BT's response to Ofcom's consultation document

"Leased Lines Charge Control

Proposals for a new charge control framework for certain leased lines services"

14 September 2012

BT welcomes comments on the content of this document, which is available electronically at http://www.btplc.com/Thegroup/RegulatoryandPublicaffairs/Consultativeresponses/Ofcom/index.htm

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Foreword

Business connectivity services are vital to the economy as they underpin a wide range of applications. BT has just responded to Ofcom's consultation on the Business Connectivity Market Review (BCMR) but Ofcom's Leased Lines Charge Control (LLCC) proposals are equally crucial to the successful development of this complex, fast-moving market.

Like the BCMR which they complement, the charge controls should support the objective of encouraging efficient investment and sustainable competition. To achieve this, price regulation needs to avoid distorting build/buy decisions by focusing on enduring bottlenecks and not on prospectively competitive services. The controls should allow the recovery of efficiently-incurred costs, providing incentives for future investment.

Given technological change, it is also vital that the controls recognise the mix of legacy and new technologies and send the correct migration signals. This means costs and volumes need to be modelled accurately and price control baskets structured to provide the right level of flexibility.

Ofcom has constructed detailed models reflecting expected volumes and costs, and it has made adjustments to reflect migrations. We welcome Ofcom's attempt to allow some pricing flexibility through broad baskets. However, for a number of reasons, Ofcom's proposals do not deliver the right outcomes for the UK economy, for industry, or for BT's customers and investors.

Ofcom's proposals do not allow the proper recovery of efficiently incurred costs:

- The Regulatory Asset Value (RAV) adjustment to duct values, currently applied to BT's copper access services, should not be extended to fibre-based services;
- BT's cost of capital is likely to be understated because Ofcom's WACC calculations are out date;
- The proposal to remove all margin from Excess Construction Charges (ECCs) is extreme and would chill alternative investment by other providers.

Ofcom has understated BT's costs due to errors in its use of data and cost adjustments:

- 21CN costs should not be excluded from TI services under an ongoing network approach;
- Calculation errors mean that the migration credit and the WECLA adjustments are too small;
- Ofcom's volume forecasts for AI circuit growth are too optimistic;
- The payment terms adjustment, if justified, is too high;
- The access fibre Asset-Volume Elasticity (AVE) is understated.

Ofcom's basket design proposals are inflexible and will restrict market development:

- The basket design for AI services will undermine migration to new services: we have made alternative proposals in respect of prior year weighting;
- The proposed AI sub-caps are unduly restrictive and would undermine the flexibility that baskets are intended to provide.

The charge control remedies that are the subject of this response follow the proposals in the BCMR consultation. The SMP remedies proposed in the BCMR include charge controls that we believe are not justified, for example the control on high bandwidth Ethernet services outside the WECLA. If Ofcom revises its BCMR proposals – as we believe it should on the basis of the persuasive evidence we have supplied – the charge control proposals in this consultation document will also need to be reviewed and adjusted.

Executive summary

Overview

1. Ofcom last reviewed the business connectivity market in 2008. Since then there have been a number of significant developments. In particular, demand for Traditional Interface (TI) TDM services has continued to decline as demand for Alternative Interface (AI) Ethernet services has increased. These trends are likely to continue, and the LLCC therefore faces two different challenges – how to price regulate services in long term decline and others in which significant further growth is expected and where competition continues to develop.

2. Since the last BCMR, demand for Ethernet has grown by about 80%. This has been driven by broadband use, both fixed and mobile, which has expanded due to the increased availability and use of on-line applications and services, the development of smart devices to support these applications, and continued convergence of voice, mobile and data applications.

3. There has also been significant investment and market entry since the last review. Virgin Media is now a major player in the business connectivity market, and its network reaches 85% of UK businesses[1]. There has been explosive growth in data centres, leading to massive expansion and investment in fibre optic networks to service these locations. Recently, Vodafone purchased C&WW with the express intention to build and run a national network as 4G technology is rolled out in the UK. Vodafone and O2 have declared their intention of sharing this network to minimise the costs of data transport and mast deployment.

4. The UK has one of the most competitive broadband markets in the world, underpinned by the availability of good value Ethernet business connectivity services and increasing competition in their supply. For AI, it is therefore imperative that the charge controls provide BT with an appropriate level of pricing flexibility to react to meet the needs of its customers and ensure recovery of efficiently incurred costs, as well as providing incentives for all players in this rapidly developing market to invest and innovate.

5. TI remains an important but declining part of the Business Connectivity market. Ofcom faces the regulatory challenge of ensuring that TI prices are set at an appropriate level. This level should ensure that BT can recover its efficiently incurred costs (where unit costs can be expected to increase as volumes decline and fixed costs are recovered over a smaller volume set.) In particular it is important that prices levels will allow efficient migration to services based on new technologies. There is an inherent difficulty in setting prices here because if prices are set too low, customers may remain for longer on the old technology and delay migration to the new technology where this is efficient. If prices are too high, on the other hand, customers will be encouraged to migrate onto the new technology more rapidly. The risks of setting prices that are too low are therefore greater than the risks of prices that are too high.

6. In an ideal world, BT would have preferred that Ofcom conclude its market review consultation before consulting on its charge control proposals. As it is, there are a number of significant issues under review in the BCMR that will have a significant impact on the appropriate form and

[1] Virgin Media Business website at http://www.virginmediabusiness.co.uk/Business-needs/Wholesale-Magazine/High-Capacity-Services/

substance of a charge control and this uncertainty detracts from our ability to fully address the specific charge control proposals. Given the importance of these reviews, we ask that Ofcom try to minimise this overlap in future so that as far as possible, price control consultations can be carried out with certainty over market definition and the overall form of remedies.

Summary of BT's views on Ofcom's proposals

7. Our views on Ofcom's proposal are summarised in the table below and outlined in the remainder of this Executive Summary.

