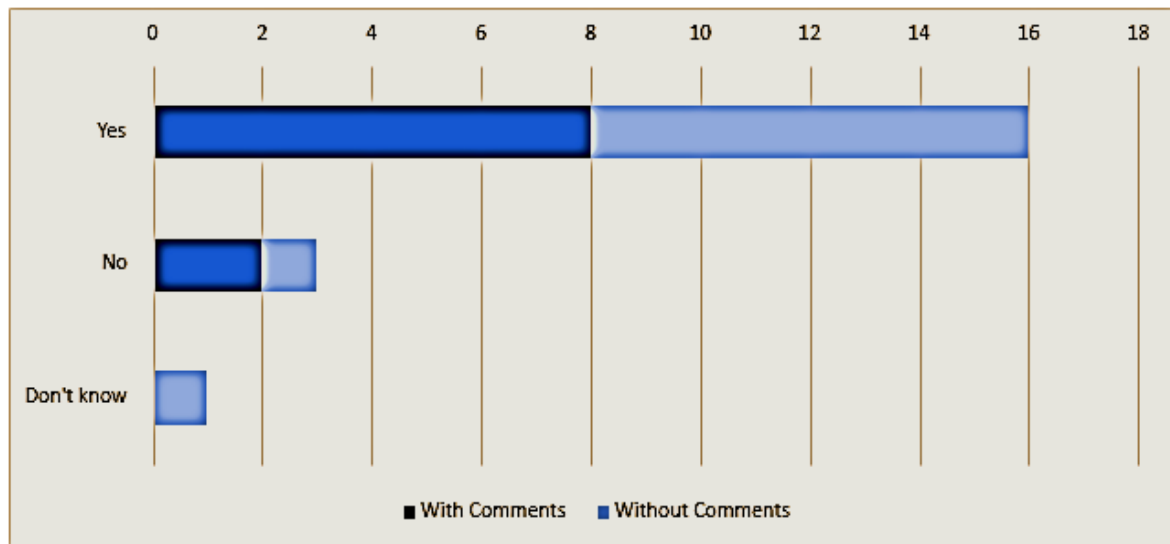
5. One public sector organisation who responded ‘don’t know’ noted that the £2,000 per premises cost cap may not be sufficient for rural areas to achieve a connection at the USO speed.

“The £2000 cap may need to be extended for rural areas so as not to disadvantage these communities and reflect the increased costs and challenges of securing this level of connectivity” – Public sector

**Question 9: The proposals provide no exemptions for developments within conservation areas. Do you agree with this?**

1. The total number answering this question was 20.

16 respondents (80%) answered yes to this question. 3 respondents (15%) answered no, with 1 responding they did not know (5%).



Option	Responses	Percent	With Comments	Without Comments
Yes	16	80%	8	8
No	3	15%	2	1
Don't know	1	5%	0	1

Figure 7: Question 9 responses

**Summary of responses to question 9**

2. The majority of responses agreed that a blanket exemption would not be appropriate although comments urged consideration in build plans on how to limit the impact on conservation areas. In particular, concerns around new poles where existing infrastructure is carried through ducts and the visibility of apparatus were highlighted.

“NHBC do not believe that listed buildings converted to new build homes and buildings in conservation areas should be excluded from the scope, rather each project be reviewed on its own merits. There may be situations where discrete methods for incorporating infrastructure may be acceptable”. – Organisation

3. Respondents stated that discrete solutions that limit the impact of deployment in conservation areas may be acceptable to reach the gigabit-capable threshold.

Where this was not possible then evidence should be available from the developer as to why deployment was not possible.

“There are many ways of deploying fibre infrastructure and work arounds that mean all locations should be considered, and then material evidence produced as to why deployment cannot take place. This will bring telecommunications, and fibre in particular, more in line with the provision of other utilities.” – Public sector

4. Two responses from the telecoms sector acknowledged that the cost cap would prove more challenging to meet in conservation areas in any case, although there were solutions available that could minimise the impact on the local area.

“We are used to building our infrastructure in challenging locations of all types, and we pride ourselves on finding solutions that respect the local environment wherever possible.

The more critical challenge is the cost points associated with providing broadband in conservation areas. We are often required to gain planning permissions as well as flow through larger noticing periods and would welcome further alignment (with legislative guidance) with Historic Environment Scotland.” – Organisation

5. Responses from those answering ‘no’ came from individuals. One stated that the infrastructure should not be visible in conservation areas while another stated there was no need for physical infrastructure at all due to the availability of wireless solutions.

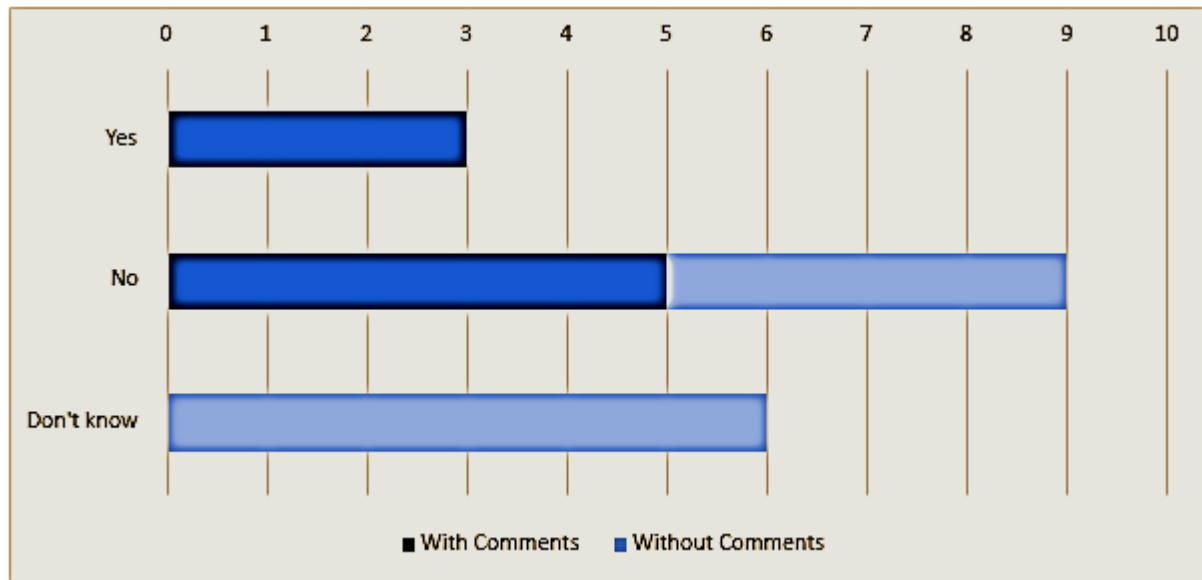
“There is no need for this physical infrastructure ducting cabling to houses. It is out of date thinking” – Individual

“Whatever the infrastructure should not be visible in conservation areas” – Individual

**Question 10: Are there any other exemptions that should be considered?**

1. The total number answering this question was 18.

3 respondents (16.7%) answered yes to this question. 9 respondents (50%) answered no, with 6 responding they did not know (33.3%).



Option	Responses	Percent	With Comments	Without Comments
Yes	3	16.7%	3	0
No	9	50.0%	5	4
Don't know	6	33.3%	0	6

Figure 8: Question 10 responses

**Summary of responses to question 10:**

2. Three individuals proposed further exemptions commenting that self-builders should be exempt, consumers should be able to decide against having this connectivity and that increased requirements on developers might impact the supply of housing.

