DCMS Future Telecoms Infrastructure Review: Call for Evidence, BT's response (January 2018)

Annex 6: Other policy measures supporting investment in telecoms infrastructure networks

Introduction

BT welcomes the Government's commitment to strengthening the digital economy. This review is a vital opportunity to consider what more can be done. As set out in annexes 2 and 3, the commercial business case for rolling out full fibre networks and 5G is challenging due to both uncertainty of demand and the high cost of rollout. We see great potential for the Government to take action to address both.

In addition to the main policy and regulatory levers discussed in previous annexes, there are a number of additional ways in which the Government could help promote investment in telecoms infrastructure. Apart from direct public subsidies, the Government could also directly address factors still reducing the viability of widespread telecoms infrastructure investment.

In part, we think that could be about the Government assessing whether some measures it has taken to facilitate the provision of essential services such as water, gas and electricity would also be appropriate to consider for telecoms services. We list some of these in this annex.

We would also like to discuss where current policy has either increased barriers or not addressed issues undermining investment; some policies work against the Government's objective of rolling out full-fibre networks to at least 10 million premises within the next decade. These include local planning rules and business rates increases for telecoms network assets.

The two tables below set out a number of policy measures that the Government could directly influence that BT believes could:

A. help reduce the cost and risk of investment
B. stimulate incremental demand for high bandwidth services.

We have indicated in the first column in table A where and if an issue applies mostly to fixed infrastructure, mostly to mobile infrastructure or to both.

We have not been able to work through the detail of all of the suggested measures below within the time frame of the current Call for Evidence. We would welcome the opportunity to continue to work with the Government over the coming months to further test and refine them.

A- Policy measures to reduce the cost and risk of rolling out full fibre networks

	Issue	Policy levers
Business rates		
	• Business rates for telecoms network assets ('Cumulo') has increased significantly, creating a significant barrier to investment in fibre. • BT's Cumulo rates for 2017/18 are circa £177m. This is expected to increase to approximately £329m pa in 21/22. • The increase in rates is not offset by current Government proposals for temporary rates relief for new fibre installations. • A collective telecoms industry letter (4 November 2016) highlighted that other sectors faced significantly lower increases. • Sector comparisons based on current data (based on comparison of 2010 and 2017 Central Rating Lists for England, 30/01/2018): 39% increase in rail, 13% water, 5% electricity and 26% gas. The telecoms sector faces a collective increase of 185%. • Furthermore business relief only addresses 'full fibre' services and not mobile infrastructure used for rural not spots or investment or other telecoms technologies such as FTTC.	• Cumulo rates would need to be significantly reduced for telecoms infrastructure if telecoms is to be comparable with other industries which invest in infrastructure projects. • We recommend a review of the assessment of fibre for business rates to make new investment exempt. • We recommend exemption for all infrastructure investment, not just fibre because the latter may be based on the same underlying physical sites used for FTTP in future. We also think there is a strong case for business relief to be extended to mobile infrastructure provided for rural not spots. • We believe relief exemption will need to be longer than the current maximum five year limit, as new network infrastructure typically has a cost recovery of 10 to 20 years.
Access to land and infrastructure		
Wayleaves - Fixed	• All infrastructure providers require wayleaves to allow access to lay cables, etc. This process is complicated and ambiguous for network companies and land owners. • The new Electronic Communications Code (ECC) aims to speed up the time to get wayleaves and reduces costs but it hasn't addressed some fundamental issues. Delays and administrative costs for wayleaves remain a major hidden cost to all infrastructure providers.	• Further work can be done to get a workable standard wayleave template which gives both operators and landowners certainty. • We would to have greater clarity in understanding the new Code- this can be achieved by adding guidance notes in relation to the definition and application of 'market value'. • We would also want this to be combined with standardisation of wayleave processes and procedures to provide reassurance for tenants and landlords and support the rollout of infrastructure.

