Llywodraeth Cymru
Welsh Government

OPEN CONSULTATION

New build developments: delivering gigabit capable connections

We are seeking your views on changes to building regulations to require gigabit capable connections in all new homes across Wales.

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Overview

Digital connectivity is increasingly important to people across Wales to keep in touch with friends and family, work from home or access public services. When new homes are built, we want to make sure that connectivity is consistent and future proofed. To support this ambition the proposals outlined in this consultation will amend building regulations to require developers to ensure that:

1. all new build homes are installed with the gigabit-ready physical infrastructure necessary for gigabit-capable connections
2. a gigabit-capable connection is installed in a new build home subject to a £2,000 cost cap per dwelling
3. or where a gigabit-capable connection is not being installed, the next fastest broadband connection is installed without exceeding the £2,000 cost cap

This consultation asks for your feedback on our approach to make sure it is proportional and deliverable and will meet our ambitions.

Ministerial foreword

There can be no doubt that access to fast and reliable broadband is essential to residents, opening up access to lifelong learning opportunities, helping to tackle social isolation, providing access to public services, enabling home working and bringing people together to tackle local and global issues. The pandemic has also undoubtedly brought the need for good future-proofed connectivity into sharper focus.

The last two decades have seen the move from a dial up connection to broadband and then to superfast broadband. As the possibilities grow and new opportunities are seized there is an ever-growing requirement for fast broadband

to deliver them. As technologies continue to evolve gigabit capable broadband (capable of delivering 1000Mbps (1Gbps) download speeds) will become the gold standard to underpin our current and future needs.

Telecommunications policy is not devolved to Wales; however, the Digital Strategy for Wales sets out how we will continue to step in to improve digital connectivity across the country.

We are investing £56 million to ensure full fibre connectivity to around 39,000 homes, our Access Broadband Cymru (ABC) grant continues to provide funding for homes and businesses to get connected and our Local Broadband Fund (LBF) supports local authorities and social enterprises to connect whole communities. Our intervention goes further than directly funding connectivity, we are also working to create the right conditions for telecommunications providers to invest in Wales.

Housing developers now recognise the importance of providing fast and reliable broadband on their developments and are future proofing their new housing stock. However, it is important that this connectivity is delivered consistently across Wales so that residents get future proofed broadband at their new homes.

To help deliver on our strategy this document sets out proposals for changing building regulations to ensure consistency of connectivity for hew homes and asks for your feedback on our approach to make sure it is proportional, deliverable and will meet our ambitions.

Our proposals outlined in this consultation will amend building regulations to require developers to ensure that:

1. all new build homes are installed with the gigabit-ready physical infrastructure necessary for gigabit-capable connections
2. a gigabit-capable connection is installed in a new build home subject to a

£2,000 cost cap per dwelling
3. or where a gigabit-capable connection is not being installed, the next fastest broadband connection is installed without exceeding the £2,000 cost cap

We welcome views from everyone with an interest in delivering future proof connectivity to new homes across the country.

Vaughan Gething, Minister for Economy

Introduction

Background

Digital connectivity and telecommunications policy is the responsibility of the UK Government. These are reserved matters for which the Welsh Government is not responsible and receives no devolved funding. The Welsh Government, however, continues to step in through the programme for Government which highlights the ambition to upgrade our digital and communications infrastructure and through the Digital Strategy for Wales.

There are already a range of initiatives in place to improve access to fast and reliable broadband in Wales. These include: the Superfast Cymru project which provided access to superfast broadband to 733,000 premises in Wales, the successor project to Superfast Cymru that will provide gigabit capable fibre broadband to around 39,000 premises at a cost of £56 million, the £20 million Local Broadband Fund supporting local authorities and social enterprises to connect whole communities and the Access Broadband Cymru scheme which targets individual premises.

In addition to intervening directly to improve fibre connectivity the Welsh Government is also committed through the Digital Strategy for Wales to use

devolved powers to create the right conditions for investment and innovation in broadband. A barrier busting taskforce has also identified barriers and solutions to deployment of broadband and mobile infrastructure.

As a non-devolved policy area, the UK Government has developed several interventions to improve digital connectivity including the Gigabit Broadband Voucher Scheme (GBVS), the Universal Service Obligation (USO) and Project Gigabit which when combined with commercially led interventions aims to provide 85 per cent of premises in the UK given access to gigabit capable broadband by 2025.

The telecommunications companies also continue to invest significantly in delivering their gigabit capable broadband roll-outs across the UK.

Broadband in new build homes

According to the **Thinkbroadband** news service in 2021, 90.8 per cent of new properties in Wales have access to full fibre connectivity with 93.4 per cent having access to an ultrafast broadband service of at least 100Mbps. The latest figures for 2022 show that 93.4 per cent of new premises have access to full fibre broadband and 99.6 per cent of new premises have access to at least ultrafast broadband. This year-on-year increase reflects the position in the whole of the UK and in previous years.

There is one note of caution in that the Thinkbroadband figures are based on around 4,000 premises in 2021 and only around 1,100 premises in 2022. **Figures from Stats Wales** suggest that on average between 5,000 and 6,000 new homes are built per year in Wales. The broadband status of those premises not included in the Thinkbroadband data is not clear.

Currently there are no legislative requirements for new build homes relating to gigabit-ready physical infrastructure or gigabit-capable connections. Existing

requirements (see Part R of Schedule 1) are restricted to ‘physical infrastructure which enables copper or fibre-optic cables or wireless devices capable of delivering broadband speeds greater than 30 Mbps’. This only represents the in-building physical infrastructure required. Equally the provisions do not extend to a requirement for the installed equipment to provide a connection through a network operator.

