

Resources and Fire & Rescue Overview and Scrutiny Committee

16 December 2020

Coventry, Solihull & Warwickshire Superfast Broadband Project and Future Digital Connectivity

Recommendations

1. That the Resources and Fire & Rescue Overview and Scrutiny Committee considers and comments upon the progress that the Coventry, Solihull and Warwickshire (CSW) Superfast Project has made to extend Superfast connectivity across the sub-region.
2. That the Resources and Fire & Rescue Overview and Scrutiny Committee considers and comments on Warwickshire's proposed planning for Digital Connectivity, including mobile technologies.

1.0 Purpose of the Report

- 1.1 The report will provide an overview of the existing Coventry, Solihull & Warwickshire Superfast Broadband Project and proposals to support future Digital Connectivity for Warwickshire.

2.0 Background

- 2.1 The BDUK Superfast Broadband programme started in 2010 and saw Warwickshire lead a partnership with Coventry, Solihull and our five Districts and Boroughs to establish the Coventry Solihull and Warwickshire (CSW) Superfast Broadband delivery team. The team has co-ordinated and managed the programme and the investment funding from a range of partners and stakeholders including Government departments, DCMS and BDUK, the European Regional Development Fund (ERDF) and Coventry and Warwickshire Local Enterprise Partnership.
- 2.2 The BDUK Superfast programme in progress has provided access to Superfast connectivity to 98% of the premises (businesses and residential) within Warwickshire. Superfast connectivity is specified as 24Mbs. This is a mixture of older copper technology, Fibre to the Cabinet (FTTC) and the newer fibre technology, Fibre to the premise (FTTP). The particular benefit of full fibre to the premise connectivity gives access to much higher, gigabit speeds, up to 1000Mbs.

- 2.3 Due to the withdrawal of Coventry CC from the existing contract with our suppliers, Openreach, it has been necessary to re-scope and extend the contract (Contract 3) which will now continue into 2022. This extension will deliver full fibre to an additional 3400 premises, which will take the overall Superfast coverage for Warwickshire to 99%.
- 2.4 In addition to Contract 3, the Warwickshire CSW team has been successful in bidding for £5.7m from the Government's Local Full Fibre Network (LFFN) Challenge Fund. This will deliver gigabit full fibre network connections into 320 of our public buildings including schools, libraries and fire and rescue sites. More importantly, this will bring the gigabit full fibre network into the communities surrounding these buildings ensuring that residential and business premises are also able to access gigabit services.
- 2.5 The Warwickshire team are now testing and trialling the use of mobile 4G technologies to access Internet services in areas where yet to be covered by Superfast or Fibre services. These mobile devices will provide better Internet connectivity for businesses and residents, as an interim measure, until the fibre network can be extended.

3.0 Future Developments

- 3.1 Fundamental to this report is the 'Future Telecoms Infrastructure Review' (FTIR), published by the Government in July 2018, as part of its Digital Strategy and Industrial Strategy, highlighting its aspirations for creating a 'world-class digital connectivity that is gigabit-capable, reliable, long-lasting and widely available across the UK – and to do so at pace'. The Government set out the scale of the task of creating a full fibre future for the United Kingdom with the aim to see 15 million premises connected to full fibre by 2025, with coverage across all parts of the country by 2033, and 5G coverage for the majority of the population by 2027.
- 3.2 At its June meeting, Cabinet agreed that the Place Shaping priorities for Warwickshire would include Digital and 5G and that access to fast high speed and reliable internet is now an important consideration for residents and businesses when considering living, working or investing in Warwickshire. Our local economy depends on our digital infrastructure delivering the necessary connectivity for everyone, both now and in the future. Fast and reliable broadband connections will enable community hubs, public services, and businesses to grow and develop as well as opening up the possibilities of new services for individuals.
- 3.3 The Government is committed to supporting the deployment of gigabit broadband across the country and is investing £5 billion by means of the 'Outside-In' programme to deliver gigabit speeds to the hardest-to-reach

communities in the UK. In addition, the Government have announced a £1 billion 'Shared Rural Network' deal with the mobile networks companies to extend 4G mobile coverage to the most rural parts of the country.

Warwickshire needs to be in a position to take advantage of this investment funding.

3.4 The Government considers Local Authorities will play a critical role in delivering gigabit broadband. The deployment of these networks is complex and requires strong collaboration not only between telecommunications operators, councils and third parties (such as contractors), but also internally within the council. It is crucial that in order for councils to most effectively meet this challenge, all relevant teams - highways, planning, legal, estates and housing - work towards an agreed goal: bringing digital connectivity, along with faster economic growth and greater social inclusion, to local businesses and residents within the appropriate legal and regulatory frameworks.