	Issue	Policy levers
ECC - Mobile	• Ensuring the ECC delivers on its objectives of improving coverage and connectivity for mobile operators as well as fixed. • The ECC provides operators with greater rights over land, including a 'no scheme' approach to valuation. However, some telecoms infrastructure is now explicitly excluded from the ECC, eg, third-party towers used by mobile operators are out of scope.	• It will take time for new rights and valuation methodology to impact and it is important that DCMS keeps the Code under review and take action should: o evidence suggest that deployment costs have not been sufficiently impacted o infrastructure owners remain in positions to seek 'ransom' rents o Growing small cell roll-out require a different approach.
Opening up publicly-owned assets - mainly mobile but also relevant to fixed	• Local and central Government-owned property including land are currently, generally, sites of last resort, rather than first choice for deployment; little progress has been made on improving access. • Given the future need for significantly more sites, public sector assets could play an important role.	• Government Property Unit (GPU) and local authorities should be the case study in the ease of deploying, maintaining and upgrading mobile infrastructure. Improving coverage and capacity should be the principal driver for the GPU's work with MNOs to deliver: o a standard lease developed following operator discussion o 24/7 access terms with a clear process in place for achieving this at all sites o 'No scheme' rents as per the new ECC to be reflected in the rate card o creation of an easy-to-use database, including site details and a clear view on access permits required o consistency of management approach across all Government-owned sites, with a single, swift escalation route into GPU to resolve problems o good practice principles and a standard lease can then be exported across the public sector.

	Issue	Policy levers
Trackside access for train connectivity – mobile and fixed (backhaul)	• Delivering future-proofed connectivity on trains will require trackside infrastructure, so a sustainable relationship with Network Rail will be key.	• BT Group is responding separately to the DCMS Call for Evidence on mobile connectivity on trains.
The role of local authorities		
A strategic approach to mobile connectivity	• Local authorities as economic development planners, as planning authorities and as owners of assets have a major influence in the shape and scale of mobile networks.	• The DCMS-led Local Area Connectivity Group should explore and export good practice regarding LAs' strategic approaches to improving mobile connectivity and developing proactive and positive relationships with operators.
Consideration of mobile communications in permitting new developments	• New developments, particularly in urban areas, often impact on existing coverage but this is rarely considered when planning permission is granted.	• Local authorities should ensure neighbouring mast sites are a material consideration in the planning process, with appropriate action taken should any new development impact negatively on existing coverage.
Support for re-siting masts Subject to 'Notices to Quit' - mobile	• EE faces approximately 500 notices to quit (NTQ) annually where it is required to find an alternative site – but the re-siting process can be complex and lengthy.	• A requirement should be introduced whereby if a mobile site is given an NTQ due to redevelopment, that redevelopment should only be approved when a suitable temporary site can be found to minimise user impact.

	Issue	Policy levers
Street works - permitting scheme - fixed	• Current Highway Authority street works permit schemes, required for any infrastructure build, are not fit for purpose (each Highway Authority has a different approach). • The devolution of permit scheme approvals has created a system with c.100 different permit schemes with variation in requirements by individual authority area and this adds costs, complexity and delays to civil infrastructure build. • Openreach works require approximately 21,000 permit applications a month and of these only 48% are granted first time. • In addition, non-traffic lower category roads (3 and 4) do not appear to warrant the current levels of scrutiny applied to them.	• A standard permit scheme that authorities can opt in or out of is required. Those that opt out would continue to manage their road network via noticing, which does not generate additional cost. • Charges for permits for lower category roads should be removed on these less sensitive categories, as they are not justifiable. • There should be one approval point for LAs, as opposed to separate ones for a permit and each type of traffic management, and these should be subject to standardised timescales across all Highway Authorities.
Street works – Daily Lane Rental Scheme – fixed	• The Department for Transport has recently consulted on proposals to extend daily lane rental charges. • This is being trialled in London and Kent and can incur costs of up to £2.5k per day for works that cannot be completed outside of 'lane rental' times. It isn't clear whether this will be rolled out across the UK. • This is an additional cost in time and resources that could be significantly reduced with co-ordination and management across Government agencies. • The Department for Transport case refers to the cost of congestion caused by street works however it does not currently take into account the economic benefit of the services enabled by utilities.	• We believe that the Government has existing powers to meet the same objectives as lane rental, without need for additional cost and bureaucracy. DCMS guidance and support could significantly improve this type of street works.
Street works – Traffic management, cabinet works and post resurfacing works - fixed	• The Highway Authorities and Utilities Committee (HAUC UK) has published two industry advice notes to support digital infrastructure build to: 1. promote standardisation of traffic management lead times 2. promote sensible categorisation of works for cabinet installation (Standard – 10 day notice period as opposed to major – 3 months' notice period).	• The Government should introduce a means of compelling Highway Authorities to comply with the requirements of these advice notes or associated statutory guidance via introduction of an overseeing body or by converting industry advice into regulation.