Key issues common to both AI and TI controls		
Area impacted	**Issue**	**BT's views**
Cost Recovery	TI to AI adjustment	BT agrees there is a need to move costs from TI to AI to take account of reducing TI volumes and increasing AI volumes
	RAV adjustment	The extension of the RAV adjustment to fibre-based leased lines is unjustified
	WACC	The proposed WACC is out of date and if it was updated would be higher
Basket design	Geographic discounts	Where costs vary by geography, geographic discounts should count towards the basket
Key issues for the AI Control		
Area impacted	**Issue**	**BT's views**
Level of X	Errors in Ofcom's cost adjustments	If Ofcom applies the RAV adjustment, it should not apply to fibre assets beyond the BT local exchange
		Access Fibre AVE used by Ofcom is too low
		Migration credit is understated due to calculation error
		The WECLA adjustment is understated due to calculation error
	Geographic circuit classification	The number of circuits in the WECLA should be larger than proposed
	Volumes	Market circumstances have changed since Ofcom collected data for the LLCC, and volume forecasts need to be reviewed downwards
Basket design	Prior year weights	The use of prior year weights is inappropriate when relative volumes are changing quickly i.e. WES/BES volumes are in decline and EAD/EBD are growing and replacing those legacy services
	Sub Caps	Sub-caps are unduly restrictive
ECCs	No margin on ECCs	The proposed approach to ECCs would deny BT the ability to earn a reasonable margin on these services, and run counter to the experience in competitive markets
Key issues for the TI Control		
Area impacted	**Issue**	**BT's views**
Level of X	Errors in Ofcom's cost adjustments	The exclusion of 21CN costs is unjustified
		Ofcom has made an error in its calculation of the payments terms adjustment; the reduction in costs is too large
		If Ofcom applies the RAV adjustment, it should not apply to services using assets used for connectivity between BT exchanges

Key issues common to both AI and TI controls

8. There are a number of substantive issues which affect both the AI and TI controls. BT agrees that there is a need to move costs from TI to AI in order that Ofcom's modelling properly takes account of falling TI volumes and increasing AI volumes. However, there are three other issues on which our views differ from Ofcom's.

   a. **BT does not agree with Ofcom's proposal to apply the RAV adjustment**: Ofcom intends to apply the RAV adjustment to non-copper-based services for the first time. This is a fundamental change of policy from the last LLCC in 2009, where it did not apply the RAV adjustment. This has the effect of significantly increasing the proposed X for AI and reducing it for TI services. Ofcom has not provided any compelling arguments as to why it has decided to make this significant change of policy at this time, rather than continue to apply only to copper-based access services (in line with its 2005 policy to introduce the RAV only for the copper access assets). Ofcom should maintain the current approach, which was widely accepted by stakeholders as valid in the last LLCC consultation. At the very least, the RAV adjustment should not apply to duct carrying core services as it has only ever been an adjustment to the costs of the access network. We have set out our views on this issue fully in Annex 2 of this response.

   b. **BT does not agree with Ofcom's approach to WACC:** Ofcom should conduct a more detailed review of recent movements in key parameters used to estimate BT's cost of capital. While we agree that Ofcom should use the 'Rest of BT' WACC in setting these controls, the proposal to use the estimate set back in July 2011 is not justified by more recent evidence. We believe a higher estimate of the WACC should be adopted when finalising these controls.

   c. **BT does not agree with Ofcom's approach to geographic discounts:** Ofcom proposes that new geographic price discounts (for both TI and AI) should not count towards meeting the charge control. An unintended consequence of this proposal is that BT will be discouraged from offering such discounts, even where they are good for customers and competition (where costs vary by geography). As an alternative, BT proposes that Ofcom should allow 50% of any new geographic discounts to count towards the control. In this way, customers would be partially protected from the rebalancing of prices on a geographic basis, whilst BT would still have incentives to reflect underlying costs in its prices.

Key issues for the AI control

9. There are a number of issues relating to the AI control where BT agrees with Ofcom's proposals. Specifically:

   a. **BT supports Ofcom's proposal for broad baskets:** Broad baskets provide vital pricing flexibility which is needed to react to changing customer and market demand as well as technological advance. We believe it is appropriate, given the high degree of uncertainty about the precise volume and mix of services covered by the AI basket going forward, that Ofcom's proposal for a broad basket is maintained.

   b. **BT supports Ofcom's cost modelling framework:** Ofcom's cost modelling approach is based on financial data from the Regulatory Financial Statements (RFS). BT accepts this as a starting point and accepts that some adjustments are warranted, although we have

specific issues with some of the cost adjustments proposed by Ofcom.

10. However, we disagree with a number of Ofcom's proposals for the AI control, as outlined below.

Extent of requirements for price reductions – the level of X

a. Cost adjustments: The combined effect of a number of individual decisions with respect to the treatment of BT's costs is that Ofcom proposes regulated prices that are lower than they should otherwise be. BT's analysis shows that there are a number of flaws in Ofcom's proposed approach which if corrected would reduce the proposed X substantially. The key corrections that Ofcom needs to make to its adjustments are:

- Access fibre Asset Volume Elasticity (AVE) – the AVE of 0.13 used by Ofcom for access fibre systematically understates these costs because volume growth leading to footprint expansion has relatively low fixed and common costs. Ofcom should use an AVE of 0.8 to estimate incremental access fibre costs.
- Migration credit – we agree with the principle of a migration credit (an allowance for the benefit customers get from lower prices of new generation products), however, since Ofcom uses 2011/12 volumes and 2010/11 costs to calculate unit costs, we believe Ofcom has used incorrect unit costs in the calculation of the credit and;
- WECLA adjustment – Ofcom has understated the £49m WECLA revenue adjustment by circa £21m due to a modelling error.

b. **Cost differential between the WECLA and the rest of the UK**: In its modelling, Ofcom has understated this differential. Our data, which we have provided to Ofcom, shows that the actual differential is between [✂] rather than the 15% used by Ofcom. If this is not corrected, BT will not recover its efficiently incurred costs; the control will chill investment outside the WECLA; and increases in competition achieved so far could be reversed.

c. **Geographic circuit classification:** Ofcom's approach to circuit classification is flawed, and the number of circuits deemed to be in the WECLA should be higher than proposed. AI circuits from an end user site in the WECLA to a network node outside it should be classified as being within the WECLA market, and not just circuit with two ends in the WECLA. Our position is set out more fully in our BCMR response.

d. **Volumes:** Openreach has commissioned an independent view of current and future demand in the market from Analysys Mason. Their report, attached to this response, concludes that compound annual growth (CAGR) in AI volumes to 2016 will be in the low single digits. This is a plausible but more pessimistic view of future market demand than we and Ofcom forecast. Furthermore, Openreach has experienced lower than forecast demand since December 2011, and direct market insight indicates this trend is likely to persist. Therefore, we believe the volumes in Ofcom's model are too high and should be revised downwards.

