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# Approach to high excess costs under the broadband universal service

## Modification to the Universal Service Conditions

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[Approach to high excess costs under the broadband universal service](#) – Welsh overview

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**FINAL STATEMENT**

Publication Date: 11 November 2021

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# 1. Overview

- 1.1 In this statement we set out our reasons for changing the Universal Service Conditions which require BT to provide universal broadband services. These changes relate to how BT should approach high excess costs under the broadband Universal Service Obligation (USO).

## Why we are making this change

- 1.2 In 2018, the UK Government introduced legislation for a broadband USO, to give people the right to request a decent and affordable broadband connection to their homes and businesses. Under the legislation, if the cost of providing a given connection is no more than £3,400, excluding VAT, then the customer does not have to pay for the connection to be built. If the costs exceed this, the customer can elect to pay the difference.
- 1.3 In 2019, we designated BT as a universal service provider and set the conditions that apply to it. To calculate the costs of a connection, these conditions required that BT must share the costs of the network that can serve multiple premises. Costs are apportioned based on an assumption that 70% of eligible premises in an area will ultimately take a connection. If, on this basis, the cost per premises is no more than £3,400 (excluding VAT) then BT must provide the connection at no charge (other than standard connection and rental charges). However, if on this basis, the cost per premises exceeds £3,400 (excluding VAT), BT must, on request, provide customers with a quote for the excess costs for their premises (which is the calculated cost per premises minus £3,400) in a timely manner. BT must then provide a connection if the customer is willing to pay this excess cost.
- 1.4 In October 2020, we opened an investigation because of concerns that BT may not be complying with our rules in respect of its approach to calculating excess costs. BT's approach meant it was not apportioning the costs of shared network in the way we expected, which resulted in some customers being asked to pay materially higher excess costs.
- 1.5 During the investigation BT provided evidence that where the cost of building a connection is very high, and costs are significantly above £3,400, there is a risk of there being a disproportionate impact on the costs of funding the USO.
- 1.6 Having considered BT's concern, we have decided to change the Universal Service Conditions. This change means that where the excess cost per premises is more than £5,000 (excluding VAT), BT can wait until it has agreement to cover the total excess cost including all the shared network costs before commencing build, rather than commencing build where one customer is willing to pay the excess cost for their specific premises. This will mitigate the risk of a disproportionate impact on the costs of funding the USO. Where the excess cost per premises is less than £5,000 (excluding VAT) there is no change to our conditions.

## What we have decided

Having taken account of responses to our consultation, we have decided to adopt our proposals unchanged:

**Where excess costs are very high, BT can wait until it has agreement to cover the total excess costs before commencing build.** Where the excess cost per premises (that is, the calculated cost per premises minus £3,400) is more than £5,000 (excluding VAT), BT can wait until it has agreement to cover the total excess cost including all the shared network costs before commencing build rather than commencing build where one customer is willing to pay the excess cost for their specific premises. One or more customers can cover all the excess costs of the build, but we expect that very few customers will be willing to pay more than £5,000 (excluding VAT) to receive an upgraded broadband connection under the USO. This change is therefore likely to have a very limited impact on customers but will reduce the risks on cost recovery.

**No changes where excess costs are £5,000 (excluding VAT) or below.** Where the excess cost per premises is £5,000 (excluding VAT) or below, BT must provide a connection if the customer agrees to pay the excess cost.

- 1.7 While there will be customers who will benefit from the USO going forward, there will still be premises where the costs of provision remain very high. These customers are unlikely to benefit from the USO irrespective of the approach taken to shared costs. We will continue to work with industry and the Government to explore alternative technology and funding solutions for premises facing very high excess costs to receive a decent broadband connection.
- 1.8 We are not making any other change to the existing rules on how BT must assess USO connection costs. We are also not proposing to make this same change for KCOM, given the availability of decent broadband services in the Hull Area. We note that, to date, KCOM has not received any requests from USO eligible customers.
- 1.9 The overview section in this document is a simplified high-level summary only. The decisions we have taken, and our reasoning, are set out in the full document.

## 2. Introduction

### Background

#### The 2018 Order

- 2.1 In March 2018 the Government introduced secondary legislation under section 65 of the Communications Act 2003 (the 'Act') setting the requirements for a broadband USO (the '2018 Order').<sup>1</sup> The USO is intended to act as a safety net to prevent social and digital exclusion.
- 2.2 The 2018 Order gives people the right to request a broadband connection to their homes and businesses capable of delivering download speeds of at least 10Mbit/s and upload speeds of at least 1Mbit/s.<sup>2</sup>
- 2.3 The USO is not a broadband rollout programme. Each USO connection will need to be built or upgraded to premises in response to an eligible request.
- 2.4 Eligibility criteria are set out in the 2018 Order. In summary, customers are eligible if: (i) they do not already receive an affordable broadband connection that meets the USO specification; (ii) such a connection will not be provided by a publicly-funded rollout scheme in the next year; and (iii) the cost of building a USO connection is £3,400 or less. Where the costs are higher than this amount, customers will be entitled to be connected if they are willing to pay costs above this threshold.

#### Designation of BT and KCOM as USPs and imposition of universal service conditions

- 2.5 To secure the provision of the broadband universal service specified in the 2018 Order, Ofcom was required to exercise its powers under sections 45, 66 and 67 of the Act to designate universal service providers (USPs) and set universal service conditions on them requiring them to deliver broadband connections and services to eligible consumers.
- 2.6 To fulfil these duties, in 2019 we published a statement (the '2019 Statement') and designated BT as the USP for the whole of the UK, excluding the Hull Area<sup>3</sup> where KCOM was designated.<sup>4</sup> We also set conditions (the '2019 Conditions') that BT and KCOM as the USPs must follow as they deliver broadband USO connections and services.
- 2.7 These cover:

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<sup>1</sup> [The Electronic Communications \(Universal Service\)\(Broadband\) Order 2018](#) (the 2018 Order).

<sup>2</sup> In addition to minimum download and upload speeds, the USO sets technical characteristics that the connection should allow downloading of at least 100GB per month, a contention ratio of no higher than 50:1, and that latency should be low enough to allow for voice calls to be made over the broadband connection.

<sup>3</sup> 'Hull Area' means the area defined as the 'Licensed Area' in the licence granted on 30 November 1987 by the Secretary of State under section 7 of the Telecommunications Act 1984 to Kingston upon Hull City Council and KCOM Group plc.

<sup>4</sup> Ofcom, 2019. [Delivering the Broadband Universal Service](#) (the '2019 Statement').

- the eligibility assessments USPs must carry out when they receive a request for a USO service;
- the delivery timeframes for providing these connections, and requirements to ensure that USO customers will receive the same quality of service as non-USO customers;
- the approach USPs must take to calculating costs of connection, taking into account that infrastructure could be shared in accordance with the provisions of the 2018 Order;<sup>5</sup>
- pricing of USO services to ensure they are affordable so that customers will pay the same price for their USO service as equivalent services across the UK;
- requirements for handling any complaints and dispute resolution; and
- a set of performance reporting requirements to help monitor compliance with these conditions.

## The approach to demand aggregation in the 2019 Conditions

- 2.8 Where a customer makes a request for a USO connection, if the cost of providing a given connection is no more than £3,400, excluding VAT, then the customer does not have to pay for the connection to be built. If the costs exceed this, the customer can elect to pay the difference.
- 2.9 The USP therefore has to calculate the cost of providing the USO connection and, if this exceeds £3,400 excluding VAT, find out whether the customer is prepared to agree to pay the excess including VAT.
- 2.10 We are required by the 2018 Order to ensure that due account is taken of the extent to which costs can be shared when calculating the cost of providing a USO service to a particular location. Our 2019 Conditions set out how costs should be calculated by the USP in circumstances where infrastructure deployed is capable of serving more than one eligible premises with a USO service.<sup>6</sup> This is referred to as ‘demand aggregation’.
- 2.11 Where network can be shared by multiple premises that are eligible for the USO, the provider must calculate the cost that is attributed to an individual premises by dividing the total cost of the infrastructure which is capable of being shared by the number of relevant premises.
- 2.12 The conditions require that the number of relevant premises is the higher of:
- 70% of the total number of eligible premises that are capable of being served by the shared infrastructure; or
  - the actual number of eligible premises that can be served by the shared infrastructure that have requested a USO service.

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<sup>5</sup> Paragraph 1 of Schedule 2 of the 2018 Order provides that in order to facilitate the effective aggregation of demand for connections, Ofcom should ensure that, in calculating the cost of providing a broadband connection to a particular location, due account is taken of the extent to which the cost may be shared between multiple locations. Under section 67(8) of the Act, in setting universal service conditions, Ofcom must have regard to any guidance that is contained in the universal service order

<sup>6</sup> [Universal Service Conditions](#) A.3 (c) and B.8.

