



# Business Connectivity Market Review:

Update on the proposed leased lines charge controls

Redacted version ✂

Consultation

Publication date: 13 November 2015

Closing Date for Responses: 14 December 2015

## About this document

On 12 June 2015, we published our consultation on proposed charge controls for leased lines services that formed part of our Business Connectivity Market Review.

We are now consulting on specific revisions to our approach to the charge controls on which we are seeking further stakeholder responses.

We will take responses to this further consultation into account before reaching our final conclusions and publishing our statement in early 2016.

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## Section 1

# Summary

- 1.1 In June 2015, Ofcom published a consultation in relation to proposed charge controls and the pricing of dark fibre for the business connectivity market (the June 2015 LLCC Consultation<sup>1</sup>), inviting responses to the consultation by 7 August 2015.<sup>2</sup>
- 1.2 While we are still considering the comments made by stakeholders, the purpose of this consultation is to seek further stakeholders' views on certain revisions to the proposed charge controls, as a result of points raised in responses to the June 2015 LLCC Consultation and further analysis.
- 1.3 We do not repeat in this document the description or reasoning relating to the full set of June 2015 LLCC Consultation proposals. Instead we set out specific revisions on which we are seeking further responses.
- 1.4 The relevant June 2015 LLCC Consultation proposals discussed in this consultation and our revised proposals relate to:
  - **Base year cost adjustments:** In the June 2015 LLCC Consultation we signalled that we would be revising and considering new adjustments to our costs flowing from our Cost Attribution Review (CAR). Therefore, we propose to use the latest estimates produced by CAR.<sup>3</sup> In addition, we are consulting on further adjustments to BT's 2014/15 Regulatory Financial Statements (RFS) to remove two items which we do not consider are relevant to the LLCC: EE Acquisition costs and Property Provisioning costs.
  - **Efficiency:** We proposed in the June 2015 LLCC Consultation efficiency targets for both legacy services (referred to in this document as Traditional Interface (TI) services) and Ethernet services of 4% to 7% per annum with a central estimate of 5% per annum. We propose to change the TI efficiency assumption range to 2% to 6% in the light of new analysis of BT's TSO<sup>4</sup> management accounting data which has a large impact on our analysis of the TI efficiency assumptions.
  - **Cost forecast modelling:** We propose some changes to our modelling approach. For both TI and Ethernet baskets, we propose changes to the elasticities that are used to forecast movements in costs in response to volume changes. In addition, for the TI basket, we propose to model at a more granular level to mitigate potential averaging errors. The proposed modelling changes do

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<sup>1</sup> Ofcom, Business Connectivity Market Review, Leased lines charge controls and dark fibre pricing, <http://stakeholders.ofcom.org.uk/consultations/llcc-dark-fibre/>. All stakeholder responses are available at <http://stakeholders.ofcom.org.uk/consultations/llcc-dark-fibre/?showResponses=true>.

<sup>2</sup> This consultation forms part of the Business Connectivity Market Review (BCMR). On 15 May Ofcom published the May 2015 BCMR Consultation which is available at <http://stakeholders.ofcom.org.uk/consultations/bcmr-2015/>.

<sup>3</sup> On 12 June 2015 we published the June 2015 CAR Consultation which is available at <http://stakeholders.ofcom.org.uk/consultations/cost-attribution-review/>. In addition, today we are separately consulting on revised and further adjustments in the November 2015 CAR Consultation which is available at <http://stakeholders.ofcom.org.uk/consultations/BT-cost-attribution-review-second-consultation/>.

<sup>4</sup> BT Technology, Services and Operations is an internal service unit responsible for delivering and operating BT's networks, platforms and IT systems.

not have a material impact on the value of X for Ethernet but result in a significant reduction in the value of X for TI services.

- **Starting Charge Adjustments (SCAs):** We explained in the June 2015 LLCC Consultation that we have a general preference for glide-paths, but proposed to make some SCAs on the basis of BT's high returns that are unrelated to efficiency or volume growth. In this consultation we propose a revised approach to assessing the appropriate balance between SCAs and glide-paths which we consider better reflects the range of relevant considerations implied by our statutory duties and Community objectives. We propose a -5% SCA for TI services and a -10% SCA for Ethernet services.
- **Regulatory financial reporting:** We propose changes to BT's regulatory reporting requirements in relation to dark fibre<sup>5</sup>, Time Related Charges (TRCs)<sup>6</sup>, Ethernet Backhaul Direct, and Ethernet Backhaul Direct Resilience services.

1.5 In forming the proposals set out in this consultation, we have taken account of relevant stakeholder responses to the June 2015 LLCC Consultation. We continue to consider stakeholder responses to the June 2015 LLCC Consultation which raise issues that are not the direct subject of this consultation and those responses will be addressed in our 2016 BCMR Statement.

1.6 Based on the policy proposals and financial modelling explained in the June 2015 LLCC Consultation and adjusted as set out in this consultation, Table 1.1 below sets out the revised proposals for the 2016 LLCC for the period 2016/17 to 2018/19. For the Ethernet basket, we propose a control of CPI<sup>7</sup>-12.50% with a range of CPI-6.50% to CPI-14.50% and for the TI basket a control of CPI-3.50% with a range of CPI+2.50% to CPI-5.50%.

**Table 1.1: Summary of the proposed controls and starting charge adjustments**

Basket	Overall cap (value of X)	Starting charge adjustment
Ethernet	CPI-12.50%	-10%
TI	CPI-3.50%	-5%

Source: Ofcom

## Next steps

1.7 Stakeholders are invited to provide their views on the proposals set out in this consultation. The consultation period runs for one month, to 14 December 2015. Please see Annex 1 for details on how to respond and Annex 4 for the specific

<sup>5</sup> In Section 9 of the May 2015 BCMR Consultation, we have proposed a Dark Fibre Access obligation, which requires BT to provide other CPs with unlit optical fibre circuits, enabling them to provide leased line services using their own electronic equipment.

<sup>6</sup> TRCs are levied for services such as fault repair and providing or rearranging services where work is not covered within Openreach's terms of service.

<sup>7</sup> Consumer Price Index (CPI).

questions we are consulting on. We plan to publish our 2016 BCMR Statement in Spring 2016.

## Section 2

# Introduction

## Scope of this consultation

- 2.1 While we are still considering the comments made by stakeholders, the purpose of this consultation is to seek further stakeholders' views on certain revisions to the proposed charge controls, as a result of points raised in responses to the June 2015 LLCC Consultation and further analysis.
- 2.2 In this section we summarise the background to this consultation and how the remainder of this consultation document is structured.

## Background

### May 2015 BCMR Consultation

- 2.3 On 15 May 2015 we published the Business Connectivity Market Review Consultation (May 2015 BCMR Consultation<sup>8</sup>) in which we set out our analysis of competition in the provision of leased lines services in the UK. The May 2015 BCMR Consultation set out our provisional findings that BT has significant market power (SMP) in three wholesale leased lines markets, and our proposals to impose SMP conditions on BT to address the competition problems identified in the markets in which it has SMP, including conditions to address the risk of excessive pricing. We proposed, in particular:<sup>9</sup>
- that BT has SMP in three wholesale leased lines markets, namely:
    - the wholesale market for low bandwidth Traditional Interface Symmetric Broadband Origination (TISBO) in the UK excluding the Hull area, at bandwidths up to and including 8Mbit/s;
    - the wholesale market for Contemporary Interface Symmetric Broadband Origination (CISBO) in the London Periphery (LP);
    - the wholesale market for CISBO in the Rest of the UK (RoUK) excluding the Hull area;
  - to impose SMP conditions on BT to address the competition problems identified in markets in which it has SMP; and
  - that such SMP conditions should include measures to address the risk of excessive pricing.
- 2.4 The measures we proposed to address the risk of excessive pricing were:
- CPI+/-X charge controls for:

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<sup>8</sup> Ofcom, *Business Connectivity Market Review, Review of competition in the provision of leased lines, Consultation*, 15 May 2015, <http://stakeholders.ofcom.org.uk/consultations/bcmr-2015/> (May 2015 BCMR Consultation).

<sup>9</sup> Paragraphs 1.18 to 1.50, May 2015 BCMR Consultation.

- wholesale TI services at bandwidths up to and including 8Mbit/s in the UK excluding the Hull area;
- wholesale Ethernet services at bandwidths up to and including 1Gbit/s in the LP and the RoUK excluding the Hull area; and
- the interconnection, accommodation and ancillary services, including ECCs and TRCs, that BT supplies in connection with the wholesale TISBO and CISBO services in these markets, including services provided in connection with the proposed Dark Fibre Access remedy;
- a safeguard cap control for Wavelength Division Multiplex (WDM) services and Ethernet services at bandwidths above 1Gbit/s in the RoUK excluding the Hull area;
- a condition requiring BT to ensure that the differences between EAD and EAD Local Access services reflect differences in long-run incremental costs; and
- a 'basis of charges' condition requiring BT to price Dark Fibre Access by reference to its EAD 1Gbit/s active products less the LRIC of the active elements of those products.

## June 2015 LLCC Consultation

2.5 On 12 June 2015 we published the June 2015 LLCC Consultation. This consultation contained:

- our specific proposals for the charge controls for partial private circuits (PPCs), wholesale Ethernet services at bandwidths up to and including 1Gbit/s, interconnection, accommodation and ancillary services, including the scope, design, form and levels of the controls;
- our detailed consideration and proposals concerning the form of the basis of charges condition for the proposed Dark Fibre Access remedy and our guidance concerning the costs to be included in the 'minus' element of the active-minus pricing calculation;
- our proposals concerning the form of the safeguard cap control for WDM and Ethernet services at bandwidths above 1Gbit/s;<sup>10</sup> and
- our proposals concerning the form of the condition for the EAD/EAD LA pricing differential.<sup>11</sup>

2.6 While this consultation was published separately to the May 2015 BCMR Consultation, we reached our views on the proposed controls as part of our overall market analysis and proposals.

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<sup>10</sup> Our rationale for this proposal was set out in paragraphs 8.188 to 8.195, May 2015 BCMR Consultation.

<sup>11</sup> Our rationale for this proposal was set out in paragraphs 10.18 to 10.35, May 2015 BCMR Consultation.



## June and November 2015 Cost Attribution Review Consultations

2.7 Also on 12 June 2015 we separately published the June 2015 CAR Consultation, which has been followed today by the publication of the November 2015 CAR Consultation. These consultations set out the analysis we have undertaken to review BT's current set of cost allocation rules. In these consultations, we proposed changes to some of BT's attribution methodologies, which adjust BT's costs for the purpose of setting the 2016 LLCC. Our proposals set out in this consultation include analysis included in the June and November 2015 CAR Consultations.

## The regulatory framework

2.8 A full discussion of our regulatory framework is in paragraphs 2.30-2.48 in Section 2, and Annex 14 of the May 2015 BCMR Consultation.

## Consultation period and document structure

### Consultation period

2.9 We invite views and comments from interested parties on our proposals contained in this consultation document by no later than **14 December 2015**. Details of the manner in which interested parties should respond to this consultation are set out in Annex 1, and information about our consultation processes and principles in general are included in Annex 2. One of our consultation principles referred to in Annex 2 is that we normally consult for up to ten weeks depending on the impact of our proposals and, if we are departing from a principle, we will explain why.

2.10 We consider that we have set an appropriate period for consulting on these proposals that relate to a narrow set of issues, having regard to our general policy contained in our Consultation Guidelines of November 2007, which recognise that each consultation will be different depending on the type of industry issue and the type of people and organisations likely to take an interest.<sup>12</sup>

2.11 The current charge controls expire at the end of March 2016 and we therefore need to conclude the project within a specified timetable, allowing sufficient time for us to carefully consider the responses we receive and then to consult with the European Commission, BEREK and national regulators in other member states. We would therefore welcome responses at the earliest opportunity, ahead of our consultation closing date if possible.

### Document structure

2.12 The rest of this document is structured as follows:

- Section 3: Base year costs;
- Section 4: Efficiency;
- Section 5: Cost forecast modelling;
- Section 6: Balancing the use of glide-paths and starting charge adjustments;

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<sup>12</sup> Ofcom, *Ofcom Consultation Guidelines November 2007*, <http://stakeholders.ofcom.org.uk/consultations/how-will-ofcom-consult>

- Section 7: Resulting charge control proposals and legal tests; and
- Section 8: Regulatory financial reporting.

2.13 There are also annexes, covering the following:

- Annexes 1 to 4 concern the process for responding to this consultation, Ofcom's consultation principles and the consultation questions;
- Annex 5 contains an explanation of the accounting terms and the cost forecasting equations used in this consultation; and
- Annex 6 includes the draft of the legal notifications of the SMP condition we propose to modify as a result of this consultation.

2.14 In addition, for this consultation, in order to estimate the impact of our modelling changes on the values of X, we have developed a simplified cost forecasting model which uses 2013/14 as the base year (Ofcom November 2015 LLCC Supplementary Model). This model has been published alongside this consultation document.

## Section 3

# Base year costs

## Introduction

- 3.1 In the June 2015 LLCC Consultation we set out our proposals in relation to the adjustments needed to BT's 2013/14 RFS in order to derive the base year data for our model.
- 3.2 Since the June 2015 LLCC Consultation, we have further developed our views on BT's base year costs. In particular, we propose to take into account the November 2015 CAR Consultation, the 2014/15 RFS and the related financial data we have received from BT in response to our information requests.
- 3.3 Similar to our approach in the June 2015 LLCC Consultation, we have calculated our starting base year costs and adjustments within a standalone model (November 2015 Base Year Model). We have used outputs of the November 2015 Base Year Model as inputs into our Ofcom November 2015 LLCC Supplementary Model which we then use to forecast the efficiently incurred costs (the costs that will be allowed for under the control) over the course of the charge control period.
- 3.4 In this section, for each potential further base year adjustment identified, we assess whether an adjustment should be made and then calculate the potential impact of the adjustment on the costs<sup>13</sup> attributed to Ethernet and TI services. In the case of Ethernet, this is for the services currently included in the AISBO Non-WECLA market.<sup>14</sup> In the case of TI services, this is for low bandwidth services in the UK (excluding Hull) and services above 8Mbit/s outside the WECLA and Hull (the latter represent a small proportion of overall TI costs and, given our proposal to deregulate these services in the May 2015 BCMR Consultation, they are excluded from our TI basket when forecasting costs and revenues).

## June 2015 LLCC Consultation proposals

- 3.5 In the June 2015 LLCC Consultation we proposed to use BT's 2014/15 RFS as our starting point for the base year costs in the 2016 BCMR Statement. However, for the purposes of the consultation we used the 2013/14 RFS because, at the time, it was the latest fully audited set of regulatory accounts at our disposal.
- 3.6 In Table 3.1 below we have summarised the adjustments to the base year data as proposed in the June 2015 LLCC Consultation.

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<sup>13</sup> These are CCA FAC costs with an assumed WACC of 10.1% (see Annex 9 of the June 2015 LLCC Consultation).

<sup>14</sup> In the June 2015 LLCC Consultation we proposed an adjustment for the LP at the modelling stage to reflect the proposed market definition in the May 2015 BCMR Consultation (see Annex 6).

**Table 3.1: Summary of adjustments to base year data as proposed in the June 2015 LLCC Consultation<sup>15</sup>**

Proposed Adjustment	Ethernet FAC Impact (£'m)	TI FAC Impact (£'m)
2013/14 RFS Total	559.8	338.1
Access cards	(35.4)	(0.2)
June 2015 Cost Attribution Review - Errors	0.8	(18.2)
June 2015 Cost Attribution Review - General Overheads	(34.9)	(13.5)
RAV	(10.0)	(2.4)
Cumulo	14.3	11.4
Transmission Equipment	(8.4)	-
Restructuring Costs	(8.1)	(4.5)
Quality of Service resource uplift	4.2	-
SLG Payments	(13.0)	-
Credit Notes	-	(2.0)
TI Volumes	-	(8.5)
2013/14 Revised Total	469.3	300.3

Source: Ofcom

## We propose base year adjustments to reflect the CAR

### We have furthered our review of BT's cost attribution methodologies

- 3.7 The June 2015 CAR Consultation set out our initial findings from our cost attribution review and invited stakeholders' views on if and how BT's existing attribution rules need to change. It also identified some other attribution methodologies on which we needed to carry out further analysis in order to assess whether or not they were appropriate.
- 3.8 In the November 2015 CAR Consultation we set out the results of our further review of some of the remaining cost attribution rules and invite views on if and how they need to change. Two proposals are of relevance to the 2016 LLCC:
- revised proposals and new proposals in relation to certain General Overheads, and resulting revisions in estimates; and
  - proposals for five further changes to BT's cost attribution methodologies and estimates of the impact on costs.

<sup>15</sup> Table A7.1, Annex 7 of the June 2015 LLCC Consultation.

## November 2015 CAR Consultation – revised and new proposals in relation to certain General Overheads<sup>16</sup>

- 3.9 In the November 2015 CAR Consultation we revise our June proposals and also make new proposals in relation to certain General Overheads.<sup>17</sup> We also set out revised estimates of the impact of our proposals. Subject to the outcome of that consultation, we have adjusted our base year costs in the November 2015 Base Year Model to reflect these proposed adjustments.
- 3.10 The November 2015 CAR Consultation includes BT's estimates of the market impact of our proposals on 2013/14 operating costs and Mean Capital Employed (MCE). We have attributed these market impacts within the November 2015 Base Year Model across components and services based on the same proportions within BT's unadjusted 2013/14 base year data.

## November 2015 CAR Consultation – further adjustments

- 3.11 In the November 2015 CAR Consultation we propose to make further adjustments to the attribution of BT's costs in the RFS.<sup>18</sup>
- a) *Property and Electricity costs* – we propose various changes to the attribution of these costs. The proposed changes are as follows:
- Property and Electricity costs should be attributed separately rather than together (as is currently the case).
  - Vacant space within any building should be attributed in the same way that non-vacant space is attributed within that building. This also means that vacant space within operational buildings with an MDF<sup>19</sup> should not all be attributed solely to Openreach as a whole, cable chambers, or MDF areas, and that mark-ups for potential future growth should not be applied to LLU<sup>20</sup> hostel areas.
  - The costs for each type of space should be identified and attributed separately.
  - Electricity costs for equipment (not related to offices or Openreach) that is specifically metered, should be directly allocated to product and asset groups.
  - The remaining electricity costs for equipment that is not specifically metered should be apportioned on the basis of relative estimated electricity

<sup>16</sup> Section 8, June 2015 CAR Consultation.

<sup>17</sup> The November 2015 CAR Consultation specifically makes proposals for the overhead costs currently attributed by BT using a Pay and Return on Assets methodology. For ease, we refer to these overhead costs as General Overheads in this document.

<sup>18</sup> We note that there are another two proposals considered in the November 2015 CAR Consultation in relation to the attribution of the proceeds from sales of copper and property. As set out in the November 2015 CAR Consultation we consider that these proposals do not have a significant impact on the leased lines markets.

<sup>19</sup> Main Distribution Frame (MDF) is an internal wiring frame where copper access network cables are terminated and cross connected to exchange equipment by flexible wire jumpers.

<sup>20</sup> Local Loop Unbundling (LLU) is a process by which a dominant provider's copper local loops are physically disconnected from its network and connected to a competing provider's networks. This enables operators other than the incumbent to use the local loop to provide services directly to customers.

consumption, calculated using disaggregated and the most recent annual data.

- b) *Duct* – we propose that the attribution of duct costs between core and backhaul networks should be based on circuit volumes and circuit length.
- c) *Fibre* – we propose that:
- the attribution of distribution fibre costs between NGA and non-NGA services should no longer be based on the fibre Gross Replacement Cost (GRC); instead the attribution should be determined taking account of the different asset lives; and
  - the attribution of spine fibre costs between NGA and non-NGA services should no longer be based on the distribution fibre GRC; instead the attribution should be based on the distribution fibre volumes.
- d) *Openreach and TSO Software* – we propose that BT should allocate software directly to product or asset groups where the information it holds demonstrates that such costs are associated with those product or asset groups. For Openreach software we also propose that BT should attribute software that is shared across a number of products to all the products that the relevant software supports.
- 3.12 Subject to the outcome of the November 2015 CAR Consultation, we propose to adjust our base year costs to reflect these further adjustments in the 2016 BCMR Statement.
- 3.13 As set out in Annex 5 of the November 2015 CAR Consultation,<sup>21</sup> BT has estimated the market impact of our proposals in 2013/14. In the November 2015 Base Year Model we apportion the market impacts across components and services based on the same proportions within BT's unadjusted 2013/14 base year data.

## The impact of our proposals

- 3.14 We set out the impacts of our proposals in Table 3.2 below.

**Table 3.2: Proposed additional base year adjustments**

	Ethernet Total £'m	TI total £'m
<b>June 2015 LLCC Consultation</b>		
13/14 revised total (after adjustments) set out in Table A7.1	469.3	300.3
13/14 revised total correcting for errors <sup>22</sup>	510.9	304.4

<sup>21</sup> See Tables A7.1, A7.3 and A7.18 of the November 2015 CAR Consultation.

<sup>22</sup> There were two errors in Table A7.1 relating to Ethernet and TI. The first only relates to the figure included in the table for holding gains included in BT's base year Depreciation data and Access Cards, and not the model itself, where the figure should have been £44m higher for Ethernet. The second error relates to the incorrect calculation of the TI credit note adjustment. Our proposed adjustment in relation to credit notes that BT had incorrectly posted to SLG payments was directionally incorrect and doubled the error rather than removing it.