Basket design

e. **Prior year weights:** Within this charge control period there is an exceptional issue with the Ethernet basket. Due to the decline in legacy products and the rapid rate of growth

(relative to the overall basket) in new products, any price reduction on new products will have a much smaller impact on compliance with the revenue formula compared to the actual amount customers will benefit from the price reduction. We believe this was not Ofcom's intention. If this is not corrected, BT will be unfairly and disproportionately penalised for making efficient pricing adjustments. In addition, customers will be left paying higher prices for services using inefficient technology. We propose an alternative to prior year weights in Annex 1 to this response.

f. **Sub-caps**: Ofcom should relax the sub-cap restrictions and impose a sub cap of RPI-0 rather than RPI-RPI. This would allow small nominal price increases, especially in WES and BES prices, thereby better facilitating innovation and migration to the new generation of Ethernet products.

ECCs

g. Ofcom's proposal that BT should earn no margin whatsoever on ECCs, and that prices should be adjusted accordingly at the start of the control period, is extreme and disproportionate.

h. Ofcom should set a reasonable margin that aligns with those made in comparable markets, reflects the working capital that BT employs in carrying out excess construction works, and recognises the specific risks that BT incurs. If price reductions must be made to ECCs, a glide path should be applied, in particular because sharp price cuts send artificial signals, not only to BT but also to competitors and customers, that have potential to distort their investment decisions.

Key issues for the TI control

11. In addition to the issues common to both controls outlined in paragraph 8 above, BT has two main concerns over the model used to set the value of X for TI services and, in particular, with the adjustments made to the base year costs. Together these have a material impact on the X for TI services. In particular:

a. **BT does not agree with the exclusion of 21CN costs**: It is inappropriate to exclude the cost of BT's investment in 21CN assets that are replacing elements of BT's existing SDH network. Alternatively, if Ofcom continues to ignore 21CN costs incurred to provide replacement services then it should make adequate provision for the replacement investment needed to support the continuing TI volumes.

b. **BT does not agree with the payment terms adjustment**: BT disagrees in principle with the payment terms adjustment as it wrongly assumes that all payments to BT are received in accordance with standard contract terms. This is not the case in practice. Even if it is accepted that some adjustment should be made, Ofcom has made an error in its calculation and the adjustment is clearly excessive in comparison to the revenue. We think this is because Ofcom has misinterpreted balance sheet data supplied by BT and has inadvertently removed all current assets in making the payment terms adjustment. An adjustment of debtor days to Ofcom's figures would result in an adjustment of around £35m compared with the £148m used in the TI market adjustments.

Responses to Ofcom's questions

Question 1: Do you agree with our proposal to use an RPI-X form of charge control? ***If not, please explain why and propose an alternative approach with supporting information.***

Question 2: Do you agree with our proposal for the charge control to run for a maximum of three years from the date of implementation? ***If not, please explain why and propose an alternative approach with supporting information.***

Use of RPI-X control

1. We fully support Ofcom's proposal not to apply a cost orientation obligation in addition to the charge control. As discussed in our response to the BCMR consultation[2], we agree with Ofcom that concerns about excessive pricing are being addressed via the design of the charge controls and there is no requirement for an additional cost orientation obligation.. The removal of the obligation for AI and TI services and the precise requirement with regard to financial reporting for AI and TI services are separate issues, and the latter can be dealt with via financial reporting obligations. There are already annual reporting requirements with regard to compliance with charge controls, and we would expect these to continue going forward subject to any modifications arising from Ofcom's current consultation on financial reporting requirements

2. There is a clear need to balance the interests of wholesale customers (and hence end-users) with those of BT's shareholders. The latter should receive appropriate returns on their investments as long as BT provides services in an efficient manner. An appropriately set charge control can provide such a balance, and in this response we comment on the specific issues that are raised by the setting of an RPI-X control, especially (as in the case of AI services) under conditions of rapid service and demand evolution.

3. We agree with the use of RPI over any other index. Because RPI-X controls set price ceilings relative to an external price standard, it is critical that there is consistency as to how costs are measured and the price index used. That is, if a cost model is based on relative cost changes to RPI, as for example in the case of asset price changes and operating cost items in the consultation, then clearly RPI needs to be used as the relevant standard for the resulting nominal price ceilings. In addition, as Ofcom points out in the consultation document[3], WACC measures are inherently tied to RPI. This means that there are obvious benefits in an RPI-X form of control in terms of providing consistency across all cost types.

4. Ofcom proposes that the May 2012 RPI figure is used for the purposes of the control (assuming a 1 October start date). For price changes that require 90 days' notice, this effectively means that BT would have two weeks to process price changes: this is because the May RPI figure is published in mid-June and prices would need to be notified on 1 July. BT therefore requests that the April RPI statistic is used: this would make price changes more manageable and be aligned with the approach in other controls such as LLU and WLR where the RPI figure from six months before the start of the control is used. Should Ofcom choose a start date other than 1 October, the

[2] See paragraphs 29 to 39 of BT's Response to the BCMR on Question 13, 'Do you agree with our approach to remedies and in particular our consideration of the case for imposing passive remedies?'.

[3] Paragraph 3.20, LLCC

base RPI month should be six months earlier than the revised start data in order to allow adequate time to notify price changes.

Three year duration of control

5. BT considers that three year controls are less effective than traditional four year controls in providing incentives for efficiency. This suggests that a longer control might be desirable. However, we accept in this case that demand forecasting becomes increasingly challenging as the duration is extended, and this is a relevant consideration for Ethernet services where there is clearly a degree of uncertainty about future demand.

6. Further, there is a need to align price controls with market reviews and, given the degree of uncertainty, a further market review in three years rather than four is warranted. This duration also allows Ofcom to meet its obligation under the EU Framework Directive to carry out market reviews every three years. On balance, therefore, we consider a control lasting for a three full years is appropriate.

Options if the control is delayed

7. In section 10 of the consultation document, Ofcom offers two options if the start of the control is delayed beyond 1 October 2012. In the first, the control would be effective soon after the publication of Ofcom's Statement, and the first year of the control would be truncated. For example, if six months remained in the first control year, for AI BT would be required to make price reductions equivalent in value to six months' worth of the first year's full revenue giveaway. For TI, BT would only be able to make price increases equivalent in value to six months' worth of the first year's full year revenue increase. In the second option, the control would start soon after the date of the Statement and would run for three full years.

8. BT prefers the second option and would add that if the effective start date of the control falls in February or March, Ofcom should align the start of the control to 1 April for the reasons set out below.