“Self builders” – Individual

“If the people don't want it, where is THEIR choice” – Individual

“More and more planning requirements put people off trying to put up houses. A house that uses 4G or satellite internet is just fine for remote working etc” – Individual

3. Three responses from organisations within the telecoms sector commented that there should not be any further blanket exemptions. One of these highlighted

concerns around the detrimental effect on future connectivity and another highlighted increasing digital exclusion as potential effects of further exemptions being applied in a uniform way.

“Creating more exemptions opens more gaps to digital exclusion which runs counter to this proposal overall.” – Organisation

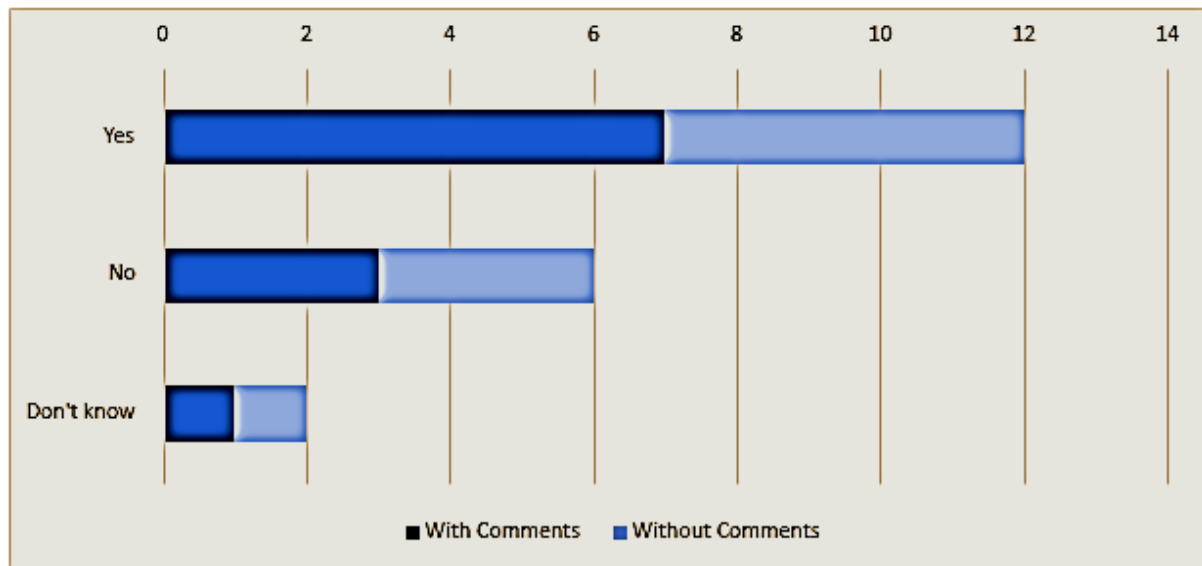
4. Two responses from individuals that opposed further exemptions noted that digital connectivity is an important service for modern living and one noted that utilities – such as connection to the electricity network – are areas where developers face higher costs of provision.

“Anyone choosing to build a (small development of) dwellinghouse(s) intentionally remotely should be hit with the full cost of provision - just like they would be for electricity supply - in fact the provision of electricity supply is a decent benchmark for decision making.” – Individual

**Question 11: Do you agree that a material change of use or ‘conversions’ should be included in the scope of the proposals?**

1. The total number answering this question was 20.

12 respondents (60%) answered yes to this question. 6 respondents (30%) answered no, with 2 responding they did not know (10%).



Option	Responses	Percent	With Comments	Without Comments
Yes	12	60.0%	7	5
No	6	30.0%	3	3
Don't know	2	10.0%	1	1

Figure 9: Question 11 responses

**Summary of question 11 responses:-**

2. A majority of respondents from organisations who made comments supported the view that material change of use should be within scope of the requirements. There was recognition from that additional considerations may be required, in particular in conservation areas.

“NHBC recognise that conversions will present complex and unique challenges specific to each individual development, however we do not believe that buildings converted to new build homes should be excluded completely from the scope, rather each project be reviewed on its own merits with reasoned decisions taken to achieve the best possible outcome” – Organisation

3. Responses from the telecoms sector also acknowledged the additional work required but that to not include them within the scope of the proposals risked premises falling through the gaps that would require addressing at a later date in

any case. One response highlighted that the industry uses several different approaches to deployment when retrofitting existing properties which could inform the approaches taken by developers. It was also raised in a further response from the telecoms sector that the works to include connectivity would be small relative to the overall works required in material change of use.

“We welcome the inclusion of change-of-use within the scope of the regulations. Extending gigabit connectivity to all new homes means that all types of new home should be within the scope of the requirements. Due to the need to work within an existing structure, some conversions may present more of a challenge for installing gigabit infrastructure and/or connections. However, there are several methods that the telecoms industry already uses for retrofitting existing properties, which could inform the approaches taken by developers.” – Organisation

4. Two public sector organisations commented that it was reasonable for all new dwellings to be included, including those from material change of use.

“It is appropriate and reasonable for these standards to apply to new dwellings created through conversion.” – Public sector

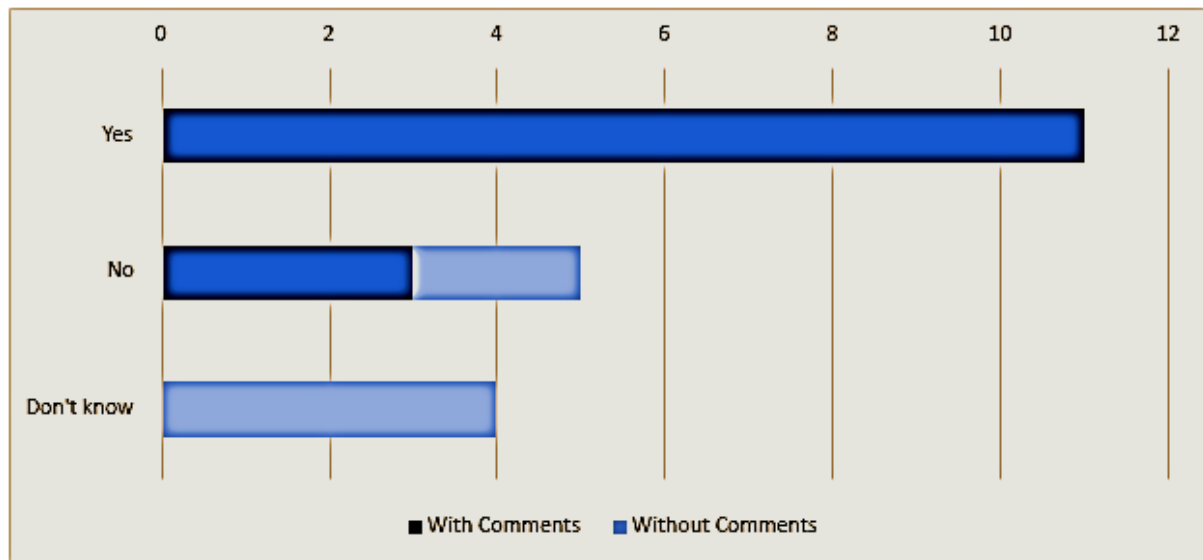
5. Among those that responded ‘no’ one housebuilder suggested that this should only be the case where it is reasonable to do so highlighting the example where groundworks are not required the cost of excavation would be prohibitive.



**Question 12: Do you envisage any problems with the requirement to approach two suitable network operators for a quote?**

1. The total number answering this question was 20.

11 respondents (55%) answered yes to this question. 5 respondents (25%) answered no, with 4 responding they did not know (20%).