Development of these proposals

In line with our legal obligation under the Building Act 1984, feedback has been sought from the Building Regulations Advisory Committee for Wales (BRACW) on the intention to use the Building Regulations to implement requirements for gigabit-ready physical infrastructure. We look forward to receipt of responses and engagement from all interested parties to assist with the final proposals.

Well-Being of Future Generations Act

Fast and reliable digital connectivity meets many of the commitments under the Well-Being and Future Generations Act. In this case fast and reliable broadband in new homes supports many of the Well-Being goals. In particular, it supports a Wales of cohesive communities by helping people stay in touch with each other reducing social isolation and enabling access to public services. It also delivers against a more equal Wales by enabling access to educational opportunities and civic participation online.

These proposals were developed using the five ways of working that underpin the sustainable development principle. They focus on the long-term by providing future proof connectivity to meet the needs of citizens over the next decade and beyond. They were developed in collaboration through consultation with BRACW. By encouraging investment now, it will prevent the need to revisit new housing developments in years to come to retrofit connectivity solutions which

would result in added cost and resources. Fast connectivity will have a positive impact on other public bodies enabling them to deliver services online (Integration). The technical nature of the proposals has limited the opportunity for involvement of the wider public prior to this public consultation.

Future Wales: The National Plan 2040 and Planning Policy Wales

Future Wales is a national framework for development in Wales to 2040. It is a development plan for addressing key national priorities through the planning system. Policy 13 – Supporting Digital Communications supports the provision of digital communications infrastructure and services across Wales. The policy states that new developments should include the provision of Gigabit capable broadband infrastructure from the outset. This typically applies to new housing, business and commercial premises and public buildings. Local development plans should include policies to help deliver this.

‘Gigabit capability’ will for the most part be fibre and will require developers to install underground ducting to enable connections to be made to buildings.

Application

Building regulations are a devolved matter. Therefore, the legislative amendments to the Building Regulations 2010 will apply to new build homes in Wales only.

Transitional arrangement

The new requirements will likely come into force three months after the legislation is made, providing industry a suitable time period for familiarisation

with the new requirements. A coming into force date of summer/autumn 2023 is estimated and a transitional provision period of 12 months for building regulation applications submitted prior to the coming into force date of the legislative changes is proposed.

Timings and implementation

The technical consultation will close for responses on 28 April 2023. We will aim to publish the consultation response and, subject to the outcome of that consultation, start to develop the implementing legislation as soon thereafter as time allows, with the legislative amendments coming into force as soon as possible after it is laid.

Section 1: current policy

Current Part R of Schedule 1 to the Building Regulations 2010

The Building Regulations 2010 include a schedule of functional requirements that must be complied with when building work is carried out. The current requirements relating to the installation of physical infrastructure for high-speed electronic communications networks in buildings (superfast broadband) are contained in Part R of Schedule 1 to the Building Regulations 2010.

Part R states:

1. Building work must be carried out so as to ensure that the building is equipped with a high-speed-ready in-building physical infrastructure, up to a network termination point for high-speed electronic communications networks.

2. Where the work concerns a building containing more than one dwelling, the work must be carried out so as to ensure that the building is equipped in addition with a common access point for high-speed electronic communications networks.

Requirement R1 applies to building work that consists of:

- the erection of a building, or
- major renovation works to a building

Current approved document R

The requirements in Part R of Schedule 1 to the Building Regulations 2010 are supported by Approved Document R which took effect on 1 January 2017. Approved Documents are statutory guidance covering general guidance on the performance expected of materials and include building work in order to comply with the Building Regulations 2010 and practical examples and solutions on how to achieve compliance for some of the more common building situations. Whilst not guaranteed, where a developer follows the guidance set out in an Approved Document there is a presumption of compliance with the legal requirements covered by the guidance. In summary, Approved Document R:

- provides limited high-level performance based technical guidance. There are no specifications provided for the physical infrastructure and there is no obligation to adopt any specific suggestion in the Approved Document
- sets out that the requirement to provide in-building physical infrastructure in paragraph R1 is in place to enable copper or fibre-optic cables or wireless devices capable of delivering broadband speeds greater than 30 Mbps to be installed
- confirms the requirement applies in Wales to new buildings and to existing buildings that are subject to major renovation works where proportionate, and applies both to dwellings (single occupancy and multi-dwelling buildings

providing schematic examples) and to buildings other than dwellings
- clarifies that the design of in-building physical infrastructure should take account of future technologies
- sets out limited exemptions including:
  - buildings in isolated areas where the prospect of a high-speed connection is considered too remote to justify equipping the building with high-speed ready in-building physical infrastructure or an access point
  - listed buildings (In accordance with section 1 of the Planning (Listed Buildings and Conservation Areas) Act 1990) and buildings in a conservation area (In accordance with section 69 of the Planning (Listed Buildings and Conservation Areas) Act 1990) where the requirements would unacceptably alter their character or appearance
  - buildings occupied by the Ministry of Defence or the armed forces of the Crown, or otherwise occupied for purposes connected to national security
  - major renovation works in cases in which the cost of compliance would be disproportionate to the benefit gained
- sets out that the existing Part R applies to both residential and non-residential buildings

The existing Part R provisions and approved document R content will be retained for new non-residential buildings and existing residential and non-residential buildings that are subject to major renovation works.

Section 2: proposed policy

The steps to installing gigabit-capable broadband in new build homes

The exact process for installing gigabit-capable broadband in new build homes

is dependent on which network operator is engaged. However, the overarching steps remain the same for all developments.

