

Appendix A: Rural broadband additional information

OTHER BROADBAND TECHNOLOGY ROLLOUTS

- Fixed-wireless access
 - In a fixed-wireless access network, masts transmit radio signals through the air to small receivers on individual premises. Most fixed-wireless networks require unobstructed line of sight between the local mast and the premises. Such networks are typically deployed in very rural areas where the cost of deploying fibre is considered to be too high to be viable – although its popularity has appeared to decline in recent years as the cost of deploying full fibre has decreased at the same time as new investment in it has increased.
 - Fixed-wireless access networks are currently not capable of reliably providing gigabit speeds but above-superfast download speeds of 50-100 Mbps are common.
 - Several companies, including Bogons, Broadway Partners/Monmouthshire Broadband Limited and Countryside Connections, operate fixed-wireless access networks in different parts of the county.
- Mobile (4G and 5G)
 - A type of fixed-wireless broadband, mobile broadband connections use the 4G or 5G mobile networks put in place by the four major UK mobile network operators: BT/EE, O2, Three and Vodafone.
 - The capability of mobile broadband connections depends on multiple factors including signal strength (largely dependent on the distance between the premises and the nearest mast), mast speed and capacity (what speeds the mast can provide), and contention (how many other people are using the same mast at the same time).
 - Ofcom data suggests that 95-99% of premises in Wales have 4G mobile coverage (outdoors) from at least one of the mobile network operators, but 10% of the geographic area of Wales is not covered by any operator.
 - Officers are aware that this data is imperfect and are working with a local start-up company, Streetwave, to get a better understanding of mobile coverage in the county.
 - At the moment, public 5G network coverage remains rare in Monmouthshire, but is available in Abergavenny on BT/EE and Three and around Raglan on BT/EE¹; across Wales, 27-38% of premises have 5G mobile coverage (outdoors) from at least of the mobile network operators.
- Satellite
 - Satellite broadband is transmitted wirelessly from an operations hub, to an orbiting satellite, and then to a satellite dish on a subscriber's premises.

¹ Raglan coverage was provided as a consequence of the Connected Communities in the Rural Economy/5G Wales Unlocked project in which MCC was a partner: [5G Wales Unlocked](#)

- In the past, the high cost of launching and maintaining satellite broadband networks meant that customer packages were relatively expensive and provided below superfast speeds with fairly high latency and significant restrictions on usage.
- A new type of system – Low-Earth Orbit satellite – however, offers far higher speeds (as high as 200 Mbps download) and lower latency with much higher or no caps on usage. An example of this new type of satellite broadband is Starlink.

SOURCES OF FUNDING FOR BROADBAND

UK-wide

- UK Government Gigabit Broadband Voucher Scheme²
 - This is one element of UK Government’s Project Gigabit programme.³
 - It provides up to £210 million worth of voucher funding to people in rural areas experience slow broadband speeds.
 - On behalf of eligible premises, broadband operators can claim vouchers worth £1500 for homes and £3500 for businesses to contribute to the costs of installing gigabit broadband to groups of premises.
 - Until the end of March 2022, Welsh Government topped-up these amounts to £3000 for homes and £7000 for businesses.
 - Gigabit Vouchers are primarily used by alternative providers building fibre networks in rural areas (e.g., Broadway Partners) and often comprise the community’s contribution towards an Openreach Fibre Community Partnership.⁴
- Universal Service Obligation
 - The Universal Service Obligation is intended as a ‘safety net’ to deliver broadband to premises that do not have access to a decent broadband connection (defined by multiple parameters, including minimum 10 Mbps download and 1 Mbps upload, data usage of 100GB per month).
 - It gives eligible residents and businesses a legal right to request a decent broadband connection from BT and KCOM (in Hull), the providers
 - Any technology capable of delivering the minimum standards is eligible and the choice of technology is up to the provider. The cost threshold is £3400 per premises – above this, customer have the option of paying the excess costs.