9. Existing controls have been based on a year starting 1 October. In our response to Question 5, we highlight the problems of using prior year revenue to weight price changes within the AI charge control calculation, where there are significant shifts in the volumes between products. This disadvantage of using prior year weightings would be greater with an October start date, as it would introduce an additional six months' lag, meaning in effect that revenue weights are 18 months previous to the year of the control. This is because the prior year information is based on BT's financial accounting year, which starts in April. This extra time lag is particularly important where volumes for EAD are growing at a significant rate.

10. It would therefore be preferable to align the charge control year with BT's financial accounting year, with an April start date. This will help to reduce the distortions described above and allow a full first year charge control period to start on 1 April 2013, aligned to revenue targets based on revenues to 31 March 2013. That said, as set out in our answer to Question 5, we believe a further correction to the prior year weights is required to more fully resolve this issue.

11. Starting the control on 1 April 2013 would also have the benefits of providing a full three year duration and aligning this control with other controls such as LLU, WLR and ISDN30. Further, if this control runs from 1 October 2012, then the next control would need to come into effect on 1

Oct 2015. This would require Ofcom to complete the next BCMR well before this date and before the current BCMR had been in force for three years. An LLCC with a full three year duration from the statement date would give Ofcom more time to conclude the next BCMR and allow a seamless move from one charge control to the next.

Question 3: Do you agree with our overall proposal for the design of the charge control? *If not, please explain why and propose an alternative approach with supporting information.*

Summary

1. In terms of the overall design of the charge control, BT agrees with many of the elements, including:
   a. The use of broad baskets and, where appropriate, the use of sub-baskets;
   b. Separate baskets for TI and Ethernet Services;
   c. The use of CCA FAC as the cost standard;
   d. Using geographically disaggregated cost data to ensure costs are specific to the services within the TI and AI charge controls;
   e. The use of glide paths without starting charge price adjustments;
   f. For the TI basket, the use of prior year revenue weights (although not for AI as we explain in Q5); and
   g. The inclusion of existing discounts within the base year revenues

2. However, we disagree with the proposed treatment of discounts and some of the wording on this topic in the draft legal instrument.

3. We set out further amendments that we believe are needed to the design of the baskets in our more detailed responses to Question 4 and Question 5.

Treatment of discounts

4. In terms of overall design, the main issue is the exclusion of further discounts from the price controls. We believe this is wrong: under some circumstances, it may be efficient to allow discounts to contribute to meeting the charge control. In particular, as long as the discounts were found to be non-discriminatory, then there is no reason to exclude them from the baskets. Below, we discuss three forms of discount, geographic discounts for TI services in the WECLA, special offers and term discounts for AI customers.

Geographic discounts for TI services in the WECLA

5. First, if the level of costs in some geographic areas can be demonstrated to be lower than elsewhere within the basket, the use of a geographically averaged price will be inefficient if this encourages inefficient market entry (because prices for particular geographic areas do not reflect the underlying costs without BT being penalised within the basket).

6. By recognising such discounts, Ofcom could better reflect the need to ensure that prices in a prospectively competitive market are set at a level consistent with the costs that would be faced by an efficient competing network provider.

7. If we were able to offer new geographic discounts, justified by underling cost differentials, which count to the meeting of the charge control, BT would be incentivised to ensure prices were more reflective of underlying cost. This would be “good for competition”.

8. At present Ofcom's proposal is 'all-or-nothing', in other words no new geographic price discounts count towards meeting the TI charge control. An alternative approach that might address this would be to allow 50% of any new geographic discounts to count towards the charge control. In this way, customers would be partially protected from the rebalancing of prices on a geographic basis, and at the same time BT would still have incentives to reflect underlying costs in its prices.

Special Offers and importance for new services/migration

9. BT requests that special offers and migration offers (which do not have a volume, term or geographic nature) should count towards meeting annual revenue reductions. We believe this should be the case for the following reasons.

10. Migration offers on connection and rental prices for AI services will be likely to encourage customers to move from legacy to new products. While Ofcom has recognised the connection aspect in the calculation of the migration credit, the necessary EAD/EBD *rental* discounts have not been taken into account.

11. Further, with the proposed RPI-RPI sub cap, BT will be unable to increase prices. We are more likely to use offers going forward to test potential price reductions before making them permanent. If such an offer led to a permanent price reduction, it would be appropriate for the revenue reduction attributable to the offer to count towards basket compliance.

Term discounts and importance for AI customers

12. In addition, we believe term discounts should count towards basket compliance. We would make a distinction between a term offer (available for a limited time period) and a permanently available product that has a minimum duration within the terms and conditions. These products have been excluded from basket compliance on the grounds that they can act as a disincentive to switch away from BT.

13. During the last charge control period we offered additional AI term discounts. This was in response to customer demand, and it is consistent with pricing offered in many markets. Given that this pricing approach is expected by the market, not to count these prices towards basket compliance would overly penalise BT in trying to meet genuine customer requirements. Their exclusion means that price reductions which are "fair and objective" (if they are non-discriminatory) are discouraged. The effect is to 'funnel' all reductions into a standard product, when this is not what customers want BT to provide.

14. Furthermore, in our experience these products do not tie customers in for longer than they intend, as they are primarily taken only when the customer has long term certainty of bandwidth requirements (for example for the purpose of building backhaul). This can be seen from the fact that for some products only the five year term is taken by customers, with no demand for the one year term option.

15. Finally, the current position for demonstrating compliance is that where there is a long term product, all volumes should be allocated to the one year term so that revenues are presented as gross revenues (without the 'discount' for the five year term). Therefore a price reduction could be made to the one year term, and Openreach would comply with the control. However if all customers were to take the five year term, reducing the price of the one year option would not

flow through as a benefit to any customers. In this situation, the exclusion of products with a long minimum term seems to be a 'technicality' that does not benefit the market.

Wording in the legal instrument

16. Further, there is an inconsistency in the consultation document in Ofcom's view on discounts and basket compliance. In paragraphs 4.117 to 4.132, Ofcom provides a rationale for its position that certain discounts should not be counted towards basket compliance, specifically volume, geographic and term discounts. This wording is repeated in paragraph 10.33, however within the same point, the language changes from "certain discounts" being excluded to "any discounts". The legal instrument excludes "any discounts" throughout. The phrase "any discounts" should therefore be amended in the legal instrument.