Gigabit-capable broadband installation steps:

1. Developer (or a contractor working on their behalf) contacts network operator.
2. Network operator quotes.
3. Agreement reached and signed.
4. In-building physical gigabit-ready infrastructure installed (an access point for dwellings, which can be a common access point in multi-dwelling buildings, connected to the required network termination point for each dwelling).
5. Necessary external physical gigabit-ready infrastructure installed from the network termination point to the nearest network distribution point (different methods are used). This work will be done in phases for developments but would typically include on-site ducts, chambers and termination points.
6. Gigabit-capable connection to the network distribution point installed (in some cases this will involve expansion of the network), composed of an optical fibre cable or other equipment by which such a connection will be provided.
7. Consumer contracts with a relevant internet service provider who activates the gigabit network connection.

The proposed new requirements are designed to align with all these current practices and steps so as not to impose new practices but complement existing ones. This will ensure that all developers are taking the necessary steps to equip new build homes with gigabit-ready infrastructure and gigabit-capable connections whilst minimising burdens.

Building control

The requirements for developers will ensure new build homes have gigabit-

capable connections through the installation of:

- the gigabit-ready physical infrastructure necessary for gigabit-capable connections (consisting of infrastructure including ducts, chambers and termination points) up to an off-site network distribution point where reasonably practicable; and
- subject to a £2,000 cost cap per dwelling, a gigabit-capable connection (composed of equipment such as an optical fibre cable, other cabling or wiring, or wireless connection that will provide gigabit-capable broadband if such a service were to be provided by an Internet Service Provider)

Where a developer is unable to meet the second requirement and secure a gigabit-capable connection, for example because the developer costs incurred after any network operator contribution exceed the cost cap or another exemption applies a developer will be required to install the next best technology connections available unless the quote for that installation also exceeds the cost cap. In the first instance this should be at least a superfast 30 Mbps connection and failing that a broadband connection in line with the Broadband Universal Service Obligation's download speed, as set out in the Universal Service Order 2018 (Electronic Communications (Universal Service) (Broadband) Order 2018 – SI 2018/445). This is currently a connection delivering at least 10 Mbps download speed (along with other defined quality parameters). Where future amendments to the Universal Service Order 2018 10 Mbps download speed requirement are made, the requirement for new homes will require review.

Where no connection can be secured without exceeding the cost cap, the first requirement to install gigabit-ready physical infrastructure necessary for gigabit-capable connections will ensure that the new build home is future-proofed and ready for gigabit connectivity unless any further exemption based on the remoteness of the property is appropriate. In the absence of a broadband connection in line with a Broadband Universal Service Obligation connection, a consumer will normally be able to make a request for a Universal Service Obligation connection or apply to the Access Broadband Cymru grant scheme in

Wales.

The Broadband Universal Service Obligation (2018 No. 445) is a UK-wide measure intended as a ‘safety net’ to deliver broadband to those premises that do not have access to a decent and affordable connection. This is currently defined as a connection delivering at least 10 Mbps download speed and 1 Mbps upload speed (along with other defined quality parameters). Ofcom has defined an affordable connection as one that costs not more than £46.40 per month. The Broadband Universal Service Obligation provides a legal right to consumers to request a broadband connection, up to a cost threshold of £3,400 providing eligibility criteria are met, and a mechanism to contribute above this threshold to ensure a connection within a specified timeframe.

Requirement 1: gigabit-ready physical infrastructure

The developer’s requirement to install the gigabit-ready physical infrastructure necessary for gigabit-capable connections will require building works to ensure that each dwelling (including each individual dwelling in multi-dwelling buildings) is equipped with the required infrastructure to support at least one gigabit-capable connection. This includes in-building and exterior infrastructure. Infrastructure can be located anywhere within the site such as in the footpath, driveway or common area leading from the building.

In-building physical infrastructure

For the developer to meet the requirement to install gigabit-ready physical infrastructure the new build home will need to be equipped with a network termination point. This is the physical point where an occupier is provided with network access (typically inside the home but this can be outside). This will

connect internally within the building to an access point (a physical point, located inside or outside the building, accessible to the network operator). A common access point for a gigabit-capable connection is additionally required where the building contains more than one home.

Exterior infrastructure

For the developer to meet the requirement to install gigabit-ready physical infrastructure the new build home will also need to be equipped with infrastructure external to the building. This can vary across developments but will typically include installation of ducts, chambers, cabinets, towers and poles leading from the typically in-building network termination point via an access point.

This gigabit-ready physical infrastructure will need to extend to one of the following points in order of priority:

- a network operator's network distribution point for gigabit-capable connections, which could be off-site, or
- where the developer has no right to install gigabit-ready physical infrastructure on intervening land in which it would have to be installed to reach the network distribution point, a point as close as is reasonably practicable to the network distribution point, or
- where the developer has no right to install such infrastructure in land beyond the building, a network termination point's corresponding access point or common access point'

This stepped approach is designed to ensure that the requirement does not extend to the installation of infrastructure on or over another party's land upon which the developer does not have the rights to access.

A network distribution point will vary based on the network in question and may

typically include cabinets, boxes mounted on walls or telephone poles. It is the point at which the network operator's spine or core network ends. In order to facilitate a connection, the network operator's spine or core network must be met by physical infrastructure leading from the dwelling's network termination point, via an access point.

Where developers are unable to install gigabit-ready physical infrastructure to a network distribution point because they are unable to access intervening third party land to do so, a network operator may be able to gain access to the intervening third party land, including through engaging Electronic Communications Code ('the Code') powers. The Code is the legal framework underpinning network operators' rights to install and keep electronic communications apparatus on public and private land, and to carry out other activities needed to provide electronic communications networks. The purpose of the Code is to provide a regulatory framework that supports and encourages the efficient and cost-effective installation and maintenance of robust digital communications networks.