Wales-specific

- Access Broadband Cymru grant scheme⁵

² [Gigabit Vouchers \(culture.gov.uk\)](https://culture.gov.uk)

³ [Project Gigabit - GOV.UK \(www.gov.uk\)](https://www.gov.uk)

⁴ For most prospective Fibre Community Partnership schemes, the main factor in its viability is the degree to which the estimated ‘cost per premises’ falls within the amount that can be claimed from the Voucher Scheme.

⁵ [Access Broadband Cymru grant scheme | GOV.WALES](https://gov.wales)

- This Welsh Government scheme provides grant to fund or part-fund the installation cost of new broadband connections for homes and businesses in Wales.
- New connections through the scheme must deliver a significant change in speed (at least double current download speeds)
- The maximum grant available is £800 for new connections with speeds of 30 Mbps and above.
- The scheme is applied for by residents and businesses, based on a quotation from an Internet Service Provider.
- Grants from this scheme are typically used to fund the connection costs of a fixed-wireless (including mobile broadband) broadband connection.
- Local Broadband Fund
 - This £10 million Welsh Government fund is available to support local authorities and social enterprises to deliver broadband projects locally.
 - The funding can be used to deliver fast, reliable broadband in areas of Wales without access; create new broadband infrastructure; and upgrade existing broadband infrastructure.
 - MCC applied for two grants during the first application window and were successful with both: the Llanthony Valley community scheme and a carrier-grade upgrade scheme connected to the Monmouthshire Broadband Limited network. As the Monmouthshire Broadband Limited project changed in response to contextual changes, the carrier-grade upgrade scheme was deemed no longer required and the grant withdrawn.

PROJECT GIGABIT GAP-FUNDED SUPPLIER PROCUREMENTS

The main element of UK Government's Project Gigabit is the introduction of a Dynamic Purchasing Scheme, through which Internet Service Providers are invited to bid on contracts for providing gigabit capable coverage in intervention areas of different sizes. Areas with sub-30 Mbps speeds will be prioritised and the scheme is technology neutral (though full fibre is preferred).

In England, Broadband Delivery UK (an Executive Agency of UK Government's Department for Digital, Culture, Media and Sport) is managing the gap-funded supplier procurements. In Wales, the role of Welsh Government in Project Gigabit is still unknown, but we understand that the procurement process for Project Gigabit in Wales is expected to begin later in the year. Recent communication from BDUK has suggested that many premises in Monmouthshire will be included in regional lot 15 (Herefordshire), which they currently estimate will be procurement in Q2 2023, with contracts let in Q1 2024.

USEFUL RESOURCES

Data

Ofcom's Connected Nations reports and data: [Connected Nations and infrastructure reports - Ofcom](#)

House of Commons Library's 'Constituency data: broadband coverage and speeds' Data Dashboard: [Constituency data: broadband coverage and speeds \(parliament.uk\)](#)

ThinkBroadband data: [UK Broadband Data | thinkbroadband](#)

Information

Openreach's Fibre Checker: <https://www.openreach.com/fibre-broadband/ultrafast-full-fibre-broadband#fibrechecker> (note that this only includes premises connected to Openreach's fibre network; other providers such as Ogi and Broadway Partners have their own checkers on their websites)

Project Gigabit Delivery Plan – spring update: [Project Gigabit Delivery Plan - spring update - GOV.UK \(www.gov.uk\)](#)

Welsh Government Rolling out fibre broadband: [Rolling out fibre broadband | GOV.WALES](#)

Welsh Parliament Climate Change, Environment, and Infrastructure Committee: Digital connectivity – broadband: [CR-LD15290-E.PDF \(SENEDD.WALES\)](#)

Alternative providers known to be operating in Monmouthshire

Broadway Partners: <https://www.broadwaybroadband.co.uk/>

Bogons: [Bogons Ltd](#)

Country Connect: [Country Connect - Ultrafast Broadband Provider - Country Connect \(country-connect.co.uk\)](#)

Countryside Connections: [Countryside Connections – Rural Broadband Specialists \(countryside-connections.co.uk\)](#)

Ogi: <https://www.ogi.wales/>