	Issue	Policy levers
	• There is an additional advice note due promoting a pragmatic approach to works required post-authority resurfacing (which currently can create restrictions for up to five years). • Infrastructure providers need consistent and predictable requirements to deliver future networks efficiently. • Any ambiguity that allows authorities not to comply adds delays and costs to infrastructure projects.	
National Planning Regulations (mobile only)		
Greater freedom for small cell mobile deployment	Small cells are treated differently within planning regulations, which is becoming increasingly anachronistic. This may impact on the ease of small cell deployment both in urban and, where they can be used as alternatives to macro sites, in rural locations.	The General Permitted Development Order (GPDO) applies to general planning regulations for all buildings. The GPDO can be reformed to address the existing limitations in three ways: on the number of small cells per building, restrictions on placing apparatus near a highway and restrictions on placing apparatus near dwellings.
Technology neutrality	The GPDO differentiates between telecoms technology even where there is no difference in visual impact, increasing deployment costs for mobile relative to fixed, eg, a fixed-line operator can install poles forming part of a broadband network without prior approval and at present an MNO could not install the same pole if they were to include a transmission dish or small cell antenna.	Under the GPDO, fixed-broadband services have a 'no prior approval' regime for certain apparatus, whereas this is not true for mobile. This should be made technology neutral.
Expansion of existing mobile sites	Upgrading existing sites is a necessary investment as new technology is rolled-out, but current rules are too restrictive and ambiguous. The GPDO covers the alteration or replacement of a mast however operators are only permitted to expand by up to one third at any given point. Considering that many monopoles and masts taper to the top this is very restrictive and complex to assess.	Provision should be made to allow an expansion of the existing size of a mobile site – we propose by up to a third. This can apply to both designated and non-designated land To make this work, the clause in the GPDO could be removed and would state only that any alteration or replacement of equipment should be 'up to a third at the maximum width including support structures'.

	Issue	Policy levers
Building regulations (fixed only)		

In Building Wiring for fixed infrastructure	• End customers (businesses and residential) often don't have choice of service provider or certainty that ultrafast broadband will be provided to new homes, often only finding out what network is available and what internal wiring is in place after moving in
	• Developers have no incentive to abide by current building regulations (Government policy set out in the Physical Infrastructure for High Speed Electronic Communications Networks review in 2016):
	  ○ regulations only state that 'buildings must be capable of being connected to' networks. This amounts to little more than a duct entry into premises
	  ○ much more is required to allow customers to connect to new telecoms networks, e.g. appropriate internal cables that will allow high speed services to be delivered more effectively
	• Other utility services are mandated to be installed and operational before the premises can be occupied. This is not the case for telecoms infrastructure.
	• The lack of clarity in the building and home environment creates additional costs for customers and network providers alike when renovating and building new properties.
		• We propose that planning permission as part of the Building Regulations (set by Ministry of Housing, Communities and Local Governments) should mandate open access ultrafast broadband in all new homes, with upfront marketing collateral for all homes sold. This will allow customers a choice of provider and awareness of what is available before they buy.
		• Alongside this, we propose that DCMS should also mandate internal wiring guidance/ standards (British Standards Institution Code of Practice on the 'Design and installation of telecommunication and broadcast infrastructure with the home') to ensure fixed data outlets are installed. This clearly sets out the range of cables needed to allow services into the home, as well as how to carry services around the home. If mandated, customers could access new networks easily and quickly.
		• A final change would require telecoms infrastructure to be installed before occupation of new premises, ie, extend the approvals process required by house buyers/resellers who need a mortgage (National House Builders Council or Professional Consultant certificates). As things stand, other utilities must be pre-installed to receive these certificates but not telecoms.

Building regulations and the provision for mobile infrastructure	• Retro-fitting new buildings to provide better support for mobile deployment will be more costly than ensuring provision is made at the outset for small cells and rooftop sites.	• Amending building regulations (for buildings over a particular height) to design in provision for mobile requirements, would support both external and in-building coverage. This would include:
		  ○ ground floor 24/7 operator only access door
		  ○ stairs down to basement comms room
		  ○ alternate fire-escape route

	Issue	Policy levers
		○ riser up to and horizontally to antenna slot and/or rooftop ○ antenna slot on each corner of building behind GRP façade ○ antenna mounting brackets designed into structure of roof (standard design).