As the locations of network operator's networks and distribution points will vary across developments, we encourage developers to work with network operators as early as possible to ensure that the installed infrastructure is capable of hosting gigabit-capable connection equipment to ultimately establish a live network connection. This work should ensure that planned infrastructure deployment corresponds to a network operator's planned or located network distribution point. The statutory guidance (Approved Document R) will provide further information as to how this requirement can be met.

Infrastructure performance and specifications

The installation of the gigabit-ready physical infrastructure necessary for gigabit-capable connections will be defined in a similar way to existing arrangements for high-speed electronic communications networks in the existing Part R, updated

for gigabit connectivity. Namely, it will include any infrastructure or installation which is intended to host elements, or enable delivery, of wired or wireless gigabit-capable public electronic communications networks that are capable of delivering a broadband access service at download speeds of at least 1,000 Mbps.

The requirements will not specify what infrastructure should be used. It will need to be able to host elements or enable delivery of either wired or wireless gigabit-capable public electronic communications networks. A non-exhaustive list of infrastructure types that could be used includes on-site pipes, masts, ducts, chambers, manholes, buildings or entries to buildings, antenna installations, towers, poles and termination points. The physical infrastructure requirement does not include an optical fibre or other cabling or wiring equipment that will provide the broadband connection related to the second requirement and installing a connection.

These physical infrastructure requirements will not be subject to a cost cap given the low costs involved to developers and the need for residents to be able to obtain gigabit connectivity. Within most new build developments, groundworks will be carried out at an early stage to enable connection to other utilities, which should also assist with the inclusion of the physical infrastructure.

Physical infrastructure and next best technology connections

Save for where an exemption is applicable (see Gigabit-ready physical infrastructure exemption below) the gigabit-ready physical infrastructure requirement will apply to all new build homes in scope. We anticipate that in some cases a developer will:

- not be able to fit a gigabit-capable connection within the cost cap, so will be under an obligation to fit a next best technology connection (see Next best

technology connections) and
- be required to fit gigabit-ready physical infrastructure, but
- will be unable to use gigabit-ready physical infrastructure capable of supporting both a next best technology connection (for example, a high-speed electronic communications network connection) and a gigabit-capable connection in parallel

In this scenario, where a developer is unable to meet the requirement to install a gigabit-capable connection (i.e., an optical fibre, cabling or wiring or wireless equipment connection that will provide gigabit-capable broadband), they will be required to install two sets of physical infrastructure.

However, in many cases we anticipate that the gigabit-ready physical infrastructure to be installed will also support a high-speed electronic communications network connection if a gigabit-capable connection is not required.

Gigabit-ready physical infrastructure exemption

As detailed above, the requirement to install the gigabit-ready physical infrastructure necessary to support gigabit-capable connections exists even where installing the gigabit-capable connection exceeds the cost cap or a next best technology connection will be unable to use gigabit-ready physical infrastructure (see Physical infrastructure and next best technology connections above). This means that when a gigabit-capable broadband connection exceeds the cost cap at the point of construction or an alternative connection is installed, new build homes will still be built with the right infrastructure to support a gigabit-capable connection in the future.

This obligation can be fulfilled in a variety of different ways, although in most cases this would involve the new build home having the necessary physical infrastructure to support a gigabit-capable full fibre connection. This

infrastructure can be located anywhere within the site, such as in the footpath, driveway or common area of the site in which the dwelling is located, the outside wall of the dwelling and inside the dwelling.

Where a developer and a network operator are able to identify a network option to support gigabit connectivity, how and where the installation of the infrastructure should be undertaken will be ascertainable. However, there may be a small number of cases where it may not be evident what form of infrastructure should be installed or where this infrastructure should be deployed to meet a network distribution point.

As such we are keen to seek views on any practical difficulties anticipated with a blanket application of this requirement and if any exemption would be appropriate. This could include an extension of the existing exemption for the Part R requirements (regulation 44BI of the Building Regulations 2010) as follows, adapted for gigabit connectivity:

- buildings situated in isolated areas where the prospect of high-speed connection is considered too remote to justify equipping the building with high-speed ready in-building physical infrastructure or an access point

Questions

Q1: Are costs of providing the gigabit ready physical infrastructure element reasonable or will they prevent investment in new housing in Wales?

Q2: Will the proposals help ensure that gigabit-ready physical infrastructure is placed in the best location to connect to a network distribution point? If not, please explain why.

Q3: How common is it for third party land issues to prevent connectivity to new build homes and how are these issues resolved?

Q4: Are there circumstances where it would be difficult to meet the gigabit-ready physical infrastructure requirements, and would these necessitate an exemption?

Q5: Do you anticipate any issues with the stepped approach to the gigabit-ready physical infrastructure requirements extending to the network distribution point? Please provide any comments/reasoning on your position.

Requirement 2: gigabit-capable connection

The second requirement is for the installation of the specific equipment capable of supporting a broadband connection, providing this can be secured without exceeding a £2,000 cost cap per dwelling. Whilst any technology capable of delivering gigabit connections can be considered, in practice, most connections under the requirement are likely to use fibre to the premises.

This equipment would include an optical fibre or other cabling, wiring or wireless technology provided by a network operator to facilitate a connection. This should support a broadband connection for service provision from at least one internet service provider through connection with the network operator's infrastructure. The requirement does not extend to making the connection 'live'. This will only happen once a consumer contracts with an internet service provider.