November 2015 LLCC Consultation		
General Overheads <sup>23</sup>	7.4	2.1
Property and Electricity	(0.7)	1.4
Duct	3.3	1.5
Fibre	(6.1)	(0.3)
Openreach and TSO Software	(5.6)	(2.7)
Vacant Space	(2.2)	1.2
<b>2013/14 revised total</b>	<b>507.0</b>	<b>307.5</b>

Source: Ofcom

## We propose base year adjustments relating to BT's 2014/15 cost data

3.15 BT published its 2014/15 RFS on 31 July 2015.<sup>24</sup> It has also supplied us with new base year data for our 2016 BCMR Statement in response to our information requests. This data has provided us with disaggregated financial data for 2014/15 on a component basis for business connectivity services at the same level of aggregation as that reported in the 2014/15 RFS.<sup>25</sup>

3.16 This consultation continues to be based on 2013/14 base year costs. However, we are currently analysing the 2014/15 data and intend to use this data as the basis for our 2016 BCMR Statement. While considering the 2014/15 data we have identified two additional adjustments that we propose to apply when updating the base year costs from 2013/14 to 2014/15:

- EE Acquisition costs; and
- Property Rationalisation costs.

<sup>23</sup> This is the net impact of the new adjustment on both Ethernet and TI services since the June 2015 LLCC Consultation. The gross impact is £-27.1m and £-10.8m respectively.

<sup>24</sup> BT will be republishing its 2014/15 later in November. We will consider the need to refresh our Base Year Model following publication.

<sup>25</sup> Network components are the underlying elements of infrastructure/activities that make up each service. Every service reported by BT uses one or more components. For example, PPC 64kbit/s link uses the following components: PC rental 64kbit link, SG&A partial private circuits and SG&A private circuits. BT's total network costs are disaggregated into network components. The costs of a service are then dependent on the amount of costs attributed to these components, which is described in BT's 2014 Detailed Attribution Methods.

## EE Acquisition cost - corporate costs and liquid funds and interest

- 3.17 BT's statutory financial statements show that amongst the various 'specific items' that affected BT's operating costs and net finance expenses in 2014/15 was a £26m charge for EE Acquisition costs.<sup>26</sup>
- 3.18 BT provided a breakdown of the allocation of these costs to business connectivity services together with an explanation for the allocation.<sup>27</sup> In 2014/15 £1.3m was allocated to Ethernet and £0.4m to TI services. BT said the EE Acquisition costs were included within activity group AG112 (Corporate overheads) and AG113 (Total Liquid Funds and Assets).<sup>28</sup>
- 3.19 We consider that BT's EE Acquisition costs are incurred as a result of the activities associated with the acquisition of EE. However, BT attributes these costs across all UK lines of business, including, for example, Openreach and BT Wholesale to which we do not consider these costs relate. We do not consider that this is consistent with the Regulatory Accounting Principle of causality and therefore we consider this attribution inappropriate. We consider it would be appropriate to attribute these costs to residual markets and as a result we propose to exclude EE Acquisition costs from the 2014/15 base year costs.

## Property Rationalisation provision

- 3.20 BT's statutory financial statements show that amongst the various 'specific items' that affected BT's operating costs and net finance expenses in 2014/15 was a £45m charge for Property Rationalisation.<sup>29</sup>
- 3.21 BT provided a breakdown of the attribution of these costs to business connectivity services together with an explanation for the attribution. In 2014/15 £1.3m was allocated to Ethernet and £0.3m to TI services. The costs of the 2014/15 Property Rationalisation provision were included within activity group AG414 (Property Provision<sup>30</sup>). Costs from this activity group are attributed to plant groups in the same way that costs from Group Property's trades relating to office space and general purpose buildings costs are attributed.<sup>31</sup>
- 3.22 BT has provided data on the movements in property provisions since 2010/11 for TI and Ethernet services which shows a high degree of variability, as set out in Table 3.3 below.<sup>32</sup> In the case of Ethernet in particular, in years where the RFS has been used as a source of modelling the LLCC base year, costs were generally higher than compared to intervening years.

<sup>26</sup> Page 161 of BT's 2015 Annual Report and Form 20-F for 2015, <http://www.btplc.com/Sharesandperformance/Annualreportandreview/>.

<sup>27</sup> BT response dated 7 September 2015 to question A9 of the 22<sup>nd</sup> s135 notice dated 18 August 2015.

<sup>28</sup> See page 128 and 129 of BT's 2015 Accounting Methodology Document.

<sup>29</sup> Page 161 of BT's 2015 Annual Report and Form 20-F for 2015.

<sup>30</sup> See pages 136, 137 of BT's 2015 Accounting Methodology Document for an explanation of AG414.

<sup>31</sup> BT response to the 22<sup>nd</sup> s135 notice dated 18 August 2015.

<sup>32</sup> BT response dated 27 October 2015 to question A2 of the 25<sup>th</sup> s135 notice dated 8 October 2015.



**Table 3.3: Net P&L movement<sup>33</sup> of Property Rationalisation provision**

	11/12 £m	12/13 £m	13/14 £m	14/15 £m
TI	[X]	[X]	[X]	[X]
Ethernet	[X]	[X]	[X]	[X]
Charge control base year	Yes	No	No	Yes

Source: BT response dated 27 October 2015 to question A2 of the 25th s135 dated 8 October 2015.

- 3.23 BT has explained that the net movements are based on BT ‘topping up’ the provision by identifying “*additional costs that will be incurred either because of new mothballed sites or additional costs to existing mothballed sites due to additional workspace becoming redundant or because the previous provisions were insufficient*” whilst releases to the provision were made as a result of “*costs being rebased each year, against the previous provisions*”.<sup>34</sup>
- 3.24 The allocation of these costs is on a more generalised basis compared to how they are calculated. BT explained that “*Property rationalisation costs are allocated in line with AG414 (Property provision). This allocates costs to lines of business in proportion to transfer charges for office space and general purpose buildings. BT considers that the costs of optimising the estate can be considered to be akin to an overhead associated with use of the estate and therefore it is cost causal to allocate these costs to lines of business in proportion to their use of the relevant estate. In the case of AG414 lines of business’s use of the estate is represented by the transfer charge to Group Property. Costs are then allocated from lines of business to business connectivity markets in proportion to other costs within that line of business allocated to business connectivity services. The specific driver used for each line of business is described in the AMD page 137. In general, these cost allocations follow the methodology used to allocate overhead costs in the lines of business*”.<sup>35</sup>
- 3.25 The attribution of property costs has been subject to review within the November 2015 CAR Consultation. Although that consultation has made proposals about the attribution of various property costs (see above) it made no proposals with respect to the attribution of costs covered by AG414 (Property Provision). We believe that the current attribution is broadly consistent with how other property costs are allocated. Therefore, we propose to make no changes to the allocation of the Property Rationalisation provision.
- 3.26 We have also considered whether these Property Rationalisation provision costs are forward looking and efficiently incurred and therefore whether they should be included in full in our November 2015 Base Year Model. Whilst it is questionable whether these costs are truly forward looking, their impact is to reduce future property related costs and thus contribute to future efficiency gains. We will therefore be considering to what extent this provision contributes to our assessment of efficiency gains. If we excluded these costs then it may lead to lower efficiency assumptions. In addition, these movements in the property provisions were

<sup>33</sup> The net profit and loss movement is the net impact of movements on the Property Rationalisation Provision on the RFS returns in the year.

<sup>34</sup> BT response dated 27 October 2015 to question A2 of the 25<sup>th</sup> s135 notice dated 8 October 2015.

<sup>35</sup> BT response dated 27 October 2015 to question A2 of the 25<sup>th</sup> s135 notice dated 8 October 2015.

historically recorded within the RFS. On balance therefore we do not think these costs should be excluded from the November 2015 Base Year Model.

- 3.27 However, given the variability of how the provision has been 'topped up' and 'released', the amount of discretion that BT has in this process and the lack of transparency of the calculation, we propose that for the purposes of modelling our base year, these costs are smoothed. We therefore propose to replace the net P&L movement of the Property Rationalisation provision in 2014/15 by the average over the last three years.

## Consultation questions

*Question 3.1: Do you agree with our proposals for further cost adjustments relating to BT's 2013/14 and 2014/15 cost data? If not, what alternative would you propose and why?*

## Section 4

# Efficiency

## Introduction

- 4.1 As set out in Annex 8 of the June 2015 LLCC Consultation, in calculating the appropriate value of X for the charge control, we take into account an assumed efficiency gain that we expect BT to be able to achieve over the period of our proposed charge control.
- 4.2 We received a number of stakeholder responses on our proposed efficiency assumptions for TI and Ethernet services. We have also received additional information from BT since the consultation. We are still considering these responses and BT's revised data. However, our analysis already indicates that one specific source of evidence that we rely on to inform our efficiency assumption, BT's management accounting data, suggests a lower efficiency for TI services. On the basis of this evidence, we consider that the proposed efficiency range for TI services in the June 2015 LLCC Consultation should be lower. We are therefore consulting on our revised analysis, which results in a revised efficiency range for TI services of 2% to 6% per annum.
- 4.3 We are not consulting on a new base case efficiency estimate for TI, as we have not yet conducted a full assessment of all the revised sources of evidence and considered the evidence in light of stakeholder comments. Therefore, for the ranges of X presented in this consultation, we have used the base case estimate of 5%.
- 4.4 In this section we focus on the specific analysis and evidence that has led us to consult on a revised TI efficiency range. In the sub-sections below we set out: our previous proposals, relevant stakeholder responses,<sup>36</sup> and the rationale behind our revised efficiency range for TI services.

## June 2015 LLCC Consultation

- 4.5 In our June 2015 LLCC Consultation we proposed to adopt an efficiency assumption of between 4% and 7% with a base case estimate of 5% for both Ethernet and TI services. We relied on a range of available evidence which included our analysis of historical and forecast BT divisional management accounting data for Openreach, BT Wholesale and TSO.<sup>37</sup> This divisional management accounting data was in the form of "PVEO" analyses that broke down historical and forecast annual movements in divisional costs into Price (inflation), Volume effects, Efficiency (or cost transformation) and Other reasons.

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<sup>36</sup> We will provide a full review of stakeholders' responses within our 2016 BCMR Statement.

<sup>37</sup> TSO owns, maintains and supports the electronic equipment used by both Ethernet and TI services; it purchases electricity on behalf of BT Group and it is also responsible for systems and software development.

## Stakeholder responses

- 4.6 BT considered that the efficiency target for TI services should be no greater than 1.5%<sup>38</sup>. BT considered this would be a more realistic target due to the limited scope for efficiency savings in TI services.<sup>39</sup>
- 4.7 BT also challenged our analysis of historic and forecast PVEOs for TI services and argued that it had not focused on what was feasible for the TI market. In particular that we had used efficiency gains measured at a divisional level that relate to a wide variety of services.<sup>40</sup> BT referred to advice it had received from both Deloitte<sup>41</sup> and FTI.<sup>42</sup>
- 4.8 Deloitte believed “Ofcom’s approach is incorrect because of the way in which it has applied the “E” component in the charge control calculation.”<sup>43</sup> It gave various reasons for this, one of which was that “Efficiency initiatives vary significantly across products.”<sup>44</sup> All managers they interviewed “agreed that efficiency initiatives do not relate to all products uniformly,” with “efficiencies tending to be more readily available from certain products.” Deloitte stated “that there is little new efficiency associated with “20C” network and products, which include TI services.”<sup>45</sup>
- 4.9 FTI also had concerns about our analysis of BT management accounting information<sup>46</sup>. One of its reasons was that our “analysis was not product specific” and “required the assumption of constant efficiency rates across products.”<sup>47</sup> FTI made some further observations that we will not cover here but noted that “there are likely to be different efficiency rates between products.”<sup>48</sup>

## We propose a revised efficiency range for TI services

### Introduction

- 4.10 As set out in Annex 8 of the June 2015 LLCC Consultation, assessing efficiency requires a degree of regulatory judgement and our analysis is dependent on the available evidence. For this charge control we have analysed and relied on several different sources of data:
- the efficiency assumptions that we have adopted in other recent charge controls and considered their relevance for these controls;
  - regulatory accounting information over the last few years;

<sup>38</sup> Paragraph 9, BT response to the 2015 LLCC Consultation.

<sup>39</sup> Paragraph 36, Ibid

<sup>40</sup> Paragraph 515, Ibid

<sup>41</sup> Deloitte, *BCMR 2015 - Efficiency estimation. Review of Ofcom’s approach*, August 2015:

[http://stakeholders.ofcom.org.uk/binaries/consultations/llcc-dark-fibre/responses/BT\\_Annex\\_G.pdf](http://stakeholders.ofcom.org.uk/binaries/consultations/llcc-dark-fibre/responses/BT_Annex_G.pdf)

<sup>42</sup> FTI, *BT Leased Lines: Efficiency benchmarking*, August 2015:

[http://stakeholders.ofcom.org.uk/binaries/consultations/llcc-dark-fibre/responses/BT\\_Annex\\_H.pdf](http://stakeholders.ofcom.org.uk/binaries/consultations/llcc-dark-fibre/responses/BT_Annex_H.pdf)

<sup>43</sup> Deloitte, *BCMR 2015 - Efficiency estimation. Review of Ofcom’s approach*, August 2015, p.13:

[http://stakeholders.ofcom.org.uk/binaries/consultations/llcc-dark-fibre/responses/BT\\_Annex\\_G.pdf](http://stakeholders.ofcom.org.uk/binaries/consultations/llcc-dark-fibre/responses/BT_Annex_G.pdf)

<sup>44</sup> Paragraph 3.3.4, Ibid.

<sup>45</sup> Paragraph 3.3.4, Ibid.

<sup>46</sup> FTI, *BT Leased Lines: Efficiency benchmarking*, August 2015, p.19:

[http://stakeholders.ofcom.org.uk/binaries/consultations/llcc-dark-fibre/responses/BT\\_Annex\\_H.pdf](http://stakeholders.ofcom.org.uk/binaries/consultations/llcc-dark-fibre/responses/BT_Annex_H.pdf)

<sup>47</sup> Paragraph 3.26, Ibid.

<sup>48</sup> Paragraph 3.27, Ibid.

- historical and forecast BT management accounting information that identifies cost transformation and efficiency targets for various BT divisions;
- efficiency gaps identified for BT by an independent benchmarking study; and
- other public information about BT cost performance such as public statements made by BT itself and brokers' and analysts' reports.

4.11 The further analysis we set out below concerns one source of evidence that we rely on, which is the historical and forecast BT management accounting information that identifies cost transformation and efficiency targets for various BT divisions.

## **Analysis of BT's historical and forecast management accounting information**

4.12 In previous charge controls we have analysed historical and forecast "PVEO" analyses of management accounting data for various BT divisions. These PVEO analyses are used by BT in the management of its business and, therefore, provide views on BT's internal efficiency and costs transformation targets. A PVEO analysis breaks down forecast annual movements in costs into changes due to Price (inflation), Volume effects, Efficiency (or cost transformation) and Other. We calculate the efficiency percentage by dividing the total efficiency or cost transformation savings in one year by the total costs from the previous year.

4.13 Business connectivity services' costs are made up of costs from several divisions, notably BT Wholesale, TSO and Openreach. For the 2016 LLCC we therefore analyse several divisions' PVEO analyses and combine the results so that they give an indication of likely efficiency gains that reflect the cost base for business connectivity services.

4.14 In Annex 8 of the June 2015 LLCC Consultation, we explained how we identify which of BT's divisions contribute costs to the various LLCC markets and then use this information to weight the different divisional PVEOs together. Our analysis showed that BT Wholesale accounts for a relatively small proportion of costs for TI services and virtually none for Ethernet services. On the other hand our analysis shows that TSO accounts for a significant proportion of costs for both TI and Ethernet services, while Openreach accounts for most of the remainder.<sup>49</sup>

4.15 BT has now provided information that highlights that accommodation costs were a large proportion of the operating costs within TSO that were attributed to TI services in 2014/15. These accommodation costs include both property costs, such as rent and facilities management costs, and power costs. BT has also highlighted that projected savings in 2014/15 on TSO's accommodation costs were lower than the average for other types of costs within TSO.

4.16 We have compared this information with cost data BT previously provided. In particular we have compared this to the regulatory cost data by division that we used to weight the PVEO analyses together for the consultation and with other regulatory cost data that gave total costs for both TI and Ethernet services.<sup>50</sup> Table 4.1 below sets out the relative importance of accommodation costs for TI and Ethernet services

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<sup>49</sup> June 2015 LLCC Consultation, Annex 8, paragraphs A8.154 and A8.189.

<sup>50</sup> BT response to 1<sup>st</sup> s135 notice (including section F3) dated 7 August 2014 and 6<sup>th</sup> s135 notice dated 21 November 2014.

and shows the significance of these costs for TI services. It also shows that accommodation costs are a much lower proportion of TSO's total management accounting cash operating costs than they are of TSO's cash operating costs attributed to TI services within the regulatory accounts. The difference with the proportion of TSO's operating costs attributed to Ethernet services is much smaller.

**Table 4.1: Relative importance of accommodation costs**

	Ethernet Services (2013/14)	TI services (2013/14)	TI services (2014/15)	TSO costs across all services (2014/15)
TSO costs as % of total	[X]	[X]	[X]	
Accommodation costs as a % of TSO non-depreciation operating costs	[X]	[X]	[X]	[X]
Accommodation costs as a % of all non-depreciation operating costs	[X]	[X]	[X]	

Source: 2013/14 data - Ofcom analysis of BT responses to 1<sup>st</sup> s135 request; 2014/15 data - Ofcom analysis of BT response to 24<sup>th</sup> s135 request.

- 4.17 The PVEO analyses BT has provided shows that historic and projected cost savings for accommodation costs are lower than the average for other TSO cost types (e.g. labour costs and network maintenance and IT costs). We consider that savings for TSO accommodation costs are likely to be relatively low given that these costs are dominated by property costs within specialised accommodation (i.e. exchange buildings). BT has not vacated many exchange buildings over the past few years and we are not aware of any major plans to do so over the next 4-5 years.
- 4.18 Therefore, if we reflect this reduced likelihood for cost savings for accommodation costs, this reduces the contribution of TSO cost savings to TI services. We estimate that the effect could reduce our estimates of efficiency savings for TI services based on analysis of BT's management accounting information by 2-4 percentage points in some years.<sup>51</sup> The effect on Ethernet services however would be much less as accommodation costs are a much lower proportion of the costs of these services.
- 4.19 On the basis of this evidence, we consider that the proposed efficiency range for TI services should be lower. In the June 2015 LLCC Consultation, although we considered a range of evidence, we said that we believed "our analysis of BT's management accounting information to be the most relevant for proposing efficiency assumptions for Ethernet and TI services".<sup>52</sup> Therefore, given the analysis above, we now propose to consult on a revised efficiency range for TI services of 2-6% per annum. We are not proposing any change to the efficiency range for Ethernet services.

<sup>51</sup> This analysis supports BT's view that service specific efficiency differs from divisional wide efficiency. We will consider this issue further as we conduct a full assessment of all the evidence.

<sup>52</sup> Paragraph A8.243, June 2015 LLCC consultation.

- 4.20 As stated above we will be carrying out further analysis in light of stakeholder comments before concluding an appropriate efficiency estimate for TI services. However we consider that the above proposal starts to address some of the points made by BT in relation to our analysis of its PVEO data. We will consider our PVEO analysis further and set out our conclusions in the 2016 BCMR Statement.

## Consultation questions

*Question 4.1: Do you agree with our approach and proposal to revise the efficiency range for TI services? If not, what alternative would you propose and why?*

## Section 5

# Cost forecast modelling

## Introduction

- 5.1 In Annex 6 of the June 2015 LLCC Consultation we set out our proposed approach to modelling our cost forecasts.
- 5.2 In its response to the June 2015 LLCC Consultation BT engaged in detail on our proposed modelling approach, particularly in relation to the impact of our approach on our forecast of TI basket costs.
- 5.3 We have considered BT's arguments, and the underlying issues they raise, carefully. In light of this further consideration, we propose to make some changes to our cost forecasting approach.
- 5.4 In this section we summarise our June 2015 LLCC Consultation proposals and the relevant stakeholder responses. We then explain our proposed cost forecasting changes.
- 5.5 Annex 5 provides an explanation of the accounting terms used in this section and the cost forecasting equations used in the June 2015 LLCC Consultation.

## June 2015 LLCC Consultation

### Cost modelling forecasting approach

- 5.6 We proposed a CPI-X form of control for the TI and Ethernet baskets in the June 2015 LLCC Consultation. In setting the values of X we forecast BT's costs and revenues for the TI and Ethernet controlled services in the period to 2018/19. To forecast costs we adopted a top-down modelling approach.<sup>53</sup> Ofcom has used a top-down modelling approach to forecast costs in a large number of previous BT charge controls. The forecasting equations we proposed to use in the June 2015 LLCC Consultation were broadly consistent with those typically adopted in a number of the previous BT top-down charge control models, including those used for the 2014 WLR/LLU and 2009 LLCC charge controls.<sup>54</sup>
- 5.7 As we explained in Annex 11 of the June 2015 LLCC Consultation, an important assumption underlying Ofcom's top-down controls is that the fixed and common costs recovered from charge controlled services in the base year will remain constant (save for changes in efficiency and inflation<sup>55</sup>) throughout the forecasting period and until the end of the control. The consistent adoption of this assumption across different charge controls provides BT with the opportunity to recover its efficiently incurred fixed and common costs.

<sup>53</sup> Sometimes referred to as a "top down control" below.

<sup>54</sup> The equations used in the June 2015 LLCC Consultation did however vary from those adopted in the 2013 LLCC. As we set out in the June 2015 LLCC Consultation (e.g. paragraph A5.35) we proposed a number of changes to the 2013 LLCC modelling approach to improve consistency with the recent 2014 LLU/WLR charge controls, but also to adopt an approach that more closely follows the underlying treatment of costs, particularly capital costs.

<sup>55</sup> i.e. input specific inflation as opposed to general inflation (e.g. CPI).