Question 4: Do you agree with our proposals for TI, specifically: basket design; anchor pricing approach; base year adjustments; and forecasting assumptions? *If not, please explain why and propose alternative approaches with supporting information.*

Summary

1. We have commented on issues of basket design for TI services in our response to Question 3 above. Here, we focus on anchor pricing and the base year adjustments. Our key points are:

    a. The 21CN cost adjustment is not justified;

    b. The RAV adjustment should not be applied, but if it is, it should not apply to services using assets used for connectivity between BT exchanges;

    c. We disagree with the proposed payment terms adjustment, which wrongly assumes that all payments to BT are received in accordance with standard contract terms; and

    d. The Point of Handover adjustment is inconsistent with the policy approach adopted when Point of Handover charges were introduced.

2. Our comments on forecasting assumptions are given in our response to Question 11.

Anchor pricing and the 21CN cost adjustment

3. We understand the anchor pricing approach described by Ofcom to mean the use of an ongoing hypothetical network to set prices. This is predicated on treating assets and costs consistently with conditions that would exist in a competitive market. Prices are set consistent with a hypothetical ongoing network (thereby ensuring that price levels are sustainable and do not distort companies' buy or build decisions.) BT believes that this approach is appropriate.

4. We have some concerns over how anchor pricing for TI services has been implemented. The approach of pricing an "old technology" using a hypothetical ongoing network approach to costing needs to be implemented with care. Where the "old technology" assets are approaching the end of their depreciation lives but remain in use, the book value of both depreciation and mean capital employed will be below a sustainable level. This is especially relevant where the volume of fully depreciated assets is significant as without adjustment, no costs at all would be included for this equipment.

5. In previous charge controls, Ofcom has considered the relationship between Gross Asset Value and depreciation to ensure appropriate values are used in the anchor pricing approach. In particular, the ratio of NRC to GRC (net asset value to gross value) should be consistent with an ongoing network (this would usually not be significantly different from 50% in a steady state).[4]

6. In the case of TI services, BT is investing in 21CN assets to replace part of the network used by TI services. In BT's view, either BT's total costs should be included (both 21CN and existing technology) or the costs of using the existing technology need to be uplifted to be consistent with a Hypothetical Ongoing Network as adopted in the 2009 Network Charge Control and 2009 Leased Lines Charge Control.

[4] See Paragraph 4.129, Leased Lines Charge Control September 2009 Statement.

7. Ofcom appears to have removed the costs of BT's investment in the new technology whilst at the same time including the costs of the existing technology, without making the necessary adjustments to ensure costs are fully consistent with a hypothetical ongoing network. For all of these reasons, BT believes that the 21CN cost adjustment is not justified.

Base Year adjustments

The RAV adjustment

8. Ofcom proposes to extend a RAV adjustment to all TI services using duct, but no new reasoning has been advanced as to why the RAV should be extended beyond assets providing copper access services. BT believes there is no justification for this, not least since PPC charge controls were based on Current Cost Accounting (CCA) costs when first introduced, and continued to be based on CCA costs in the 2005 and 2009 controls.

9. It is unclear from the consultation document what Ofcom's intentions are – whether the RAV adjustment is proposed to be extended to duct carrying Access Fibre, or whether it is to be extended to all duct. As set out in Annex 2 of our response, BT believes that nothing has changed since 2009 to justify a change in the policy regarding which duct assets should be subject to a RAV adjustment. In 2009 Ofcom decided to apply a RAV adjustment to Access Duct and Access Copper used by PPCs, principally PPCs with Local Ends delivered over copper technology. The only application of the RAV adjustment that was deemed necessary was to ensure that Access Copper being used as an input into PPCs was treated on a consistent basis as Access Copper used as an input to LLU and WLR. In 2009 it was not considered appropriate to make any adjustment to the value of duct used by fibre-based services.

Payment terms

10. BT disagrees in principle with Ofcom's proposed adjustment for payment terms. In BT's view, the figure for notional debtors used in setting the charge control should reflect the payment terms actually achieved by BT, rather than the standard terms set out in the contract. This is because the terms actually achieved better reflect the outcome of an efficient approach to debt management.

11. In addition, the scale of the payment terms adjustment for TI appears to be inconsistent with the approach described.[5] Based on adjusted revenues of [✂], BT's regulatory financial statements (RFS) incorporate notional debtors based on the [✂] days assumption, giving a figure of around [✂].[6] Using Ofcom's alternative figure of 16 days (assuming all revenue is rental), notional debtors will reduce by around [✂]. Instead, Ofcom has adjusted notional debtors by [✂], significantly more than the maximum figure of [✂] that would be expected based on the methodology described by Ofcom.

[5] The figure for this adjustment to the TI basket is also inconsistent with the AI adjustment, where a revenue of [✂] required an adjustment of [✂].

[6] Based on a revenue of [✂], the notional debtors of [✂]days in the RFS [✂]. Based on a minimum of [✂] days, an adjusted debtors figure [✂]. The required adjustment is the difference between these two figures being [✂]. The true figure should be less than this because part of the revenue will relate to connections with a debtor days figure of [✂] days assumed.

12. We believe that in calculating this figure, Ofcom has misinterpreted data provided by BT: it appears that Ofcom has inadvertently removed all current assets in estimating the adjustment, rather than just removing the notional debtor calculated by the Aspire system.

Point of Handover adjustment

13. BT agrees with Ofcom's approach in principle, but we consider that the Point of Handover adjustment is inconsistent with the policy approach adopted when the Point of Handover charges were implemented.

14. Point of Handover charges have been priced on a LRIC basis, meaning that these services make no contribution to the recovery of common costs. The setting of Point of Handover prices at LRIC was on the basis that the fixed and common costs could be recovered from other services within the TI basket.[7] In making an adjustment to the base year costs, Ofcom has removed the cost of Point of Handover on a *fully allocated basis*. This means that the common costs that should have been recovered from services other than Point of Handover have been removed inadvertently from the base year costs.

15. To be consistent with the pricing of Point of Handover services, the incremental cost rather than Fully Allocated Costs should be removed, thereby ensuring that the fixed common costs remain within the basket to be recovered from other TI services. This is required to ensure that the charge control modelling is consistent with the Point of Handover pricing approach set in October 2011.

[7] See section 4.139 on page 50, LLCC PPC Points of Handover pricing review, Final Statement on modification of SMP Conditions

http://stakeholders.ofcom.org.uk/binaries/consultations/revision-points-handover-pricing/statement/final-statement.pdf

(...'we consider that the reductions in POH charges should count towards BT's compliance with the main Traditional Interface ("TI") basket cap and this will allow BT to recover any other excluded costs from other services within the TI basket in a more competitively neutral way.)'