3.5 The following table indicates the present level of full fibre connectivity for premises across Warwickshire, with national and local comparisons:

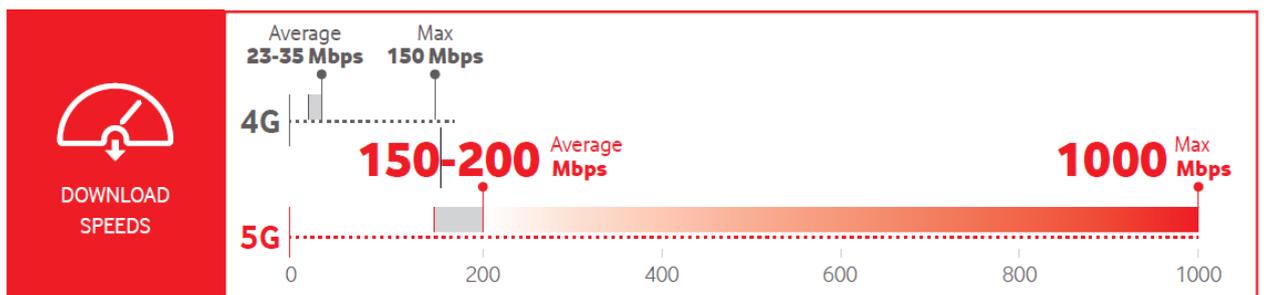
	Warwickshire	Coventry	Oxfordshire	Worcestershire	England
Full Fibre Connectivity (FTTP) to Premises	8.18%	53.75%	14.10%	9.12%	15.37%

Warwickshire's relatively low level of full fibre coverage reflects the fact that it is more difficult and more expensive to deploy fibre connectivity into rural areas.

3.6 The combination of the LFFN programme of work, together with the completion of Contract 3 of the Superfast BDUK programme will help to increase the overall full fibre coverage for Warwickshire. However, at the completion of these programmes, in September 2021, overall full fibre coverage across Warwickshire is estimated to be 20%. A strategic intervention programme will be necessary to ensure that Warwickshire can significantly increase full fibre coverage above 50% by 2025, leading to 90% by 2030.

4.0 Mobile Connectivity - 4G and 5G

- 4.1 4G was launched in 2012, introducing a new wave of faster mobile broadband. In the coming years 4G will continue to improve but the move to 5G will provide a step change in the quality and reliability of mobile internet connections.
- 4.2 Government investment in the 'Shared Rural Network' will help solve most rural network coverage issues – extending 4G coverage to 95% of the UK landmass. In the UK, at least initially, 5G is being built on top of the existing 4G network infrastructure. This means that the improvements being made through the 'Shared Rural Network' will form the basis for future 5G rollout.
- 4.3 5G is not just the next generation of mobile network technology. It is a step-change in both speed and capacity. Offering speeds up to 10 times faster than 4G and a huge boost to network capacity, the benefits will be felt across the economy.



- 4.4 One very positive development of our work is the proposed partnership between Warwickshire County Council, Warwick University and BT. The focus of this work will be to establish a 5G Accelerator in Leamington Spa. This will support Warwickshire businesses and SMEs to better understand 5G technologies. Furthermore, this enterprise will help local tech companies to exploit the advantages that 5G networks will bring to the market and develop new products and services.

5G and Health Concerns

- 4.5 A small number of people have expressed concerns about the potential harmful effects on human health of 5G. There is nothing fundamentally different about the physical characteristics of the radio signals that will be produced by 5G to previous technologies like 3G and 4G. The Government has developed guidance to help councils and local politicians deal with queries from the public, counter misinformation and explain the facts about 5G. This will help support the Council's role in facilitating the roll-out of next-

generation infrastructure, and prevent misleading claims becoming a barrier to roll-out.

5.0 Financial Implications

- 5.1 Government funding in the form of the 'Outside-In Programme' amounts to £5bn in total. A Warwickshire Digital Infrastructure Team would submit a business case to access this funding. Initial estimates of Government funding for Warwickshire is £15m - £20m.
- 5.2 The Warwickshire Digital Infrastructure team will support inward investment from Mobile Network Operators and there will be income from the commercialisation of public assets for installation of small cell and macro cell antennas. The scope of this funding can only be determined following negotiation with Mobile network Operators and their agents.
- 5.3 The Warwickshire Digital Infrastructure team will work in conjunction with the Council and the five Districts and Boroughs to determine any additional financial investment required to deliver the Digital Infrastructure Strategy over time.

6.0 Environmental Implications

- 6.1 International standards have called for 5G to require much less energy to run than 4G, which means using less power while transmitting more data. For example, one kilowatt-hour (kWh) of electricity is needed to download 300 high-definition movies in 4G; with 5G, one kWh can download 5,000 ultra-high-definition movies.
- 6.2 Initially in the UK, 5G is being built on top of the existing 4G network infrastructure. This will potentially increase the height of existing masts to a marginal extent. In the future, more masts will need to be erected, controlled through existing planning legislation

Appendices

None

Background Papers

None

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