5.8 The top-down modelling approach forecasts costs using the process shown in Figure 5.1 below.

**Figure 5.1: Cost forecasting process**



5.9 This process comprises the following three steps:

- **stage one** of the process is to establish the relevant costs in the base year for the charge control. We start with BT's existing allocation of costs to services (BT's CCA FAC data) in the base year (2013/14 for the June 2015 LLCC Consultation) as recorded in BT's regulatory financial reporting systems. We then make a number of adjustments to these costs to reflect Ofcom's view of forward looking efficient costs.
- **stage two** involves forecasting the various cost types based on volumes for the components remaining unchanged from the base year. This is referred to as the 'steady state' forecast. This stage is typically driven by forecast changes in asset values and assumed changes in forecast efficiency; and
- **stage three** then involves supplementing the steady state forecast to include the changes in costs associated with the forecast component/service volume changes (referred to as the 'additional costs' below). The forecasts generated at this stage are driven by the forecast volume changes along with forecast changes in efficiency. The extent to which costs change with volumes is determined by elasticities: Asset Volume Elasticities (AVEs) are used for capital costs,<sup>56</sup> while cost volume elasticities (CVEs) are used for operating costs.<sup>57</sup> We proposed to calculate these AVEs and CVEs using information on the relationship between LRIC and FAC from BT's LRIC model for the same year as our base year financial information. Consistent with our approach in previous charge controls, we assumed that our estimated elasticities remain constant over the charge control period.

## Stakeholder comments

5.10 BT was the only stakeholder to engage in detail on our proposed modelling approach.

5.11 BT provided substantial comments on our proposals on modelling and the AVEs and CVEs used to forecast the costs of TI services.<sup>58</sup> BT's arguments centred on its view that our modelling approach results in a forecast of TI service costs that is considerably lower than it believes it can achieve during the control period.

<sup>56</sup> AVEs represent the percentage changes in assets respectively for a 1% change in volumes. For example, an AVE of 0.5 means that a 2% increase in volumes is associated with a 1% increase in assets.

<sup>57</sup> CVEs represent the percentage changes in operating costs respectively for a 1% change in volumes. For example, a CVE of 0.5 means that a 2% increase in volumes is associated with a 1% increase in operating costs.

<sup>58</sup> BT also provided comments on certain other modelling aspects, such as the AVE for Ethernet components and the modelling of holding gains and losses, while other stakeholders commented on various modelling assumptions, such as, for example, volumes and efficiency. We will address these issues in the BCMR 2016 Statement.

5.12 In this consultation, we have included only the points raised by BT which are relevant to the points on which we are consulting. These points are as follows:

- Ofcom has incorrectly used GRC weights to calculate AVEs and applied these to NRCs which overstates the extent that asset disposals or cost reallocations are possible;<sup>59</sup>
- Ofcom’s modelling approach implicitly reallocates significant amounts of fixed and common costs from TI services to other services without considering the cost recovery implications;<sup>60</sup> and
- The use of CVEs by component results in an understated cost forecast.<sup>61</sup>

5.13 We summarise each of these points below.

**Ofcom has incorrectly used GRC weights to calculate AVEs and applied these to NRCs which overstates the extent that asset disposals or cost reallocations are possible**

5.14 BT believes Ofcom used the wrong AVE values to adjust the asset values when calculating asset disposals. BT contended that Ofcom used an AVE based on the weighted average of the GRC of assets, whereas NRCs are the relevant weights for the calculation. According to BT, the high proportion of duct and fibre (which have lower AVEs) in the remaining NRC means a significantly lower AVE should be used. BT argued that this results in Ofcom’s model removing too much NRC in its forecasts by applying an excessively high AVE.

**Ofcom’s modelling approach implicitly reallocates significant amounts of fixed and common costs from TI services to other services without considering the cost recovery implications**

5.15 BT argued that Ofcom’s proposed approach implicitly reallocates significant amounts of common cost from TI services elsewhere without considering if these costs can be recovered elsewhere or how these costs would affect charge controls in other regulated markets. To illustrate its argument BT presented an analysis of the base year capital employed split by asset type and by incremental versus fixed and common costs (Table 27). BT noted that Table 27 indicates that Ofcom’s forecast of total MCE by the end of the control of £85m is considerably lower than the fixed and common portion of MCE in the base year of £350m. On this basis, BT argued that Ofcom’s model effectively reallocates nearly all fixed and common costs to un-named services outside the TI market.

5.16 BT claimed that this is in contrast to Ofcom’s description of its treatment of fixed and common costs in the June 2015 LLCC Consultation:

*“...Our modelling approach assumes that the total amount of fixed and common costs recovered from modelled services in the base year remains the same throughout the control, adjusted only for changes in efficiency and inflation. ...”*

<sup>59</sup> Paragraphs 553 to 555, BT response to the 2015 LLCC Consultation.

<sup>60</sup> Paragraphs 556 to 558, Ibid.

<sup>61</sup> Paragraphs 567 to 569, Ibid.

5.17 BT argued that its analysis shows that if volume changes only impact on the incremental capital employed, with the fixed and common costs remaining constant (save for efficiency and inflation changes), the reduction in the capital employed for TI services would be much less than the forecast decline in Ofcom's model.

### **The use of CVEs by component results in an understated cost forecast**

5.18 BT examined the effect of splitting TI basket costs into fixed common and variable elements by using CVE values by cost sector (as opposed to a weighted average figure). BT contends that its analysis shows that the total cost forecast would be higher if a CVE was applied to each cost sector<sup>62</sup> (rather than Ofcom's approach of forecasting on a component basis using weighted average CVEs). BT suggests that this is because the CVE would change over time as the cost mix changes, which is not reflected in the cost model. BT estimates that forecasting on a cost sector basis would result in a cost forecast for the end of the control that is £11m higher than Ofcom's model (Table 30).

### **We propose to make some changes to our cost modelling approach**

5.19 As set out above, BT's response to the June 2015 LLCC Consultation raises a number of arguments in relation to our cost forecasting, particularly with respect to TI services.

5.20 We have considered BT's arguments carefully. In light of this further consideration, in the paragraphs below we set out a series of changes to our proposed cost forecasting approach. These changes have a significant impact on the proposed value of X for the TI basket, and a more modest impact on Ethernet services.

5.21 These changes are in relation to the following;

- the appropriate weighting to apply to the various cost inputs when deriving base year AVEs;
- the treatment of fixed and common costs within our modelling approach; and
- the extent to which the mix of underlying inputs (and therefore costs) associated with components will remain broadly constant over the control period.

5.22 We explain these points further below.

### **Appropriate cost category weights for deriving base year AVEs**

5.23 As we set out above, BT argues that our component AVEs are GRC weighted averages, but that we should have used NRC weights. For the reasons set out below, we disagree that the approach to estimating AVEs proposed in the June 2015 LLCC Consultation involved the use of GRC weighted averages. The AVE estimates were NRC weighted averages. However, in light of BT's comments we have reconsidered whether the use of NRC weighted averages is appropriate in this case. Following this reconsideration, we now propose to use GRC weighted averages.

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<sup>62</sup> Cost sectors are a level of disaggregation below the cost component. Cost sectors aggregate together broadly similar cost categories (i.e. types of cost). For example, there are separate cost sectors for computing, accommodation and transport cost types.

- 5.24 In the June 2015 LLCC Consultation we proposed to adopt a different approach to estimating component AVEs from previous Leased Lines Charge Controls. Previously we calculated component AVEs by calculating GRC weighted average AVEs across around a dozen different asset types. In the LLCC 2013, these asset type AVEs (which did not vary by component) were supplied by BT and derived from BT's LRIC model. The component specific GRC weights attached to each of the asset types were also derived from the base year financial information supplied by BT. This involved a different approach than that used to estimate CVEs which had been directly estimated using LRIC to FAC ratios (for the relevant cost categories) from the LRIC model.
- 5.25 Our proposed approach in the June 2015 LLCC Consultation involved improving the consistency of our approach to calculating AVEs and that used for CVEs. Specifically we proposed basing our component AVEs on LRIC to FAC ratios for each component from the LRIC model. The AVE for each component would therefore be the weighted average of the LRIC to FAC ratios for each of the fixed asset cost categories relevant to that component.<sup>63</sup>
- 5.26 The cost categories contained in the LRIC model break down the total FAC and LRIC costs for each component into the various constituent cost elements, for example, pay, operating costs, depreciation and return on capital employed. The capital employed used to calculate the return on capital comprises of the value of the fixed assets plus net current assets. Therefore, consistent with the standard approach to valuing assets in order to calculate the return on assets, the value of the fixed assets in the LRIC model outputs (both LRIC and FAC) is based on the NRC value of the assets. Given this, the component average AVEs are essentially NRC weighted averages of the individual cost category LRIC to FAC ratios.
- 5.27 Under our proposed modelling approach the AVEs are used, in combination with prior year GRC, efficiency and inflation, to forecast additional capex.<sup>64</sup> Where volumes are in decline, this additional capex becomes negative and therefore is akin to additional disposals. This additional capex flows directly into the GRC for the component in that year and then indirectly into NRC, which is dependent on the GRC. Under the change to the modelling approach we proposed in the June 2015 LLCC Consultation, the value of the impact on the NRC from the change in the GRC is adjusted when volumes are declining to reflect the lower NRC value of the disposed of assets.
- 5.28 In modelling the impact on the firm's capital costs of these asset disposals there are effectively two stages:
- first, to identify the GRC value of the assets that the firm needs to dispose of, which in our modelling approach is implicitly determined by applying the AVEs to the GRC value of the assets;
  - second, to ensure that the impact on NRC of the disposals is commensurate with the lower NRC (compared to GRC) value of the assets being disposed of, which in our modelling approach is done by applying the NRC:GRC ratio to the GRC value of the disposed of assets.
- 5.29 As the AVEs are applied to GRC under our modelling approach, we consider the use of GRC weights in calculating the AVEs is more internally consistent than the use of

<sup>63</sup> For the purposes of calculating AVEs BT's software assets are treated as fixed assets. The software cost sector (EA) is mapped to the 'intangibles' asset type.

<sup>64</sup> As set out in paragraphs A6.30 to A6.58 of the June 2015 LLCC Consultation.

NRC weights. Although there is a difference in the NRC value of the assets compared to GRC, we capture this difference in the second stage of our calculation, as explained in the paragraph above.

- 5.30 We therefore propose to revise our approach to calculating AVEs for this control to adopt GRC, rather than NRC, weights when calculating the weighted average AVE for each of the components.
- 5.31 BT's LRIC model outputs do not report the cost category GRC values required to calculate GRC weighted AVEs. We have therefore not been able to calculate GRC weighted AVEs for 2013/14. However, we understand that the more detailed data,<sup>65</sup> used by BT to generate the cost category NRC values, separately contains GRC values. We therefore have requested this data from BT to estimate the 2014/15 AVEs for the 2016 BCMR Statement.
- 5.32 For the purposes of this consultation we have estimated the impact on the 2013/14 AVEs of switching to GRC weighted AVEs by applying GRC weights to the asset type AVEs for each individual component.<sup>66</sup>
- 5.33 In Table 5.1 below we present the NRC weighted component AVEs used in the June 2015 LLCC Consultation alongside our estimates of the GRC weighted AVEs we use for the purposes of this consultation. Both sets of AVEs use 2013/14 base year data. We intend to update these to reflect 2014/15 base year data for the 2016 BCMR Statement (as noted above).

**Table 5.1: 2013/14 AVEs by component (excluding admin components)**

	Component	NRC weighted AVEs	GRC weighted AVEs
CG101	PC rental 2Mbit link per km regional trunk	0.29	0.47
CG102	PC rental 34Mbit link per km regional trunk	0.28	0.46
CG103	PC rental 140Mbit link per km regional trunk	0.34	0.54
CG201	PC rental 2Mbit link per km national trunk	0.33	0.49
CG202	PC rental 34Mbit link per km national trunk	0.29	0.44
CG203	PC rental 140Mbit link per km national trunk	0.29	0.47
CL160	Routeing & records	0.81	0.78
CL161	MDF Hardware jumpering	0.79	0.76
CL171	E side copper capital	0.23	0.25
CL172	E side copper current	0.79	0.76
CL173	D side copper capital	0.23	0.26

<sup>65</sup> i.e. data at the 'F8 code' level.

<sup>66</sup> Our approach to estimating the GRC weighted AVEs first involves calculating NRC weighted LRIC to FAC ratios for each of the nine asset type AVEs for each component relevant to the LLCC. These calculations use information from the BT's LRIC model. We then estimate component AVEs by weighting each of the asset type LRIC to FAC ratios for the component by the split of GRC (from the base year data provided by BT) in 2013/14. Therefore, if either: 1) the LRIC to FAC ratios; or 2) the NRC to GRC ratios do not vary significantly across the cost categories within each of the asset types, our estimated elasticities should be a good proxy for the elasticities that weight all cost categories by GRC. Given that, in general, the asset types aggregate broadly similar types of cost category, we would expect that one or both of these conditions to hold in most cases, implying our estimates should be good proxies for the underlying GRC weighted AVEs.

	Component	NRC weighted AVEs	GRC weighted AVEs
CL174	D side copper current	0.79	0.76
CL175	Local exchanges general frames capital	0.31	0.28
CL176	Local exchanges general frames current	0.80	0.77
CL177	PSTN line test equipment	0.57	0.56
CL178	Dropwire capital & PSTN NTE	0.99	0.99
CL180	Residential PSTN drop maintenance	0.79	0.76
CO371	PC rental 2Mbit/s link per km distribution	0.36	0.56
CO373	PC rental 34Mbit/s link per km distribution	0.32	0.48
CO375	PC rental 140Mbit/s link per km distribution	0.39	0.60
CO379	Point of Handover electronics	0.52	0.77
CO381	PC rental 64kbit/s link	0.71	0.82
CO383	PC rental 2Mbit/s link	0.82	0.87
CO385	PC rental 34Mbit/s link	0.76	0.84
CO388	PC rental 140Mbit/s link	0.75	0.83
CO391	PC rental 64kbit/s link per km transmission	0.38	0.58
CO401	Netstream equipment	0.86	0.86
CO413	2Mbit/s and above PC link connection cct provision	0.79	0.76
CO417	64kbit/s PC link connection cct provision	0.79	0.76
CO418	64kbit/s PC link connection cct rearrangements	0.79	0.76
CO432	PC rental 64kbit/s link local end	0.77	0.93
CO434	PC rental 34Mbit/s link local end	0.22	0.58
CO436	PC rental 140Mbit/s link local end	0.34	0.70
CO438	PC rental 2Mbit/s local end copper	0.77	0.91
CO439	PC rental 2Mbit/s local end fibre	0.38	0.54
CO550	PPCs 34/45Mbit/s Link CELA	0.73	0.82
CO551	PPCs 34/45Mbit/s Distribution CELA	0.71	0.80
CO553	PPCs 140/155Mbit/s Link CELA	0.75	0.83
CO554	PPCs 140/155Mbit/s Distribution CELA	0.75	0.83
CN013	21CN Backhaul Link & Length	0.57	0.61
CO447	Backhaul extension services fibre etc	0.06	0.78
CO450	Wholesale & LAN extension services fibre etc	0.20	0.13
CO484	Ethernet main links	0.21	0.27
CO485	Ethernet Electronics	0.96	0.95
CT454	Wholesale & LAN extension services BNS	0.06	0.78

Source: Ofcom analysis of 2013/14 BT LRIC model LRIC and FAC outputs

## Treatment of fixed and common costs

### Implications of assuming elasticities remain fixed over time

5.34 In Annex 11 of the June 2015 LLCC Consultation we explained the treatment of fixed and common costs under our typical top-down modelling approach. We set out that we

start with BT's existing allocation of costs to those services (i.e. BT's CCA FAC data) for the base year of the control. Using BT's CCA FAC data as the starting point for considering cost recovery does not guarantee that all of BT's common costs are recoverable, but it does mean that a share of common costs is taken into account when setting regulated charges. A share of the common costs will also be left for BT to recover in unregulated markets.

- 5.35 The fixed and common costs that are recovered from the charge control services in the base year are then assumed to remain constant (save for inflation and efficiency improvements) over the control period, regardless of volume changes. This approach is a simplification of reality. In practice, we might expect firms to adapt their pattern of cost recovery across services over time, by changing their cost attributions, particularly during periods where there are significant changes in demand conditions (e.g. where there are large relative volume changes). But, in our charge control modelling, we do not seek to forecast the outcome of BT's RFS. Rather we seek to establish an appropriate pattern of common cost recovery. If applied consistently across markets and time, our treatment of fixed and common costs can be consistent with the 'fair bet' approach as they are taken into account in one or another of our charge controls, with no bias to under or over recovery of costs.
- 5.36 We therefore agree with BT that Ofcom's top-down approach to forecasting costs for charge controls assumes that the level of fixed and common costs attributed to controlled services remains constant over the control period, save for changes in efficiency and inflation.
- 5.37 However, we also note BT's claim that the June 2015 LLCC Consultation model forecasts total costs for the TI basket at the end of the control period to be less than the implicit fixed and common costs attributed to TI services in the base year of the control.
- 5.38 In Table 5.2 below we present total Net Replacement costs (NRCs) and fixed and common NRCs for the TI basket in 2013/14 (i.e. the base year), alongside both our forecast of both total NRCs and the implied fixed and common NRCs in 2018/19 (i.e. the last year of the control). We derive the estimates of fixed and common NRCs in the base year by using the split between incremental and common costs implied by our proposed 2013/14 CVEs and AVEs (as set out in Figure A8.30 of the June 2015 LLCC Consultation).<sup>67</sup> We then forecast how efficiency and inflation over the control period will impact on the base year fixed and common NRCs to generate our estimates of the implied fixed and common costs in 2018/19.

**Table 5.2: Comparison of TI basket NRCs in 2013/14 and Ofcom forecast of 2018/19 (£m)**

	2013/14	2018/19
Total NRC	[X]	[X]
Fixed and common NRC	[X]	[X]

Source: Ofcom, 2015 LLCC CPI - X Model

<sup>67</sup> By way of illustration, a component CVE of 0.8 would imply that the costs for that component are 80% incremental and 20% fixed and common. Therefore, multiplying the total costs for the component by one minus the value of the CVE gives an estimate of the fixed and common costs for the component.

5.39 As Table 5.2 shows, the forecasting model used for the June 2015 LLCC Consultation results in our forecast of total NRCs for the TI basket being 68% lower than our estimate of the fixed and common NRCs (assuming that they remain constant save for efficiency and inflation changes) in 2018/19.

5.40 This tension between our conceptual approach and the modelled outcome arises as a consequence of our simplifying assumption that the elasticities remain constant over the control period. In cases where volume changes are limited, this simplifying assumption is likely to be reasonable. However, where volume changes are significant (as is the case for the TI basket) assuming that the elasticities are constant may be inconsistent with our assumption that fixed and common costs remain constant. This is because the underlying mix of incremental costs and fixed and common costs, which the elasticities reflect, will change as volumes change significantly.

5.41 To illustrate this point, consider an example in which in the base year the total FAC component operating costs are £1,000. The total costs are split such that fixed and common costs are £600 and incremental costs are £400, therefore the LRIC to FAC ratio is 0.4. Assume further that:

- we are forecasting costs for the three years following the base year;
- there are no changes in input prices or efficiency; and
- volumes decline by 40% every year.

5.42 Based on our typical operating cost forecasting approach,<sup>68</sup> and assuming that the elasticity remains constant over the period, the total operating costs for the component would be forecast to be as shown in Table 5.3 below.

**Table 5.3: Illustrative example – total cost forecast (£)**

	Base Year	Year 1	Year 2	Year 3
<b>Total costs</b>	1,000	840	706	593

5.43 As shown in Table 5.4 below, as total costs decrease in each year in response to the volume decline, the use of a fixed elasticity implies a decreasing level of fixed and common costs over time (the fixed and common cost for each year is calculated by multiplying the total cost by 0.6, which is equal to 1 minus the elasticity of 0.4). In this example, by year 3 the total cost (£593) is lower than the fixed and common costs in the base year (£600).

**Table 5.4: Illustrative example – implied incremental and fixed and common cost forecasts (£)**

	Base Year	Year 1	Year 2	Year 3
<b>Incremental</b>	400	336	282	237
<b>Fixed and common</b>	600	504	423	356

<sup>68</sup> i.e.  $Opex_t = Opex_{t-1} * (1 - efficiency) * (1 + input\ price\ inflation) * (1 + \% \text{ change in volumes} * elasticity)$



5.44 On this basis, our typical modelling approach results in a forecast for total TI basket costs below the implied level of fixed and common costs in the base year because:

- the TI basket volumes are forecast to decline sharply over the control period; and
- our modelling approach does not reflect the underlying changes in the mix of costs (by assuming a constant elasticity over the control period) that such volume reductions will implicitly induce given our assumption that fixed and common costs remain constant over the control period.

#### We propose to use dynamic elasticities for the LLCC modelling

5.45 In light of this, we therefore propose to depart from the assumption that our CVEs and AVEs remain constant over the period for this control.<sup>69</sup> Instead, we propose to adopt dynamic CVEs and AVEs that adapt to the changing mix of incremental and fixed and common costs over the control period. We note that this issue is particularly acute in TI services, due to the large volume movements forecast over the control. The changes in demand for TI services are more striking overall than for Ethernet services. However, Ethernet volumes are still forecast to grow strongly. Therefore we consider it appropriate to adopt the dynamic elasticities for the Ethernet basket as well as the TI basket. For services where volume changes are more limited, static AVEs and CVEs can be a reasonable simplifying assumption.

5.46 Our proposed approach to adapting our CVEs follows the approach set out in the example above:

- We estimate the implied fixed and common operating costs for each component in the base year using the component pay and non-pay CVEs.<sup>70</sup>
- The base year fixed and common costs for the component operating costs are forecast to 2018/19 by taking into account assumed efficiency and pay and non-pay input price changes in each year.<sup>71</sup>
- The implied incremental costs for the component in each year are calculated as the total costs less the fixed and common costs in that year.
- The CVE for each component for year t is then calculated as the ratio of the incremental costs to the total operating costs in year t-1.<sup>72</sup>
- The CVE for the component in year t is used to forecast the total costs in year t.