The reasoning behind this is set out in Ofcom's adoption of "Option 4" where common costs are recovered from all leased lines, including those supplied by BT Retail. See s 3.28 on page 16 to 17, *"under Option 4 common costs are recovered from services which both BT and CPs use .."*

Question 5: Do you agree with our proposal for Ethernet, specifically: basket design; modern equivalent asset approach; base year adjustments; and forecasting assumptions? *If not, please explain why and propose alternative approaches with supporting information.*

Introduction

1. In our answer to this question, we focus on;
    a. Basket design;
    b. Prior year weightings;
    c. Modern equivalent asset (MEA) approach;
    d. Legacy costs;
    e. Stranded assets;
    f. Migration credit;
    g. Base year adjustments;
    h. Adjustments to Ethernet market values;
    i. Geographic costs; and
    j. Operating costs

Basket design

Broad Basket

2. It is right to provide Openreach with as much commercial flexibility as possible to react to market events and hence a broad basket structure is preferred.

3. In our BCMR response, we argued strongly that MI services should not be regulated. However, assuming that the BCMR proposal stands, and MI services are regulated, we agree with the inclusion of MISBO services within the same basket as AI. While we believe these serve two very different markets, we feel this is appropriate given the extent of common costs. It is also appropriate as it allows relative prices to be set efficiently. For example, if WES 2.5Gbit/s circuits were in a different basket to WES 1Gbit/s circuits (potentially with a different level of X) it would be more difficult to ensure appropriate relative prices.

4. Combining legacy and new technology products within a basket gives the ability to price flexibly between products to encourage migration, which we welcome. However, declining revenues for legacy products and increasing revenues for new technologies (caused by the migration) leads to a distortion when prior year revenues are used for weighting. This leads to a situation where a price reduction for a legacy technology product would have a disproportionate impact on basket compliance, and therefore incentivise price reductions on legacy products. This would go against the desire to encourage migration through prices so that customers select the cost minimising service option. To resolve this, we believe that keeping the basket design as it is, and changing the use of prior year weights would be the best option to deliver price reductions in line with Ofcom's intentions. This is discussed further below.

Sub baskets and sub caps

5. We see the rationale for a sub-basket for Interconnection Services, as the BTL products are important to support competitive backhaul provision for CPs.

6. We find there is an inconsistency within the consultation document as it currently stands. The heading above paragraph 6.35 in the consultation document refers to a sub cap on the interconnection services, while paragraph 6.46 and the legal instrument refer to a sub basket. It is our understanding that the control is a sub-basket, but would appreciate confirmation.

7. There is a sub-cap on all other services within the Ethernet basket that prevents any nominal price increases. This is overly restrictive and does not allow services within the basket to be efficiently priced, with a particular issue on legacy products discussed below. However, we do understand that some degree of protection on pricing is appropriate given the removal of cost orientation obligations.

8. We believe the range between the RPI-X control and the sub cap should be broad to allow enough flexibility to support efficient pricing. The range between RPI-X and the sub-cap in the last control was 12 points and that this allowed for price increases. We would look for a range of at least 12 points again, and for some flexibility to increase prices, which would imply a sub cap control of RPI-0%.

9. If Ofcom does not agree that the cap should be RPI-0% on all items, this less restrictive obligation should apply to legacy products at the very least. Ofcom states that Openreach can encourage migration from legacy to new products using price incentives. The more stringent sub cap on BES in the 2009 LLCC is proposed to be removed in order to support migrations, which we welcome, but it should go further to allow price increases to drive migrations.

10. Under the control as proposed, this is only possible by changing the relative prices by reducing the price of new products more than existing products. In the case of customers migrating from BES to EBD, they have no incentive to migrate based on the current charges (where BES is cheaper than EBD depending on the length of the main link). This means that even if there was an offer of free migration, it would be more cost effective to remain on the current service. Whilst EBD prices could be reduced, the use of prior year weights makes it very difficult to create a differential without putting a financial penalty on BT as discussed in the section on prior year weights below.

11. Therefore, we request that the sub cap should either not be applied to legacy products or it should be increased to RPI-0%.

Ancillary basket

12. We welcome the proposal that ECCs should be removed from the main basket and controlled separately. Given the different nature of the cost base, this is appropriate. The use of a sub-cap control will support our ability to demonstrate compliance in an area with limited existing data on volumes and revenues.

13. Excluding Time Related Charges from the LLCC is also welcome as these products primarily relate to services other than Ethernet, and it would not be appropriate to control them with this

instrument. These are also activities outside of the norm that tend to be value add rather than core services, which are not normally subject to price controls.

14. We have limited information on volumes, revenues or costs for each individual ancillary item, many of which have zero volumes against them in a given year. Ofcom recognises the data issues as referred to in Annex 5.16 of the consultation document. Given this, it would be disproportionately complex to have to demonstrate compliance on these services within a basket control. Instead these items should be excluded from the main basket and subject to a sub cap only (as proposed for ECCs). Given the immateriality of ancillary revenues (around [✂] of total revenue), and the fact Ofcom excluded ancillaries from its modelling when determining the value of X, this should not impact any other aspects of this consultation. This is discussed in more detail in our response on compliance in Question 10 below.

Prior year weightings

15. Ofcom correctly identifies a potential problem, in that the use of "prior year weighting" for the control will tend to make it hard for Openreach to achieve the RPI-X in such a way as to reduce prices of new technology services such as EAD compared to old technology WES, in order to stimulate migration from old to new, without Openreach giving away significantly more than "RPI-X" throughout the control period in revenue terms.[8] This exceptional problem is specific to the Ethernet basket within this control period, and arises due to the relatively large growth rates of Ethernet product volumes at a period of technology change, and hence it has not arisen in other charge control reviews.

16. However, Ofcom's analysis of this problem indicates that this effect is not significant enough to change their approach[9], as there is an existing price differential between legacy and new services to support migration, and this could be maintained throughout the control period.

17. We believe that Ofcom has not correctly analysed the current differential and that a more significant differential is required to encourage customers to migrate. Therefore Ofcom has under-estimated the size of the problem caused by the use of prior year weights.