Battery back-up		
	Issue	**Policy levers**
<u>Fixed</u>	• IP voice is a key service over full-fibre and operates differently to PSTN when electricity supply fails (guaranteed access to emergency services requires battery back-up to power the phone line). • Most customers don't require, or could not make use of, battery back-up on their line. The majority (75%) use cordless DECT phones which don't work during a power failure and most homes have mobiles (95%) which could be used in an emergency. • Our concern is that battery back-up could be mandated for all customers on IP voice services. At present we understand that Ofcom are looking to require battery-back-up for certain vulnerable customers. This is appropriate and we are committed to continue working with Ofcom and industry on this. • To give a sense of scale of the industry cost of battery back-up, this capability currently costs circa £40 to £60 per circuit. Even if we assume a ten-fold decrease in costs to between £4 to £6, it will have a significant impact on future industry investment, eg, BT Consumer has about 8.2 million customers so this would generate a cost of between £33m to £49m over the next seven years (when PSTN will be withdrawn). This would be disproportionate considering the number of customers who would want or utilise such a service. • Investment should be allowed to focus on core services. Mandating services that may not be required would run counter to that.	• Ofcom could confirm that CPs are only obliged to provide vulnerable customers with free battery back-up on fibre networks and that other customers can choose to purchase the service if they require it.

B – Policy options to stimulate demand in high bandwidth services

	Issue	Policy levers
Reduce or eliminate VAT on broadband services	• Currently telecoms services are subject to standard 20% VAT rate. Gas and electricity are subject to a reduced VAT rate of 5%, water is zero-rated. Broadband is also an essential service.	• More targeted VAT reductions for high-speed (ultra-fast) services (where available). • This could potentially save consumers up to 20% on broadband bills, potentially encouraging migration to full-fibre.
Government vouchers	• Government vouchers can reduce the cost for consumers and SMEs, eg, where significant up-front installation costs would be incurred. • Government vouchers could be aimed at individuals or at clusters of users. Once fibre has been rolled out to an area under a voucher scheme, the cost of connecting further nearby users will be significantly reduced.	• The specific design of the voucher scheme is critical to success. It is important to be able to identify with some certainty areas where no fibre would be rolled out absent a voucher scheme. • Given the likely spill-over benefits enabling the connection of further users in the vicinity of the scheme, such measures can potentially have significant benefits in bringing forward full fibre investment.
Promotion of high bandwidth services take up by schools and public sector organisations	• In order to reduce the initial hurdle to roll out full fibre to a new area/community schools, hospitals and other public sector buildings could pioneer such services in their local area.	• As for the voucher schemes above, the specific design of such an initiative would be critical to its success. It is important to be able to identify with some certainty public sector organisations that would, absent support, not adopt high bandwidth services. • There would be likely spill-over benefits from voucher schemes enabling the connection of further users in the area, potentially bringing forward full fibre investment. • Pioneering high bandwidth services in schools and public buildings may also encourage additional users and spur new applications creating a virtuous cycle between bandwidth availability, use and its value.

	Issue	Policy options
Evolution of the DTT and IPTV platforms	• It is estimated that by the mid-2020s the current DTT platform's capacity will require upgrading to accommodate future demand. • As the trend to consume TV increasingly via VOD over the internet is expected to continue, a significant share of TV will be delivered via IPTV. • TV is a key driver of demand for broadband infrastructure able to deliver a fast and reliable service.	• It could be significant in bringing forward demand for high- bandwidth services capable of supporting more simultaneous content downloading and streaming per household, increasing certainty of demand for telecoms infrastructure investments. • Ofcom is in an initial research phase to assess the implications of future changes in how TV will be delivered and consumed. • It would help if there was a clear commitment from the Government to prioritise these issues in plans for the DTT network, and the Government could also request that Ofcom factor these issues into the wording of new PSB licences due to be issued over the next few years. • The DTT upgrade could create a converged network with multiple uses that can enable high-quality broadcast capability to mobile as well as fixed-TV devices. The 5GXCast industry group is working to develop standards in this area, with engagement from the BBC and BT (http://5g-xcast.eu/about/). • (At the same time, we understand that any migration plan would need to be mindful of the requirements of broadcasters relying on DTT and of consumers in different parts of the country.)
Measures aimed at reducing barriers to participation in the digital economy	• Some segments of the population don't participate in the digital economy. Barriers include lack of tech literacy but also availability and accessibility of devices used to access the internet. • If such barriers are successfully reduced, more services can be provided online, including public sector services, increasing demand for ubiquitous reliable broadband infrastructure.	• Measures are wide ranging, including initiatives to promote tech literacy; provision of user friendly devices to disadvantaged and vulnerable people, coupled with the digitalisation of public sector services. • To be effective, it requires other measures to follow, including the Government setting out a clear roadmap to digitalising public sector services.