5.47 Our proposed approach to adapting AVEs follows a similar logic to the approach to adapting CVEs set out above, but is necessarily more complex given the more complex nature of forecasting capital costs. As noted above, the total component cost stack comprises of three capital cost items:

- OCM depreciation, which is derived from the GRC value of the asset base;

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<sup>69</sup> Our proposed adoption of these dynamic elasticities for this control reflects the particularly significant changes in demand forecast for controlled services.

<sup>70</sup> Separately for pay and non-pay.

<sup>71</sup> i.e.  $FCC_t = FCC_{t-1} * (1 - \text{efficiency}) * (1 + \text{input price changes})$

<sup>72</sup> Again this is done separately for pay and non-pay operating costs.

- Return on capital employed, which is derived from the NRC value of the asset base; and
- Holding gains and losses, which are also derived from the NRC value of the asset base.

5.48 Therefore, both the GRC and NRC values of the asset base are important to our cost forecast. However, as we set out above, it is the GRC value of the asset base that is most relevant to estimating the AVEs applied in our modelling. The NRC value of the assets is derived from the GRC, taking into account capex and depreciation.

5.49 We therefore propose to calculate adjusted component AVEs as follows:

- We estimate the implied fixed and common GRC for each component in the base year using the base year component AVE.
- We forecast how the fixed and common GRC will change with efficiency and input price changes using our GRC forecasting equation,<sup>73</sup> assuming that component volumes are unchanged.
- The implied incremental GRC for the component in each year is then calculated as the total GRC less the fixed and common GRC in that year.
- The AVE for each component for year t is then calculated as the ratio of the incremental GRC to the total GRC in year t.
- The AVE for the component in year t is used to forecast the total GRC (and therefore also NRC) in year t-1.

5.50 However, in order to ensure that the forecast NRC value of the assets (which for TI is typically significantly lower than the GRC value of the assets) for the component does not drop below the implied fixed and common NRC over the forecast period we also:

- Estimate the implied fixed and common NRC for each component in the base year using the base year component AVE.
- Forecast how the fixed and common NRC will change with efficiency and input price changes using our NRC forecasting equations, assuming that component volumes are unchanged. Under this approach the fixed and common NRC in each year is calculated as a function of the fixed and common GRC, capex and depreciation.
- In cases where the forecast total NRC for a component drops below the fixed and common NRC for that year we:
  - impose a floor on the total NRC so it is at least the fixed and common NRC in that year; and
  - set the AVE in that year (and subsequent years) to equal zero, which results in zero additional capex in the subsequent years.

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<sup>73</sup> As set out in Table A5.3.

## Input mix changes

### Forecasting at the component level

5.51 In our June 2015 LLCC Consultation, we proposed to forecast regulated service costs by, where possible, forecasting the costs of the underlying network components<sup>74</sup> that are used by the controlled services and deriving service cost forecasts from these component cost forecasts.<sup>75</sup> This is consistent with our typical approach to top-down cost forecasting.

5.52 By forecasting service costs at the level of components (which group together similar inputs), changes in the mix of underlying inputs can be reflected in our service cost forecasts.<sup>76</sup> However, because BT's network components are themselves an amalgamation of a number of distinct inputs, there is still the potential for averaging errors to be introduced. For many charge controlled services, this risk is minimal as the components associated with the charge controlled services are typically related to broadly similar types of input. For example, in the case of Ethernet services, the components relate to distinct groups of input, each with similar characteristics, e.g. there are separate components for Ethernet electronics and EAD fibre.

5.53 However, for the TI basket components this is not the case, as the components are mixtures of various types of input. For example, the main component for the PPC rental 2Mbit/s link service is the "OR PC rentals 2Mbit/s link" component. Such components are similar to services in that they include a relatively broad mix of inputs, each of which may respond differently to volume changes. Given the large change in volumes forecast for TI services over the course of the control, forecasting at the component level may lead to averaging errors. To illustrate this point, consider an example of:

- a component that uses two different inputs (A and B);
- volumes of the component are declining by 40% per annum;
- the volume elasticity of input A is 0.2 and of input B is 0.8;
- the base year costs for each input is £1,000.

5.54 On this basis the component costs over a three year period will be as set out in Table 5.5 below.<sup>77</sup>

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<sup>74</sup> Network components (or components) are defined by BT in its 2014 Detailed Attribution Methodology document (Section 3.3.5) as constituting "discrete parts of the network" and "are used to provide network services to Markets and Products as well as to Other Communication Providers (OCPs)".

<sup>75</sup> As explained in paragraph A6.59 to A6.61 of the June 2015 LLCC Consultation, there are some costs (which we refer to as 'admin' costs in the June 2015 LLCC Consultation) that are not treated by BT in the RFS in the same manner as network component costs. These costs are not attributed to services on the basis of usage factors. Rather they are attributed to services on a percentage basis. Our proposed forecasting approach for these costs was similar but differed from that adopted for network components).

<sup>76</sup> For example, the costs of transmission equipment may be relatively more elastic with respect to volumes than duct. Where there are significant volume changes, the underlying mix of these inputs used by the service may change.

<sup>77</sup> Using a simplified cost forecasting equation of  $Costs_t = Costs_{t-1} * (1 + \% \text{ change in volumes} * \text{elasticity})$

**Table 5.5: Illustrative example – forecasting at cost sector level**

	Base Year	Year 1	Year 2	Year 3
Volume annual growth rate		-40%	-40%	-40%
Input A Cost	1,000	920	846	779
Input B Cost	1,000	680	462	314
<b>Total Component Cost</b>	<b>2,000</b>	<b>1,600</b>	<b>1,309</b>	<b>1,093</b>

5.55 However, if in this example the component costs are forecast directly (i.e. not by separating out the individual inputs), and by assuming that the base year average component volume elasticity (i.e. 0.5 – the average of 0.2 and 0.8) is fixed over the control period, then the cost forecast would be as set out in Table 5.6 below.

**Table 5.6: Illustrative example – forecasting at component level**

	Base Year	Year 1	Year 2	Year 3
<b>Total costs</b>	<b>2,000</b>	<b>1,600</b>	<b>1,280</b>	<b>1,024</b>

5.56 Therefore, in this example, the total cost forecast in year 3 is £69 lower (£1093 - £1024) when the component costs are forecast directly (and the cost mix is assumed fixed) than if the input costs are forecast separately (and the cost mix therefore can vary reflecting the changes in the underlying input mix).

5.57 Given that over the 2016 control period TI basket volumes are forecast to decline, the potential impact of the change in input mix is to understate BT's costs of providing TI services over the control period.

5.58 In our view any such under-estimate of costs would unlikely be cancelled out by an equivalent compensating error in charge controls in other markets as the components relevant to other charge controlled services (i.e. non-BCMR services) typically bear a closer resemblance to the underlying inputs, rather than the services that consume them (as is the case with Ethernet).

### Our proposed approach for the TI basket control

5.59 We have considered the extent to which the input mix effect explained above is likely to impact the accuracy of the TI basket cost forecast. To do this we have considered the extent to which the CVEs and AVEs for the individual asset types and cost sectors differ from the average across the asset types or cost sectors. We generate our AVE and CVE estimates from BT's LRIC model using the approach described above.<sup>78</sup> In the case of the AVEs we use our estimates of the GRC weighted AVEs, consistent with our proposed approach set out above.<sup>79</sup>

<sup>78</sup> We understand that the elasticities presented in Tables 28 and 30 of BT's Response use the AVE and CVE estimates provided by BT to Ofcom in advance of the June 2015 LLCC Consultation. We discuss these elasticity estimates, and our concerns in relation to them, in Annex 8 of the June 2015 LLCC Consultation. In light of these concerns, we departed from BT's estimates and generated our own estimates using BT's LRIC model outputs.

<sup>79</sup> As explained further below, BT's LRIC model outputs do not provide data on asset GRC by cost category. We therefore have estimated the impact of switching to GRC weighted AVEs by applying GRC weights to the asset type AVEs for each individual component.

5.60 In Table 5.7 below we (separately) present the pay and non-pay CVEs split by cost sector for the eight largest components in the TI basket<sup>80</sup> (which collectively account for 82% of total TI basket operating costs). We also present the split of 2013/14 operating pay and non-pay operating costs for these components to demonstrate the relative importance in 2013/14 of each of the cost sectors.

**Table 5.7: 2013/14 CVEs and operating costs for eight largest TI components (£m)**

Cost sector	Pay costs	Pay CVE	Non-pay costs	Non-pay CVE
Maintenance	[<]	[<]	[<]	[<]
Provision & Installation	[<]	[<]	[<]	[<]
Accommodation	[<]	[<]	[<]	[<]
General Management	[<]	[<]	[<]	[<]
Other	[<]	[<]	[<]	[<]
<b>Total costs &amp; weighted average CVEs</b>	[<]	[<]	[<]	[<]

Source: Ofcom, 2015 LLCC CPI - X Model and analysis of 2013/14 BT LRIC model LRIC and FAC outputs

5.61 In Table 5.8 below we present the AVEs split by asset type for the same sample of components (which collectively represent 87% of total TI basket GRC). We also present the split of the 2013/14 GRC by asset type for these components to demonstrate the relative importance of each of the asset sectors.

**Table 5.8: 2013/14 AVEs and GRCs for eight largest TI components (£m)**

Asset sector	GRC	AVE
Cable	[<]	[<]
Duct	[<]	[<]
Transmission	[<]	[<]
Land & Bldgs	[<]	[<]
Computers & OM	[<]	[<]
Other Ntwk Eqpt	[<]	[<]
Other	[<]	[<]
Motor Transport	[<]	[<]
Intangibles	[<]	[<]
<b>Total costs and weighted average AVE</b>	[<]	[<]

Source: Ofcom, 2015 LLCC CPI - X Model and analysis of 2013/14 BT LRIC model LRIC and FAC outputs

5.62 The analysis presented in Tables 5.7 and 5.8 above of BT's TI operating costs suggests that there is relatively little variation in the elasticities of the key cost sectors. On this basis the risks of averaging errors in relation to TI operating costs do not appear to be materially greater than we would expect for components that reflect a narrower set of cost inputs (for example, those used for Ethernet services).<sup>81</sup> We do not therefore propose to make any changes to our approach to modelling TI operating costs to reflect potential input mix change effects.

<sup>80</sup> These components are: [<].

<sup>81</sup> The main driver in the difference between the BT and Ofcom cost forecasts reported in Table 30 of BT's response appears more likely to be the treatment of fixed and common costs, as discussed above.

5.63 On the other hand, the analysis presented in Tables 5.7 and 5.8 above of BT's TI assets shows that there is considerably more variation in the elasticities of the underlying asset inputs. For example, duct (which accounts for [x] % of GRC) has an AVE of [x], while transmission (which accounts for [x] % of GRC) has an AVE of [x]. This suggests a greater risk of averaging errors and that some form of adjustment for TI capital costs is likely to be appropriate. We therefore propose to forecast TI capital costs at the level of individual asset types (rather than at the component level).

### Estimating the impact of our proposed modelling changes

5.64 In summary, we propose to make three changes to our modelling approach:

<b>Dynamic elasticity changes</b>	For capital and operating costs, and for <b>both the TI and Ethernet baskets</b> , we propose to implement dynamic elasticities that respond to the change in mix of incremental costs and fixed and common costs over the control period.
<b>AVE weights changes</b>	For <b>both the TI and Ethernet baskets</b> we propose to change the AVE weights from NRC to GRC.
<b>Asset mix changes</b>	For the <b>TI basket only</b> , we propose to make an adjustment to the modelling of capital costs to reflect the potential averaging errors that could arise from a change in the TI asset mix over the control period,

5.65 For this consultation, in order to estimate the impact of these modelling changes on the values of X, we have developed a simplified cost forecasting model which uses 2013/14 as the base year (Ofcom November 2015 Supplementary LLCC Model). This model incorporates the three modelling changes and separately forecasts the costs of each network component<sup>82</sup> relevant to the TI and Ethernet baskets (in contrast to the main model which forecasts the costs of all components simultaneously). In order to calibrate the results of the Ofcom November 2015 Supplementary LLCC Model with the full control baskets, we have applied an uplift to take into account the presence of admin costs. As network component costs represent the majority of costs for the LLCC (i.e. 95% of TI basket costs and 94% of Ethernet basket costs in 2013/14), we consider that this approach provides a practical way of measuring the impact of these modelling changes, whilst ensuring any loss of accuracy is minimal.

5.66 For the 2016 BCMR Statement, we will use 2014/15 as the base year for the cost forecasting. Should we decide to implement the three modelling changes proposed above, we would likely incorporate the dynamic elasticity and AVE weights changes in the main cost forecasting model, while retaining the Ofcom November 2015 Supplementary LLCC Model to forecast TI capital costs separately for each of the individual asset types for each component (as shown in Table 5.9 below).

<sup>82</sup> As set out in paragraphs A6.59 to A6.61 of the June 2015 LLCC Consultation, BT's regulatory reporting systems identify two distinct types of costs: 'network component costs' and 'administrative & other costs' (or 'admin' costs). The primary distinction between these types of cost for the purposes of our modelling is that the network component costs are attributed to services on the basis of cost usage factors, whereas the admin costs are attributed to services on the basis of percentages (not usage factors).

**Table 5.9: Proposed approach to taking into account modelling changes in 2016 BCMR Statement**

Changes	Baskets	Approach
Dynamic elasticity	TI and Ethernet	Update the 2015 LLCC CPI - X Model
AVE weights	TI and Ethernet	Update the 2015 LLCC CPI - X Model
Asset mix	TI	Update the 2015 LLCC CPI - X Model and the Ofcom November 2015 Supplementary LLCC Model

## Consultation questions

*Question 5.1: Do you agree with our proposal to use dynamic AVEs? If not, what alternative would you propose and why?*

*Question 5.2: Do you agree with our proposal to change the AVE weights from NRC to GRC? If not, what alternative would you propose and why?*

*Question 5.3: Do you agree with our proposal to model TI capital costs at the cost sector level? If not, what alternative would you propose and why?*

## Section 6

# Balancing the use of glide-paths and starting charge adjustments

## Introduction

- 6.1 In the June 2015 LLCC Consultation we set out our proposed approach to balancing the use of glide-paths and Starting Charge Adjustments (SCAs) to close the forecast gaps between BT's charges for controlled services and the costs of providing those services. Our proposals were structured around four principal considerations:
- our general preference for glide-paths;
  - when we would consider making SCAs;
  - balancing the use of SCAs and glide-paths in cases where there appear to be particular risks of distorted pricing signals; and
  - balancing the use of SCAs and glide-paths in cases where charges are significantly above costs.
- 6.2 Our views in relation to the first three of these considerations remain unchanged from the June 2015 LLCC Consultation. However, in light of stakeholder responses and on further reflection, having regard to our statutory duties, we propose a revised approach to assessing the appropriate balance between SCAs and glide-paths in cases of charges being significantly above costs. Our revised proposals place greater emphasis on a broader range of considerations that we consider to be relevant to exercising our regulatory judgement over the appropriate balance between glide-paths and SCAs. Based on our revised approach, and our financial forecasts using 2013/14 base year data, we propose SCAs of -10% for Ethernet and -5% for TI services.
- 6.3 In this section we summarise our June 2015 LLCC Consultation proposals and the relevant stakeholder responses. We then set out our revised proposals for assessing the appropriate balance between SCAs and glide-paths for the Ethernet and TI baskets.

## June 2015 LLCC Consultation

### Our general preference for glide-paths

- 6.4 We said that we generally have a preference to close any gap between charges and costs using glide-paths, or a combination of some limited one-off adjustments with glide-paths, rather than relying heavily or exclusively on one-off adjustments. We explained that this general preference for glide-paths reflects their potential to provide BT with stronger incentives for productive and dynamic efficiency.<sup>83</sup>

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<sup>83</sup> Paragraphs 4.37-4.77, June 2015 LLCC Consultation.



## When we would consider making starting charge adjustments

6.5 Despite our general preference for glide-paths, our proposed approach identified two broad types of circumstances in which we considered the balance of efficiency considerations would imply that it is appropriate to consider one-off starting charge adjustments:

- where the risks to economic efficiency or competition from distorted pricing signals are particularly significant, and therefore outweigh the benefits of a glide-path approach; and
- where charges are significantly above or below cost for reasons other than efficiency or volume growth, and therefore these returns are unrelated to the incentive properties of the glide-path and the existing charge control.

6.6 We said that, even in those circumstances, if we considered that a starting charge adjustment would undermine the stability and predictability of the regulatory regime, including implications for future investment, we may still not consider it appropriate to make one. We also said our consideration of starting charge adjustments is weighed against proportionality and the possibility of implementing alternative approaches.<sup>84</sup>

## Balancing the use of SCAs and glide-paths where there are risks of distorted pricing signals

6.7 We explained that there are arguments for bringing charges into line with costs sooner than would be implied by a pure glide-path approach where charges are particularly high or low relative to cost because in such circumstances the signals for economic decision-making that are given by charges may be distorted.

6.8 We proposed to compare BT's service charges to our forecast of DLRIC, DSAC and double FAC.<sup>85</sup> Where charges were forecast to be outside the range bound by these cost estimates, we proposed that in most cases we would consider a starting charge adjustment.<sup>86</sup> In our assessment we did not consider that there are currently significant risks to economic efficiency or competition from distorted pricing signals.<sup>87</sup>

## Balancing the use of SCAs and glide-paths where charges are significantly above costs

6.9 In Annex 5 of the June 2015 LLCC Consultation we identified that BT's charges were significantly above the costs of providing the services (using the CCA FAC cost standard proposed for the control). We proposed to balance the use of SCAs and glide-path depending on the drivers of this divergence:

- efficiency and volume changes – we proposed to impose a glide-path;
- changes in cost attributions (and accounting errors) between regulated markets – we proposed to impose a glide-path;

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<sup>84</sup> Paragraphs 4.78-4.82, June 2015 LLCC Consultation.

<sup>85</sup> We carried out our analysis using an approach that aggregates the relevant individual charges to the circuit level (rather than the individual charge level). For example, for EAD 100Mbit/s, we compare charges with the costs of connection, rental and main link over a customer lifetime of three years.

<sup>86</sup> Paragraphs 4.83-4.92, June 2015 LLCC Consultation.

<sup>87</sup> Paragraphs 6.122-6.123, 7.88-7.89, June 2015 LLCC Consultation.

- changes in cost attributions (and accounting errors) between regulated and unregulated markets – we proposed to impose a starting charge adjustment; and
- changes in modelling approach – we proposed to impose a glide-path.<sup>88</sup>

6.10 Based on this approach, we proposed a starting charge adjustment of -9% to services in the Ethernet basket and -7.75% to services in the TI basket.<sup>89</sup>

## Stakeholder responses

6.11 A number of stakeholders provided substantial responses to our proposed approach to applying SCAs. We summarise below those stakeholder responses that relate to the proposals we are revising in this consultation and the specific approach that we are now consulting on. We are still considering a number of stakeholder responses that relate to the rest of our proposals on SCAs and will respond to these in our 2016 BCMR Statement.

### Balancing the use of SCAs and glide-paths where charges are significantly above costs

6.12 BT disagreed with Ofcom’s proposal to make SCAs where charges are significantly above or below cost, and this is driven by changes in cost attributions and accounting errors that move costs between regulated and unregulated markets. It submitted a number of detailed comments in that respect:

- Starting charge adjustments should only be applied where there is clear evidence that costs that are truly incremental to unregulated services have been previously, erroneously, allocated to leased lines services.<sup>90</sup>
- Ofcom has adopted a very loose definition about which costs are “incremental” and which are “common” and it is unclear how some movements between regulated and unregulated markets are treated.<sup>91</sup>
- The distinction Ofcom makes between the evolving nature of its modelling approaches and changes to the treatment of direct allocation of costs is unclear.<sup>92</sup>
- Ofcom’s rationale for including changes to cost attribution methodologies on allocative efficiency grounds is incorrect, as one particular attribution method will not clearly be more economically efficient than another.<sup>93</sup>
- Ofcom’s approach risks setting prices below the truly economically efficient level, thus undermining investment incentives in potentially competitive areas.<sup>94</sup>

<sup>88</sup> Paragraphs 4.93-4.115, June 2015 LLCC Consultation,.

<sup>89</sup> Paragraphs 6.137-6.140, 7.98-7.100, June 2015 LLCC Consultation.

<sup>90</sup> BT response to the June 2015 LLCC Consultation, paragraph 66.

<sup>91</sup> BT response to the June 2015 LLCC Consultation, paragraph 66; Annex F of BT response to the June 2015 LLCC Consultation, pages 7-8 and 15-16; Annex D of BT response to the June 2015 LLCC Consultation, paragraphs 4.41-4.47.

<sup>92</sup> BT response to the June 2015 LLCC Consultation, paragraph 67.

<sup>93</sup> Annex D of BT response to the June 2015 LLCC Consultation, Section 4;

- Ofcom would establish a prior expectation of SCAs which investors could see as increasing the risk associated with investing, increasing the costs of capital, raising prices and dampening investment incentives.<sup>95</sup>
- The proposed approach to applying SCAs does not follow the regulatory principles of consistency, stability and proportionality.<sup>96</sup>

6.13 BT also commented that Ofcom's approach to quantifying the SCAs is inappropriate. It provided a number of detailed responses to the proposed adjustments in relation to Ethernet and TI which are summarised as follows:

- Given the nature of BT's network, none of the costs categories for which Ofcom has made SCAs are wholly incremental to leased lines.<sup>97</sup>
- Ofcom should calculate the SCAs by using the 2013 LLCC model to forecast the end year FAC after adjusting the 2011/12 LLCC base year data to account for the identified errors and changes. BT said this is "*the most accurate approach available*".<sup>98</sup>
- A definitive analysis of the SCAs for 2013/14 method changes would require a full run of the ASPIRE or REFINE systems with 2011/12 data with the relevant methodology changes applied.
- Using the above approach BT has estimated that the SCA for Ethernet and TI should be 1.8% and 0.7% respectively.