The equipment in the first instance should be capable of delivering a broadband service at download speeds of at least 1,000 Mbps. This definition will enable the second requirement to be met through any form of existing or future wired or wireless technology including fibre to the premises (FTTP), fixed wireless access (FWA) and other cables (e.g. DOCSIS 3.1) or satellite. This definition and technologically neutral approach will be supported in the statutory guidance supporting the new provisions within Schedule 1 of the Building Regulations 2010 (see New provisions and statutory guidance) noting forms of existing

technology (as referenced in Ofcom's Connected Nations Reports (**Connected Nations and infrastructure reports**)) that could be suitable for meeting the requirements.

Next best technology connections

As set out above, should the cost cap be exceeded, a 'next best technology connection' requirement will apply, requiring the developer to seek to obtain a quote for the installation of the fastest possible connection available without exceeding the £2,000 cost cap per dwelling. In the first instance this should be at least a high-speed electronic communications network capable of delivering broadband access services at speeds of at least 30 Mbps (superfast broadband).

If a developer is unable to secure a superfast connection within the cost cap, the developer would then need to secure a broadband connection with a download speed as defined in the Broadband Universal Service Obligation (**The Electronic Communications (Universal Service) (Broadband) Order 2018**) or provide evidence that this could not be secured without exceeding the £2,000 cost cap. A standard connection under the Broadband Universal Service Obligation currently includes a connection that can deliver connectivity download speeds of at least 10 Mbps.

For new build homes where the developer has been unable to secure broadband connectivity of at least 10 Mbps download speed without exceeding the cost cap, a consumer moving into the new build home could seek to obtain a broadband connection under the Universal Service Order 2018, subject to the normal eligibility conditions or apply to the Access Broadband Cymru grant scheme in Wales.

Both next best technology connections requirements will be kept under review and should amendments be made to the Broadband Universal Service

Obligation (**The Electronic Communications (Universal Service) (Broadband) Order 2018**) the connection requirements may be adjusted or removed as appropriate.

The arrangements for developers obtaining quotes from network operators will not be prescribed. However, it may be practical for a developer to engage with the network operator to determine how much the quote would also be for a high-speed connection and/or a Broadband Universal Service Obligation connection, if a gigabit connection would not be provided because the cost exceeds the cost cap. This may avoid the need for the developer to request repeated quotes from the network operator.

In some instances, but possibly not all, the gigabit-ready physical infrastructure installed for a next best technology connection will also be capable of supporting a gigabit-capable connection. By way of an example, ducting for a high-speed electronic communications network connection that is capable of supporting a gigabit-capable connection would contribute to meeting the gigabit-ready physical infrastructure requirements. However, as set out in Gigabit-ready physical infrastructure exemption, this will not always be the case. In these scenarios, developers will be required to install additional gigabit-ready physical infrastructure alongside the physical infrastructure required for the next best technology connection.

The Welsh Government recognises the additional costs and challenges of deploying in rural areas and that some new build homes in these areas may not obtain a gigabit-capable connection. These proposals have therefore been designed to work in conjunction with other programmes designed to boost rural connectivity. This includes the Welsh Government full-fibre roll-out, the Access Broadband Cymru grant, the Local Broadband Fund and the UK Government Project Gigabit.

Cost cap

The Welsh Government recognises that in some cases the costs of installing connections will be prohibitive. As many of the costs associated with connectivity relate to connecting a dwelling to an operator's network (in line with the second requirement), a £2,000 cost cap is to be applied to this requirement. A developer will be exempted from the connectivity requirement, if having engaged two suitable network operators, the developer has not been able to secure the provision of a connection without exceeding a cost cap of £2,000 per dwelling.

Should the costs of a gigabit connection or next best technology connection exceed the cap, a developer will still be required to ensure that the first requirement (i.e. installation of the gigabit-ready physical infrastructure necessary for gigabit-capable connections, is met).

Scope of the new requirements: new build homes

It is proposed that the new requirements within Schedule 1 to the Building Regulations 2010 will apply to new build homes, that is, the construction of a self-contained building or part of a building to be used as a new residential dwelling. This includes the following forms of buildings:

- residential
- mixed-use (applying to the part of the mixed-use development which is used as a residential dwelling)

The requirements will apply to new build homes because they will apply to each dwelling or building containing one or more dwellings for which a building plan, notice or initial notice has been submitted, but excluding existing residential buildings subject to a material changes of use or major renovation works.

Any of these forms of new build home developments within conservation areas will also be included within scope of proposals. There is no automatic restriction on installing broadband infrastructure in new or converted buildings in designated conservation areas, (Designated as per sections 69 and 70 of the Planning (Listed Buildings and Conservation Areas) Act 1990,) and restrictions in such areas are subject to huge variation and considered by local planning authorities on a case-by-case basis. Therefore, to have a blanket exemption on new build homes in conservation areas would needlessly exclude some new build homes from having gigabit-ready physical infrastructure installed.

Dwellings subject to major renovation works are not within scope, and nor are schools or hotels. Buildings occupied by the Ministry of Defence or the armed forces of the Crown, or otherwise occupied for purposes connected to national security will be explicitly excluded from the scope of the requirements.

Material change of use or ‘conversions’ resulting in a dwelling

In this context, a material change of use or ‘conversion’ for the purposes of the existing Part R requirements involves the creation of a new residential address, or dwelling or flat, where previously the building (or that part of the building) was used for non-residential purposes. (The new requirements would not extend to other forms of ‘conversions’ such as non-residential ones). It also includes where more or fewer dwellings are created within an existing building, such as where a house is converted to multiple flats or a block of flats converted to a single house. This includes a large variety of developments including varied forms of existing buildings such as commercial premises and office blocks, disused industrial buildings, barns and houses converted into single or multiple dwellings. We understand these forms of works are undertaken by a range of small and medium enterprises (SMEs) and large development firms.