Option	Responses	Percent	With Comments	Without Comments
<b>Yes</b>	11	55%	11	0
<b>No</b>	5	25%	3	2
<b>Don't know</b>	4	20%	0	4

Figure 10: Question 12 responses

**Summary of question 12 responses:**

- Concerns were raised both by respondents who responded ‘yes’ and ‘no’ around the identification of a suitable network operator and whether it would be feasible to get two quotes.
- Two public sector responses and two organisations who responded ‘yes’ to the question indicated challenges there may be limited availability of services. This was noted by local authorities to be of particular concern around the application of the proposals in rural and island communities. One of these also raised where alternative technologies would fit in (such as satellite) if these were to be relied upon to provide a connection within the cost cap.

“Yes, in remote and rural peripheral areas there may not be the availability of operators to allow an approach to two suitable network operators for quotes. This may present problems for developers in these areas unless provision can be made to take account of this eventuality in the proposals”. – Public sector

4. Two individuals raised competition concern that a developer could only engage with a single supplier, or a connected company, and proposed that engagement should be with wholesale networks to give consumers choice at a retail level.
5. Two organisations responded to highlight concerns around what constitutes a 'suitable operator' as not all operators have a new build proposition for developers. One operator suggested that a major operator should be approached with a confirmed new build proposal for a proposed development size. One individual raised a concern that a developer could intentionally make two approaches to operators that are unable to provide service.

“In a minority of cases, there may be instances where only one suitable operator is available to provide a quote; it would be useful to clarify what the obligations are on developers in those circumstances, as it would not be possible to provide evidence of approaching two suitable operators.” – Organisation

6. Among those respondents who answered 'no' to the question two suggested steps need to be taken to make developers aware of who are suitable network operators in a given area.

“Developers need to be made aware of the list of suitable network operators. Often incumbents such as Openreach or Virgin Media don't have suitable infrastructure in rural locations. Local and regional suppliers should be considered as suitable network operators.” – Organisation

**Question 13: Please give your views on the criteria for defining a suitable network operator.**

1. There were 14 responses to this question.

**Summary of question 13 responses:**

2. Three responses, one from each of housebuilding, telecoms and public sectors responded to support the criteria as outlined in the consultation paper.

“We agree with the criteria for defining a suitable network operator. Our current suppliers all comply with this criteria.” – Organisation

3. Among those comments raising additional issues proximity of existing infrastructure to the proposed site of a development was highlighted across all types of respondent to the consultation.

“Consideration should also be given about the extent of a provider’s existing network in the area to help keep costs down. However this would require the developer to have access to fibre network information to know which providers do have infrastructure in the area. This may be a challenge and an undue burden on developers without something encouraging fibre providers to be more proactive in sharing their presence.” – Public sector

4. Consumer choice was highlighted by one network operator and two individuals responding to this question as important. One organisation highlighted that consumer choice can be restricted by exclusivity agreements between developers and operators restrict choice within a site. One individual response specified that the infrastructure itself should be available for use by multiple operators to facilitate this choice.

“It should be noted that multi-utility companies and some alternative network providers will lock developers into exclusive deals where the developer cannot work with more than one operator, which vastly restricts the site and runs counter to the competitive market, presenting a lack of consumer choice.

Whilst we operate in an open fibre market, Openreach is the only operator that is obligated to ensure open access in infrastructure for all alternative network providers to gain access (either during the build or once the site is finished), and we are the only network provider with national coverage and national propositions and rates.” – Organisation

“The infrastructure within the development must be openly accessible to multiple operators” – Individual

5. Two responses from the telecoms sector suggested the definition should state that holding powers under the Electronic Communications Code should be a requirement. One of these also added being a signatory to the Full Fibre Charter between the Scottish Government and network operators are suitable criteria.

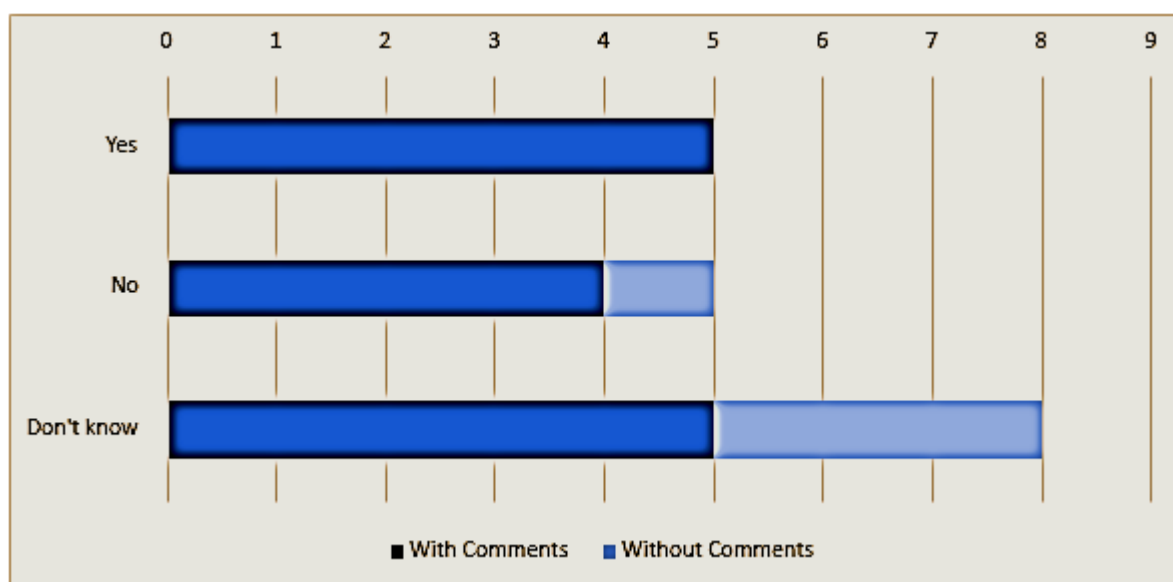
“A suitable network operator should be defined as:

- one that operates a gigabit capable network in the vicinity of the development
- is a registered member of the Full Fibre Charter forum in Scotland
- holds Ofcom code powers
- established and financially capable network operator” – Organisation

**Question 14: Is £2,000 the right amount for the cost cap given the higher costs of delivering gigabit capable broadband in Scotland?**

1. The total number answering this question was 18.

5 respondents (27.8%) answered yes to this question. 5 respondents (27.8%) answered no, with 8 responding they did not know (44.4%).



Option	Responses	Percent	With Comments	Without Comments
Yes	5	27.8%	5	0
No	5	27.8%	4	1
Don't know	8	44.4%	5	3

Figure 11: Question 14 responses

**Summary of question 14 responses:**

2. There was a consistent theme among respondents answering ‘yes’ that it was a compromise figure with an understanding that in some instances the cost cap will be exceeded. One response from an individual proposed that the cost cap be linked to the Consumer Price Index for inflation to ensure that the value is not eroded over time. One operator indicated that while the cost cap was in line with their maximum contribution for new build developments that refurbishment or repurposing existing buildings may be more likely to exceed this.

“In addition, we would be keen to see refurbishing and retrofitting of sites to be included in legislation. When refurbishing or retrofitting sites, Openreach have set a maximum £2,500 contribution cap per plot. The additional £500 cost per premise is based on a) the assumption that there is a copper network already installed and there are paying customers on the old network, or b)

where a like-for-like refurb in a multi-dwelling unit is needed and fibre cables need to be installed as surface-mounted rather than within the walls or ceilings (as with a new build).” – Organisation

3. A public sector organisation answering ‘no’ pointed to the experience of public sector interventions in the broadband market where the figure would be sufficient for urban areas with existing infrastructure (telecommunications and power) this can be quickly exceeded in rural areas with lower density of housing in a development. It was also suggested to explore the possibility of exploring whether public sector funding would be appropriate to overcome a gap where it isn’t commercially viable for a developer to exceed the cost cap on a voluntary basis.