6.14 Virgin also disagreed with the proposed approach for making SCAs and said that SCAs should be made only when "logical errors" have been identified. Virgin said it is concerned with Ofcom's proposal to consider changes in cost attribution between regulated and unregulated markets because it could result in greater volatility and potential regulatory gaming in the attribution process.<sup>99</sup>

6.15 GTC broadly agreed with Ofcom's approach. However, GTC noted that a systematic bias in favour of BT may be possible because Ofcom relies to a degree on information and understanding provided by BT. In GTC's view, given the significant misalignment between charges and costs, Ofcom should rebalance the price control to make a larger starting price adjustment.<sup>100</sup>

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<sup>94</sup> Annex D of BT response to the June 2015 LLCC Consultation, Section 10; Annex F of BT response to the June 2015 LLCC Consultation, pages 2-3, 12-13, 16-17; BT response to the June 2015 LLCC Consultation, paragraph 70.

<sup>95</sup> Annex F of BT response to the June 2015 LLCC Consultation, page 17.

<sup>96</sup> BT response to the June 2015 LLCC Consultation, paragraph 27; Annex D of BT response to the June 2015 LLCC Consultation, Section 9 and 10.

<sup>97</sup> Annex D of BT response to the June 2015 LLCC Consultation, paragraph 4.25.

<sup>98</sup> BT response to the June 2015 LLCC Consultation, paragraphs 239, 525; Annex D of BT response to the June 2015 LLCC Consultation, Sections 6 and 8.

<sup>99</sup> Virgin response to the June 2015 LLCC Consultation, page 4.

<sup>100</sup> GTC response to the June 2015 LLCC Consultation, page 6.

- 6.16 Sky and TalkTalk were generally unclear about how Ofcom intended to treat the new leased lines attributions proposed in the June 2015 CAR Consultation and considered that a SCA should be applied for all of them.<sup>101</sup>
- 6.17 TalkTalk commented that under its approach Ofcom should identify most of the Group Overhead errors as “incremental” and apply a SCA.<sup>102</sup>
- 6.18 UKCTA disagreed with Ofcom’s use of weighted average across all services in Ethernet basket and said it would prefer an adjustment per charge.<sup>103</sup>
- 6.19 Vodafone said that Ofcom should be *“tackling meritless over-recovery as quickly as possible through tougher starting charge adjustments which address not just regulatory accounting anomalies but over-recovery earned not through efficiency improvements but past forecasting errors”*.<sup>104</sup>
- 6.20 We have considered all of the above stakeholder responses when arriving at our revised proposals. However, in the discussion below we have addressed only those stakeholder responses that relate to the specific approach we are now consulting on. We have excluded from the discussion the stakeholder comments which are no longer relevant because of the changes to our proposed approach.

## **Our revised proposals for balancing the use of SCAs and glide-paths where charges are significantly above cost**

### **Introduction**

- 6.21 In the June 2015 LLCC Consultation we set out a proposed approach to balancing the use of SCAs and glide-paths in circumstances where charges do not appear to be risking economic distortions, but nevertheless were significantly in excess of BT’s cost of provision.<sup>105</sup> In light of the responses from stakeholders to our proposals we have given further thought to our proposed approach.
- 6.22 The prices for charge controlled services can exceed costs due to volume or efficiency outperformance by the regulated firm. The use of price caps to control charges gives rise to incentives for such outperformance. The benefits to customers in the longer term from the lower prices that such outperformance can give rise to are part of the reason why price cap controls are typically favoured over other forms of charge control. The use of glide-paths to close outperformance related gaps between charges and costs reinforces BT’s incentives to pursue efficiency and volume outperformance.
- 6.23 Consistent with our general preference for the use of glide-paths, we therefore propose to continue to adopt a glide-path approach to closing any gap between charges and costs that has arisen as a result of volume and efficiency outperformance.

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<sup>101</sup> Sky response to the June 2015 LLCC Consultation, paragraphs 10.6-10.13; TalkTalk response to the June 2015 LLCC Consultation, paragraphs 8.25-8.34.

<sup>102</sup> TalkTalk response to the June 2015 LLCC Consultation, paragraph 8.31.

<sup>103</sup> UKCTA response to the June 2015 LLCC Consultation, paragraphs 2.28-2.29.

<sup>104</sup> Vodafone response to the June 2015 LLCC Consultation, page 8.

<sup>105</sup> For the purposes of this sub-section references to BT’s costs of providing charge controlled services refer to BT’s CCA FAC costs, consistent with our proposed cost standard for the LLCC (as explained in Section 5 of the June 2015 LLCC Consultation).

- 6.24 However, charges can significantly depart from costs due to reasons other than cost and volume outperformance. In such cases, the use of some form of starting charge adjustment<sup>106</sup> would not be expected to undermine the incentive properties of the control. Determining the appropriate balance between SCAs and glide-paths in such cases requires us to come to a regulatory judgement.
- 6.25 When exercising our regulatory judgement we must have regard to our statutory duties and European Community requirements as set out in the Communications Act.<sup>107</sup> Ofcom's principal duty is to further the interests of citizens in relation to communications matters, and to further the interests of consumers in relevant markets, where appropriate, by promoting competition. In doing so we must have regard to choice, price, quality of service and value for money.
- 6.26 Protecting citizens and consumers from a firm with SMP levying excessively high charges is a central focus for Ofcom in using charge controls. Thus, in circumstances where charges exceed cost, the use of a glide path to close that gap over the control period would need to be weighed against requiring customers of the regulated services to pay charges that are higher than is required to compensate the firm for the costs incurred in providing those services over the control period. However, as we explain further below, there can be productive and dynamic efficiency benefits associated with not seeking to closely align charges to costs at all times. We would expect these productive and dynamic efficiency improvements to give rise to future benefits to customers. Our duties therefore imply that there are a number of relevant considerations to the application of our regulatory judgement in this case, as we explain below.
- 6.27 The approach we proposed in the June 2015 LLCC Consultation sought to differentiate between various potential sources of why BT's charges exceeded costs (other than efficiency and volume outperformance) and then sought to further differentiate these between:
- incremental and non-incremental costs; and
  - changes in the attributions of costs between regulated markets and between regulated and unregulated markets.
- 6.28 This approach placed considerable emphasis on a specific set of cost attribution changes and our ability to accurately and fully decompose the extent to which the drivers of BT's relatively high rates of return related to each of the aspects set out above. It also required us to have a detailed understanding of the circumstances surrounding each contributor to charges exceeding cost to consider whether a SCA was justified in relation to it. As evidenced by the stakeholder comments, such an exercise is difficult and complex.
- 6.29 This proposed approach focused on a narrow set of considerations, largely related to matters of cost attribution. On further reflection, and in light of our duties to citizens and consumers and taking into account stakeholders' comments, we do not consider that this proposed approach places appropriate weight on the full range of considerations relevant to our duties. In particular, we do not consider it takes sufficient account of the impact on customers associated with maintaining charges above cost for a prolonged period of time.

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<sup>106</sup> In respect of the gap which is not related to volume and efficiency outperformance.

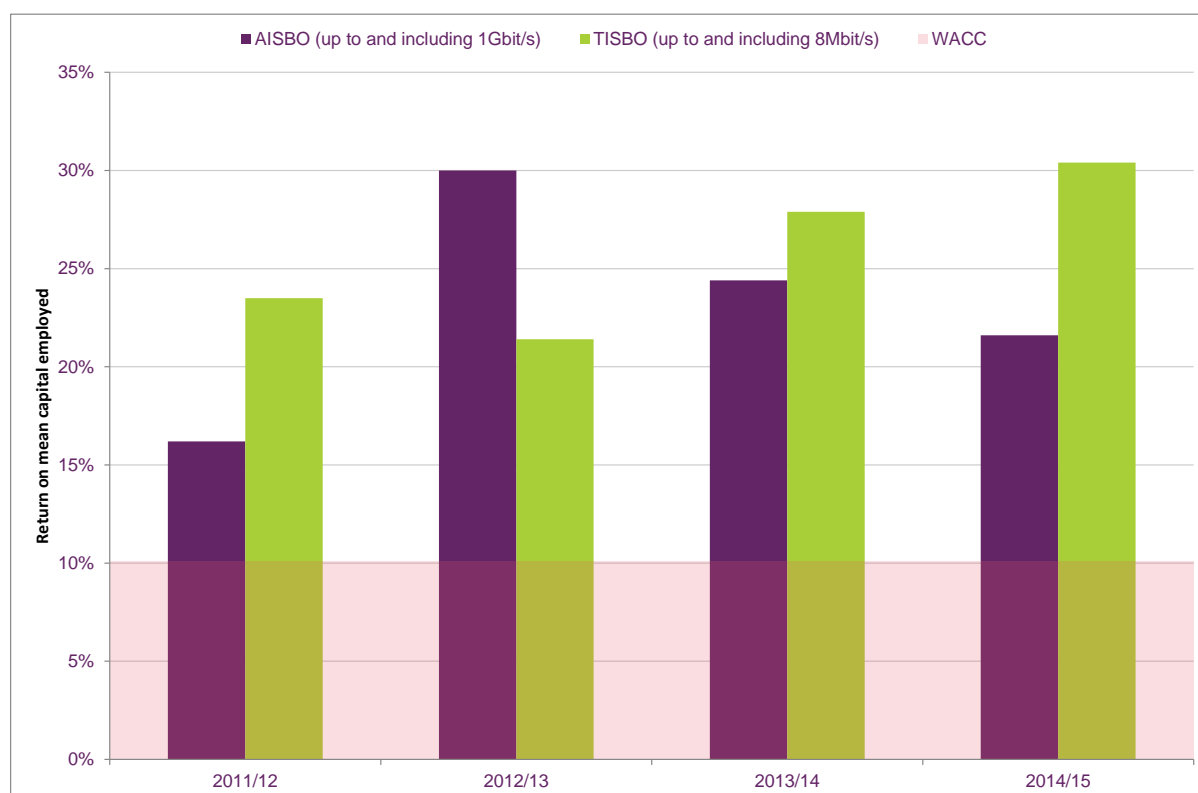
<sup>107</sup> Section 3 and 4 of the Communications Act.

- 6.30 We therefore consider a revised approach that places appropriate weight on a broad range of considerations relevant to our duties is appropriate in this case. We set out our view of the appropriate considerations in paragraphs 6.45 to 6.73 below. But first we consider whether BT's charges for services in the Ethernet and TI baskets are likely to significantly depart from cost at the start of the control period and the extent to which any such departure relates to outperformance (or underperformance) with respect to the volume and efficiency forecasts used in setting the current charge control.

**BT's charges for controlled services are likely to be significantly above cost at the start of the control period**

- 6.31 As set out earlier, we intend to base our charge control decisions in the 2016 BCMR Statement on forecasts that are based on regulatory financial information for the financial year 2014/15 (as compared to 2013/14 for the June 2015 LLCC Consultation). However, we are still in the process of analysing this information and updating our forecasts accordingly. Therefore, for the purposes of this consultation we have conducted our analysis with reference to the 2013/14 information used in the June 2015 LLCC Consultation while reflecting our initial view of the of the 2014/15 financial information where available.
- 6.32 As set out above, the glide-path approach provides BT with incentives to pursue gains in both efficiency and volume growth, i.e. to 'out-perform the control'. However, in the context of the business connectivity markets, we consider that charges may depart from costs at the start of the new control period for reasons other than out-performance during the current charge control period.
- 6.33 BT's reported CCA FAC rates of return on (mean) capital employed in business connectivity markets have significantly exceeded our estimates of its cost of capital for a number of years. As set out in the June 2015 LLCC Consultation, we estimate BT's cost of capital (pre-tax, nominal) in relation to business connectivity services to be 10.1%, up from 9.9% estimated for the current charge control. BT's rates of return on (mean) capital employed for Ethernet and TI services, as reported in BT's RFS, are presented in Figure 6.1 alongside its cost of capital for comparison purposes.

**Figure 6.1: BT's rates of return on mean capital employed as per regulatory financial statements**



Source: BT regulatory financial statements, Ofcom analysis; Subsequent restatements of prior years' financial information by BT are reflected; AISBO refers to Non-WECLA except for 2011/12, which is presented for the whole of the UK.

6.34 For 2013/14, which was the first year of the 2013 LLCC control period, BT reported<sup>108</sup> returns for business connectivity markets as a whole of 23.6%. For the low bandwidth TI and AISBO non-WECLA services that are of particular interest to this charge control the rates of return were 24.5% and 21.0% respectively. As set out in Sections 6 and 7 of the June 2015 LLCC Consultation, we consider that a number of adjustments to BT's RFS information are appropriate for the purposes of deriving the base year for our charge control. These adjustments generally act to increase BT's reported rates of return.

6.35 Since the publication of the June 2015 LLCC Consultation, BT has published its 2014/15 RFS. BT has made a number of changes to how it reports the costs associated with business connectivity services between the 2013/14 and 2014/15 RFS. Some of these changes implement adjustments that we proposed in the June 2015 LLCC Consultation,<sup>109</sup> but others reflect changes BT has identified and considers to be appropriate.<sup>110</sup> Reflecting these accounting changes, the restatement of the 2013/14 financial information for business connectivity services has resulted in

<sup>108</sup> In the 2013/14 RFS, available at [http://btplc.com/Thegroup/RegulatoryandPublicaffairs/Financialstatements/2014/Current\\_Cost\\_Financial\\_Statement\\_2014.pdf](http://btplc.com/Thegroup/RegulatoryandPublicaffairs/Financialstatements/2014/Current_Cost_Financial_Statement_2014.pdf)

<sup>109</sup> E.g. Cumulo rebate attribution, Regulatory Asset Valuation of access duct, removing 21CN Future Benefits attribution, classification of 64kBit/s Trunk, classification of Featurenet, attribution of BT TSO Managed Assets, and Duct and Fibre allocations to 21CN.

<sup>110</sup> E.g. Access Fibre apportionment, ECC cost component rationalization, SDH plant group to component mapping, BT Wholesale cost of sales transfer charges, and PPC volumes error correction.

a change in the reported returns for the services of particular relevance to the 2016 LLCC. For low bandwidth TI services the reported return increased from 24.5% to 27.9%. While for AISBO non-WECLA the reported return increase from 21.0% to 24.4%. The overall return for business connectivity markets rose from 23.6% to 27.8%.

- 6.36 For the 2014/15 financial year BT's reported returns for business connectivity services have declined from 27.8% to 23.7%. However, BT's performance in the various business connectivity markets has varied compared to 2013/14. For low bandwidth TI services the reported rate of return for 2014/15 rose to 30.4% from 27.9% in 2013/14. While for AISBO non-WECLA the reported rate of return for 2014/15 fell to 21.6% from 24.4% in 2013/14.
- 6.37 In summary, over the first two years of the current control BT's rates of return on the services of particular interest to the 2016 LLCC have been more than double BT's cost of capital. BT's reported returns in excess of its WACC (i.e. 9.9%) in 2014/15 represent around 29% of revenues for low bandwidth TI services and around 25% of revenues for AISBO non-WECLA services.
- 6.38 We estimate that in the final year of the current control BT's ROCE will reach about 20% and 30% for Ethernet and TI services, respectively. These returns are significantly in excess of its cost of capital.

### **BT's charges for controlled services are likely to be significantly above cost for reasons other than efficiency or volume growth**

- 6.39 Charges and costs can diverge over a control period for reasons other than volume and efficiency outperformance by the regulated firm. In Annex 5 of the June 2015 LLCC Consultation we set out an analysis of the extent to which BT's returns for TI and Ethernet services in 2013/14 exceeded our forecasts when setting the 2013 LLCC, and our understanding of the key factors contributing to that outperformance.
- 6.40 As we explained in Annex 5 of the June 2015 LLCC Consultation, precisely decomposing the various factors that give rise to apparently high profitability for charge controlled services is complex and resource intensive, particularly in light of BT's complex financial reporting arrangements and the changes that BT makes each year to how it reports costs. As such there is a degree of uncertainty surrounding the precise quantification of the various apparent impacts.
- 6.41 However, our analysis showed that, although outperformance in respect of efficiency and volumes appeared to be an important factor in BT's relatively high rates of return, it did not explain the majority of the higher than expected returns. We estimated that for the business connectivity services covered by the 2013 LLCC charge control only around a quarter for Ethernet and just above a third for TI of the difference between BT's 2013/14 returns and our forecast returns<sup>111</sup> related to volume and efficiency outperformance.<sup>112</sup> We consider that at least some of BT's

<sup>111</sup> We forecast that BT's returns would be higher than its cost of capital in 2013/14 because we used a glide-path to close the gap between charges and costs that had arisen in the previous control period.

<sup>112</sup> In the period since the June 2015 LLCC Consultation was published out-turn volumes for 2014/15 have been available. We have therefore updated the analysis presented in Annex 5 of the June 2015 LLCC Consultation to include 2014/15 actual volumes. We have continued to assume out-turn efficiency improvements of 5%. On this basis we continue to find that volume and efficiency outperformance explain a relatively small percentage of the higher than expected profitability for the



higher than expected returns are likely to have resulted from the way in which BT attributes costs. In particular, in the June 2015 and November 2015 CAR Consultations we have identified accounting errors and proposed that certain BT's attribution methodologies are inappropriate.

6.42 In generating our estimates of efficiency outperformance in Annex 5 of the June 2015 LLCC Consultation we assumed that BT's outturn efficiency improvement had been 5% for both TI and Ethernet. BT's response to our June 2015 LLCC Consultation would appear to imply it considers that its recent efficiency performance in relation to business connectivity services is less than 5%. If this is the case it would imply that our 2013/14 profitability analysis may overstate the contribution of efficiency outperformance to the relatively high levels of profitability.

6.43 In summary, we consider that:

- BT's return for the business connectivity services relevant to the charge control has been persistently above its cost of capital for a number of years;
- BT's returns appear likely to remain above its cost of capital for the remainder of the current control period; and
- these high rates of return do not appear to be primarily due to outperformance by BT against the efficiency and volume assumptions used in setting the 2013 LLCC. Indeed, such outperformance appears to be a relatively small factor in explaining BT's high rates of return.

6.44 In our view we should therefore consider whether SCAs are appropriate, and what the appropriate balance between SCAs and glide-paths is, in this case. We conduct this assessment in the paragraphs below.

**We consider that balancing the considerations relevant to our duties implies SCAs are appropriate in this case**

6.45 Having found that BT's charges significantly exceed (and are likely to continue to exceed in the next control period) costs and that this is not primarily as a consequence of volume and efficiency outperformance, a regulatory judgement is required to determine the appropriate balance between SCAs and glide-paths in this case. In paragraphs 6.25 to 6.26 above we explain that we consider this regulatory judgement involves balancing various considerations in light of our statutory duties and Community obligations.

6.46 In the paragraphs below we set out:

- the considerations we believe to be relevant in this case to our judgement;
- our proposed assessment of the implications of those considerations for the TI and Ethernet baskets; and
- our proposed judgements in relation to the appropriate level of SCAs in this case in light of our assessment of the various considerations.

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2013 LLCC charge controlled services. We estimate that for both TI and Ethernet efficiency and volume outperformance explains only around a fifth of the returns in excess of our forecasts when we set the 2013 LLCC.

6.47 As we explain in paragraph 6.22 above, we consider it appropriate to use a glide-path where charges exceed cost as a consequence of BT outperforming the efficiency and volume forecasts adopted in the previous charge control. This is in order to preserve the incentive properties of the charge control. The discussion below therefore relates to the proportion of gap between charges and costs that does not relate to efficiency and volume outperformance. As we have explained above, we estimate that such outperformance relates to a relatively small proportion of the divergence between controlled charges and costs in this case. Therefore there remains considerable scope for SCAs to be made while still adopting a glide-path for outperformance.<sup>113</sup>

### Benefits to customers and end-users from bringing charges quickly into alignment with costs

6.48 The use of a pure glide-path approach in circumstances where charges significantly exceed costs results in customers paying significantly more for the charge controlled services over the control than is required to cover the controlled firm's efficient costs of providing the services. We estimate that, compared to an approach where charges were set to our forecast of efficient costs in each year of the control, a pure glide-path approach would mean that BT's customers would pay more than an extra £210m for Ethernet services and around £65m more for TI services over the 2016 LLCC period. This suggests the potential for significant consumer benefit from using SCAs to bring charges into line more quickly.

6.49 BT's customers for business connectivity services are often not the end-users of the services. Rather, often they are alternative communications providers that purchase wholesale inputs from BT to support the retail services that they supply to end-users. In some cases the business connectivity services are used to provide the backhaul needed to provide broadband or mobile services. In other cases the services are used to supply point-to-point connectivity for end-users. This latter category is particularly relevant to the charged controlled services in this case.

6.50 There is likely to be variation in the extent to which reductions in charges are passed on to end-users between the TI and Ethernet baskets and potentially between the products within the baskets. But, overall end-users are more likely to receive a greater share of any excess between BT's charges and costs if we require BT to bring charges more quickly into alignment with costs, through the use of SCAs, than if we rely only on a glide-path approach.

6.51 Furthermore, even in the event that there is limited direct pass-on of charge reductions to end-users, in our view enabling BT's customers to benefit from bringing BT's charges more quickly into alignment with cost is more likely to be consistent with supporting effective competition in downstream markets (particularly in relation to Ethernet services) than adopting a pure glide-path approach.<sup>114</sup>

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<sup>113</sup> We note Vodafone's response that Ofcom should apply a SCA for all "meritless over-recovery" as quickly as possible (see paragraph 6.19). As we explain in the following discussion, even where charges are significantly above costs for reasons other than efficiency and volume outperformance, there may be other arguments in favour of a glide-path approach.

<sup>114</sup> Given that higher access charges can be associated with a reduction in competition in downstream markets.