At present, such conversions are required to be compliant with a specific set of

Building Regulations 2010 requirements, but this does not include the existing requirements for the installation of in-building physical infrastructure for high-speed electronic communications in Part R. Limited information is currently available to undertake an assessment of the potential impact of introducing requirements for dwellings created through a material change of use, particularly in relation to rural areas. In the absence of the potential cost impact, the impact on the viability of undertaking these conversions is unknown and therefore, we propose that new dwellings created through a material change of use or conversion will not be included within the scope of the new requirements.

Questions

Q6: Is the Universal Service Obligation an appropriate reference point for lower speed services?

Q7: The proposals provide no exemptions for developments within conservation areas. Do you agree with this and are there any other examples where exemptions should be considered and if so, what is the justification for these exemptions?

Q8: Do you agree that a material change of use or ‘conversions’ should not be included in the scope of the proposals? If not, why not?

Suitable network operators

The cost cap exclusion will only be applicable where the developer having approached two suitable network operators for quotes is declined a connection without exceeding the cap. What constitutes a suitable network operator will vary depending on the development circumstances, but a developer will need to consider which network operators appear to be among those more likely to be able to provide a connection. Examples of factors to take into account include:

- the development location
- the ability of a network operator to provide a suitable connection in the location
- existing network operators in the location
- network operator development plans
- other network operators who could deploy in the area

Where a network operator is not currently operating in or near the location and does not have plans to deploy in the location, they are less likely to be able to provide a connection. Should a suitable network operator not respond to a developer within a reasonable time, this will amount to being refused a connection. Further information as to what constitutes an appropriate network operator is set out in the Approved Document. Further support will be provided to stakeholders, to assist them on what constitutes a suitable network operator.

Network operator commitments

To ensure that the costs for developers are minimal and do not exceed the cost cap, the UK Government have secured commitments from network operators who are to contribute towards the costs incurred under the cap. These commitments (**Correspondence: New Build Developments: Delivering gigabit-capable connections**) include, subject to certain requirements:

- a Virgin Media contribution of at least £500, rising in the case of some larger sites to £1,000
- an Openreach and Developer combined Contribution of £3,400, with a maximum developer contribution per plot of £2,000
- additionally, Openreach has committed that when new build homes cannot be provided with a gigabit-capable connection within the cost cap and contribution, it will fall back on offering to provide the next best alternative, depending on available infrastructure
- Openreach has published a price structure that reduces the costs

developers pay for connecting two premise developments from £3,100 to £2,000 per premise, bringing all developments of two premises or more within our proposed cost cap
- Openreach also committed to connect full fibre infrastructure free from developer contributions for all new build development sites of 20 or more premises, reducing this from its previous offer of 30 or more premises
- a Gigaclear contribution of up to £1,000 per new build property (providing Gigaclear can carry out infrastructure work at the appropriate stage)

While these commitments were made to the UK Government and as telecommunications is a non-devolved policy area, we would expect the commitments to apply equally in Wales.

Cost cap calculation

In assessing if the cost cap is to be exceeded, a developer will take account of the costs quoted by a network operator minus any financial contribution from the network operator. The calculation of the cost to the developer is to include value added tax but will exclude:

- the cost of installing gigabit-ready physical infrastructure
- administrative expenditure incurred by the developer
- the cost to consumers for the provision of a service

Questions

Q9: Do you envisage any problems with the requirement to approach two suitable network operators for quotes and the criteria for a suitable network operator?

Q10: Is £2,000 the right amount for the cost cap given the higher costs of

delivering gigabit capable broadband in Wales?

Q11: Do you agree with the criteria for calculating the cost cap? If no please provide evidence.

Process and procedure

The aim of the new policy is to ensure the process for installing gigabit-capable broadband is as simple as possible for developers, mirroring as it does the process to evidence compliance with other Building Regulations 2010 requirements.

To ensure that the requirements can be met, developers are encouraged to engage with network operators at the earliest point to ensure a new build home development can be furnished with connectivity efficiently. This early engagement with appropriate network operators will also enable confirmation of the particulars related to connectivity and compliance for building control.

For building control purposes, a developer will be required to submit a ‘connectivity plan’ with full plan applications, initial notices or amendment notices provided to a local authority (either directly or through an AI). To ensure that connectivity is considered for all new build homes, the legislation will extend connectivity plan requirements to initial notices and amendment notices.

A model connectivity plan is included in Volume 1 Appendix B of the Approved Document supporting the new provisions within Schedule 1 to the Building Regulations 2010. The information that will need to be provided includes:

- the quotes received from network operators to provide connections, and evidence of a network operator being contracted to provide connections to the dwellings in question

- that the gigabit-ready physical infrastructure necessary for gigabit-capable connections is to be installed
- that the suitable installation of a gigabit-capable connection has been arranged with a network operator and the nature of the network to be deployed
- in the absence of a gigabit-capable connection, any exemption or exclusion being relied upon, providing evidence towards applicability
- in the absence of a gigabit-capable connection, the form of the next best technology connection being installed within the cost cap.

Building control and connectivity plans

In line with existing practice, following the remedy of any issues identified with building full plan applications, initial notices or amendment notices and final building control approval, building work undertaken by developers will be subject to monitoring in line with all Building Regulations 2010 requirements. Compliance will ultimately be certified following completion of building works providing the works comply with the Building Regulations 2010, including the new gigabit requirements to be added to Schedule 1.

The new requirements do not impinge on the arrangements between developers and network operators, however, should a network operator not meet the terms of an arrangement with a developer, this will be a relevant consideration for building control and assessment against compliance with the requirements where they will be able to exercise discretion around certification.