- 2.13 Having conducted this calculation, if the provider concludes that the cost for the premises is more than £3,400, it must inform the customer, providing a best estimate on the range of the excess costs and, if requested by the customer, provide a full quotation.
- 2.14 We set out in our 2019 Statement why we decided to take this approach.<sup>7</sup> We considered whether we should require the USPs to use a forecast approach when considering demand aggregation and the sharing of costs, or whether they should use actual demand. An approach using actual demand would mean allowing a period of time for the USP to raise awareness during which it can determine the level of demand; after this period it could assess the cost per premises based on this level of demand. Customers would not know the costs they faced until this period was completed.
- 2.15 We decided a forecast approach was more appropriate to effectively implement the 2018 Order as this would mean the process of connecting customers could start as soon as a customer placed an order, whereas a process using actual demand would introduce a delay whilst the USPs coordinated demand.<sup>8</sup>
- 2.16 Having adopted the forecast approach, we then considered the level of forecast that should be assumed. We took into account several factors including take-up of broadband generally, take-up of broadband services offering a decent broadband service (where available) and whether a different level of take-up may occur in locations where decent broadband is not available. Taking these factors into account, whilst accepting that there would be some uncertainty in any forecast, we decided 70% was a reasonable forecast for the overall long-run take-up of the USO. We noted that a forecast that is too high could increase costs and have a negative impact in terms of increasing customer bills generally in order to recover those costs.<sup>9</sup>

## Funding of the USO

- 2.17 In delivering USO connections, the USPs will incur costs of connecting USO customers. A USP is entitled to request compensation in respect of the net costs it incurs if that cost represents an unfair financial burden on the USP.
- 2.18 In May 2020 we made funding regulations applicable to any requests for compensation in respect of USO associated costs (the 'Regulations').<sup>10</sup> The Regulations were accompanied by a statement which explains our decisions on the rules and procedures that BT and KCOM must follow to make a request for any unfair costs associated with the delivery of the USO ('the 2020 Funding Statement').<sup>11</sup>
- 2.19 Under the relevant provisions of the Act and the Regulations, Ofcom may establish an industry fund to compensate a USP where it has found that the USP in question has been

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<sup>7</sup> Paras 5.55 to 5.109, [2019 Statement](#).

<sup>8</sup> Para 5.86, [2019 Statement](#).

<sup>9</sup> Para 5.95, [2019 Statement](#)

<sup>10</sup> [The Electronic Communications \(Universal Service\) \(Costs\) Regulations 2020](#)

<sup>11</sup> Ofcom, 2020. [Compensating providers delivering universal services](#).

subject to an unfair financial burden. As part of this process, we would determine which other providers should contribute to the cost-sharing fund and by how much.

## Implementation of the USO to date and our investigation

- 2.20 Following the launch of the USO in March 2020, BT has been responding to requests from consumers, including providing quotes where it calculates costs are above the £3,400 threshold.
- 2.21 Following engagement with BT to understand how it had implemented the 2019 Conditions and correspondence from USO customers who had received high excess costs quotes, we became concerned that BT may not be complying with the 2019 Conditions correctly. In particular, we were concerned about how BT was approaching the issue of demand aggregation and providing full quotations to requesting USO customers. We launched an investigation into BT's compliance with its obligations as a broadband USP and its approach to shared costs on 15 October 2020. We identified a significant risk of consumer harm associated with the approach BT was taking, where the costs of a connection were above £3,400. In these circumstances, BT's approach, which sought to recover all excess costs for a build from the first customer to place an order, would likely result in fewer customers requesting connections under the USO, due to being asked to pay materially higher excess costs than might have been the case had BT used the approach we expected them to follow under the 2019 Conditions.
- 2.22 In July 2021 BT provided us with assurances that it would use our expected approach to calculating excess cost quotes, where excess costs are not more than £5,000 above the reasonable cost threshold of £3,400. BT has also refunded affected customers and re-issued previous quotes they have provided. We will take a decision on whether to close the investigation in due course.

## Continuing work to connect the hardest to reach premises

- 2.23 While there will be customers that will benefit from receiving lower quotes going forward, there will be premises where the costs of provision remain very high. These customers are unlikely to benefit from the USO irrespective of the approach taken to shared costs, and BT's change in approach will not generally address these cases.
- 2.24 DCMS has recently sought evidence from a range of stakeholders so it can explore possible options for improving broadband connectivity for very hard to reach premises. We will continue to work with industry and the Government to explore alternative technology and funding solutions for premises facing very high costs to receive a decent broadband connection.<sup>12</sup>

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<sup>12</sup> See [Call for Evidence: Improving connectivity for Very Hard to Reach premises](#).

## Purpose of this document

- 2.25 During the investigation BT provided evidence that where the cost of a connection is very high, so that the excess costs are significant, there is a risk of there being a disproportionate impact on the costs of providing the USO. This could arise because, while a single customer might be prepared to pay these high excess costs, it is less likely that others will do so. Once one customer agrees to pay their excess costs, BT must build all of the infrastructure necessary to connect that premises. This may lead to a significant shortfall in cost recovery when there are few or no other customers that will pay excess costs at this level.
- 2.26 We carefully considered this and, in July 2021 we published a consultation document<sup>13</sup> (the Consultation) in which we proposed to modify the 2019 Conditions to address this risk where excess costs were above £5,000.
- 2.27 We received 14 responses to the Consultation. This included one response from a telecoms provider, one response from a small business, six responses from industry bodies, governments and consumer bodies, and six responses from private individuals.<sup>14</sup>
- 2.28 In this statement we set out our decision in relation to modifying the 2019 Conditions.

## Legal framework for setting and modifying universal service conditions

- 2.29 We have discretion to set and modify the conditions as we consider appropriate to ensure that the 2018 Order is implemented properly and effectively,<sup>15</sup> but in doing so we must have regard to any guidance set out in the 2018 Order made by the Secretary of State.
- 2.30 In setting and modifying universal service conditions, we must act in accordance with the statutory requirements and legal tests set out in the Act, in particular those set out in sections 45 to 48C, 67 and 68. These include a duty to ensure that we are satisfied that any modification of universal service conditions is:
- i) objectively justifiable in relation to the networks, services, facilities, apparatus or directories to which the modified conditions relate;
  - ii) not unduly discriminatory against particular persons or against a particular description of persons;
  - iii) proportionate to what the modified conditions are intended to achieve; and

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<sup>13</sup> Ofcom, 2021. [Consultation: Approach to high excess costs under the broadband universal service - Ofcom](#).

<sup>14</sup> Non-confidential responses are published on our website at [Consultation: Approach to high excess costs under the broadband universal service - Ofcom](#).

<sup>15</sup> This includes ensuring that the conditions (among other things) include a requirement securing that the terms on which a person is provided with a broadband universal service do not require them to pay any amount relating to an unnecessary additional service.

iv) transparent in relation to what they are intended to achieve.<sup>16</sup>

- 2.31 In addition to the statutory requirements and legal tests set out above, in fulfilling our role under the legislation in respect of the implementation of the 2018 Order, we must have regard to our duties under the Act. In particular, we must consider our principal duty to further the interests of citizens in relation to communications matters and the interests of consumers in relevant markets, where appropriate by promoting competition.<sup>17</sup>
- 2.32 We set out our consideration of these legal tests to modify the 2019 Conditions in Section 3.

## Impact assessment

- 2.33 The analysis presented in our consultation document<sup>18</sup> constitutes an impact assessment as defined in section 7 of the Act.
- 2.34 Impact assessments provide a valuable way of assessing different options for regulation and showing why the preferred option was chosen. They form part of best practice policymaking. This is reflected in section 7 of the Act, which means that generally we have to carry out impact assessments where our proposals would be likely to have a significant effect on businesses or the general public, or when there is a major change in our activities. However, as a matter of policy, we are committed to carrying out impact assessments in relation to the great majority of our policy decisions.<sup>19</sup>

## Equality impact assessment

- 2.35 Section 149 of the Equality Act 2010 (the '2010 Act') imposes a duty on Ofcom, when carrying out its functions, to have due regard to the need to eliminate discrimination, harassment, victimisation and other prohibited conduct related to the following protected characteristics: age; disability; gender reassignment; marriage and civil partnership; pregnancy and maternity; race; religion or belief; sex and sexual orientation. The 2010 Act also requires Ofcom to have due regard to the need to advance equality of opportunity and foster good relations between persons who share specified protected characteristics and persons who do not.
- 2.36 Section 75 of the Northern Ireland Act 1998 (the '1998 Act') also imposes a duty on Ofcom, when carrying out its functions relating to Northern Ireland, to have due regard to the need to promote equality of opportunity and regard to the desirability of promoting good relations across a range of categories outlined in the 1998 Act. Our Revised Northern

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<sup>16</sup> Section 47(2) of the Act.

<sup>17</sup> Section 3(1) of the Act.

<sup>18</sup> See [Consultation: Approach to high excess costs under the broadband universal service - Ofcom](#).