“To assist could there be an option to seek funding from the Scottish Government using the Scottish Broadband Voucher scheme or the UK Government Gigabit Voucher scheme, assuming they are still running when this legislation is introduced, so the areas are considered as white/grey areas. This would help to ‘pool’ existing funding maximising the opportunity for the end user to benefit from improved connectivity.” – Public sector

4. Among those that responded “don’t know” comments suggested additional clarity about what was included within the cost cap would be beneficial. One organisation noted that as the off-site upgrades would be the responsibility of network operators they were better placed to consider the cost cap. Two public sector responses highlighted the need to evaluate the circumstances where the cost cap is exceeded as infrastructure costs will be higher in rural local authorities.

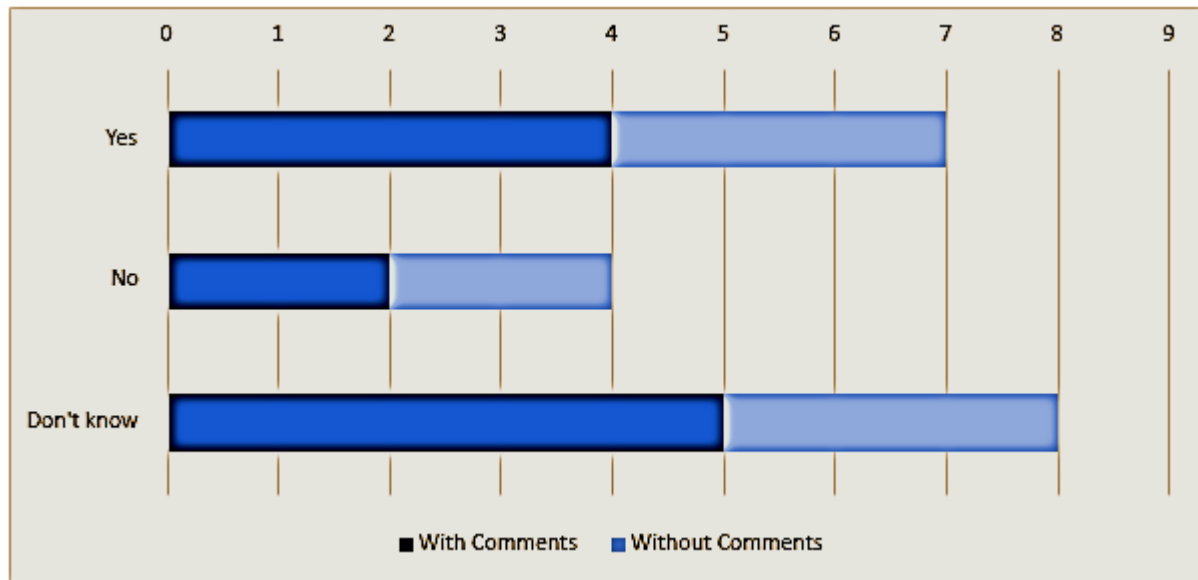
“From the information provided, if the £2,000 cap is for a fibre connection then this will depend on the length of fibre run and the number of units in the development.

However, it is unclear from the documentation exactly what the £2,000 covers and what it does not.” – Organisation

**Question 15: Do you agree with the criteria for calculating the cost cap?**

1. The total number answering this question was 19.

7 respondents (36.8%) answered yes to this question. 4 respondents (21.1%) answered no, with 8 responding they did not know (42.1%).



Option	Responses	Percent	With Comments	Without Comments
<b>Yes</b>	7	36.8%	4	3
<b>No</b>	4	21.1%	2	2
<b>Don't know</b>	8	42.1%	5	3

Figure 12: Question 15 responses

**Summary of question 15 responses:**

- Four comments received from those that responded 'yes' came from one individual and three organisations. All viewed the criteria as sensible and one operator stated it was how their current joint contribution model worked with housing developers.
- One individual response had concerns for the potential of a housing developer to be motivated to exceed the cost cap and therefore avoid the costs involved in the provision of a gigabit-capable connection.

“Any & every time a developer is tasked with doing this they are going to try and maximise the number of times that it is uneconomic. The cost of the on-development provision should be disregarded (as part of the normal costs of providing a property - like it already is for copper-based telephony, electricity, gas & water) and the off-site provision by any "code power" provider the cost

is per property - so larger urban/semi-urban developments should never suffer from this cost cap.” – Individual

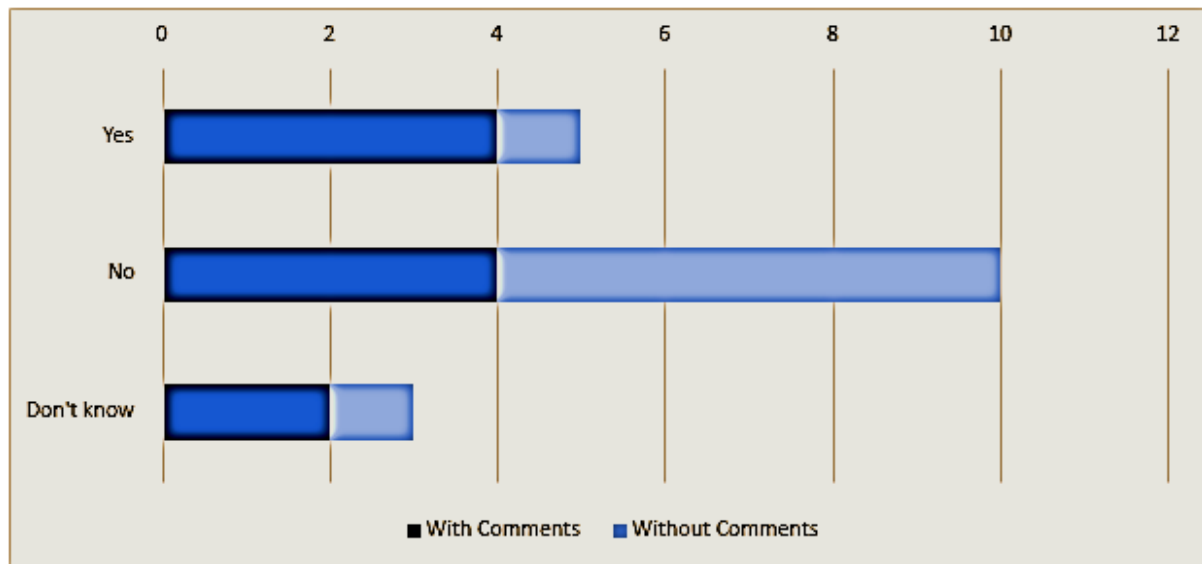
4. One organisation that responded “don’t know” took the view that where two sets of infrastructure were being deployed – a next best technology and passive infrastructure for a future gigabit connection – that both should count towards the cost cap as these represent additional expenditure to the developer.
5. A public sector response highlighted that while the cost cap was a positive for larger developments that smaller developments in rural areas higher build costs would have a wider impact on the affordability of homes in areas that average wages are below the national average.



**Question 16: Do you have any concerns about extending the requirement for a connectivity plan to initial notices and amendment notices?**

1. The total number answering this question was 18.

5 respondents (27.8%) answered yes to this question. 10 respondents (55.6%) answered no, with 3 responding they did not know (16.7%).



Option	Responses	Percent	With Comments	Without Comments
Yes	5	27.8%	4	1
No	10	55.6%	4	6
Don't know	3	16.7%	2	1

Figure 13: Question 16 responses

**Summary of question 16 responses:**

2. Among those responses who had concerns three were from individuals and one from an organisation. One individual voiced concerns about the complexity of the proposals and the organisation highlighted that the required details may not be available at earlier stages in the process.