18. Openreach has made representations on this issue to Ofcom since the publication of the consultation document, and we set out the issues in full in Annex 1. We explain why Openreach has recommended an alternative to the prior year weights approach for the Ethernet basket. This will allow:

    a. Price reductions on new products that will bring significant benefit to the market, without any unintended consequences such as a financial penalty on BT; and

    b. Comparable prices between legacy and new services that will allow migrations when combined with migration offers.

19. Within Annex 1 we outline our recommendations to resolve this issue. We would welcome working further with Ofcom to jointly identify the optimal resolution to this complex issue.

[8] Ofcom, *Leased Lines Charge Control 2012consultation document* paragraph 6.107

[9] Ofcom, *Leased Lines Charge Control 2012consultation document* paragraph 6.109

20. For clarity, we agree that the use of prior year weights is the most appropriate system to assess compliance in a charge control in general. The move away from this is only justified on Ethernet services within the current control due to the exceptional differences in relative growth rates.

MEA Approach

21. BT appreciates Ofcom's reasons for the adoption of the MEA approach in this price control and Ofcom's recognition that such an approach should not be implemented in such a way as to deny even an efficient operator the opportunity to recover its costs.[10] Although Ofcom makes some allowance for transition costs, the current approach risks imposing under-recovery of costs, and we explain why in the sections below. In effect, this is because BT faces unavoidable costs which the proposed adoption of a pure MEA approach in 2015/16 omits.

Legacy costs

22. The model is premised on the assumption that there will be a complete transition from WES/BES to EAD/EBD by 2015/16, i.e. that the technology shift will be complete in practice. BT appreciates that the process for setting periodic price controls only gives Ofcom the choice of deciding when to adopt MEA once every three years, but in this case migration is unlikely to be completed by 2015/16. In part, this is due to the reluctance of customers to migrate until a time of their choosing as well as resistance to funding higher costs in the first year on the new technology.

23. Put simply, the assumed rate of technology change in the financial model is too steep, as there will still be a significant number of circuits still supplied on the legacy technology at the end of the control period. CPs have indicated that even with substantially more attractive pricing on EAD some circuits in PSN, security or simply difficult to reach locations will remain on WES as the process to change them out is more costly than the financial savings. There will, therefore, still be parallel running of the legacy and new services and some costs for WES/BES services which are unavoidable until the last few customers have migrated away from WES/BES. For example, even with very low WES/BES circuit volumes, costs will still be incurred on the following activities:

    - Element Managers which manage individual NTEs;
    - We have a dedicated network which manages these services and which incurs a cost which is largely fixed against the estate size. This is based on ISDN which will be needed as long as WES is required;
    - There is a legacy platform known as ECOX for ordering and repair. There are other products on this platform but we intend to migrate them to a platform known as EST in the next 36 months. However, WES/WEES/BES will not be migrated to EST because this would cost [✂], and the products are approaching end of life. The ECOX platform has legacy support costs since we must pay licence fees to Oracle, Siebel and others (on the order of [✂] each year) and incur other overheads;
    - We have also made a significant last time buy of kit and are holding this for four years against repairs, upgrades etc. Furthermore, our vendor support expires in 2015 and it is likely that we will need to agree an extension to this support with our vendor that we would seek to recover in our charges;

[10] Paragraph 6.94, LLCC

- We have equipment which the engineers use to test WES which involves manual processes. This equipment must be maintained, serviced and calibrated;
- We have management, operational, revenue, customer reporting systems we will need to maintain; and
- WES uses legacy billing systems and these incur a per product cost to maintain.

24. We estimate that these costs total approximately [✂] per annum, and to a large extent this is not driven by the volume of legacy circuits. Ofcom should fully recognise all that BT does to provide services in order to provide a good customer experience and avoid forced migrations wherever possible. Ofcom should recognise these costs, and we suggest that they should be added to the migration credit.

25. Against this background, it is clear that if prices are set on the basis only of MEA costs in 2015/16, then it will not be possible to recover these costs. There is a further issue regarding the scope for relative price differentials. If the price cap is set wholly on the lower EAD/EBD costs, then the only way that WES/BES prices can be higher than EAD/EBD prices is if the latter are actually *below* their costs. The costs in the RPI-X model therefore need to recognise some of the higher costs of WES/BES in order that there can be the pricing differential necessary for encouraging final customer migration.

Stranded assets

26. Ofcom notes that Openreach has advised that legacy Ethernet services use more fibre than new Ethernet services, and so the adoption of the MEA approach means that fewer fibre costs can be recovered from legacy Ethernet services. On this specific point, Ofcom says that as the fibre costs are common with other services (including new Ethernet services) and would be reallocated and recovered from other services, it does not consider this to be a holding loss.[11]

27. However, whilst reallocation is possible in the longer term, the volume of the fibre that is being released means that not all the fibre will be re-used during the period of this control, and therefore the cost attributed to this fibre will not be recovered. Put another way, there will be costs (e.g. depreciation) associated with “stranded assets” that needs to be included in the calculation of the X to ensure that BT does recover its efficiently incurred costs. Rather than excluding these costs, Ofcom should recognise that these costs are a consequence of changing and improving the service that Openreach provides to wholesale customers and end users.

28. For the avoidance of doubt, Openreach does expect to re-use these fibre assets (and therefore Openreach is not writing these assets off), but it is the sizeable and exceptional migration of these services within a relatively short time frame that means that they cannot be easily or quickly re-used.

29. BT has estimated the costs as follows:
    - Volume of services that will migrate - we have used the Ofcom volume forecast to calculate the volumes migrating from legacy to new services, and then to calculate the volume of fibres that will be migrated.

[11] Paragraph 6.99

- Estimate of re-use of fibre assets associated with migration volumes. We have relied upon our internal experts to provide us with the best view of re-use of these services within the three year control.
- Cost of per unit stranded fibre assets – we have used information from our costing system.
- The calculation of the loss is to multiply the cost of the stranded fibre by those fibre assets that will not be re-used within the period of the charge control.

30. This information is provided to Ofcom in Annex 3. We estimate that the holding losses are likely to cost around [✂] in the final charge year of the control due to the stranding of fibre.

Migration credit

31. We have provided Ofcom with our estimate of the extent to which we believe BT would need to discount its prices in order to incentivise customers to migrate. Ofcom has taken a different approach to estimating these discounts by adjusting the costs through:
    a. Identifying the relevant MEA for the legacy Ethernet products;
    b. Use of the 2012/13 legacy rental volumes; and
    c. Application of the relevant MEA connection unit costs to establish a cost of migration.