<sup>19</sup> [For further information about our approach to impact assessments, see the guidelines, Better Policy Making – Ofcom's approach to Impact Assessment](#).

Ireland Equality Scheme explains how we comply with our statutory duties under the 1998 Act.<sup>20</sup>

- 2.37 To help us comply with our duties under the 2010 Act and the 1998 Act, we assess the impact of our proposals on persons sharing protected characteristics and in particular whether they may discriminate against such persons or impact on equality of opportunity or good relations.
- 2.38 We do not consider that our proposals have equality implications under the 2010 Act or the 1998 Act. In particular, it is not apparent to us that the proposals set out in this consultation are likely to have any particular impact on the following protected characteristics: age; disability; gender reassignment; marriage and civil partnership; pregnancy and maternity; race; religion or belief; sex and sexual orientation. Specifically, we do not envisage the impact of any outcome to be to the detriment of any group of society. This is because our implementation of the 2018 Order seeks to ensure that all consumers, irrespective of their protected characteristics or the part of the UK they live in, can benefit from the broadband universal service if they meet the eligibility criteria specified in the 2018 Order.

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<sup>20</sup> Ofcom, 2019. [Revised Northern Ireland Equality Scheme for Ofcom](#)

## 3. Sharing costs where build is very expensive

- 3.1 In this section we briefly summarise the proposals in the Consultation and respond to comments received. We then set out our analysis, reasoning and decision.
- 3.2 Based on our analysis and taking into account responses, we have decided to make the changes to the 2019 Conditions as proposed in the Consultation. This means that where there are excess costs of over £5,000 per premises (excluding VAT), BT can wait until it has agreement to cover the total excess cost before commencing build, so that the potential for a shortfall is removed. We also include guidance on how BT should raise awareness of the USO where excess costs are £5,000 (excluding VAT) or less per premises.
- 3.3 Throughout the rest of this document, figures exclude VAT unless otherwise stated.

### Summary of proposals in the Consultation

- 3.4 In the Consultation we proposed that where a customer makes a request for connection under the USO, and excess costs are more than £5,000 per eligible premises based on the forecast assumption of 70% take-up in the area, BT is only obliged to build where it has agreement to cover all excess costs. One or more customers can cover all the excess costs of the build.
- 3.5 We expect that very few customers will be willing to pay more than £5,000 to receive an upgraded broadband connection under the USO so this change should have a very limited impact on customers, while reducing the risk that, the very few customers that agree to pay more than £5,000, result in large and disproportionate unrecovered costs.
- 3.6 We proposed no changes to the assessment of premises where excess build costs are £5,000 or below. Where excess build costs are £5,000 or below, based on a forecast of 70% take-up, customers' quotes should be based on this assumed take-up. BT must then provide any connection where a customer agrees to pay their quote.

### Summary of responses to the Consultation

- 3.7 We received 14 responses to our consultation. This included one response from a telecoms provider, one response from a small business, six responses from industry bodies, governments and consumer bodies and six responses from private individuals. We received comments on the proposal in the Consultation and more general comments about the USO. We briefly address comments on the USO more generally such as communications, the level of costs and the quotes process in Annex 3.
- 3.8 In relation to comments about the proposal, most respondents agreed with our proposal to amend the treatment of excess costs in determining eligibility for a USO connection, where excess costs are above £5,000. The comments that disagreed with our proposal were in relation to:

- the effectiveness of our proposal in helping customers with very high costs get connected;
- the effectiveness of our proposal in balancing accessibility of the USO with the impact on funding; and
- the consistency of our proposal with the USO Order.

3.9 In addition, we received comments about access to networks built under the USO.

### **Effectiveness of our proposal in addressing high costs**

- 3.10 Three private individuals [redacted] disagreed with our proposal, mainly on the grounds that it would do little to change the situation for individuals who had received very high quotes for a USO connection. Examples were given of where individuals received quotes in excess of £100k to provide a USO connection.
- 3.11 The Advisory Committee for Northern Ireland (ACNI) expressed concerns that our proposal would not further the USO objective of addressing digital and social exclusion as some consumers in high cost areas would still be unable to afford their share of excess costs and infrastructure may not be built.

### **Ofcom response**

- 3.12 The cost can be very high where there is significant work (particularly civil engineering) required to connect remote locations. Connections that cost no more than £3,400 to build do not require additional payments from customers, but where costs are above £3,400, customers will have to pay the excess cost to be connected. Whilst we want as many people to benefit from the USO as possible, under the scheme as implemented in UK legislation there will be customers that face very high excess costs.
- 3.13 Our proposed approach in the Consultation sought to balance ensuring the USO is accessible to customers facing some excess costs whilst not over-burdening BT and, potentially, a USO fund, with very high costs, due to high build costs not being recovered through excess cost payments from customers as expected under the USO scheme.
- 3.14 We will continue to work with industry and the Government to explore alternative technology and funding solutions to address the fact that many premises face costs which are too high for a connection under the USO scheme to be feasible.

### **Effectiveness of our proposal in balancing accessibility of the USO with the impact on funding**

- 3.15 The Welsh Government felt that as it was unclear what the potential impact of the fund will be on customer bills, and over what time, it is hard to know if our proposal will achieve the correct balance of cost burden between consumers and industry.
- 3.16 One private individual [redacted] argued the figure of £5,000 was arbitrary and will lead to undue discrimination. He suggested an approach using a sliding scale of costs, capped at ten times the RCT (ie £34,000).

## Ofcom response

- 3.17 As set out in the Consultation, and below, we have estimated the size of the shortfall under two demand scenarios. Whilst there is some uncertainty in attempting to forecast the shortfall, we consider this is a reasonable basis to draw conclusions about the balance of costs.
- 3.18 We do not agree that our approach, with a threshold of £5,000, will lead to undue discrimination. Customers above the £5,000 threshold can still access the USO and their excess cost estimate will still reflect the extent to which the costs of their connection can be shared with other premises; this estimate will reflect actual demand instead of an assumed demand level. This approach is justified because of the risk of disproportionate costs from a shortfall in excess cost payments from these premises.

## Consistency of our proposed approach with the USO legislation

- 3.19 One private individual [X] objected to our proposal on the grounds that it is not consistent with the 2018 Order. They argued that this was because our proposal required a USO applicant, where excess costs were above £5,000, to not only pay for their share of the excess costs but those of all other premises in the cluster, when in fact the legislation states “any costs in excess of £3,400 will be paid by the end user” which they interpret as only being their share of excess costs.<sup>21</sup>

## Ofcom response

- 3.20 We do not agree that our proposal is inconsistent with the Broadband USO legislation. Schedule 2 of the 2018 Order requires that in calculating costs, “*due account is taken of the extent to which the cost may be shared between multiple locations.*” Where excess costs are above £5,000 (when a forecast demand of 70% is assumed), the effect of the proposal is to require BT to use actual demand to calculate the share of costs for each premises, rather than using a forecast. We set out in our decision in paragraph 3.48 below the approach we expect BT to take in gathering actual demand. The customer then pays their share of costs based on this actual demand. The specific mechanism for determining the extent to which cost may be shared is not specified and we consider that approaches of using a forecast or actual demand are both consistent with the 2018 Order.

## Access to networks built under the USO

- 3.21 BT requested more clarity on the interaction between the amended USO condition and the Significant Market Power (SMP) obligations as set out in the 2021 Wholesale Fixed Telecoms Market Review.<sup>22</sup> In particular, BT sought clarity on whether it could refuse access to USO infrastructure to customers (and telecoms providers requesting this on behalf of customers) due to unpaid excess costs.

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<sup>21</sup> Broadband USO Order Section 2 (d)(ii)

<sup>22</sup> <https://www.ofcom.org.uk/consultations-and-statements/category-1/2021-26-wholesale-fixed-telecoms-market-review>.

- 3.22 The FCS argued that USO infrastructure should be managed by Openreach as 'open access' to allow consumers to benefit from more competitive broadband offers.

## Ofcom response

- 3.23 Where BT builds a network under the USO, there may be excess costs to be recovered. Whilst costs are outstanding, so that BT can recover excess cost payments from USO eligible customers before connecting them to network it has built, we do not consider that BT's SMP obligations require it to provide access to other communications providers on the terms with which it provides access to its commercially built network.
- 3.24 Once excess cost payments are no longer due from USO eligible customers,<sup>23</sup> BT should provide access to the network on the same terms as other network deployments, covered by SMP conditions.

## Our analysis

- 3.25 Based on responses to the Consultation, we consider the analysis presented in the Consultation remains appropriate. We set out our analysis below.