“The detailed information required for a connectivity plan, or appointment to confirm site information, may not be available at warrant application stage to have contractor confirmation of works etc.

There should be allowance for this to be provided as a condition of approval as per CCNP stage.” – Organisation

3. Two public sector organisations had concerns that the process may not be specific enough to the building standards system in Scotland.

“What is the context of this question for the building standards system in Scotland? It is assumed this related to the requirements as building warrant application stage?” – Organisation

4. Four comments were received from public sector and industry responses. One public sector response did however highlight the levels of expertise that may be required to assess levels of connectivity in particular certifying connections below gigabit-capable under the next best technology requirement.

“It is important that connectivity systems are certified by an appropriate accredited person confirming compliance with the standard and that they are accountable for this, in the same way as structural engineers certificates etc. Councils and in particular, Building Standards Surveyors, do not have the expertise to critically assess the detail of connectivity certificates or indeed challenge whether alternatives are "next best technology connection within the cost cap.

Of greater significance, is certification that the the proposals are ‘best available alternative’ where gigabit connectivity is unavailable.” – Public sector

5. Two responses from the telecoms sector supported early engagement between developers and operators outlining this being key to cost-effective and efficient deployment of infrastructure.

“The Connectivity Plan will ensure that the proposal is viable and cost effective and is built in to the proposal and not added at a later stage when optimum design may suffer.” – Organisation

“We suggest that, where appropriate, consideration is given at building design stage to providing accessible trunking (with no commercial charges) that can house full fibre cabling, as well as clear design on how to access each dwelling simply with gigabit cable broadband. We would therefore like to see renovations and change of use sites included in legislation to mitigate these timely and costly issues.” – Organisation

**Question 17: Do you have views on how inspection of the new physical infrastructure elements beyond in-building infrastructure to a network distribution point should be undertaken?**

1. There were 14 responses to this question.

**Summary of views on inspection:**

2. Public sector responses outlined a need for clear guidance and training around what would be required for verifiers in respect of inspection and compliance monitoring. It was also noted that this should be supplemented and supported by sign off or commissioning of information from the approved installer of the infrastructure.

“The inspection of the new physical infrastructure elements beyond in-building infrastructure will create a challenge for Building Standards. Monitoring of the installations should require notification under the CCNP (Compliance Notification Plan) protocols which are currently used to assist in compliance monitoring. This would require the applicant or relevant person to notify the Verifier when certain aspects of the work are ready for inspection.” – Public sector

3. One organisation responded with concerns around the resourcing requirements for verifiers to inspect every individual plot.

“It would be beneficial following further research to explore the current processes for inspecting physical infrastructure to ensure it is installed in accordance with the Streetworks UK guidance and whether this could be continued or evolved into a competent persons scheme, where compliance with the mandatory standards could be determined by a specialist in conjunction with the network operator.” – Organisation

4. One individual and one organisation response suggested that use of online address checkers could be used to confirm that addresses are ready for service as part of the approval process.

5. One organisation responding from the housebuilding sector said issues could arise where a network was not ‘live’ and the developer would have a situation where this was outside their control.

“Issues could arise early in development as network may not be live. As developer we are not in control.” – Organisation

6. Individual responses raised concerns about adding to the complexity of the role of building standards verifiers.

“Yes, please don't add any more onerous conditions to building control.” – Individual

**Question 18: Do you have any specific comments on the content of the updated Standard 4.14, for example references to external guidance?**

There were 5 responses to this question.

**Summary of views on the updated Standard 4.14**

1. One organisation indicated that the guidance was insufficient in respect of the technical specifications of infrastructure below ground. It was suggested to explore the possibility of a competent persons scheme or to refer to wider sets of guidance that support telecommunications deployment.

“NHBC are aware of other documents cited in UK Building Regulations in relation to gigabit capable connections which maybe applicable, the inclusion of PAS 2016:2010 – Next generation access for new build homes guide could be considered, subject to Government review.” – Organisation

2. Another organisation response raised the potential for Connectivity Plans to be developed by a competent authority with experience in network planning. Mobile connections using 4G or 5G networks were also considered a cost effective solution for homeowners to take forward although it was noted this could have negative effects on future rollout of fixed line gigabit-capable networks.

“The revised document is comprehensive however. In areas where fast 4G or 5G is present, the most cost effective solution for developers would be to install a mobile network router and let the home owner purchase the SIM card and subscription. Routers are circa £150.

However, this would not drive the installation of fibre and potentially prevent future expansion of the broadband fixed network.

Wireless connectivity should only be considered either:

1. Once the Cost Cap is exceeded and the Connectivity Plan contains a robust argument for wireless and this is approved by the verifier.
2. Wireless will provide connectivity at gigabit speeds with no loss of capacity and/or a decrease in network stability.” – Organisation

3. One operator raised the issue of access rights within buildings – in particular multi-dwelling units – as an area of difficulty in gaining access rights retrospectively therefore highlighting the importance that the passive infrastructure is included at outset.
4. An individual response raised the issue of complexity within the guidance without specifying a particular area of concern.

**Question 19: Do you agree with proposals to refer to Scottish Road Works Commissioner and Streetworks UK guidance for external gigabit-ready physical infrastructure in the Technical Handbook?**

1. The total number answering this question was 18.

10 respondents (55.6%) answered yes to this question. 1 respondents (5.6%) answered no, with 7 responding they did not know (38.9%).

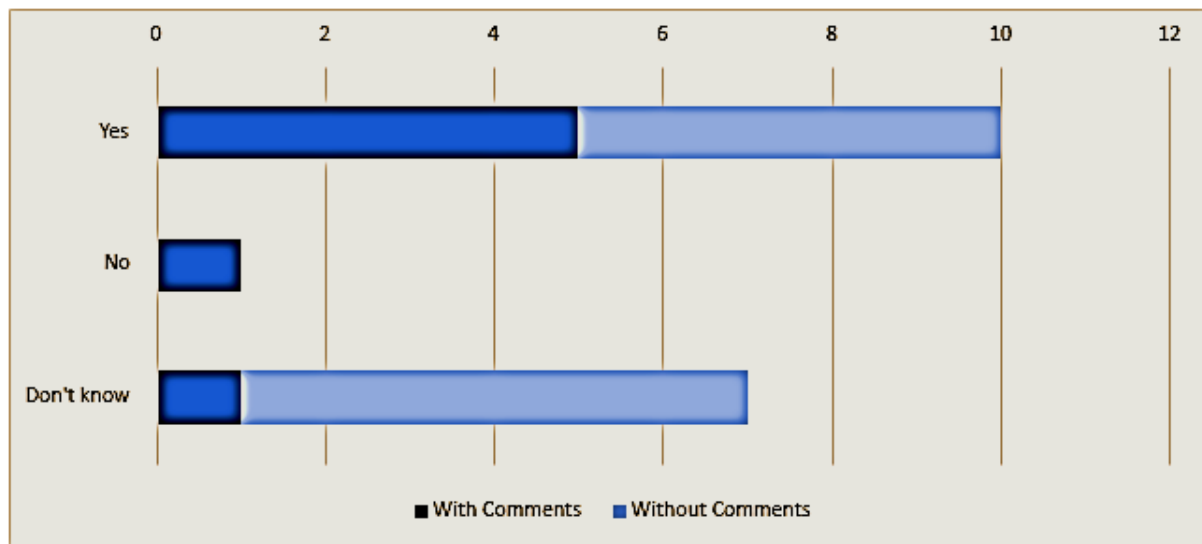


Figure 14: Question 19 responses

**Summary of question 19 responses:**

2. One response from an individual and one from a public sector organisation supportive of the proposals indicated that this was common, and that references to existing good practice is to be welcomed.
3. A network operator supported the principle of referring to the existing guidance although noted that Streetworks UK were currently reviewing their own guidance and the operator has responded to that consultation to indicate their dissatisfaction with new proposals.