Building control monitoring, certification and enforcement

For the first time, connectivity requirements will necessitate inspection of physical infrastructure elements beyond in-building infrastructure, namely the infrastructure between the dwelling and the network distribution point. We are

conscious that this is a new responsibility for building control and will therefore need to be supported. As such we will be providing further support to assist with building control processes and further information around inspection of the elements.

The new requirements for developers will be enforced using the existing Building Regulations 2010 enforcement regime. This system is well established and sufficient for the new requirements.

Existing powers given to the Welsh Ministers or local authority to dispense with or relax requirements in the Building Regulations 2010 (under section 8 of the Building Act 1984) will additionally be applied in this instance to ensure that in certain circumstances, where it would not be appropriate to mandate requirements, they can be relaxed in accordance with other Building Regulations 2010 requirements.

Questions

Q12: Do you have any concerns about the content of the connectivity plan, including the requirement to approach two suitable network operators for quotes and the network operators suitability, or recommendations for additions?

Q13: Do you have any concerns about extending the requirement for a connectivity plan to initial notices and amendment notices in addition to plans?

Q14: 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?

Proposed statutory guidance (approved document R)

The Building Regulations 2010 include a schedule of functional requirements that must be complied with when building work is carried out. The Welsh Government publishes Approved Documents, under powers contained in the Building Act 1984 (see sections 6 and 7).

To accompany our proposed amendments to the Building Regulations 2010, we plan to publish an updated edition of Approved Document R. The purpose of this updated edition of Approved Document R is to provide two volumes. The first providing guidance on how to comply with the proposed new requirements for gigabit-ready physical infrastructure and gigabit-capable connections for new build homes, the second providing guidance on the existing requirements for other forms of buildings. The Approved Document will also aid monitoring and enforcement by LABC and Approved Inspectors.

New provisions and statutory guidance

It is proposed that the new provisions within Schedule 1 to the Building Regulations 2010 will be further broken down into requirements for gigabit-ready physical infrastructure, common access points for buildings containing multiple dwellings and connection to a gigabit-capable electronic communications network, and this will be reflected in the updated Approved Document R.

It should be noted that the requirements of the Building Regulations 2010 and guidance in Approved Documents is performance-based and technology neutral. Specifying infrastructure, equipment and technology methods for meeting the new requirements would be overly-prescriptive and potentially exclude future technologies. It is therefore not appropriate to reference any particular network

operator's specifications for gigabit-ready infrastructure or equipment for gigabit-capable connections.

Practical guidance for developers

A proposed method of meeting the requirement for the gigabit-ready physical infrastructure external to buildings is the installation of duct and chamber systems in accordance with Streetworks UK Guidelines (**National Joint Utilities Group (streetworks.org.uk)**). This would need to be capable of hosting at least one gigabit-capable connection to each dwelling on a development.

Similarly, a proposed way to meet the requirement for gigabit-ready physical infrastructure within buildings containing multiple dwellings is the installation of a duct or cable support system that is capable of hosting at least one gigabit-capable connection to each individual dwelling.

It should be noted that when building work is carried out it must comply with all relevant requirements of the Building Regulations 2010. It is intended that the updated edition of Approved Document R will make particular reference to the fire safety requirements in Part B of the Building Regulations 2010 relating to where ducts or cables are routed through common areas and penetrate compartment walls and floors and also to the ban on combustible materials in the external walls of high-rise residential buildings.

It is proposed that a reference will be made in the Approved Document to the most recent Ofcom Connected Nations Report (**Connected Nations and infrastructure reports - Ofcom**) for a list of technologies capable of complying with the requirement to provide a gigabit-capable connection. This includes FTTP, other cable types, and some FWA.

The proposed requirement is to ensure each new build home is provided with a gigabit-capable connection. It is proposed that the Approved Document will

provide guidance for the network termination point to be provided at each individual dwelling. For network termination points it is intended that the updated edition of Approved Document R will reference the accessibility and electrical safety requirements in Parts M and P of Schedule 1 to the Building Regulations 2010. The Approved Document will also include factors for a developer to consider when deciding which network operator or network operators to approach for a quote.

Whilst not a legal requirement, the Approved Document will also provide guidance on the preferred location of the network termination point inside the dwelling, i.e. in open areas rather than in locations such as utility cupboards. In larger dwellings, or if the termination point is not located in an open area, reliance on WiFi may not provide good connectivity to all rooms in the dwelling. Requirements to provide wired connections within the individual dwelling (for example, equipment for better coverage within a dwelling) are not proposed in this consultation. Some developers may however decide to provide wired connections as this can be faster and more reliable and it is intended that a reference to best practice advice will be included in the Approved Document.

It is also proposed that the updated edition of Approved Document R includes guidance on the information to be included with the connectivity plan to be submitted with each application under the Building Regulations 2010. It is proposed that a two-part model form for the connectivity plan will be included with the Approved Document.

To minimise administrative burdens for those developers intending to install gigabit-capable connections only the information in Part A of the connectivity plan would need to be submitted. For those seeking exemptions and/or intending to install something other than a gigabit-capable connection, the additional information set out in Part B of the connectivity plan would also need to be submitted.

A draft of the proposed updated edition of Approved Document R can be seen

attached to the consultation page in two volumes.

Questions

Q15: Do you have any specific comments on the content of the updated edition of Approved Document R, for example references to external guidance?

Q16: Do you agree with proposals to refer to Streetworks UK guidance for external gigabit-ready physical infrastructure in the Approved Document?

Q17: 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?

Q18: Do you agree with proposals to include a two-part model form for the connectivity plan with the Approved Document?

Q19: If you have any further comments to make regarding the proposals please set them out here.

Q20: Please provide any feedback you have on the impact assessment here, including the assumptions made and the assessment of the potential costs and benefits of the proposed options we have made.