### The risk of a shortfall in excess cost payments

- 3.26 Since being designated as a USP, BT has been undertaking further work to plan out the network it will need to build to fulfil its obligation to provide USO connections. To do this, BT uses data provided by Ofcom showing which premises currently lack a decent connection and so may be eligible for a connection under the USO. The data is based on our Connected Nations reports and is refreshed each time we publish a new report or update.<sup>24</sup> The latest location data allows BT to revise and refine its models to plan efficient deployment of new network and provide an estimate of the cost of building those new connections.
- 3.27 This updated modelling shows that there are around 66,500 premises where the cost of connection exceeds the £3,400 reasonable cost threshold ('RCT').<sup>25</sup> <sup>26</sup> This modelling also shows that a large proportion of these premises [8<] will share network infrastructure. Where network is shared, BT is required under the 2019 Conditions to calculate the cost of connection at a particular premises by assuming that 70% of the customers connected to shared infrastructure will take up the service. The premises that share the same

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<sup>23</sup> For example, where costs have been recovered through customer payments, compensation from a fund, Ofcom concluding that BT should not be compensated from a fund for a particular build, or BT electing to bear costs itself.

<sup>24</sup> See Ofcom's [Connected Nations and infrastructure reports](#). In addition to data used in our Connected Nations reports, the data provided to BT also takes account of where public schemes will deliver a connection in the next twelve months and so are not eligible for the USO.

<sup>25</sup> The RCT is £3,400 excluding VAT. This is the cost of providing a USO connection to an eligible premises above which any excess costs will be paid by the end-user, as specified in the 2018 Order.

<sup>26</sup> Our analysis is based on BT's modelling of data we provided in January 2021. This data is based on the Connected Nations report and data published in December 2020.

infrastructure are referred to as 'clusters'.<sup>27</sup> BT calculates the shared costs for the cluster based on the 70% forecast, and each customer in the cluster must then decide whether to pay their excess cost, which is the difference between their individual cost of connection and the £3,400 RCT.

- 3.28 BT is currently required to build the infrastructure as soon as one request is assessed as eligible for a connection, with BT and the customer entering into an agreement regarding the payment of excess costs. So, if only one customer agreed to pay their excess costs, BT would be required to build all of the infrastructure needed to connect that customer, even if none of the other customers in the cluster also agree to pay.
- 3.29 BT's modelling of costs, based on the updated data we have provided from Connected Nations since the launch of the USO, shows that there are clusters where, even when the costs of shared infrastructure are divided across 70% of all eligible premises in a cluster, the excess costs that apply to each premises are very high. In these cases where excess costs are very high, there could be a significant shortfall in excess cost payments if fewer than anticipated customers sharing infrastructure decide to come forward. For example, if there are ten customers sharing infrastructure, and the excess cost per premises (at 70% take-up) is £10,000, BT would expect seven excess cost payments and expect to collect a total of £70,000 in excess cost payments. But if only one customer comes forward, there would be a shortfall of £60,000.
- 3.30 The size and likelihood of a shortfall in excess cost payments depends on a number of different factors including:
- The extent to which network is shared between premises. In cases where network is not shared between potentially eligible premises there can be no shortfall in excess cost payments. As the number of premises that share infrastructure increases, excess cost payments are spread across a larger number of customers, so the scope for a shortfall increases.
  - The cost of the shared network assets. Where the shared network assets are costly, the amount of shared costs recovered from each customer through excess cost payments is larger. This increases the value of the shortfall if fewer than 70% of potentially eligible premises come forward.
  - Demand for USO connections. A shortfall will arise where there is at least one order, which means BT must build all the shared infrastructure, but demand is lower than expected, so that there are fewer than expected excess cost payments. If demand is high, BT will recover excess costs through customer payments whereas if demand is very low it may not need to build the infrastructure and so will not incur the costs.

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<sup>27</sup> The USO is technologically neutral, but in general BT uses full fibre to provide USO connections. In its full fibre deployment, a cluster would typically be the premises connected to a specific splitter node. A splitter node is a node where optical splitters are located. Optical splitters are a component in a point to multi-point fibre network where a single optical input is split into multiple outputs. Each of these multiple outputs provides a dedicated connection to a customer premises.

3.31 A shortfall in excess cost payments could increase the net cost of providing the broadband USO. This cost would be borne by BT in the first instance and, if we find that there is an unfair cost burden on BT as a result of the USO, this would be borne by the contributors to a USO fund. Ultimately this could have a negative impact on customer bills as BT and/or contributors seek to recover those costs. We would be concerned if a shortfall in excess cost payments led to a significant increase in the cost of providing the USO. As such we have analysed the potential size of any shortfall.

## Modelling the extent of the risk

3.32 We have sought to understand the scale of the risk from a shortfall occurring where excess costs are high, and the impact that it could have on the cost of the broadband USO. We also looked at how the scale of that risk varies depending on how costly it is to connect different premises.

3.33 We used updated cost data from BT which provided details on the cost of shared network assets, how many premises share those assets and the extent of costs that are not shared between premises. This data covered all of the 66,500 premises that BT's modelling identified as above the £3,400 RCT.

3.34 There is some uncertainty regarding demand for USO connections where customers are required to make an excess cost payment. Some data is available from the excess cost payments that customers have already agreed to make for their USO connections. However, only [X] customers had agreed to pay excess costs as of April 2021, and it is not clear how representative this sample is of demand in the longer term.

3.35 In order to assess the potential size of any shortfall, we used two demand profiles which we labelled 'low' and 'high' respectively to represent a range of scenarios for the proportion of customers that come forward at a given level of excess cost payment. More details of these demand profiles and payments customers have agreed to make are provided in Annex 1. We do not currently have a large amount of data to support a particular forecast and recognise that, in practice, demand could be lower or higher than this range. However, these forecasts help assess any shortfall if take-up is lower than 70% when excess costs are high, and the level of excess costs at which the scale of any potential shortfall could become significant.

3.36 We used the cost data and the demand scenarios to estimate the probability that an order is made within each cluster of premises and the expected number of orders. This allowed us to calculate the expected costs above the £3,400 RCT and the expected revenues from excess cost payments and consequently the expected shortfall.<sup>28</sup>

3.37 The aggregate expected shortfall, across all clusters of premises, using these demand scenarios is £17m in the low demand scenario and £84m in the high demand scenario. This

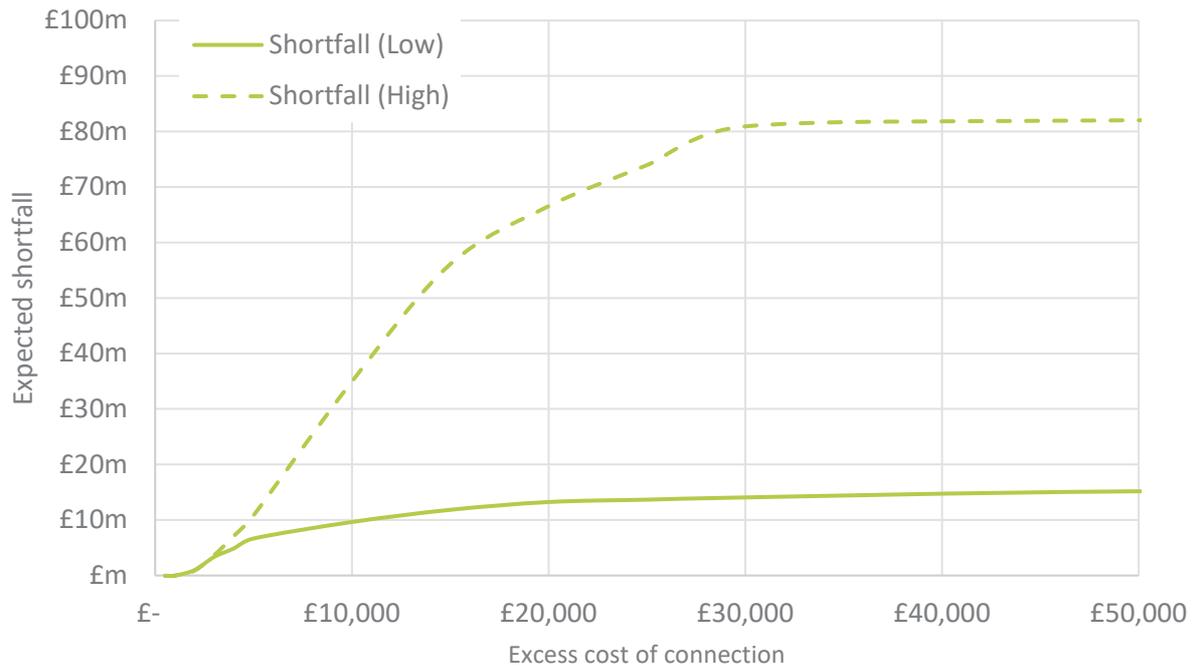
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<sup>28</sup> That is, the expected network build costs at nodes where there is an excess cost per customer, less the RCT at those nodes (i.e. £3,400 \* 70% of potentially eligible premises at the nodes).

shows that there could be a material impact on the cost of providing the broadband USO due to shortfalls in excess cost payments if no mitigation is put in place.

3.38 However, this figure masks a wide variation between premises. Figure 3.1 shows the cumulative value of the expected shortfall, in each demand scenario, depending on the cost of connection for the premises.