“We agree with the proposal of referring to Scottish Road Works Commissioner and Streetworks UK guidance.

However, we are reluctant to say we are happy with the current guidance being proposed which is currently under review by Streetworks UK. We have

given feedback on this guidance as it currently stands and would refer you to our response on that consultation for further information.

Whilst we are content with the process being proposed in this consultation, we are not content with the guidance as it currently stands by Streetworks UK.” - Organisation

4. A response from the telecoms sector supported the reference but highlighted concerns that a developer not working with a Code operator will encounter difficulties maintaining their network once roads are adopted by the local authority.

“This is required as it defines the role of an operator and what works can and cannot be carried out on an adopted highway.

It stresses the importance of working with a code operator as once the estate roads are adopted, operator status will be required to install/repair infrastructure located under, on or above the adopted highway.” – Organisation

5. One housebuilding organisation highlighted the importance of clarity around which versions are being referred to (e.g. dates) to ensure that there is no confusion, guidance further evolves and the date of a warrant can be compared with the relevant version.

“If resource will not include all info then reference to another document is required. Date of SRWC&SUK guidance issue date to be referenced in regulations so there is not issues with the date of warrant against content of the aforementioned guidance.” – Organisation

6. One organisation sought clarification around the status of infrastructure beyond ‘in-building’ but before the street or road, and what guidance should be followed for that infrastructure.

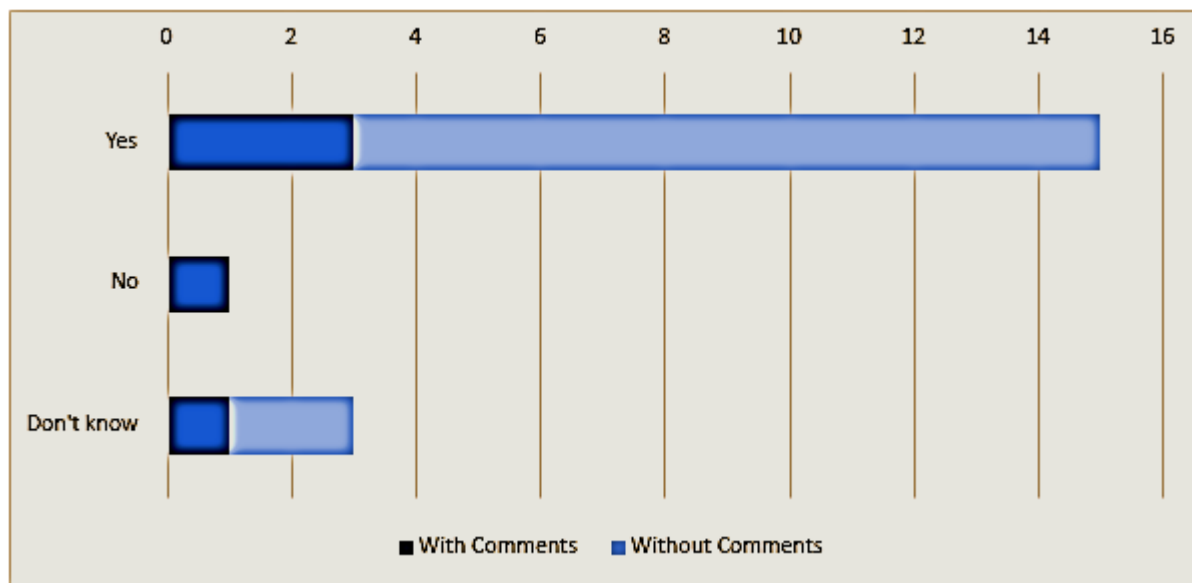
“would the Streetworks UK guidance’ be followed for the physical infrastructure elements within and outside the plot boundary.

If assessment of beyond building infrastructure is to fall under the responsibility of the building control body, it would be beneficial to incorporate appropriate guidance into the Technical Handbook.” – Organisation

**Question 20: Do you agree with proposals and guidance for network termination points and the inclusion of best practice advice to improve connectivity within the individual dwelling?**

1. The total number answering this question was 19.

15 respondents (78.9%) answered yes to this question. 1 respondents (5.3%) answered no, with 3 responding they did not know (15.8%).



Option	Responses	Percent	With Comments	Without Comments
Yes	15	78.9%	3	12
No	1	5.3%	1	0
Don't know	3	15.8%	1	2

Figure 15: Question 20 responses

**Summary of question 20 responses:**

2. Three organisations who responded yes to the question commented with suggestions to improve:

One from the housebuilding sector noted the need for electricity supplies to the network termination point and associated equipment (e.g. a router).

“NHBC agree in general with the inclusion of the guidance regarding network termination points. In regard to paragraph 4.14.1 of the draft Technical Handbook, additional guidance on the minimum requirements for the fixed electrical network termination point and associated distribution equipment would be beneficial i.e. number of sockets etc.” – Organisation

One operator suggested the guidance could be improved to support a developer in ensuring that their cabling is suitable for, and long enough to, reach the optical network termination point.

“We support the creation of a universal physical infrastructure design for new build developments and for conversions, and beyond, as an important way to improve access to high-speed broadband across Scotland.

We want to highlight that there could be a potential pitfall with the installation of internal wiring by developers. We would welcome guidance in the proposals on how to ensure developer wiring is suitable, and can reach, the network optical network terminal point and that this doesn't cause additional hassle for customers.” – Organisation

A separate response from the telecoms sector noted that it is far more cost effective to include network termination points at outset.

“It is far more cost effective to include network termination points in the build process than to retro fit.

Installation during the build stage negates the need for road/footpath works and ensures that all infrastructure is installed in the optimum location with minimal disruption.” – Organisation

3. A response from an individual highlighted a lack of awareness of what would constitute 'best practice guidance'.



**Question 21: Do you agree with proposals to include a two-part model form for the connectivity plan with the Technical Handbook?**

1. The total number answering this question was 18.

9 respondents (50%) answered yes to this question. 4 respondents (22.2%) answered no, with 5 responding they did not know (27.8%).

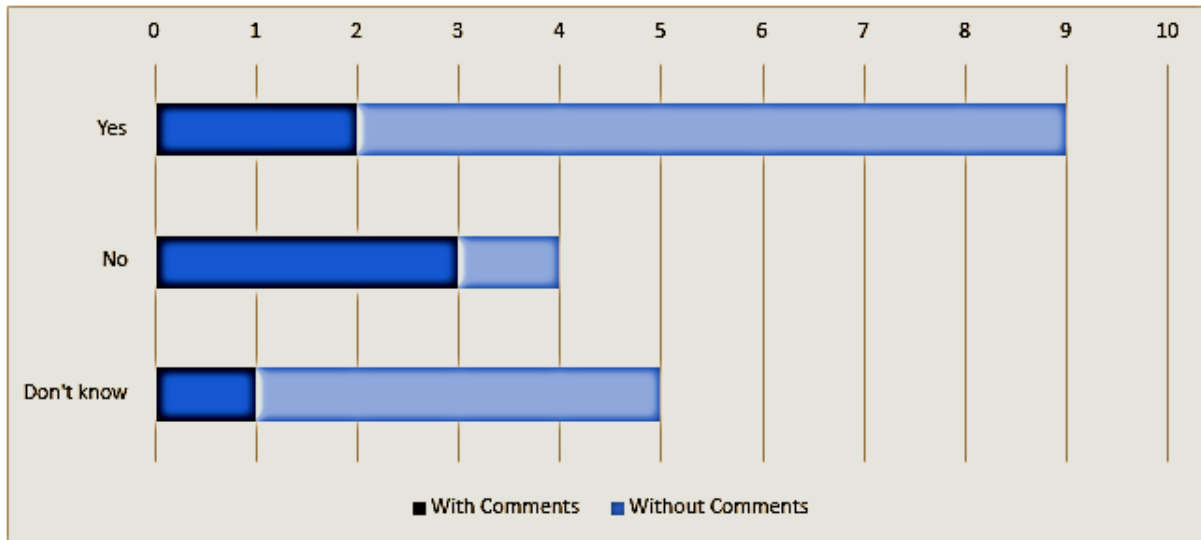


Figure 16: Question 21 responses

**Summary of responses to question 21:**

2. One organisation response welcomed the proposal however suggested to go further and include evidence of a signed contract to provide the infrastructure outlined in the plan.