- 6.52 Nevertheless, we note that the productive and dynamic efficiency benefits associated with the use of a glide-path are also likely to bring benefits to customers and end-users.

### Ensuring the regulated firm has an opportunity to recover its efficiently incurred costs

- 6.53 As we set out in the June 2015 LLCC Consultation,<sup>115</sup> we seek to ensure that the regulated firm has an opportunity to recover its efficiently incurred costs through the use of the 'fair bet' concept.<sup>116</sup> This approach is an important consideration for Ofcom because it supports dynamic efficiency improvements by creating a regulatory environment that is conducive to investment by the regulated firm. However, there may be specific market circumstances which imply that the particular risks to the firm's opportunity to recover its efficiently incurred costs may not be considered to be consistent with maintaining a fair bet to investors.
- 6.54 In the June 2015 LLCC Consultation we noted that some costs previously considered to be part of the business connectivity markets are now associated with other charge controlled markets. These have not necessarily been fully reflected in the regulated charges for those other markets so the application of SCAs in this case would mean that BT would not have the opportunity to fully recover its efficiently incurred costs associated with these charges.
- 6.55 Therefore, to the extent that BT's excess profit might be related to such costs, we consider it appropriate to adopt a glide-path to bring BT's charges in line with its costs. As demonstrated by the detailed comments raised by stakeholders, in particular BT, to our June 2015 LLCC Consultation, robustly estimating the proportion of any gap between charges and costs that can be attributed to such changes in cost attributions is not straightforward. However, we believe that such concerns are relevant in this case and point to a more conservative application of SCAs and more emphasis on the use of glide-paths.<sup>117</sup>
- 6.56 Separately, our charge controls for business connectivity markets are typically set on the basis of forecasts of the regulated firm's revenues and costs over the control period. These forecasts are necessarily based on a financial model that is a simplification of reality, and a series of assumptions and input forecasts. Therefore a divergence between charges and costs may be due to a forecasting error, in particular in periods of significant change in the market. In general, taken over a longer time horizon and across enough controls we might expect these forecast errors not to be systematically biased in one direction or another and therefore not to have any effect on the balance between SCAs and glide-paths.

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<sup>115</sup> For example see A11.3-A11.7.

<sup>116</sup> Here we have also considered BT's views about the effect that our approach to SCAs as proposed in the June 2015 LLCC Consultation would have on investment incentives (see paragraph 6.12).

<sup>117</sup> In Annex 5 of our June 2015 LLCC Consultation, we estimated that BT's changes to its RFS explain around a quarter of the returns in excess of our forecast when we set the 2013 LLCC for Ethernet and around a third for TI services. This represents a return of around £70m and £48m for Ethernet and TI, respectively. In paragraph 6.129 of our June 2015 LLCC Consultation, we estimated that over £25m of costs have been allocated from Ethernet services to unregulated markets. Similarly, in paragraph 7.92, we estimated that more than £5m of costs have been allocated from low bandwidth TI markets to unregulated wholesale markets. Based on the above, the impact of cost re-attribution from charge-controlled business connectivity services to non-charge controlled markets can be estimated at £45m and £43m for Ethernet and TI services, respectively.

- 6.57 The declining volumes of TI services means that BT will likely require fewer assets to provide the charge controlled services at the end of the 2016 LLCC period compared to the base year used for our cost forecasting. BT's arguments in response to our proposed modelling approach in the June 2015 LLCC Consultation suggested that it considers our cost forecasts may not appropriately reflect some frictions it may be facing in reducing its asset base to reflect lower levels of demand and the costs associated with such reductions. We are still considering BT's arguments in this respect, and whether adjustments are appropriate ahead of the 2016 BCMR Statement. However, if BT is correct that there may be frictions or costs that are not necessarily captured in our forecast (and indeed may be difficult to robustly capture in our cost forecast), we are likely to place a greater emphasis on the use of a glide-path for TI as this would provide BT with an additional opportunity to recover such costs.

### Supporting investment in competing infrastructure by other CPs

- 6.58 Although in the May 2015 BCMR Consultation we proposed to find that BT has SMP for the provision of Ethernet services in the UK outside of the CLA and Hull, BT does nevertheless face some competition in this SMP market from competing infrastructure providers. The use of glide-paths during periods in which charges need to change significantly to come into alignment with costs can give BT's wholesale competitors longer to adapt to the changes in BT's charges and better plan their future investments accordingly. Therefore, greater emphasis on the use of glide-paths, particularly in relation to Ethernet, may be more consistent with supporting investment by wholesale competitors to BT.
- 6.59 We do not anticipate material investment by other CPs in TI services over the 2016 control period,<sup>118</sup> therefore, this consideration is of less relevance for the TI basket than the Ethernet basket.

### Avoiding discontinuities in charges over time

- 6.60 The use of glide-paths can help to avoid discontinuities in charges over time, which in turn may lead to a more stable and predictable background against which investment and other decisions may be taken by both the regulated firm and its competitors. The use of glide-paths can therefore support improvements in dynamic efficiency.
- 6.61 However, where charges significantly exceed costs the use of a glide-path approach will itself involve large annual price changes so the benefits associated with smoothing price reductions over time may not be as significant as it would be where charges are more closely aligned with cost. Adopting a pure glide-path for Ethernet services would lead to year-on-year price reductions of 15.50% over the next control period. Therefore substantial discontinuities in charges over the next control period cannot be avoided even by a pure glide-path approach.
- 6.62 We have also looked at the price reductions made by BT to its most relevant Ethernet products over the past years. BT has made several price cuts to individual Ethernet services by far exceeding the basket percentage X, notably in the 1Gbit/s bandwidth, and not uncommonly in the range of 30%, well above the required annual reduction of RPI-11.5% over the last control period. Any combination of a SCA and X totalling no more than 30% would generate a first-year price reduction that does not depart from the range of BT's price cuts in recent years. At the same time investment

<sup>118</sup> For example see paragraph 5.51 of the May 2015 BCMR Consultation.

by OCPs is most relevant for the higher bandwidths (e.g. 1Gbit/s and above) and the newest product technologies (e.g. EAD) where price drops by BT have been most significant.

- 6.63 Therefore, the decision over the appropriate balance of SCAs and glide-paths for Ethernet services is not set against the context of a portfolio of broadly stable historic charges; rather significant annual changes in charges have been a relatively common feature for these services. On that basis we propose that under this consideration we put the same weight on SCAs and glide-paths for Ethernet services.
- 6.64 BT's charges for TI services have tended to be more stable over recent years (in large part reflecting the different values of X applied to TI basket services compared to Ethernet basket services). However, as we set out in the June 2015 LLCC Consultation,<sup>119</sup> volumes for TI basket services are forecast to decline significantly over the 2016 control period. We might expect such reductions in volumes to result in the gap between charges and costs to close to some degree over the control period absent any SCAs or glide-path,<sup>120</sup> due to the loss of some economies of scale leading to increases in unit costs.<sup>121</sup> In such circumstances it is possible that an aggressive use of SCAs to lower charges in the first year could result in price increases later in the control period (i.e. years 2 and 3). In our view such a profile of prices over time is unlikely to be consistent with an environment in which investment and other decisions can be well planned by BT and its competitors. This consideration would therefore suggest greater emphasis on the use of glide-paths for the TI basket.

### Promoting efficient migration signals

- 6.65 During periods of rapid change (for example in relation to technological change) there may be benefits to society associated with promoting an efficient migration from legacy technologies and services to newer alternatives. Charges can be used as a signal to support efficient migration in some cases. Therefore, the balance between the use of SCAs and a glide-path can be used to support efficient migration.
- 6.66 As noted above, demand for TI services is forecast to decline substantially over the 2016 control period as end-users migrate to alternative services, including Ethernet services. As we set out in Annex 11 of the June 2015 LLCC Consultation, the evidence considered in relation to market definition in the May 2015 BCMR Consultation suggests that TI prices are unlikely to be a material factor when customers consider migrating to other services. However, it also appears unlikely that the price of TI services will have no effect on the rate of migration to other services. Given the decision over the balance between SCAs and glide-paths for both the TI and Ethernet baskets has the potential to materially alter the relative prices of the two groups of services, the implications of those decisions on migration signals is a relevant consideration in coming to our regulatory judgement.
- 6.67 There appear to be a number of potential impacts on migration incentives associated with the chosen balance between SCAs and glide-paths:

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<sup>119</sup> Annex 8 of the June 2015 LLCC Consultation.

<sup>120</sup> Assuming charges remain unchanged.

<sup>121</sup> Although this could be offset to some extent by any efficiency savings achieved.

- For end-users and BT's alternative communication provider customers, who supply TI services to end users, we would expect a greater emphasis on glide-paths for TI basket services and SCAs for Ethernet basket services would in principle result in pricing signals consistent with encouraging customers to migrate from TI services to alternative services including Ethernet.
- For BT the incentives to support migration from TI services to alternative services are likely to be affected differently. Adopting a glide-path for TI basket services will result in TI basket services being more profitable over the control period (relative to more emphasis on SCAs). Conversely, the use of SCA for Ethernet basket services will reduce the relative profitability of these services for BT. Therefore, an approach that places greater emphasis on glide-paths for TI basket services and SCAs for Ethernet basket services could result in a reduction in BT's incentives to support migration from TI services to alternative service.

6.68 Given that the decision over whether to migrate from TI basket services to alternative services, including Ethernet services, is made by end-users and BT's alternative communication provider customers, we place greater weight on the impact of the balance between SCAs and glide-paths on their incentives to migrate than BT's incentives. Although we attach less weight to them, BT's incentives are still however a relevant consideration on the basis that BT has some potential influence on migration decisions, given its ability to influence switching costs.

### Our overall assessment

6.69 We summarise our analysis of each of the proposed considerations when balancing the use of SCAs to the Ethernet and TI baskets in Table 6.1 below.

**Table 6.1: Summary of analysis of relevant considerations for applying SCAs to Ethernet and TI**

Consideration	Ethernet			TI		
	Glide-path	SCA	Neither	Glide-path	SCA	Neither
	Consideration implies greater emphasis on...					
Benefit to customers and end-users associated with bringing charges quickly into alignment with costs		•			•	
Ensuring that the regulated firm has the opportunity to recover its efficiently incurred costs	•			•		
Investment in competing infrastructure by other CPs	•					•
Avoiding discontinuities in charges over time			•	•		
Promoting efficient migration signals		•		•		

6.70 In our view each of the relevant considerations discussed above and summarised in Table 6.1 can, in broad terms, be related back to either productive or dynamic efficiency with the exception of the benefits to customers associated with bringing

charges more quickly into alignment with costs. As Table 6.1 demonstrates, these productive and dynamic efficiency considerations generally support a greater emphasis on the use of glide-paths to close the forecast gap between charges and costs over the control period. Whereas the benefits to customers associated with bringing charges more quickly into alignment with costs implies that greater emphasis is put on the use of SCAs. Our judgement therefore needs to achieve a balance between the various productive and dynamic efficiency considerations, on one hand, versus, the benefits to customers, on the other hand.

- 6.71 As we set out above, Ofcom has historically attached higher weight to productive and dynamic efficiency considerations for wholesale leased lines, rather than trying to closely align charges to costs at every point in time. This is because productive and dynamic efficiency improvements are likely to generate benefits to consumers over time. This broad principle underlies our general preference for glide-paths and we consider it appropriate in achieving the right balance between the considerations set out above. Therefore, in our regulatory judgement, the appropriate balance between the use of SCAs and glide-path should not ignore the benefits to customers from a quicker reduction in charges achieved through SCAs but should place a higher weight on the productive and dynamic efficiency benefits associated with the use of a glide-path (from which customers are likely to benefit from in the future).
- 6.72 In addition, the balance of considerations appears to support greater emphasis on a glide-path for TI than Ethernet. This is particularly relevant for our consideration of promoting efficient migration signals and avoiding discontinuities in charges over time.
- 6.73 Reflecting this balance of emphasis, we propose to make a 5% SCA<sup>122</sup> for TI services and a 10% SCA<sup>123</sup> for Ethernet services. At these levels we estimate that the majority of the difference between forecast revenues and costs in 2015/16 would be closed by a glide-path. We consider that a balance at, or around, such a level would:
- ensure customers benefit from a material reduction in charges as soon as the control comes into force;
  - but the overall balance towards the use of the glide-path across the control period as a whole is consistent with the considerations set out above pointing towards greater emphasis on the glide-path; and
  - avoid risking undermining the outperformance incentives of the control.

## Implementation

- 6.74 In the June 2015 LLCC Consultation we consulted on how the proposed SCAs should be implemented in relation to the proposed sub-baskets and sub-caps for Ethernet and TI services.<sup>124</sup> For the avoidance of doubt, our proposed SCAs as set out in this consultation apply correspondingly to those proposals.

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<sup>122</sup> I.e. to require BT to reduce its average charges for the TI basket by 5% on the first day of the 2016 control (i.e. 1 April 2016).

<sup>123</sup> I.e. to require BT to reduce its average charges for the Ethernet basket by 10% on the first day of the 2016 control (i.e. 1 April 2016).

<sup>124</sup> June 2015 LLCC Consultation, paragraphs 6.139-6.140, 6.148, 6.152, 6.159, 7.99-7.100.

- 6.75 In the May 2015 BCMR Consultation, we proposed to re-impose the obligation on BT to notify changes to its charges, terms and conditions and proposed a 28 day notification period for price reductions. For the avoidance of doubt, the SCAs proposed in this Consultation require BT to make price reductions on the first day of the charge control, and therefore BT will not be required to give 28 days' notice under proposed Condition 7.4(b) of the SMP conditions. This is because the proposed SCAs are required by Ofcom and therefore Condition 7.3 applies.

## Consultation questions

*Question 6.1: Do you agree with our revised approach to balancing the use of SCAs and glide-paths in case of charges significantly above cost? If not, what alternative would you propose and why?*



## Section 7

# Resulting charge control proposals and legal tests

## Introduction

7.1 We set out our revised proposals in relation to the new charge controls for Ethernet and TI services in Table 7.1 below. The revised charge controls are based on the proposed approach and assumptions set out in the June 2015 LLCC Consultation except where we have set out revised proposals in this consultation in respect of:

- CAR adjustments;
- cost forecasting; and
- starting charge adjustments.

**Table 7.1: Proposed charge controls**

Basket	Overall cap (value of X)	Starting charge adjustment
Ethernet	CPI-12.50%	-10%
TI	CPI-3.50%	-5%

Source: Ofcom

7.2 Historically, Ofcom has tended to set ranges for X using 'low' and 'high' scenarios that have been modelled on the basis of sensitivity analyses. However, as set out in the June 2015 LLCC Consultation, in the case of this control we consider that attempts to model the potential impacts of alternative input parameters are unlikely to provide useful information for the purposes of setting ranges. In the case of both the Ethernet and TI baskets, we consider that the most significant impacts that could cause us to depart from our base case 'X' in the 2016 BCMR Statement, in addition to the standard modelling inputs and approach risks, relate to updating the base year financial data for BT's 2014/15 RFS and also our further consideration of the appropriate elasticities to apply in light of stakeholder comments.<sup>125</sup>

7.3 On this basis, we consider that the values of X for both the Ethernet and TI baskets may become less negative relative to our base case than more negative. Therefore, we propose the following ranges:

- Ethernet basket – a range of -6.50% to -14.50% around a base case control of -12.50%; and

<sup>125</sup> In particular we are considering the Access Fibre AVE to ensure that it reflects how access fibre costs increase with volumes and we are considering whether our TI CVEs and AVEs reflect how BT is able to remove costs as volumes decline.

- TI basket – a range of +2.50% to -5.50% around a base case control of -3.50%.

7.4 In the June 2015 LLCC Consultation we consulted on our proposals for sub-baskets.<sup>126</sup> For the avoidance of doubt, where we proposed that the basket value of X should apply to the sub-baskets, our proposed values of X in this consultation apply correspondingly.

## Implementation

7.5 In Section 10 of the June 2015 LLCC Consultation we explained how our various policy proposals set out in that consultation are implemented in the draft SMP conditions. In particular, we discussed the following:

- the structure of the draft SMP conditions with regards to the proposed baskets of services;
- the effects of the draft SMP conditions that relate to the starting charge adjustments and the charge controls;
- how we propose to ensure compliance with the charge controls including taking into account the timing of charge changes; basket weights; our approach to term products and discounts; carrying over provisions; our proposal to allow BT to comply with starting charge adjustments and charge control formulae simultaneously; and flexibility to deal with changes in services;
- how we propose to deal with “material changes” to charge controlled services.

7.6 In order to reflect our new proposals in this consultation, we have revised draft SMP conditions 5A.1, 5A.7, 5D.1 and 5D.7. Specifically, we have proposed to change:

- the proposed Percentage Starting Charge Change for each of the Ethernet basket, the Ethernet sub-baskets, the TI basket and the TI sub-baskets, and
- the proposed value of X applied to calculate the proposed Controlling Percentage for each of the Ethernet basket, the Ethernet sub-baskets, the TI basket and the TI sub-baskets.

7.7 The text of the revised draft SMP conditions is set out in Annex 6 of this consultation. Except as specified below, our proposals from the June 2015 LLCC Consultation remain unchanged.

## Legal tests

7.8 We explained the May 2015 BCMR Consultation why we considered that the proposed imposition of a charge control for leased lines would be consistent with the relevant tests in the Act.

7.9 In Section 10 of the June 2015 LLCC Consultation we set out why we considered that each of the charge controls that we were proposing met the relevant tests and how, in formulating the proposals set out in that consultation, we had complied with our relevant statutory duties.

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<sup>126</sup> June 2015 LLCC Consultation, paragraphs 6.145 to 6.180 and 7.35 to 7.51.

- 7.10 In light of the further revisions to the draft SMP conditions, we are satisfied that each of the charge controls that we are proposing meets the relevant tests and, in formulating the proposals in this consultation we have complied with our relevant statutory duties. This discussion should be read in conjunction with Section 10 of the June 2015 LLCC Consultation and we refer back to it where appropriate.
- 7.11 In particular, we set out below why we consider that:
- each of the proposed price controls, as revised to take account of the proposals in this consultation, would be authorised pursuant to Section 87(9) of the Act, and would satisfy the tests in section 88 of the Act and the criteria in Section 47(2) of the Act;
  - in formulating each of the proposed price controls, we have complied with our relevant statutory duties, particularly those under Sections 3 and 4 of the Act; and
  - in formulating each of the proposed price controls, we have taken utmost account of the EC Leased Lines Pricing Recommendation and BEREC Common Position.
- 7.12 For the purpose of explaining why we consider the legal tests to be met, we have set out our position on both the Ethernet and TI price controls together below. We have also identified, where appropriate, certain specific points that we consider to be particularly relevant to the specific proposals set out in this consultation.
- 7.13 We discuss the legal tests for our proposals in relation to BT's regulatory financial reporting in Section 8.

### **We have considered the tests under sections 87 and 88 of the Act**

- 7.14 In our opinion, for the reasons set out at paragraphs 10.58-10.69 of the June 2015 LLCC Consultation and in this consultation, the proposed price controls, as revised to take account of the proposals in this document, continue to satisfy Sections 87 and 88 of the Act.
- 7.15 In particular, we remain of the view that, in the absence of appropriate *ex ante* regulation, there is a relevant risk of adverse effects arising from BT fixing and maintaining some or all of its prices for the specific services we propose to include in the proposed price controls in the relevant CISBO and TISBO wholesale markets at an excessively high level.
- 7.16 Further, we continue to consider that the proposed price controls would promote efficiency. This is achieved, amongst other things, by allowing BT to keep any super-normal profits that it earns within the defined period by reducing its costs over and above the efficiency gains we have assumed in setting the proposed charge control.
- 7.17 We also continue to consider that the proposed price controls would be appropriate to promote sustainable competition and confer the greatest possible benefits on the users of public electronic communications services. In particular, amongst other things, each of the proposed price controls would prevent excessive pricing and, by applying at the wholesale level, would promote sustainable retail competition which we consider is likely to confer the greatest benefits on end-users of public electronic communications services.
- 7.18 We also remain of the view that our proposed price controls take into account the need to ensure that BT has the incentives to invest and innovate where it is efficient

to do so. We continue to consider that each of the proposed price controls strikes a good balance between ensuring BT's charges are not excessive and ensuring appropriate incentives for investment and innovation. We consider this specifically in relation to our proposals for balancing the use of glide-paths and SCAs in this document.

### **We have considered the tests under section 47 of the Act**

- 7.19 In addition to the above, Ofcom must be satisfied that the proposed price controls satisfy the test in section 47(2) of the Act.
- 7.20 We remain satisfied that the test in section 47(2) of the Act for the reasons set out in paragraphs 10.70-10.79 of the June 2015 LLCC Consultation and in this consultation, that this test is met in relation to the proposed price controls, as revised to take account of the proposals in this consultation. In particular we are satisfied that the proposed SMP conditions are:
- objectively justifiable, in that our proposed price controls have been designed to address the risks to competition from excessive charges, while allowing BT the ability to recover its costs, including a reasonable return on investment. In this document, we have taken this into account specifically in our proposals for balancing the use of glide-paths and SCAs and by ensuring that BT is able to recover its fixed and common costs through our proposed changes to cost forecast modelling;
  - not unduly discriminatory, in that any CP (including BT) will be able to access the services in question at the levels set by the proposed charge controls. Moreover, the proposed charge controls do not discriminate unduly against BT, as the controls seek to address BT's market position, including its incentive and ability to set excessive charges for services falling within the scope of the proposed price controls;
  - proportionate in that they do not, in our view, impose controls on the prices that BT charge that go beyond what is required to achieve the aim of addressing BT's ability and incentive to charge excessive prices for these services, because they would: (i) apply to an appropriate set of charges within those markets where we have identified BT as having SMP, (ii) allow for BT to make a reasonable return on investment, and (iii) provide BT with the incentives to invest and develop its network;
  - transparent, in that the proposed SMP conditions are clear in relation to what it is intended to achieve.