**Figure 3.1: Expected shortfall by excess cost of connection**

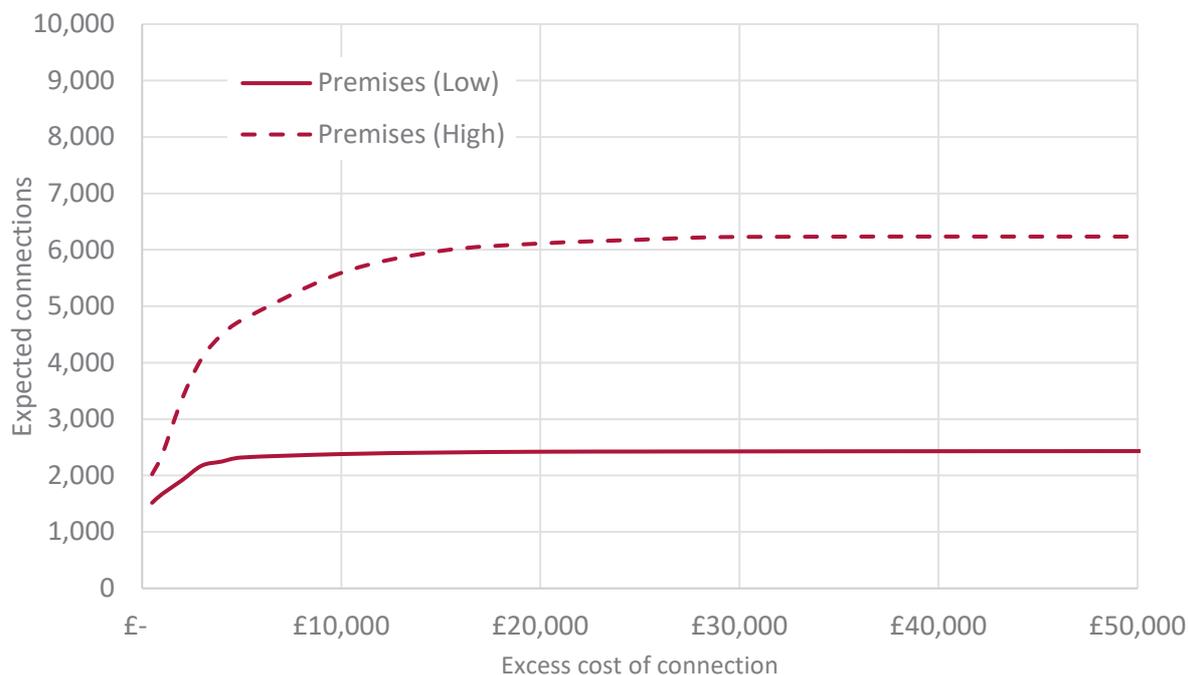


Source: Ofcom analysis of BT splitter node data

3.39 The chart shows that the bulk of the expected shortfall is driven by those premises that are more expensive to connect. Those premises where the excess cost per premises is £5,000 or less account for only £7m of the £17m total in the low scenario and only £11m of the £84m total in the high demand scenario.

3.40 Figure 3.2 shows the expected number of premises connected, in each demand scenario, depending on the excess cost of connection for the premises

**Figure 3.2: Expected premises connected by cost of connection**



*Source: Ofcom analysis of BT splitter node data*

- 3.41 Figure 3.2 shows that the majority of the expected customer connections come from the premises that are less expensive to connect. In the low demand scenario, we would expect around 2,400 premises to be connected in total; nearly all of these (95%) are premises where the excess cost of connection is no more than £5,000 above the RCT. In the high demand scenario, we would expect around 6,200 premises to be connected in total; of which 4,800 (75%) are premises where the excess cost is £5,000 or less.
- 3.42 Given the very limited extent of the risk of a shortfall in excess cost payments where the excess cost of connection is £5,000 or less, we think the current eligibility process using the 70% take-up forecast to share costs of shared infrastructure works well.
- 3.43 For premises that have an excess cost of connection greater than £5,000, a relatively large risk of a shortfall in excess costs is driven by a relatively small number of expected connections. We have therefore considered some changes to the treatment of excess costs in determining customers' eligibility for these premises, that could mitigate this risk.

**A change in the treatment of excess costs to mitigate the risk of a shortfall in excess cost payments where excess costs are above £5,000**

- 3.44 One way to avoid the possibility of a shortfall in excess cost payments where excess costs are above £5,000 per premises is to change the eligibility process so that build commences once all the excess costs are covered.
- 3.45 This would mean that BT would calculate excess costs for each premises, as now, using a forecast take-up of 70%. However, where this approach resulted in an excess cost per premises of more than £5,000, BT would be permitted to decline to commence building

until it had enough actual orders to cover all the excess costs of building to a cluster of premises. BT would also be allowed to quote a higher price (compared to the price assuming 70% take up), to allow costs to be covered by a single customer or subset of customers.

- 3.46 This approach would eliminate the possibility of an excess cost shortfall. However, it could introduce a delay in build (if initial customers have to wait for others to agree to contribute to excess costs) or could increase costs for customers that choose to pay all the excess costs for a cluster of premises.<sup>29</sup> As set out above, we consider this will impact a very small number of customers (between 5-25% of premises where the cost of connection exceeds the £3,400 RCT) so overall any impact on customers accessing the USO is likely to be limited.

## Our decision

- 3.47 We have decided to modify the 2019 Conditions (specifically to modify condition B.11 and to add a small number of new definitions) in relation to the approach to excess costs in assessing eligibility such that:
- a) where excess costs are £5,000 (excluding VAT)<sup>30</sup> or less per premises, BT must connect customers on request if there is agreement that the excess costs relevant to their premises will be paid (as currently required by the 2019 Conditions); and
  - b) where excess costs are above £5,000 (excluding VAT) per premises, BT must connect customers where there is agreement to pay the total excess costs of connecting a cluster of premises that share network assets. We recognise there could be cases where a single customer may wish to pay all, or a significant portion, of the excess costs, and cases where a subset of customers may wish to contribute at different levels. We expect BT to take reasonable steps to support different approaches. Where a single customer does not commit to paying the total excess costs, this would include waiting a reasonable period of time (for example, 6 months) during which time BT should raise awareness within a community to allow demand to be aggregated.<sup>31</sup>
- 3.48 Where excess costs are £5,000 or less (excluding VAT) and BT builds shared infrastructure to provide a connection where a customer agrees to pay the excess costs relevant to their premises, BT should make reasonable efforts to raise awareness amongst other potentially eligible premises on this infrastructure once build commences. To do this, we would generally expect BT to contact the customer on several occasions, such as:

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<sup>29</sup> When we set the 2019 Conditions, we used the forecast approach specifically to avoid such delays.

<sup>30</sup> The proposed modification to the 2019 Conditions refers to the threshold of £8,400 (excluding VAT) as we have taken account of the RCT of £3,400. The threshold of £8,400 (excluding VAT) is therefore the same as excess costs of £5,000 (excluding VAT) above the RCT to which we refer in this consultation.

<sup>31</sup> We note BT has recently implemented a similar approach where, once an initial customer expresses interest, a community scheme can be established via a crowd funding website. We understand that BT intends to continue with that approach.

- i) an initial letter to make the customer aware of their potential eligibility for the USO (this will usually occur before build is triggered);
  - ii) further notification that build in the area has been triggered and the excess costs they would need to pay in order to be provided with a service;
  - iii) a notification once build is complete, allowing a reasonable period for the customer to respond (such as 3 months); and
  - iv) further notifications where BT considers this could be effective in getting more customers to sign-up.
- 3.49 Where the customer has already contacted BT and has received information, such as a quote, but has chosen not to progress, BT will need to take into account the previous contact with the customer in any further communications, so as to not over-burden the customer with unwelcome communications.
- 3.50 In notifying customers, we would expect BT to look to use all effective practical means of communication (for example calling back customers who have indicated they would welcome this).
- 3.51 Once infrastructure is built, BT should continue to require all subsequent customers to pay their share of excess costs until there are no outstanding excess costs. This could be as a result of payments from customers where take-up is high, the resolution of a funding claim, or BT waiving the costs and/or deciding not to submit a request for compensation in respect of outstanding excess costs for the specific infrastructure.
- 3.52 Where BT seeks to recover excess costs through a request for compensation from an industry fund, we would expect it to be able to provide evidence it has taken reasonable steps to raise awareness, such as those set out above.
- 3.53 We will continue to work closely with BT to ensure that it implements the USO in line with our regulation and to monitor the effectiveness of the conditions imposed on BT (and KCOM) in delivering the USO. We will also work with government and industry to explore solutions for the premises that do not get served by the USO, public schemes or commercial build.