Q21: We would like to know your views on the effects that the proposals would have on the Welsh language, specifically on opportunities for people to use Welsh and on treating the Welsh language no less favourably than English. What effects do you think there would be? How could positive effects be increased, or negative effects be mitigated?

Q22: Please also explain how you believe the proposal could be formulated or changed so as to have positive effects or increased positive effects on opportunities for people to use the Welsh language and on treating the Welsh

language no less favourably than the English language, and no adverse effects on opportunities for people to use the Welsh language and on treating the Welsh language no less favourably than the English language.

Key terms

Access Broadband Cymru

A Welsh Government grant scheme that provides funding to residents, third sector organisations and SMEs to improve broadband connectivity.

Connectivity plan

A model form template for developers to provide information to accompany each application for Building Regulations approval containing sections for information that developers are required to provide, including the particulars of connection to a Public electronic communications network, and sections for developers to provide further information to assist with the building control process.

Fibre To The Premises

A broadband connection where a premises is connected to a public communications network by a fibre optic cable. Also sometimes referred to as full fibre connectivity.

Fixed Wireless Access

A broadband connection where a premises is connected to a public

communications network by wireless technology

Full Fibre Connectivity

A broadband connection where a premises is connected to a public communications network by a fibre optic cable. Also sometimes referred to as fibre to the premises.

Gigabit Broadband Voucher Scheme

A UK Government voucher scheme that provides funding to network providers to deliver gigabit broadband projects to connect homes and businesses.

Gigabit-Capable Broadband

A broadband connection capable of delivering download speeds of at least 1000Mbps

Gigabit-Capable Connections

A broadband connection capable of delivering download speeds of 1000Mbps composed of equipment such as an optical fibre cable, other cabling or wiring, or wireless connection.

Gigabit-Ready Physical Infrastructure

Physical infrastructure or installations, including elements under joint ownership, intended to host wired or wireless gigabit-capable public electronic

communications networks.

Local Broadband Fund

A Welsh Government grant scheme that supports local authorities and social enterprises to deliver broadband to communities.

Network Distribution Point

It is the point at which the network operator’s spine or core network ends.

Network Operator

A provider of a Public electronic communications network.

Network Termination Point

A physical point at which an occupier is provided with access to high- speed electronic communications networks.

Project Gigabit

Project Gigabit is a UK Government project to provide access to gigabit capable broadband to all premises in the UK

Successor Project to Superfast Cymru

A Welsh Government project to deliver full fibre broadband to 39,000 premises.

Superfast Broadband

A broadband connection capable of delivering download speeds of at least 30Mbps

Superfast Cymru

A Welsh Government project that delivered superfast broadband to around 733,000 premises.

Universal Service Obligation

The Universal Service Obligation is a UK-wide measure intended as a ‘safety net’ to deliver broadband to those premises that do not have access to a decent and affordable connection. This is currently defined as a connection delivering at least 10 Mbps download speed and 1 Mbps upload speed.

How to respond

Submit your comments by 28 April 2023, in any of the following ways:

- **complete our online form**
- download, **complete our response form** and

email **enquiries.brconstruction@gov.wales**
- download, **complete our response form** and post to:

New build developments: delivering gigabit capable connections
Building Regulations
Welsh Government
Cathays Park
Cardiff
CF10 3NQ

Your rights

Under the data protection legislation, you have the right:

- to be informed of the personal data held about you and to access it
- to require us to rectify inaccuracies in that data
- to (in certain circumstances) object to or restrict processing
- for (in certain circumstances) your data to be ‘erased’
- to (in certain circumstances) data portability
- to lodge a complaint with the Information Commissioner’s Office (ICO) who is our independent regulator for data protection.

Responses to consultations are likely to be made public, on the internet or in a report. If you would prefer your response to remain anonymous, please **tell us**.

For further details about the information the Welsh Government holds and its use, or if you want to exercise your rights under the GDPR, please see contact details below:

Data Protection Officer

Data Protection Officer
Welsh Government
Cathays Park
Cardiff
CF10 3NQ

Email: dataprotectionofficer@gov.wales

Rydym yn croesawu gohebiaeth yn Gymraeg / We welcome correspondence in Welsh.

Information Commissioner's Office

Wycliffe House
Water Lane
Wilmslow
Cheshire
SK9 5AF

Telephone: 01625 545 745 or 0303 123 1113

Website: Information Commissioner's Office

UK General Data Protection Regulation (UK GDPR)

The Welsh Government will be data controller for any personal data you provide as part of your response to the consultation. Welsh Ministers have statutory powers they will rely on to process this personal data which will enable them to make informed decisions about how they exercise their public functions. Any response you send us will be seen in full by Welsh Government staff dealing with the issues which this consultation is about or planning future consultations.

Where the Welsh Government undertakes further analysis of consultation responses then this work may be commissioned to be carried out by an accredited third party (e.g. a research organisation or a consultancy company). Any such work will only be undertaken under contract. Welsh Government's standard terms and conditions for such contracts set out strict requirements for the processing and safekeeping of personal data. In order to show that the consultation was carried out properly, the Welsh Government intends to publish a summary of the responses to this document. We may also publish responses in full. Normally, the name and address (or part of the address) of the person or organisation who sent the response are published with the response. If you do not want your name or address published, please tell us this in writing when you send your response. We will then redact them before publishing.

You should also be aware of our responsibilities under Freedom of Information legislation. If your details are published as part of the consultation response then these published reports will be retained indefinitely. Any of your data held otherwise by Welsh Government will be kept for no more than 3 years.

Further information and related documents

Number: WG45846

You can view this document in **alternative languages.** If you need it in a different format, please **contact us**.