### **We have considered sections 3 and 4 of the Act**

- 7.21 We have considered our duties under section 3 and all the Community requirements set out in section 4 of the Act. We are satisfied for the reasons set out in paragraphs 10.80 to 10.84 of the June 2015 LLCC Consultation and in this consultation that our proposals are consistent with our duties under section 3 and 4 of the Act.
- 7.22 In particular we continue to consider that each of the proposed price controls would:
- further the interests of citizens and of consumers in relevant markets by the promotion of competition in line with Section 3 of the Act; and

- promote competition in relation to the provision of electronic communications networks and will encourage the provision of network access for the purpose of securing efficiency and sustainable competition in downstream markets for electronic communications networks and services, resulting in the maximum benefit for retail consumers, in line with Section 4 of the Act.

### **We have taken into account the EC Leased Lines Pricing Recommendation**

- 7.23 The Leased Lines Pricing Recommendation relates to pricing aspects of wholesale leased lines part circuits and includes recommended EC Price Ceilings for leased line part circuits to *“inform and guide a national regulatory authority (“NRA”) as to how to apply the best current practices in leased lines provision when devising regulatory remedies for leased line markets that are not effectively competitive in their territory”*.<sup>127</sup>
- 7.24 We have taken utmost account of the Leased Lines Pricing Recommendation when developing our price control proposals, as revised to take account of the proposals in this consultation. The EC Price Ceilings are based on prices for leased lines part circuits from Member States in June 2004. Since then, however, both prices and costs have changed.
- 7.25 Therefore, we continue to consider that the RFS data (as adjusted by Ofcom) is more relevant in setting prices for the next charge control period and that, given the changes in market conditions, the use of the EC Price Ceilings could result in prices that diverge from the efficient cost of provision. By using up-to-date cost accounting data from BT’s RFS and other relevant inputs and assumptions, we have ensured that prices are at an efficient level.

### **We have taken into account the BEREC Common Position**

- 7.26 In formulating our proposed price controls, as revised to take account of the proposals in this consultation, we have also taken utmost account of the BEREC Common Position including BP30, BP31 and BP32 which appear to us to be particularly relevant in this context.<sup>128</sup> We consider that our proposals are consistent with the best practice set out in the BEREC Common Position.

## **Consultation questions**

*Question 7.1: Do you agree with our revised X values for the Ethernet and TI baskets? If not, what alternative would you propose and why?*

<sup>127</sup> Explanatory Memorandum to the Leased Lines Pricing Recommendation, page 6.

<sup>128</sup> BEREC Common Position.

## Section 8

# Regulatory financial reporting

## Introduction

8.1 In this section we propose additional cost accounting requirements to complement the ones set out in the June 2015 LLCC Consultation. First, we consider if and how the proposals for additional adjustments to BT's base year costs, as set out in Section 3 of this consultation, should be reflected in BT's regulatory financial reporting. Second, in light of stakeholder responses to the June 2015 LLCC Consultation and on further consideration, we propose additional requirements for regulatory financial reporting.

## Amended proposals on the requirement for regulatory reporting consistency with regulatory decisions

8.2 As set out in Section 3 of this consultation, we propose a number of further adjustments to BT's cost information. To analyse if and how the adjustments to the base year costs should be reflected in BT's RFS, we have applied the same framework as proposed in Section 11 of the June 2015 LLCC Consultation. We set out our analysis in Table 8.1 below.

**Table 8.1: Application of our approach to consistency with our proposed adjustments**

Proposed adjustment	Does the adjustment have the effect of replacing BT's incurred costs with an alternative estimate of cost?	Does the adjustment have the effect of replacing BT's incurred costs with a value that is not based on BT's network (whether actual, estimated or for forecasting purposes)?
a) Fibre GRC	No	No
b) Duct	No	No
c) Openreach and TSO Software	No	No
d) Electricity	No	No
e) Property	No	No
f) General Overheads <sup>129</sup>	No	No

<sup>129</sup> This adjustment encompasses five more specific groups of adjustments. For the purposes of this consultation, as the biggest adjustment relates to how AG112 is allocated, this has determined where the adjustment is placed in the table. We will further refine this when we make our decision.

<b>g) EE Acquisition costs</b>	No	No
<b>h) Property Rationalisation costs</b>	Yes	No

Source: Ofcom

- 8.3 We do not consider that there are any reasons not to reflect the adjustments a)-g) in Table 8.1 in BT's RFS. We therefore propose that the RFS must include all of these adjustments. We propose that BT should reflect adjustments a)-g) in the order presented above because some of the adjustments logically must follow others, whilst others have a cumulative effect on the RFS.
- 8.4 Adjustment h) replaces the actual movement on the property rationalisation provision with one calculated on a smoothed basis for the purposes of determining prices for the controlled services. We therefore propose that adjustment h) should not be reflected in the RFS.
- 8.5 We set out in Table 8.2 below our proposals on how adjustments a)-g) should be implemented in the RFS.

**Table 8.2: Proposed requirements for the implementation of our proposed adjustments in the RFS**

<b>Proposed adjustment</b>	<b>Proposed requirements on treatment in business connectivity markets</b>
<b>a) Fibre GRC</b>	<p>BT should attribute distribution fibre costs between NGA and non-NGA distribution fibre taking account of the different asset lives of NGA and non-NGA distribution fibre (see Section 9 of the November 2015 CAR Consultation).</p> <p>BT should attribute spine fibre costs between NGA and non-NGA spine fibre based on the relative proportions of distribution fibre NGA and non-NGA volumes (see Section 9 of the November 2015 CAR Consultation).</p>
<b>b) Duct</b>	BT should attribute duct costs between core and backhaul duct based on circuit volumes and circuit length (see Section 7 of November 2015 CAR Consultation).
<b>c) Openreach and TSO Software</b>	BT should allocate Openreach and TSO software directly to product or asset groups where the information it holds demonstrates that such costs are associated with those product or asset groups. For Openreach software we also propose that BT should attribute software that is shared across a number of products to all the products that the relevant software supports (see Section 8 of November 2015 CAR Consultation).
<b>d) Electricity</b>	<p>BT must attribute electricity costs (not related to offices or Openreach) in the following order:</p> <p>a) Electricity costs should be attributed separately based on transfer charges for electricity costs only, instead of being</p>

	<p>included with property costs;</p> <p>b) For equipment that is specifically metered, the electricity costs should be directly allocated to product and assets groups; and</p> <p>c) The remaining costs for equipment that are not specifically metered should be apportioned on the basis of relative estimated electricity consumption calculated using disaggregated and the most recent annual data.</p> <p>(see Section 5 of November 2015 CAR Consultation)</p>
<b>e) Property</b>	<p>In the case of vacant space, BT should:</p> <p>a) attribute vacant space within any building in the same proportions as non-vacant space is attributed within that building;</p> <p>b) not attribute all vacant space in operational buildings with a main distribution frame solely to Openreach, cable chambers or main distribution frame areas; and</p> <p>c) not apply to LLU hostel areas any mark-up for potential future growth.</p> <p>BT should separately identify and separately attribute the costs for each type of space.</p> <p>(see Section 5 of November 2015 CAR Consultation)</p>
<b>f) General Overheads</b>	<p>For General Overheads that are currently attributed using the Pay and Return on Assets methodology we propose that (see section 4 of November 2015 CAR Consultation):</p> <p>a) Where costs can be associated with an activity that causes the costs to be incurred, BT should attribute costs using an attribution rule that reflects that activity.</p> <p>b) Where costs cannot be associated with an activity that causes the cost to be incurred BT should attribute costs using a 'previously allocated costs' (PAC) attribution rule. PAC includes current pay costs, non-pay costs and capital expenditure and, where relevant, it reflects the relevant line of business that these cost categories relate to (e.g. Openreach, TSO).</p>
<b>g) EE Acquisition costs</b>	<p>BT must not attribute costs in connection with BT Group's acquisition of EE to business connectivity services.</p>

Source: Ofcom

- 8.6 While the property rationalisation provision should not be reflected in the RFS, the proposed smoothing of the adjustment will impact how we view BT's financial performance on an ongoing basis. We therefore propose that BT must, in the Adjusted Financial Performance Schedules, calculate the impact of smoothing the movement of the property rationalisation costs over a three year moving average. In



doing so, we propose that BT must prepare and publish the “Adjusted Financial Performance at a market review level”<sup>130</sup> and prepare and provide to Ofcom the “Adjusted Financial Performance at a market level”.<sup>131</sup> The proposed direction in relation to BT’s reporting of its Adjusted Financial Performance (Adjusted Financial Performance Direction) is set out in Annex 6.

- 8.7 We have included the amendments to the proposed direction which implements our proposals on the requirement for consistency with regulatory decisions (Consistency with Regulatory Decisions Direction) in Annex 6.<sup>132</sup>

## Regulatory reporting requirements

### June 2015 LLCC Consultation

- 8.8 In the June 2015 LLCC we set out our proposals for three types of information that we consider should be included in BT’s proposed regulatory financial reporting:
- *Public information* – we proposed that BT must disclose cost, volume and revenue information within the RFS for business connectivity markets and wholesale leased lines services at the level they are regulated;
  - *Additional public information* – we proposed that BT must disclose certain information at the service level for a number of individual services.<sup>133</sup>
  - *Private information* – we proposed that BT must submit to Ofcom additional information in three different schedules: Detailed BCMR Services, Detailed BCMR Service Component FACs, BCMR EAD/EAD LA 1Gbit/s component LRIC and FAC,<sup>134</sup> and Detailed Service LRICs.

### Stakeholder comments

- 8.9 A number of stakeholders provided responses to our proposals for BT’s regulatory financial reporting. We summarise below those stakeholder responses that relate to the additional proposals we have set out in this consultation.
- 8.10 UKCTA said that “Ofcom should [...] require more information on the EAD 1G service, providing more granular information around component reporting in recognition of its proposed status as the active reference product for a passive alternative.”<sup>135</sup>

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<sup>130</sup> Schedule 1 of the Adjusted Financial Performance Schedules

<sup>131</sup> Schedule 2 of the Adjusted Financial Performance Schedules

<sup>132</sup> The proposed requirements in relation to the correction of the errors identified in June 2015 Cost Attribution Review will only be captured in the final direction in the event that these errors have not been corrected in the 2014/15 RFS.

<sup>133</sup> Paragraphs 11.32-11.33 of the June 2015 LLCC Consultation.

<sup>134</sup> In the June 2015 LLCC Consultation we proposed that BT should provide privately the schedule BCMR EAD/EAD LA 1Gbit/s component LRIC and FAC. The purpose of this schedule is to ensure monitoring of BT’s implementation of the proposed dark fibre remedy as set out in Section 9 of the May 2015 BCMR Consultation and Section 78 of the June 2015 LLCC Consultation.

<sup>135</sup> UKCTA response to the June 2015 LLCC Consultation, paragraphs 2.6-2.7 and 3.1.

- 8.11 The Passive Access Group<sup>136</sup> said that that Ofcom’s proposal for an active minus approach to dark fibre pricing will suffer from a lack of transparency. It said that “[a]lternative operators will still face considerable uncertainty about the value of LRIC because: [...] the input cost data will not be available to CPs [...]”<sup>137</sup>

## Our proposals

- 8.12 As we set out in the June 2015 LLCC Consultation, we consider that it is important that BT maintains appropriate and reliable accounts that capture information on an ongoing basis relevant to its provision of wholesale leased lines services. We concluded in the May 2014 Regulatory Reporting Statement, that the published RFS should provide reasonable confidence to stakeholders that the SMP provider has complied with its SMP conditions and add credibility to the regulatory financial reporting regime.<sup>138</sup>
- 8.13 In addition, we consider that it is important that BT provides additional information that would enable the monitoring of compliance with, and the effectiveness of, the remedies proposed in the May 2015 BCMR Consultation and the June 2015 LLCC Consultation. This information would provide transparency on how BT has attributed costs across services and mitigates against the risk of double recovery of costs or that costs might be inappropriately attributed to particular services. We consider that this information would also be a useful source of information and would serve as an anchor point to reconcile other data, in order to support our decision making in relation to wholesale leased lines markets.
- 8.14 We are still considering stakeholders’ responses in relation to BT’s requirements for regulatory financial reporting as set out in the June 2015 LLCC Consultation and will respond to these in our 2016 LLCC Statement. However, in view of the responses set out above and on further consideration, we propose changes to BT’s regulatory reporting requirements which we set out below.

## Public information

- 8.15 We propose that BT must include the total costs and revenues for all of its dark fibre CISBO non-CLA services in the market summary for CISBO non-CLA. We also propose that BT must include the total costs and revenues for all of its TRCs in the market summary for all BCMR markets in which the services are provided.<sup>139</sup> We consider that this proposal is in accordance with our decision in the May 2014 Regulatory Reporting Statement, which set out that volume and revenue information within the RFS should provide the appropriate level of detail and make clear in which market regulated products are reported.

<sup>136</sup> The Passive Access Group (PAG) is a group of several communications providers: Colt, Three UK, Sky, TalkTalk and Vodafone.

<sup>137</sup> PAG response to the June 2015 LLCC Consultation, paragraph 3.4.

<sup>138</sup> Paragraph 2.41, Ofcom, *Regulatory Financial Reporting – Final Statement*, 20 May 2014, <http://stakeholders.ofcom.org.uk/binaries/consultations/bt-transparency/statement/financial-reporting-statement-may14.pdf> (May 2014 Regulatory Reporting Statement).

<sup>139</sup> This would bring BT’s regulatory reporting requirements in line with those in the fixed access markets where TRCs are currently subject to charge control and included in the relevant market summaries, as set out in the March 2015 Directions Statement.

### Additional public information

- 8.16 In the June 2015 LLCC Consultation we proposed a “basis of charges” condition specifying that BT should derive prices for dark fibre services from the prices for the reference Ethernet services (1Gbit/s EAD and 1Gbit/s EAD LA), with the prices reduced to reflect the long-run incremental costs of certain network cost components that are avoided by BT when providing that dark fibre service instead of the corresponding 1Gbit/s EAD and 1Gbit/s EAD LA service, as appropriate.
- 8.17 We agree with stakeholder comments about the importance of transparency of information available to stakeholders on the 1Gbit/s EAD services and on how the dark fibre equivalent is priced in relation to these services on an ongoing basis. The information that we proposed in the June 2015 LLCC Consultation to be published would not have allowed stakeholders to compare the dark fibre services they purchase with their reference products. We consider that stakeholders should be provided with such information about dark fibre services and the related 1Gbit/s EAD and 1Gbit/s EAD LA services separately. This would provide stakeholders with confidence that BT has complied with its regulatory obligations and enable them to assess the effectiveness of the dark fibre remedy we have imposed.
- 8.18 We therefore propose that BT must provide the information that demonstrates BT has complied with the Dark Fibre basis of charges condition; 1Gbit/s EAD and 1Gbit/s EAD LA FAC unit costs, unit LRIC cost of excluded Network Cost Components. BT must also disclose the total volumes, average prices and revenues for its dark fibre non-LA and dark fibre LA services (including their variants) respectively, from when these services are commercially available. This information should be produced where applicable for i) internal and external circuits, and ii) rentals and connections. Rentals should also be separated by charging elements, i.e. separate information provided for local ends, terminating segment charge and main links. Where time limited discounts and three year term products have been included, BT must separately disclose the discounted and non-discounted volumes and revenues.
- 8.19 We also propose that BT must disclose the total amount of hours billed (excluding volumes deals) for TRCs by charging rate (if available) and the total direct cost per labour hour. This information would enable stakeholders to monitor the effectiveness of the proposed charge control and would also bring BT’s regulatory reporting requirements in line with these in the fixed access markets as set out in the March 2015 Directions Statement.<sup>140 141</sup>

### Private information

- 8.20 We have also reconsidered the proposed private reporting obligations on BT and further propose that BT provides Ofcom with the following Additional Financial Information (AFI) setting out the revenues and CCA costs for dark fibre LA and dark fibre non-LA services (including their variants):

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<sup>140</sup> Ofcom, Directions for Regulatory Financial Reporting, Statement, 30 March 2015, <http://stakeholders.ofcom.org.uk/binaries/consultations/financial-reporting/statement/statement.pdf> (March 2015 Directions Statement)

<sup>141</sup> Paras 18.201 – 18.208 and Annex 5 of the 2014 FAMR Statement, available at: <http://stakeholders.ofcom.org.uk/binaries/telecoms/ga/fixed-access-market-reviews-2014/statement-june-2014/volume1.pdf>

- Revenues, CCA costs (split down by Operating Costs, Depreciation, Holding Gains), Return, MCE, ROCE; and
  - Costs for each service broken down by component.
- 8.21 In addition to information provided publically on how the prices of the dark fibre and its 1Gbit/s EAD and 1Gbit/s EAD LA equivalents are derived,<sup>142</sup> this schedule will contain details of the costs of the evolving dark fibre products and ensure monitoring of the effectiveness of the proposed dark fibre remedy as set out in Section 9 of the May 2015 BCMR Consultation and Section 8 of this June 2015 LLCC Consultation.
- 8.22 In relation to TRCs, we propose that BT must provide direct and indirect volume, revenue and cost information. This is the same information provided for TRCs reported in the fixed access markets (currently AFI1B-2).<sup>143</sup> The purpose of this information is to demonstrate the impact of our proposed requirement in relation to TRCs on actual revenue and profits. We need to be able to assess to what degree BT continues to over or under recover its costs once charges are set, in order to assess whether our remedies are working as expected when we set them. This would also bring BT's regulatory reporting requirements in line with those in the fixed access markets, as set out in the March 2015 Directions Statement.
- 8.23 We have included the amendments to the proposed directions which implement our proposals on the regulatory reporting requirements for wholesale leased lines services (Direction proposing requirements relating to the preparation, audit, delivery and publication of the RFS, and Direction proposing requirements relating to the form and content of the RFS) in Annex 6.

#### Network cost component information

- 8.24 In addition we have considered BT's current reporting of Ethernet Backhaul Direct and Ethernet Backhaul Direct Resilience network cost components. These components are included within the EBD/ONS rental costs. These cost components include an amalgamation of circuit link and length plant groups which include 'active' plant groups and 'passive' plant groups. We propose that BT must split the two cost components to avoid this mix. We believe that disaggregating these components by using information within the current Plant Groups that currently attribute costs to these components should be straightforward for BT to implement and would make the reporting of these services consistent with BT's reporting of the other regulated business connectivity services.
- 8.25 We therefore propose that the current cost components Ethernet Backhaul Direct and Ethernet Backhaul Direct Resilience should each be split into two separate cost components: an "active" component and a "passive" component:
- The active component should cover the costs associated with the "active" Plant Groups (currently WDM-Metro Link for EBD rentals and Metro-Core link and Core-Core Link for EBD Resilience). These Plant Groups include power costs, equipment, relevant software, accommodation, and plant and maintenance costs.

<sup>142</sup> See third schedule (BCMR EAD/EAD LA 1Gbit/s component LRIC and FAC), in paragraph 11.38 of the June 2015 LLCC Consultation.

<sup>143</sup> Paras 18.201 – 18.208 and Annex 5 of the 2014 FAMR Statement.

The costs for this component should also include an appropriate element of Cumulo Rates non-NGA costs.

- The passive component should cover the costs of “passive” Plant Groups (currently Backhaul Fibre, WDM-Metro Length, and AISBO ECC Credit for EBD Rentals, Core Fibre, Core-Core Length and Metro-Core Length for EBD Resilience). These Plant Groups cover the costs of any activities required to maintain and support Fibre and Duct infrastructure. These costs include, accommodation costs (excluding electricity costs required to power electronic equipment) relevant software, accommodation plant and maintenance costs. The costs for this component should also include an appropriate element of Cumulo Rates non-NGA costs.

8.26 The proposed modification of the direction in relation to BT’s reporting of its network cost components (Network Components Direction) is set out in Annex 6.

### **Legal tests relating to regulatory financial reporting**

8.27 We have considered our proposed requirements seeking to ensure that the RFS are consistent with our regulatory decisions, as revised to take account of our proposals in this consultation, against the tests set out in Section 49(2) of the Act and, for the reasons set out in paragraphs 11.43 and 11.46 of the June 2015 LLCC Consultation and in this consultation, we consider that they are:

- objectively justifiable because we have established in the May 2014 Regulatory Reporting Statement the need for the RFS to be consistent with regulatory decisions and the proposed requirements specify the regulatory proposals which we have made in in the May 2015 BCMR Consultation, including proposed pricing remedies, this consultation with which the RFS need to be consistent if these proposals are adopted. The proposed requirements would provide BT with clarity as to how our proposals made in this consultation, if they are adopted, should be reflected in the RFS; and
- not unduly discriminatory because KCOM is the only other SMP provider which has regulatory accounting obligations, but we have not proposed that it should ensure its RFS are consistent with our regulatory decisions;
- proportionate because the proposed requirements in which we specify the adjustments with which BT’s RFS need to be consistent, is no more than is required to ensure consistency with our proposals if these proposals are adopted. Further, BT retains an important role in determining the basis of preparation of the RFS; and
- transparent because it is clear that the intention of the proposed requirements is to ensure that BT’s RFS are consistent with our proposals if these proposals are adopted.

8.28 We have considered our new proposal about the Adjusted Financial Performance Schedules against the tests set out in Section 49(2) of the Act and have concluded that they are:

- Objectively justifiable because we have previously established in the March 2015 Directions Statement that some disclosure of BT’s financial performance from a regulatory perspective is appropriate and the proposal in relation to the calculation of the impact of the smoothing movement of property rationalisation

costs would specify the detail to enable BT to produce the additional statement. Our proposal concerning Schedule 2 of the Adjusted Financial Performance Schedules to be provided to us in private seek to enable us to understand the way in which BT has calculated the impact of the smoothing movement of property rationalisation costs in the published Adjusted Financial Performance Schedule.