## Legal tests

- 3.54 For the reasons set out above and summarised below, we are satisfied that the modifications to Condition B.11 and the definitions used for the purpose of this Condition meet the relevant tests set out in the Act. These modifications to the Condition continue to form part of the process of ensuring that the 2018 Order is implemented properly and effectively as required by the Act.
- 3.55 When deciding to modify the 2019 Conditions under sections 45 to 48 and 48A of the Act in a particular case, we must be satisfied that the legal tests in section 47(2) of the Act are met. We consider that the modifications to Condition B.11 and the definitions used for the purpose of this Condition are:

- a) objectively justifiable, as we have taken account of evidence which shows that where the cost of providing a USO connection is very high, and excess costs of providing that connection by BT are more than £5,000 excluding VAT above the RCT, there is a risk of there being a disproportionate impact on the costs to BT of providing very expensive connections and potentially other providers contributing to an industry fund. The modifications seek to mitigate that risk by enabling BT to recover appropriate excess costs before the build is commenced;
- b) not unduly discriminatory, as while we only propose to modify the 2019 Conditions imposed on BT and not on KCOM as the USP for the Hull Area, we note that to date KCOM has not received any requests from USO eligible customers given the availability of decent broadband services in the Hull Area;
- c) proportionate, as the proposals seek to make only small, technical modifications to the 2019 Conditions imposed on BT in order to better meet our objectives of delivering decent broadband connections to consumers, whilst limiting the costs of providing very expensive connections to BT and potentially other providers contributing to an industry fund; and
- d) transparent, in that the modifications seek to ensure that BT has clear and workable criteria and processes to determine eligibility and deliver USO connections and services to eligible USO customers. Further, we consulted widely on making the modifications to the 2019 Conditions.

3.56 We also consider that the modifications to the 2019 Conditions meet our duties under section 3 of the Act and the six requirements in section 4 of the Act. The modifications to the 2019 Conditions further the interests of citizens in relation to the communications matters and the interests of consumers in the relevant markets as well as meet the six requirements in section 4 of the Act because they seek to ensure that BT continues to have clear and workable criteria and processes to determine eligibility and deliver USO connections and services to eligible USO customers, thereby making the eligibility checking process easy to understand and navigate from consumers' perspective.

# A1. Modelling the potential scale of a shortfall in excess cost payments

## Summary

- A1.1 In this annex we assess the potential scale of a shortfall in excess cost payments (the ‘shortfall’) and the impact that a strategy to mitigate that risk could have on the scale of the potential shortfall and on customers.
- A1.2 We first model the excess costs in the absence of mitigation, then model a range of different excess cost thresholds above which the eligibility process is altered so that a shortfall cannot occur.
- A1.3 We find that the risk of a shortfall is modest for premises that are relatively inexpensive to connect (i.e. those where the cost of connection is no more than £5,000 above the RCT). We expect that few customers will be willing to pay more than £5,000 for a USO connection to a premises.<sup>32</sup> However, if an order is made for these premises, there are very high costs to recover and the likelihood of further orders being made may be low.

## Data and approach to modelling

### The cost of connecting USO premises

- A1.4 BT provided a dataset which has details of the costs of providing USO connections to around 66,500 premises in the UK that do not currently have a decent connection and where the cost of connection exceeds the RCT.
- A1.5 The data is arranged by individual splitter node (‘node’), which, in BT’s full fibre deployment, are generally the nodes by which clusters are defined for the purposes of the USO.<sup>33</sup> For each node, data is provided on the number of potentially eligible premises connected to that node and the total estimated cost of connecting 70% of those premises. The total cost is further broken down into two components: the estimated shared cost (i.e. costs of the infrastructure which is shared between premises connected to that node) and the sum of estimated non-shared costs (i.e. costs that are specific to individual premises).<sup>34</sup>

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<sup>32</sup> In addition, customers would have to pay VAT on the excess cost payment so a £5,000 excess cost would result in a customer needing to pay £6,000 to secure a USO connection.

<sup>33</sup> A splitter node is a node where optical splitters are located. Optical splitters are a component in a point to multi-point fibre network where a single optical input is split into multiple outputs. Each of these multiple outputs provides a dedicated connection to a customer premises.

<sup>34</sup> The total estimated shared cost is based on an assumption that 70% of potentially eligible premises at the splitter node require a connection.

A1.6 Figure A1.1 shows the cost profile of these premises based on the size of the excess cost payment.<sup>35</sup>

**Figure A1.1: Number of premises by expected excess cost payment**

[X]

**Demand for USO connections where an excess cost payment is required**

A1.7 It is difficult to predict the likely demand for USO connections where customers are required to make an excess cost payment. Residential broadband services typically charge a monthly fee for the broadband service and upfront payments are usually small. Consequently, there is no market wide data available that would allow for a more formal estimate of demand for connections where customers are required to make an excess cost payment.

A1.8 We looked at the data provided by BT on the amounts that customers have agreed to pay, to get a USO connection up to May 2021. This data shows us what customers have been willing to pay, however it is difficult to draw firm conclusions about the profile of demand as the USO has only been available since March 2020, relatively few customers had agreed to pay excess cost to that point and there could be further applicants after that date and in the future. It is therefore unclear how representative this sample is of demand in the long term.

**Figure A1.2: Proportion of USO orders by excess cost payment**

[X]

A1.9 These data show that overall, relatively few customers have been willing to pay large sums for a USO connection with only [X] orders, to May 2021, from a population of around 66,500 potential applicants. We also note that the majority of orders (70%) are from customers where the excess cost payment was £5,000 or less (excluding VAT).

A1.10 Whilst it is difficult to predict demand at any given level of excess cost, we used a set of demand profiles in order to model the potential impact on the number of customers that might be impacted by different approaches, and the impact on the fund.

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<sup>35</sup> This is calculated as the total expected costs at the splitter node divided by the number of relevant premises (70% of the eligible premises) less £3,400.

**Table A1.1: The probability that a potentially eligible premises will make an order, by excess cost band**

Excess cost	£0-500	£500-1k	£1-2k	£2-3k	£3-4k	£4-5k	£5-10k	£10-15k	£15-20k	£20-30k	over £30k
<b>Low scenario</b>	70.0%	22.6%	7.4%	7.2%	2.4%	2.8%	0.5%	0.3%	0.3%	0.1%	0.1%
<b>High scenario</b>	70.0%	50%	30%	20%	14%	10%	7%	5%	3%	2%	0.1%

Source: Ofcom

A1.11 We think that these scenarios could represent a plausible range for how long-term demand for USO connections might turn out. However, we recognise that, in practice, demand may turn out to be higher or lower than these profiles. We use them here only to test the sensitivity of the cost shortfall to changes in demand profiles.

## Our approach to modelling

### Overall approach

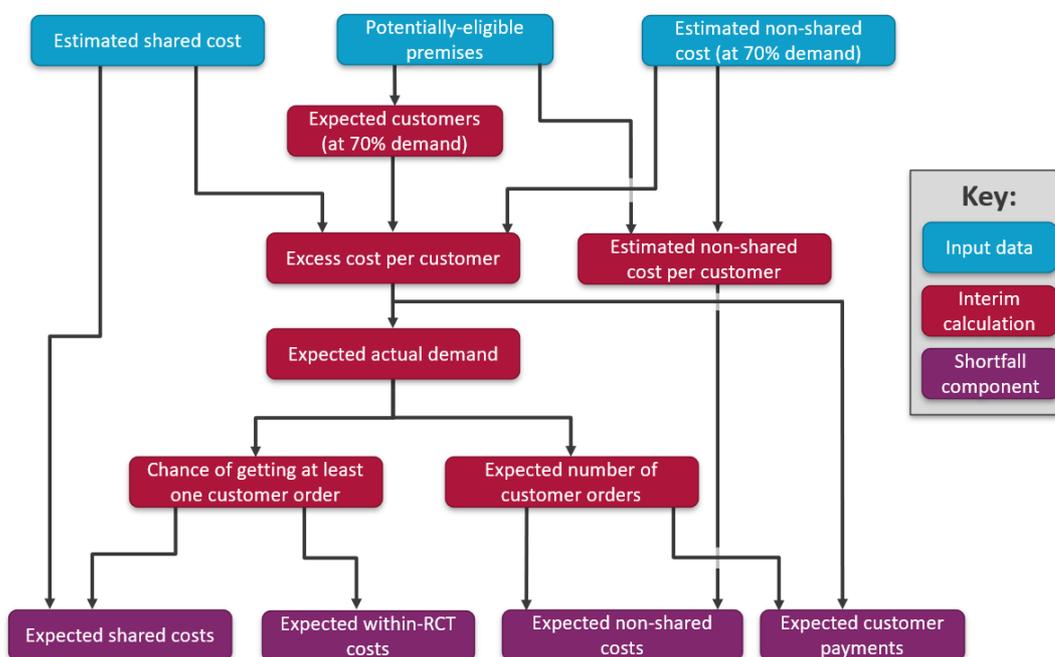
A1.12 We are interested in understanding the potential impact of imposing a threshold on excess costs, which would mitigate the likelihood of a shortfall in excess cost payments. We have estimated the overall shortfall and number of customers connected in a range of scenarios, first without imposing a threshold at all and then with a range of different threshold levels. This allows us to see the trade-off between the number of customers connected and the potential shortfall in excess cost payments at different levels of threshold.