“We welcome these proposals but would strongly recommend that evidence of a connectivity plan from Openreach would be in the form of a formally signed contract. We do not believe simply having an unsigned offer constitutes evidence that the developer has formally arranged for a network provider to install, including (where applicable on smaller sites) any associated developer contribution costs.

We would therefore welcome an amendment to the current proposals and suggest a developer must demonstrate that they either have an agreed offer (in the form of a signed contract) or a minimum of 2 declines from ‘suitable’ network operators.” – Organisation

3. Comments from respondents answering no included one public sector response who were concerned that the ability to update the form would be inhibited by having to align it with updates to the Technical Handbook. One organisation responding from the telecoms sector indicated it supported a more formal process for applying for an exemption to reinforce the status as an exception with approval from both planning authorities and building standards verifiers.

“Part B makes it clear that an exemption is an option and may encourage developers to seek reasons not to meet the connectivity requirements.

It would be far better to remove Part B and have a separate Application not to comply with section 4.14. This would make it clear that, whilst in certain circumstances non-compliance is possible, it is not a "tick-box" option.

Further, it should be reinforced that non-compliance is the exception rather than the rule and requires approval of both planning and building regulation.”  
– Organisation response

“While we have no strong opinion either way, having the form within the handbook would reduce the options to have it updated as this would need to coincide with updates to the Technical Handbooks themselves.” – Public sector

4. Comments from individuals responding to the consultation were split with one describing the proposals to include the form within the technical handbook as straightforward. Another raised concerns about the increasing complexity of the rules around housebuilding.

**Question 22: If you have any further comments to make regarding the proposals please set them out here. - Please give us your views**

1. There were 9 responses to this question.

**Summary of responses to question 22:**

2. Four individuals responded to this question with two underlining their opposition to the policy proposals due to the increased burden on housebuilding. Two individuals took the opportunity to state their position that the regulations should be used to stimulate competition for the end users highlighting the risks to consumers if developers choose suppliers that don't result in consumer choice.
3. One public sector response welcomed the proposals and added that fixed line connectivity is just one part of the overall picture. Large numbers of people moving into an area could impact on the quality of existing mobile network coverage and an opportunity may exist at the development stage to improve this at outset using some of the same backhaul infrastructure.

“An influx of residents in an area will have an impact on the quality of mobile coverage in an area and there is generally less resistance and the potential for more efficient deployment if mobile infrastructure is deployed during the building stage. The mobile infrastructure may even utilise the same fibre infrastructure being discussed in the rest of the consultation. The mobile network operators could be informed of the new development (depending on its size) and then they have the opportunity to carry out the necessary calculations to determine if additional capacity in the network is required. It can be lot more challenging and less efficient to design and seek permission for mobile infrastructure once the development has been built.” – Public sector

4. Of the four comments from the telecoms sector the majority referenced competition as being important and raised concerns around exclusivity arrangements between developers and an operator reducing consumer choice having a negative impact on rollout of gigabit-capable networks. One operator recognised that while this may be outside the scope of the regulations itself there could be a role in encouraging best practice and considering wider social value (such as connectivity to community hubs, or availability of social tariffs) in their commercial decisions. One response from the telecoms sector introduced a suggestion that commercial properties be similarly equipped to residential ones in the regulations.

“To ensure that high-speed internet services are available nationwide, it is recommended that the Scottish Government implements a similar policy to all commercial developments. It is important that all commercial properties are prepared for the future development of internet based services.” – Organisation

**Question 23: Please provide any feedback you have on the impact assessment here. - Please give us your views**

1. There were 3 substantive responses to this question.

**Summary of responses to question 23:**

2. One public sector respondent raised concerns that the impact assessment as a national picture wouldn't accurately reflect the reality in their local authority area.

"The impact assessment requires to have regard to the issues of delivering gigabit connectivity to all areas of Argyll and Bute and a community impact assessment, where this level of connectivity is not achievable" – Public sector

3. One organisation response noted that while the impact assessment considers the impact on businesses there would be resulting wider impacts that benefit future homeowners through hybrid working, home schooling, etc.

"Fast internet access is becoming a top priority for home buyers and as the smart home becomes more common, internet access becomes even more important." – Organisation

4. An individual response stated that some of the sections were quite technical and a simplified overview would be helpful.

## Response

Although telecommunications is a reserved matter under the Scotland Act 1998 the Scottish Government is committed to using devolved levers to reduce the barriers to infrastructure deployment.

New build developments represent an opportunity to ensure that the best available technology is installed during the development stage and taking steps to facilitate a retrospective gigabit-capable connection. There was a recognition from responses that while in many areas the costs to provide gigabit-capable infrastructure were reasonable there would be a small number of cases where it could exceed the cost level of £2,000 per premises proposed in the consultation. Factors off site, such as the rurality of a location, were considered to be a potential cause of exceeding the cost cap. The majority of responses considered that the proposals would ensure that gigabit-capable digital infrastructure would be placed in the best location to connect to a network distribution point while also ensuring engagement between telecoms operators and developers through the Connectivity Plan.

We considered third party land issues raised in the consultation and propose that, where third party land issues are experienced, it would be appropriate for a developer to work with an operator to identify a likely future network distribution point.

Developers working with suitable network operators – such as those with Code rights – will be able to identify a likely future location for the network distribution point such as where the development meets the public road. This will be where a development meets third party land, and it would be for the operator to take forward gaining a wayleave agreement to cross that land. Early engagement between all stakeholders is encouraged to overcome installation and land access issues

The UK Government has recently amended the Code by passing two pieces of primary legislation, the Telecommunications Infrastructure (Leasehold Property) Act (TILPA) 2021 and the Product Security and Telecommunications Infrastructure (PSTI) Act 2022. The former primarily addresses issues around unresponsive landlords in multi-dwelling units and the latter relates to retrospective rights to upgrade and share existing infrastructure. These changes intend to make it easier for alternative networks (alt-nets) to use Openreach ducts and poles as part of their deployments utilising the Physical Infrastructure Access remedy imposed by Ofcom. The Scottish Government continues to work with network operators to understand the impact of recent legislative changes on network build plans.

The Technical Handbook is technology neutral and based on network performance allowing the potential for the gigabit-capable requirement, or next-best technology requirement, to be met through wireless technologies. Evidence of this would be communicated to the building standards verifier through the Connectivity Plan.