- Not unduly discriminatory because KCOM is the only other SMP provider which has regulatory accounting obligations, but we have not at present established the need for such regulation.
- Proportionate because our proposals which would see us specifying the detailed requirement which will enable BT to produce the Adjusted Financial Performance Schedules, is no more than is required to provide stakeholders with a better understanding of BT's financial performance from a regulatory perspective and to enable us to understand the way in which BT has prepared the published Adjusted Financial Performance Schedule.
- Transparent because it is clear that the intention of our proposal is to ensure that stakeholders can gain a better understanding of BT's financial performance from a regulatory perspective and that we are able to understand the way in which BT has prepared the published Adjusted Financial Performance Schedule.

8.29 We have considered whether the proposed requirements relating to the preparation, audit, delivery and publication of the RFS, and the proposed requirements relating to the form and content of the RFS, as revised to take account of our proposals in this consultation, meet the tests set out in Section 49(2) of the Act. For all of the reasons set out above, we consider that they are:

- objectively justifiable because the proposed requirements reflect the proposals in the May 2015 BCMR Consultation, including the proposed pricing remedies. Our proposals concerning the additional information to be provided both in public and in private seek to ensure that stakeholders have sufficient information about the products and services they purchase to provide them with reasonable confidence about BT's compliance with its SMP conditions and we have sufficient information necessary to carry out our functions;
- not unduly discriminatory because KCOM is the only other SMP provider which has regulatory accounting obligations, but we have not established the need for KCOM to provide the level of information which we propose that BT should be required to disclose and provide to us in private and in any event we are not proposing any pricing remedies on KCOM;
- proportionate because the proposed requirements are no more than is required in order to ensure the effectiveness of the proposals in the May 2015 BCMR Consultation, including proposed pricing remedies and ensure that Ofcom and stakeholders are provided with a sufficient level of information, and do not extend beyond these; and
- transparent because it is clear that the intention of the proposed requirements is to make sure that the RFS remain fit for purpose and that Ofcom and stakeholders are provided with a sufficient level of information.

8.30 We have considered our new proposal about the modification of the current cost components Ethernet Backhaul Direct and Ethernet Backhaul Direct Resilience against the tests set out in section 49(2) of the Act and have concluded that they are:

- Objectively justifiable because it is necessary to make the reporting of these services consistent with BT's reporting of the other regulated business connectivity services. The updated cost components will enable Ofcom to more effectively monitor compliance and enforce BT's obligations for cost recovery and proposed charge controls.
- Not unduly discriminatory because KCOM is the only other SMP provider which has regulatory accounting obligations and a list of components but we have not at present established the need for KCOM to report information concerning Ethernet Backhaul Direct and Ethernet Backhaul Direct Resilience.
- Proportionate because our proposal is no more than is required to make the reporting of these services consistent with BT's reporting of the other regulated business connectivity services and to enable these costs to be objectively attributed to regulated wholesale services on a causal basis.
- Transparent because it is clear that our proposal seeks to make the reporting of these services consistent with BT's reporting of the other regulated business connectivity services to ensure that these components remain fit for purpose.

8.31 We have also considered how our proposals meet the tests in Section 3, 4 and 4A of the Act.

8.32 Our proposals concerning consistency with regulatory decisions are designed to ensure that the RFS are aligned with Ofcom's regulatory decisions. They seek to ensure that proposals made in the May 2015 BCMR Consultation, including proposed pricing remedies, are reflected in BT's accounts where appropriate. The proposals thereby seek to ensure the RFS remain relevant, thereby increasing transparency. Ultimately, this promotes competition.

8.33 Our proposal concerning the Adjusted Financial Performance Schedules is designed to give stakeholders a better understanding of BT's financial performance from a regulatory perspective. The proposal thereby seeks to ensure that the Regulatory Financial Statements remain relevant and that we are able to understand the way in which BT has prepared the published Adjusted Financial Performance Schedule. The proposal therefore increases transparency, ultimately promoting competition.

8.34 Our proposals in relation to the regulatory reporting requirements for wholesale leased lines services seek to ensure that stakeholders have sufficient information about the products and services they purchase and we have sufficient information necessary to carry out our functions. The proposals therefore increase transparency, ultimately promoting competition.

8.35 Our proposal concerning the modification of the current cost components Ethernet Backhaul Direct and Ethernet Backhaul Direct Resilience is designed to make the reporting of these services consistent with BT's reporting of the other regulated business connectivity services. The proposal therefore seeks to improve the presentation and usability of the RFS and ensure that the RFS remain relevant, thereby increasing transparency. Ultimately, this promotes competition.

- 8.36 In proposing these changes we have taken into account all applicable recommendations issued by the European Commission under Article 19(1) of the Framework Directive, in particular Commission Recommendation of 19 September 2005 on accounting separation and cost accounting systems under the regulatory framework for electronic communications.
- 8.37 In consequence Ofcom believes the proposed amendments to the Directions meet the tests in Sections 3, 4 and 4A.

## Consultation questions

*Question 8.1: Do you agree with our proposals for BT's regulatory financial reporting, including in particular:*

- a. the proposed Consistency with Regulatory Decisions Direction;*
- b. the proposed Direction modifying requirements relating to the preparation, audit, delivery and publication of the Regulatory Financial Statements, and Direction modifying requirements relating to the form and content of the Regulatory Financial Statements;*
- c. the proposed Adjusted Financial Performance Direction and*
- d. the proposed Network Component Direction?*

*If not, what alternative would you propose and why*



## Annex 1

# Responding to this consultation

## How to respond

- A1.1 Ofcom invites written views and comments on the issues raised in this document, to be made **by 5pm on 14 December 2015**.
- A1.2 Ofcom strongly prefers to receive responses using the online web form at <http://stakeholders.ofcom.org.uk/consultations/bcmr-update-proposed-leased-lines-charge-controls/howtorespond/>, as this helps us to process the responses quickly and efficiently. We would also be grateful if you could assist us by completing a response cover sheet (see Annex 3), to indicate whether or not there are confidentiality issues. This response coversheet is incorporated into the online web form questionnaire.
- A1.3 For larger consultation responses - particularly those with supporting charts, tables or other data - please email [2016LLCC@ofcom.org.uk](mailto:2016LLCC@ofcom.org.uk) attaching your response in Microsoft Word format, together with a consultation response coversheet.
- A1.4 Responses may alternatively be posted or faxed to the address below, marked with the title of the consultation.
- Kate Walters  
Competition Group, 4<sup>th</sup> Floor  
Riverside House  
2A Southwark Bridge Road  
London SE1 9HA
- A1.5 Note that we do not need a hard copy in addition to an electronic version. Ofcom will acknowledge receipt of responses if they are submitted using the online web form but not otherwise.
- A1.6 It would be helpful if your response could include direct answers to the questions asked in this document, which are listed together at Annex 4. It would also help if you can explain why you hold your views and how Ofcom's proposals would impact on you.

## Further information

- A1.7 If you want to discuss the issues and questions raised in this consultation, or need advice on the appropriate form of response, please contact Kate Walters, [kate.walters@ofcom.org.uk](mailto:kate.walters@ofcom.org.uk) (020 7783 4205) or Georgi Pojarliev, [georgi.pojarliev@ofcom.org.uk](mailto:georgi.pojarliev@ofcom.org.uk) (020 7981 3241).

## Confidentiality

- A1.8 We believe it is important for everyone interested in an issue to see the views expressed by consultation respondents. We will therefore usually publish all responses on our website, [www.ofcom.org.uk](http://www.ofcom.org.uk), ideally on receipt. If you think your response should be kept confidential, can you please specify what part or whether

all of your response should be kept confidential, and specify why. Please also place such parts in a separate annex.

- A1.9 If someone asks us to keep part or all of a response confidential, we will treat this request seriously and will try to respect this. But sometimes we will need to publish all responses, including those that are marked as confidential, in order to meet legal obligations.
- A1.10 Please also note that copyright and all other intellectual property in responses will be assumed to be licensed to Ofcom to use. Ofcom's approach on intellectual property rights is explained further on its website at <http://www.ofcom.org.uk/terms-of-use/>

## Next steps

- A1.11 Following the end of the consultation period, Ofcom intends to publish a statement in early 2006.
- A1.12 Please note that you can register to receive free mail Updates alerting you to the publications of relevant Ofcom documents. For more details please see: <http://www.ofcom.org.uk/email-updates/>

## Ofcom's consultation processes

- A1.13 Ofcom seeks to ensure that responding to a consultation is easy as possible. For more information please see our consultation principles in Annex 2.
- A1.14 If you have any comments or suggestions on how Ofcom conducts its consultations, please call our consultation helpdesk on 020 7981 3003 or e-mail us at [consult@ofcom.org.uk](mailto:consult@ofcom.org.uk) . We would particularly welcome thoughts on how Ofcom could more effectively seek the views of those groups or individuals, such as small businesses or particular types of residential consumers, who are less likely to give their opinions through a formal consultation.
- A1.15 If you would like to discuss these issues or Ofcom's consultation processes more generally you can alternatively contact Graham Howell, Secretary to the Corporation, who is Ofcom's consultation champion:

Graham Howell  
Ofcom  
Riverside House  
2a Southwark Bridge Road  
London SE1 9HA

Tel: 020 7981 3601

Email: [Graham.Howell@ofcom.org.uk](mailto:Graham.Howell@ofcom.org.uk)

## Annex 2

# Ofcom's consultation principles

A2.1 Ofcom has published the following seven principles that it will follow for each public written consultation:

### Before the consultation

A2.2 Where possible, we will hold informal talks with people and organisations before announcing a big consultation to find out whether we are thinking in the right direction. If we do not have enough time to do this, we will hold an open meeting to explain our proposals shortly after announcing the consultation.

### During the consultation

A2.3 We will be clear about who we are consulting, why, on what questions and for how long.

A2.4 We will make the consultation document as short and simple as possible with a summary of no more than two pages. We will try to make it as easy as possible to give us a written response. If the consultation is complicated, we may provide a shortened Plain English Guide for smaller organisations or individuals who would otherwise not be able to spare the time to share their views.

A2.5 We will consult for up to 10 weeks depending on the potential impact of our proposals.

A2.6 A person within Ofcom will be in charge of making sure we follow our own guidelines and reach out to the largest number of people and organisations interested in the outcome of our decisions. Ofcom's 'Consultation Champion' will also be the main person to contact with views on the way we run our consultations.

A2.7 If we are not able to follow one of these principles, we will explain why.

### After the consultation

A2.8 We think it is important for everyone interested in an issue to see the views of others during a consultation. We would usually publish all the responses we have received on our website. In our statement, we will give reasons for our decisions and will give an account of how the views of those concerned helped shape those decisions.

## Annex 3

# Consultation response cover sheet

- A3.1 In the interests of transparency and good regulatory practice, we will publish all consultation responses in full on our website, [www.ofcom.org.uk](http://www.ofcom.org.uk).
- A3.2 We have produced a coversheet for responses (see below) and would be very grateful if you could send one with your response (this is incorporated into the online web form if you respond in this way). This will speed up our processing of responses, and help to maintain confidentiality where appropriate.
- A3.3 The quality of consultation can be enhanced by publishing responses before the consultation period closes. In particular, this can help those individuals and organisations with limited resources or familiarity with the issues to respond in a more informed way. Therefore Ofcom would encourage respondents to complete their coversheet in a way that allows Ofcom to publish their responses upon receipt, rather than waiting until the consultation period has ended.
- A3.4 We strongly prefer to receive responses via the online web form which incorporates the coversheet. If you are responding via email, post or fax you can download an electronic copy of this coversheet in Word or RTF format from the 'Consultations' section of our website at <http://stakeholders.ofcom.org.uk/consultations/consultation-response-coversheet/>.
- A3.5 Please put any parts of your response you consider should be kept confidential in a separate annex to your response and include your reasons why this part of your response should not be published. This can include information such as your personal background and experience. If you want your name, address, other contact details, or job title to remain confidential, please provide them in your cover sheet only, so that we don't have to edit your response.

## Cover sheet for response to an Ofcom consultation

### BASIC DETAILS

Consultation title:

To (Ofcom contact):

Name of respondent:

Representing (self or organisation/s):

Address (if not received by email):

### CONFIDENTIALITY

Please tick below what part of your response you consider is confidential, giving your reasons why

Nothing	<input type="checkbox"/>	Name/contact details/job title	<input type="checkbox"/>
Whole response	<input type="checkbox"/>	Organisation	<input type="checkbox"/>
Part of the response	<input type="checkbox"/>	If there is no separate annex, which parts?	

If you want part of your response, your name or your organisation not to be published, can Ofcom still publish a reference to the contents of your response (including, for any confidential parts, a general summary that does not disclose the specific information or enable you to be identified)?

### DECLARATION

I confirm that the correspondence supplied with this cover sheet is a formal consultation response that Ofcom can publish. However, in supplying this response, I understand that Ofcom may need to publish all responses, including those which are marked as confidential, in order to meet legal obligations. If I have sent my response by email, Ofcom can disregard any standard e-mail text about not disclosing email contents and attachments.

Ofcom seeks to publish responses on receipt. If your response is non-confidential (in whole or in part), and you would prefer us to publish your response only once the consultation has ended, please tick here.

Name

Signed (if hard copy)

## Annex 4

# Consultation questions

A4.1 This consultation requests responses on:

*Question 3.1: Do you agree with our proposals for further cost adjustments relating to BT's 2013/14 and 2014/15 cost data? If not, what alternative would you propose and why?*

*Question 4.1: Do you agree with our approach and proposal to revise the efficiency range for TI services? If not, what alternative would you propose and why?*

*Question 5.1: Do you agree with our proposal to use dynamic AVEs? If not, what alternative would you propose and why?*

*Question 5.2: Do you agree with our proposal to change the AVE weights from NRC to GRC? If not, what alternative would you propose and why?*

*Question 5.3: Do you agree with our proposal to model TI capital costs at the cost sector level? If not, what alternative would you propose and why?*

*Question 6.1: Do you agree with our revised approach to balancing the use of SCAs and glide-paths in case of charges significantly above cost? If not, what alternative would you propose and why?*

*Question 7.1: Do you agree with our revised X values for the Ethernet and TI baskets? If not, what alternative would you propose and why?*

*Question 8.1: Do you agree with our proposals for BT's regulatory financial reporting, including in particular:*

- a. the proposed Consistency with Regulatory Decisions Direction;*
- b. the proposed Direction modifying requirements relating to the preparation, audit, delivery and publication of the Regulatory Financial Statements, and Direction modifying requirements relating to the form and content of the Regulatory Financial Statements;*
- c. the proposed Adjusted Financial Performance Direction and*
- d. the proposed Network Component Direction?*

*If not, what alternative would you propose and why?*

## Annex 5

# Cost forecasting terms and equations

A5.1 Table A5.1 explains the terminology used in Section 5.

**Table A5.1: Explanation of accounting terms**

Name	Description
<b>Gross Replacement Cost (GRC)</b>	The Current Cost Accounting (CCA) equivalent of Gross Book Value, i.e. the cost of BT replacing its assets with new ones now.
<b>Net Replacement Cost (NRC)</b>	The CCA equivalent of Net Book Value, i.e. depreciated replacement cost of BT's assets.
<b>Operating capability maintenance (OCM)</b>	A CCA convention, where the depreciation charge to the profit and loss account relates to the current replacement cost of the firm's assets, taking account of specific and general price inflation. As the name suggests, the OCM approach seeks to maintain the operating capability of the firm.
<b>Financial Capital Maintenance (FCM)</b>	An alternative approach to CCA in which an allowance is made within the capital costs for the holding gains or losses associated with changes over the year in the value of the assets held by the firm. In contrast to OCM, the FCM approach seeks to maintain the financial capital of the firm, and hence the firm's ability to continue financing its functions.
<b>OCM depreciation (OCM dep)</b>	The reduction in value (as measured by the GRC) of the assets over the course of the financial year associated with the reduction in the asset's remaining life.
<b>Cumulative OCM depreciation (Cum OCM dep)</b>	The sum of the individual in-year OCM depreciation over the asset life up to the year being forecast, adjusted to reflect any changes in asset values over time
<b>Input price changes (IPC)</b>	Changes in the prices of the underlying inputs to costs. This includes changes to assets prices and changes to operating costs.
<b>Holding gains and losses (HGL)</b>	The change in the value of the underlying assets used by the company over the course of the financial year
<b>Disposals (Disp)</b>	The assets that the firm disposes of (e.g. an asset that becomes fully depreciated or an asset that the firm sells) over the course of the financial year.
<b>Capital expenditure (Capex)</b>	The firm's level of investment in fixed assets over the course of the financial year.
<b>Net Current Assets (NCA)</b>	A measure of the amount of capital being used in day-to-day activities by the company. It is equal to the current assets less current liabilities.
<b>Mean capital employed (MCE)</b>	BT's definition of Mean Capital Employed is total assets less current liabilities, excluding corporate taxes and dividends payable, and provisions other than those for deferred taxation. The mean is computed from the start and end values for the period, except in the case of short-term investments and borrowings, where daily averages are used in their place.
<b>Fully allocated costs (FAC)</b>	An accounting approach under which all the costs of the firm are distributed between its various services.
<b>Inflation</b>	The general change in prices across the economy.

<b>WACC</b>	BT's weighted average cost of capital.
<b>Return on capital employed (ROCE)</b>	The ratio of accounting profit to capital employed. The measure of capital employed can be either HCA or CCA.

A5.2 Table A5.2 below sets out the abbreviations used in the cost forecasting equations.

**Table A5.2: Abbreviations used in cost forecasts**

<b>Abbreviation</b>	<b>Description</b>
<b>SS</b>	Steady state
<b>Add</b>	Additional
<b>Total [x]</b>	Steady state [x] + Additional [x]
<b>CVE/AVE</b>	Cost-volume elasticity or Asset-volume elasticity
<b>Eff</b>	Efficiency change percentage
<b>Pay(t)</b>	Pay operating costs in time period t
<b>Non-pay(t)</b>	Non-pay operating costs in time period t

A5.3 Table A5.3 below presents the steady state and additional capital cost equations used in the 2015 LLCC CPI - X Model.



**Table A5.3: June 2015 LLCC Consultation capital cost forecasting equations**

Cost	Steady state (SS) <sup>144</sup>	Additional (Add)
GRC	$SS\ GRC(t) = SS\ GRC(t-1) * [1 + IPC(t)] + SS\ Capex(t) - SS\ Disp(t)$	$Add\ GRC(t) = Add\ GRC(t-1) * [1 + IPC(t)] + Add\ Capex(t)$
OCM dep	We assume straight line depreciation, and calculate as: $SS\ OCM\ dep(t) = SS\ GRC(t) / \text{asset life}$ Where asset life is equal to the ratio GRC/OCM dep in the base year.	$Add\ OCM\ dep(t) = Add\ GRC(t) / \text{asset life}$
Cum OCM dep		$Add\ Cum\ OCM\ dep(t) = Add\ Cum\ OCM\ dep(t-1) * [1 + IPC(t)] + Add\ OCM\ dep(t)$
Capex	Base year capital expenditure is assumed to be equal to OCM dep. Subsequent years are calculated as: $SS\ Capex(t) = SS\ Capex(t-1) * [1 + IPC(t)] * (1 - \text{eff})$	It is assumed Add Capex is required where: $SS\ Capex(t) + Add\ Capex \geq 0$ . $Add\ Capex(t) = \text{total GRC}(t-1) * [1+IPC(t)] * AVE * \%change\ vol(t) * (1 - \text{eff})$
Disp	Base year disposals are assumed to be equal to OCM dep. Subsequent years are calculated as: $SS\ Disp(t) = SS\ Disp(t-1) * [1 + IPC(t)]$	It is assumed Add disposals are required where: $SS\ Capex(t) + Add\ Capex < 0$ , $Add\ Disp(t) = ([SS\ Capex(t) + Add\ Capex] * NRC/GRC(t-1)) - SS\ Capex(t)$
NRC	$SS\ NRC(t) = SS\ NRC(t-1) * [1 + IPC(t)] + SS\ Capex(t) - SS\ OCM\ dep(t)$	$Add\ NRC(t) = Add\ GRC(t) - Add\ Cum\ OCM\ dep(t)$
NCA	$NCA(t) = NCA(t-1) * [1 + \text{volume change \%}] * [1 + \text{Inflation}]$	
HGL	$HGL(t) = -SS\ NRC(t-1) * IPC(t)$	$Add\ HGL(t) = -Add\ NRC(t-1) * IPC(t)$
Return on capital	$\text{Return on capital}(t) = [NRC(t) + NCA(t)] * \text{pre-tax nominal WACC}$	

A5.1 Under the approach proposed in the June 2015 LLCC Consultation we forecast the total capital cost as the sum of the steady state and additional elements for each cost category set out in Table A5.3 above.

A5.2 Table A5.4 below presents the equations used in the 2015 LLCC Model to forecast operating costs.

<sup>144</sup> Base year values of GRC, OCM dep, NRC, NCA and HGL are taken from BT's responses to s135 information requests and include the Ofcom base year adjustments. Subsequent years are forecast using the equations set out in Table A5.3.

**Table A5.4: June 2015 LLCC Consultation operating cost forecasting equations**

Calculation	Description <sup>145</sup>
Pay	$\text{Pay}(t) = \text{Pay}(t-1) * [1 - \text{eff}] * [1 + \text{IPC}(t)] * [1 + \% \text{volume change}(t)] * \text{CVE}$
Non-pay	$\text{Non-pay}(t) = \text{Non-pay}(t-1) * [1 - \text{eff}] * [1 + \text{IPC}(t)] * [1 + \text{volume change \%}(t)] * \text{CVE}$

<sup>145</sup> Base year values of Pay and Non-pay operating costs are taken from BT's responses to s135 information requests and include the Ofcom base year adjustments. Subsequent years are forecast using the equations set out in Table A5.4.