A1.13 We estimate the expected shortfall at each node in the dataset provided by BT. The shortfall at each node is calculated as follows:

$$\begin{aligned}
 \text{Expected shortfall} &= \text{Expected shared costs} \\
 &+ \text{Expected non-shared costs} \\
 &- \text{Expected within-RCT costs} \\
 &- \text{Expected customer contributions}
 \end{aligned}$$

## Calculation method

Figure A1.3: Map of calculation logical flow



Source: Ofcom

- A1.14 The first step in the calculation is to calculate the excess cost per customer at the node using the 70% demand level specified in the USO conditions. This is the amount that any ordering customers will need to pay, and so determines the likelihood of a given customer making an order for a connection at this node.
- A1.15 We use the demand profiles outlined above to determine the probability that at least one order is placed at the node, given the size of the excess cost payment. BT must build the connection if at least one valid order is made so this calculation determines the probability that the node will be built.<sup>36</sup>
- A1.16 We use the probability of there being at least one order at the node to calculate:
- Expected shared costs:** these will be incurred if there are any orders at the node. We calculate these costs by taking the estimated shared costs at the node and multiplying them by the probability that there is at least one order at that node.
  - Expected within-RCT costs:** we calculate the total within-RCT costs at the node by taking the expected customers at the node assuming 70% demand and multiplying this by the £3,400 RCT level. We calculate the expected within-RCT costs by multiplying this total by the probability that there is at least one order at the node.

<sup>36</sup> For example, at a node with 3 premises and an expected actual demand level of 10%, the chance of at least one order being placed is given by the formula  $1 - (100\% - 10\%)^3 = 27.1\%$ .

- A1.17 We separately calculate the likely total number of applications at the node using the same demand profiles.<sup>37</sup>
- A1.18 We use the expected number of orders at the node to calculate:
- a) **Expected non-shared costs:** these will be incurred separately for each ordering customer. We calculate these costs by multiplying the expected number of orders at the node by the estimated non-shared cost per customer.
  - b) **Expected customer contributions:** these will be paid by each ordering customer. We calculate these contributions by multiplying the expected number of orders at the node by the excess cost bill per customer at that node.
- A1.19 The difference between the expected costs (expected shared costs + expected non-shared costs) and the expected contributions (expected within-RCT costs + expected customer contributions) is the expected shortfall at the node.
- A1.20 We run these calculations for all nodes with no threshold applied to assess the overall expected numbers of connections and the aggregate expected shortfall. We then run the calculations again at various threshold levels.
- A1.21 When applying a threshold, we check at each node whether the excess cost per customer (as set out above) is over the selected threshold level. If it is, then we presume that no orders are made, no costs or contributions are incurred, and there is no expected shortfall.
- A1.22 This is a simplification, as in reality we would expect some connections to be built at these nodes, for example where individuals or groups of customers decide to pay the total excess cost bill at that node. This means that our estimated number of premises connected may be an underestimate of the number of premises that are eventually connected. This does not affect the expected shortfall, as in any of these cases of building where the per-customer bill is above the threshold level, there will, by definition, be no shortfall.

### Scenarios tested

- A1.23 For each demand profile we have tested excess cost thresholds at various intervals between £500 and £50,000, considering the number of premises connected and the overall shortfall for each threshold level.

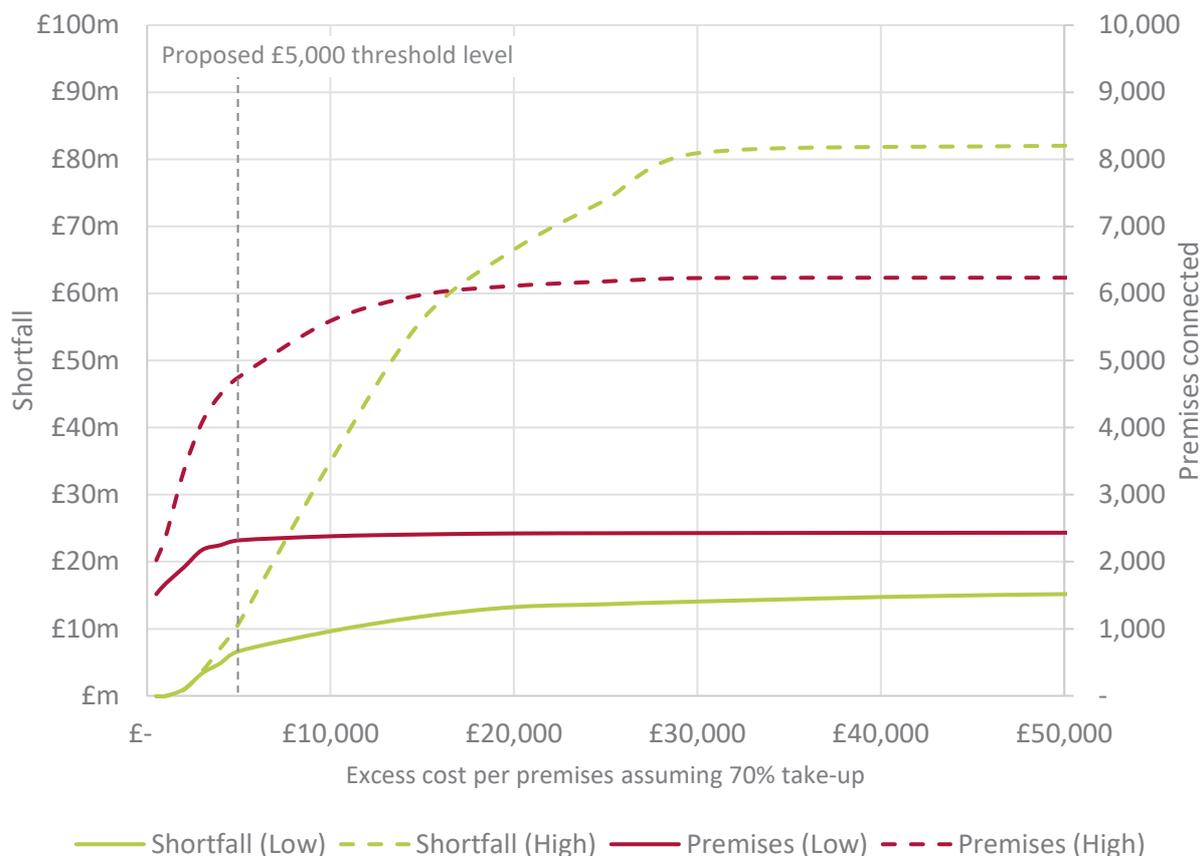
## Results

- A1.24 The results of our analysis are presented in Figure A1.4, below.

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<sup>37</sup> For example, at a node with 3 premises and an expected actual demand level of 10%, the expected number of orders is 3  
\* 10% = 0.3 orders.

**Figure A1.4: Shortfall and premises connected at different threshold levels, by demand profile**



Source: Ofcom analysis of BT splitter node data

- A1.25 Setting a higher threshold level leads to network that connects premises that are more expensive to build being deployed on the basis of the first order. As expected, this leads to more premises being connected, as more nodes fall under the threshold level, and a larger shortfall, being incurred.
- A1.26 The high demand scenario leads to larger shortfalls, as it is more likely that each node will have at least one order (which will trigger the building of the node and the associated costs). Higher demand also leads to more orders and so more excess cost payments, but this effect is dominated by the impact of demand on the probability that the node is built. The higher demand scenario also results in more premises being connected, as more customers place an order.
- A1.27 As the threshold level is increased the marginal number of premises falls more quickly than does the marginal increase in the shortfall. This is shown by the number of premises being connected flattening off at lower levels of thresholds, while the shortfalls continue to rise and only flatten off at higher levels of thresholds.
- A1.28 This means that there are levels at which a threshold could be set which leave the eligibility process undisturbed for most of premises that we expect to make an order, while limiting the risk of a large shortfall. Under the 'low demand' profile, a threshold of £5,000 would limit the expected shortfall to around £7m, less than half of what we expect it could rise to

if uncapped (£17m). The vast majority of expected customers in this scenario (95%) have a cost of connection that is less than £5,000 above the RCT. In the high demand scenario, we see a similar pattern; the expected shortfall is £11m compared to £84m without a threshold. We would expect around 6,200 premises to be connected in total in the high demand scenario; of which 4,800 (75%) are premises where the excess cost is £5,000 or less.