A number of responses throughout the consultation referred to exclusivity agreements and open access infrastructure to facilitate competition in the telecoms market. Due to the reserved nature of telecommunications it would not be appropriate for the Scottish Government to implement this through changes to

building standards. The UK Government and Ofcom work to promote competition at both a retail and a network level and view this as one of the ways the UK Government will meet its own targets for nationwide coverage of gigabit-capable networks. Nothing within the regulations or the updated Technical Handbook precludes developers from voluntarily taking steps to make more than one network available within their developments or deploying passive infrastructure to allow this to be done retrospectively.

A slight majority of respondents did state the need for exemptions from providing gigabit-capable physical infrastructure and there was broad agreement that these linked to distance from existing infrastructure. It was highlighted that where there was no realistic prospect of provision at a later date and the next-best connectivity was provided by a wireless or satellite solution that the passive infrastructure for a fixed line connection would be redundant.

The USO remains a useful benchmark because it exists within legislation and allows the baseline minimum connectivity to be amended without having to amend the Technical Handbook separately. The USO is currently under review as on 2 October 2023 when the Department for Science, Innovation and Technology (DSIT) published their consultation '*Reviewing the broadband Universal Service Obligation*'. The consultation closed on 27 November 2023 and responses are currently being analysed. One aspect of this consultation is the service requirements and eligibility of applicants.

The vast majority of responses agreed that there should not be a blanket exemption within conservation areas. Among those who responded, comments highlighted that each project should be considered individually based upon the impact of the build in a given area. Operators highlighted that while conservation areas can be more challenging there are methods of deployment that can minimise the impact. It was noted that the provision of other utilities equally have an impact. As a result we consider that a blanket exemption would be inappropriate and needlessly exclude where it may be possible to provide a connection. Careful planning on a case by case basis should take place with developers and operators minimising the impact in line with requirements from the local planning authority.

Only 15% responded that there should be further exemptions – these comments focused on self-builders and for those who would not want connectivity to have that choice. Noting that further exemptions would have a detrimental effect on the provision of connectivity going forward we do not propose to add any blanket exemptions to those proposed in the consultation paper. The majority of respondents supported the inclusion of material change of use, or conversions, to create new dwellings being included within the scope of the proposals. Although it was proposed that these only be included where it is reasonable to do so the cost cap will have the effect of introducing the possibility of an exemption from providing a gigabit-capable connection where it is cost prohibitive. We therefore agree that there should be no further exemptions beyond those outlined in the consultation document and to include material change of use within the scope of the regulations.

A majority of respondents stated there could be difficulty in contacting two network operators and concerns centred around the availability of suitable network operators offering gigabit-capable connectivity in parts of Scotland. The proposals aim to ensure that there is early engagement between housing developers and telecoms operators and the intention is not to hold up developments where there would be an absence of suitable operators from which a developer could obtain a quote. Where a period of 30 days has passed from a developer approaching an operator for a quote if there is no response this will be treated as having met the requirement. We will work with Ofcom and the UK Government to raise awareness of which operators are in an area to assist developers in identifying a suitable operator and to assist building standards verifiers in certifying that this has been done. We propose no changes to the definition of a suitable network operator however it will be the role of a developer to consider whether an operator with rights under the Electronic Communications Code would be required in cases where there are third party land issues.

Responses were split on the suitability of the £2,000 cost cap, with slightly more respondents stating that they did not know than responding yes or no. More responses were in agreement with the criteria used to calculate the cost cap than in disagreement, although the largest number of responses came from those who did not know. We do not propose to change the cost cap criteria or amount at present. A variable cost cap was suggested based on development size and/or location however this would create complexity for both developers and verifiers. There are no plans to automatically revise the cost cap in line with inflation however we will consider amending the amount periodically as amendments to the Technical Handbooks arise.

Comments received around the inspection of the new physical infrastructure elements beyond in-building infrastructure to a network distribution point highlighted concerns around resourcing and skills for those ensuring compliance. We do expect that in the vast majority of cases that compliance will be verified on the network operator notifying developers that the required apparatus and infrastructure have been put in place for connections to their network. It would be for verifiers to agree a programme of inspections, if required, with developers.

Comments on the updated Standard 4.14 proposed making it more specific on the specifications of the passive infrastructure under ground and for a competent authority to be established to work with developers and operators in the production of Connectivity Plans. We do not intend to establish a competent authority as this would create additional costs in the certification process. Engagement between developers and operators should be sufficient to produce a site specific Connectivity Plan based on the requirements to connect to a gigabit-capable network or a potential future deployment.

There was greater support for the inclusion of the two-part model connectivity form within the Technical Handbook from those who expressed a view. One that opposed suggested a separate process for applying for an exemption and another raised concerns this could reduce the opportunities to improve the Connectivity Plan. We intend to include the two part Connectivity Plan within the Technical Handbook as the creation of a separate process for exemptions in addition to a Connectivity Plan would increase the administrative burden and delay implementation of the proposals.

We recognise that the impact assessment is based on assumed costs to illustrate the likely impacts and costs of the proposed changes. We will take into account the feedback received ahead of the final impact assessment that will be published alongside the regulations and updated guidance.

## **Conclusion**

The focus of the questions in this consultation with regard to the delivery of gigabit-capable connections at new build properties was to gather opinions on the what the proposed legislation and guidance will cover and how it may impact network operators and developers.

In general, the majority of individuals, organisations and local authorities who provided a response to the consultation agreed with our proposals on broadband delivery in relation to new build homes.

We will work with industry stakeholders to refine and streamline processes to ensure that we deliver the outcomes sought and clarify roles and responsibilities for each party involved.

All feedback received will help inform the content of the regulations and updated guidance for deploying gigabit-capable connections that will be published later this year.



## **Appendix A – Consultation Questions**

Question 1: Are costs of providing the gigabit-ready physical infrastructure element reasonable?

Question 2: Will the proposals help ensure that gigabit-ready physical infrastructure is placed in the best location to connect to a network distribution point?

Question 3: How common is it for third party land issues to prevent connectivity to new build homes?

Question 4: How are third party land issues resolved where they do take place?

Question 5: Are there circumstances where it would be difficult to meet the gigabit-ready physical infrastructure requirements?

Question 6: What circumstances may necessitate an exemption from the requirement to provide gigabit-ready physical infrastructure?

Question 7: Do you anticipate any issues with the stepped approach to the gigabit-ready physical infrastructure requirements extending to the network distribution point?

Question 8: Is the Universal Service Obligation an appropriate reference point for lower speed services?

Question 9: The proposals provide no exemptions for developments within conservation areas. Do you agree with this?

Question 10: Are there any other exemptions that should be considered?

Question 11: Do you agree that a material change of use or 'conversions' should be included in the scope of the proposals?

Question 12: Do you envisage any problems with the requirement to approach two suitable network operators for a quote?

Question 13: Please give your views on the criteria for defining a suitable network operator.

Question 14: Is £2,000 the right amount for the cost cap given the higher costs of delivering gigabit capable broadband in Scotland?

Question 15: Do you agree with the criteria for calculating the cost cap?

Question 16: Do you have any concerns about extending the requirement for a connectivity plan to initial notices and amendment notices?

Question 17: Do you have views on how inspection of the new physical infrastructure elements beyond in-building infrastructure to a network distribution point should be undertaken?

Question 18: Do you have any specific comments on the content of the updated Standard 4.14, for example references to external guidance?

Question 19: Do you agree with proposals to refer to Scottish Road Works Commissioner and Streetworks UK guidance for external gigabit-ready physical infrastructure in the Technical Handbook?

Question 20: Do you agree with proposals and guidance for network termination points and the inclusion of best practice advice to improve connectivity within the individual dwelling?

Questions 21: Do you agree with proposals to include a two-part model form for the connectivity plan with the Technical Handbook?



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