- A1.29 Under the high scenario, the number of premises connected increases at a slower rate above £5,000 and flattens off at around £10,000 - £15,000. Setting a higher threshold could, when considering the high demand case, allow some of these remaining 1,400 premises to connect. However, this would increase the shortfall substantially from £11m to over £30m if a threshold of £10,000 is used, or over £50m if a threshold of £15,000 is used. A higher threshold would have very little impact on the number of customers connected in the low scenario.
- A1.30 On this basis, we consider a threshold of £5,000 best balances the number of customers that might be connected with mitigating the risk of a high shortfall.

## A2. Other responses to our Consultation on the USO

A2.1 We also received responses regarding:

- The design of the USO scheme
- Customer information and communication
- The quotes process
- Level of costs
- Interaction with publicly funded schemes

### Design of the USO scheme

A2.2 A number of stakeholders used their responses to propose changes to the design of the USO scheme. The Welsh government felt the current 10Mbit/s download speed was unambitious and called for it to increase to super-fast speeds. A private individual [X] proposed that the minimum download speed is increased to 24Mbit/s to take in to account increased use of services such as video calling.

A2.3 Another private individual [X] proposed changes to the specification of the USO that they believed would reduce the costs of connections. They proposed that customers should be allowed to influence the design of the connection where they had ideas that could reduce costs and properties that could receive speeds of over 10Mbit/s should be included if it would reduce the cost of connection. The same individual argued that the most a customer should pay in any circumstances should be capped at £3,400, as this was the customer expectation of the USO scheme.

### Ofcom response

A2.4 The specification of the USO and any amendments to it is a matter for government to consider. The Digital Economy Act 2017<sup>38</sup> sets out two mechanisms which allow the UK Government to review of the USO: A discretionary power that allows the Secretary of State to direct Ofcom to review the USO at any time (after consulting with Ofcom) and a requirement to review the USO when the uptake of superfast broadband (30Mbit/s or more) reaches at least 75% of UK premises.

A2.5 With regards to allowing more customer input into the design of USO connections, we do not believe it is reasonable or practical to oblige BT to involve end users in the design or cost of providing a USO connection. In any case BT is obliged to meet the USO using the most efficient technology available to it. In communicating to customers BT should be open to explaining why this is the efficient approach.

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<sup>38</sup> <https://www.legislation.gov.uk/ukpga/2017/30/contents>

## Customer information and communications

- A2.6 A number of stakeholders commented on information provided to both individual applicants and to the wider community about the USO.
- A2.7 Which? proposed that when a customer applies for a USO connection, BT should inform them how much it would cost and how long it would take to build. They also proposed where customers do not agree to pay excess costs above £5k, BT should provide them with information on the timescale over which they will seek to aggregate demand and what will happen if funding targets are not met.
- A2.8 One private individual [redacted] alleged that BT had refused to provide a detailed breakdown of the costs of connection in some cases, despite the USO applicant requesting them.
- A2.9 N McKenzie and Sons suggested that BT should be obliged to tell customers how many metres of new fibre cabling would be laid as part of a USO build.
- A2.10 In terms of information to the wider community two respondents (Which? And N McKenzie and Sons) proposed there should be stronger obligations on BT to raise awareness amongst eligible premises where demand could be aggregated. Which? also proposed that other organisations could have a role in raising awareness.
- A2.11 The Welsh Government proposed that rural businesses should be proactively identified by BT in areas where high excess costs were incurred as they may be more likely to pay high excess costs.

## Ofcom response

- A2.12 Under the Universal Service Conditions if a customer requests a full quotation of excess costs, BT is required to prepare and provide a full quotation to the USO customer together with an explanation of the nature of the costs involved as soon as reasonably practicable.
- A2.13 At the point the customer commits to a USO build they should know the cost; where there is a period of demand aggregation prior to this we expect BT to communicate this to customers. Timeframes for build can inevitably vary but again we expect BT to keep customers up to date with likely provisioning times.
- A2.14 Our Universal Service Conditions already oblige BT to take reasonable steps to raise awareness of the potential availability of broadband USO among members of the public. In this Statement we have decided that where costs are above £5k and a single customer does not commit to pay these excess costs, BT should wait a period of time during which they should raise awareness within the community to allow demand to be aggregated. This could include working with local organisations and businesses who may be more willing to pay the higher excess costs. We do not believe any stronger obligations are necessary.

## The quotes process

- A2.15 Two applicants had comments on the USO quotes process. Ombudsman Services asked for clarity on the quotes process in the following scenarios: 1. where a consumer who had

previously declined to pay excess costs changing their mind; 2. where a new home owner was willing to pay excess costs when the previous owner had declined, and 3. where take up of the USO was higher than 70%. N McKenzie and Sons proposed that BT should be obliged to use the same methodology for assessing how many premises could share the infrastructure under a USO quote as is used for the Openreach Community Fibre partnership and where a USO quote is higher than one provided by the Openreach Community Fibre partnership, BT should be obliged to justify the difference in cost.

## Ofcom response

- A2.16 USO eligible customers can ask for a new quote at any time and can decide to pay it. This still applies if ownership of the property has changed. In terms of calculating shared costs, costs are calculated on the basis of actual take up or 70% take up, whichever is the greater.
- A2.17 The Openreach Community Fibre partnership is a commercial agreement, whereas premises connected under the USO have to be eligible according to the government set specification. The two schemes are not comparable and seek to address different issues.

## Level of Costs

- A2.18 Three respondents raised concerns that our proposal failed to take in to account the impact of high excess costs on rural areas. The Welsh Government expressed concerns that rural areas would be disadvantaged by our proposals as they would typically face higher costs and may have to wait longer to be connected. One private individual [redacted] raised objections to BT's practice of offering 4G Fixed Wireless Access (FWA) solutions where they are available and meet the Universal Service specification. They claimed in some rural areas data on wireless coverage was not accurate, so these connections did not work as promised and the consumer was then obliged to cancel the contract and reapply for a USO connection.
- A2.19 One private individual [redacted] felt that our proposals did not factor in the need to address carbon reduction and rural poverty.
- A2.20 The Advisory Committee for Northern Ireland (ACNI) asked if Ofcom had considered other approaches such as exploring if the costs of delivering services to rural areas could be recouped from savings accrued from delivering high speed services in urban areas.
- A2.21 A number of respondents were keen that BT should consider alternative technologies as a way of minimising costs of delivering USO connections. Which? and the Federation of Communications Services (FCS) proposed alternatives such as 4/5G technology be considered where costs of deploying a USO connection was high. Which? also proposed that BT should be obliged to inform applicants if alternative options were already available in their area.
- A2.22 One private individual [redacted] proposed that BT should also explore simpler 'cabinet-based' solutions that may result in good enough speeds to satisfy many people at a lower cost. The same respondent also proposed that BT should be obliged to consider the cluster and technology to be adopted and make that thinking available to USO applicants.

A2.23 The ACNI asked if BT was obliged to take Local Authority planning development plans into consideration during the analytical costing phases.

### **Ofcom response**

A2.24 We accept that premises affected by very high excess costs are more likely to be in remote and rural locations as these are the most expensive to connect.

A2.25 The broadband USO objective was set by government. We expand on this in more detail paragraph 3.12 In the main document.

A2.26 In relation to FWA, where there is a service available that will meet the Universal Service specification, BT should make applicants to the USO aware of this. This could include FWA services from EE or any other FWA provider. Where these services are available, the customer is not eligible for the USO and so need to be tested before providing a connection under the USO. There will be occasions where the data provided to BT shows a customer should be able to receive a decent broadband service (that is one that meets the USO specification), but this turns out not to be the case in practice. Where this is the case the customer can apply for the USO.

A2.27 Where a customer is eligible for the USO, in calculating costs of any USO request, BT must use the most efficient technology choice. This will include considering cabinet-based solutions where practical. BT is required to make its costings as accurate as possible based on the information available to it.

A2.28 In terms of funding the USO, Ofcom must consider whether to compensate BT for costs of providing the USO if BT requests compensation. If we decide BT should be compensated, we would establish a fund and determine who should contribute to pay these costs. Funding related to commercial build and other schemes such as Building Digital UK (BDUK) are separate and not allocated by Ofcom.

### **Interaction with publicly funded schemes**

A2.29 One private individual [redacted] suggested that our proposed approach to high excess costs needed to include a commitment to use existing BDUK contracts and resources, be it change requests or other means, to secure more and deeper rural broadband coverage.

### **Ofcom response**

A2.30 The USO scheme is separate from BDUK interventions and is based on delivering individual customer requests where they are eligible, including where public schemes (including BDUK) are not planned to deliver a customer connection within the next twelve months.

A2.31 Where infrastructure exists (whether built by commercial or BDUK funding) this should be used for the USO where this is efficient, and only incremental costs can be considered for any USO funding claims.

A2.32 The funding of the USO is separate to the BDUK scheme, and the use of BDUK funds to build new connections is a matter for the contracting parties.

### A3. Notification of modifications under sections 45 to 48 and 48A of the Communications Act 2003 of Universal Service Conditions contained in Ofcom's notification of 6 June 2019

We have published the [notification of modifications of the 2019 Conditions](#) alongside this consultation.