32. We believe Ofcom has erred in the calculation of the relevant connection unit costs by dividing 2010/11 connection costs by 2012/13 connection volumes. As the MEA connection volumes have increased dramatically from 2010/11 to 2012/13, this has the effect of understating the credit. We estimate that, if connection costs and volumes are both taken from the same year, then the migration credit would increase from £43m to £78m.

Base Year Adjustments

33. Ofcom starts with CCA FAC outputs that have been reconciled to the 2010/11 RFS. These will form the base year costs for the charge control model. BT agrees that Ofcom should start its cost modelling from this point.

34. We also agree that Ofcom's starting point for revenues should include relevant discounts. Currently in our portfolio, there are relatively few discounts – namely term discounts. Ofcom should recognise innovation and that Openreach has to respond to market pressures for innovative pricing regimes. Such developments should not be chilled by regulation.

35. Ofcom makes cost adjustments to these values for two purposes. Firstly, to ensure they reflect the basket and secondly, to reflect the "forward looking efficient costs for the purposes of forecasting costs to 2015/16". BT agrees that adjustments need to be made to RFS data for the purpose of the charge control modelling. Whilst BT is generally comfortable with Ofcom's approach there are certain adjustments and assumptions that Ofcom should amend so as to more closely model expected future costs.

Adjustments to Ethernet market values

36. Ofcom makes five adjustments to the Ethernet market (up to 1Gbit/s) values to ensure they reflect the basket. These are to

a. include “in scope” services which are Internal BES, EBD and ONBS services, and all services above 1Gbit/s; and

b. exclude “out of scope” services which are a series of minor Ethernet services, and ancillary services, such as ECCs.

37. We agree that, given the definition of the Ethernet Basket from the BCMR, it follows that Ofcom should make these adjustments.

38. Ofcom makes a further five adjustments for the purposes of charge control modelling. These relate to geographic disaggregation; cost adjustments for current cost normalisation; exclusion of transmission equipment costs; payment terms, and RAV adjustment to duct assets.

39. We agree with the principle of geographic disaggregation but have highlighted to Ofcom that its model does not exclude all the WECLA revenue and costs from the basket. This is because its model does not adjust all services for the WECLA. Ofcom has inadvertently included the WECLA revenue and costs for Ethernet Main Links less than and equal to 1 Gbit/s services in the calculation of X. We request that Ofcom address this error in the final model; the impact decreases non-WECLA revenue by circa [✂] and non-WECLA costs by circa [✂]. We also believe that Ofcom has underestimated the cost differential between the WECLA and non-WECLA which we have explained in detail below.

40. We note that the current cost normalisation adjustment is consistent with Ofcom’s approach in other controls. For the purposes of forecasting costs, we agree it is more reasonable to remove any “one-off” adjustments in the year and replace it with a long run movement in asset values.

41. We note that Ofcom has removed transmission costs on the basis that they have already been allowed for in the 2009 LLCC. We disagree on two issues.

a. Firstly, only part of the transmission equipment costs were recovered upfront through the connection charge, with the remainder being recovered over a period of years through the rental. Only the portion of costs recovered through the connection charge should be removed, and not the entire cost; and

b. Secondly, it is only the cost attribution basis which has changed from connections to rentals, and not the accounting policy. For clarity, it has always been our accounting policy to capitalise the transmission equipment.

42. We note that Ofcom adjusts our payment terms. BT does not agree with the principle of the adjustment because it assumes that bills are paid on the due date and that is frequently not the case. In BT’s view, the payment terms actually achieved are the outcome of an efficient approach to customer credit and debt management. Ofcom has not assessed BT’s debt management procedures as part of this charge control review, let alone provided any evidence of inefficiency. It should also be noted that, when Ofcom commissioned BDO to review BT’s approach to debt management in the context of the PRS Bad Debt Surcharge, BDO found that it “demonstrated good practice” . Ofcom has no justification for making the proposed adjustment.

43. Further, Ofcom has made the adjustment by taking out all current assets whereas the adjustment should apply (even on Ofcom’s logic) to the notional debtors only. The impact on MCE has therefore been overstated.

44. We are unable to reconcile that the adjustment quoted in Table 6.6 that appears on page 120 of the consultation document is the same as the debtors adjustment used in the model.

45. We do not agree that it is appropriate or proportionate to apply the RAV adjustment to AI services. We evidence below that Ofcom's application of the RAV adjustment is unjustified and we propose that Ofcom should continue to adopt the current approach, which was accepted by all stakeholders as valid in the last LLCC consultation. Our detailed comments on this issue are set out in Annex 2 of this response.

Geographic costs

46. Ofcom recognises that there are differences in the cost of supply between the WECLA and non-WECLA. It uses the same estimated geographic cost disaggregation as high bandwidth TI services to adjust AI costs. We estimate that the true unit cost of supply for AI services is between [✂] lower in the WECLA rather than 15% lower as Ofcom states. This means Ofcom has removed too much cost from the main basket. The factors that lead to differences in costs for WES, BES, EAD and Main Link are described below.

Access length

47. A nationally averaged length is currently used to attribute costs of the local access fibre component. In metro areas the distance from the exchange to the last external node or in building node is shorter on average as exchange areas are historically smaller in urban areas as they were defined in the early days of telephony when exchanges had limited capacity, so more were needed in urban areas.

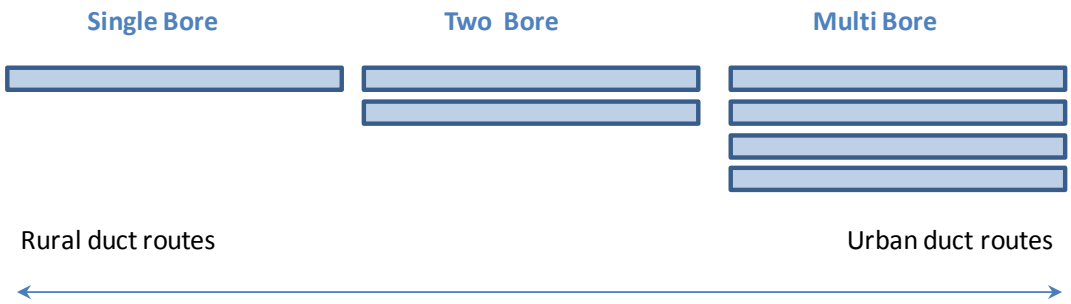
48. The interexchange fibre used within the Main Link service is charged for on a per metre basis so differences of length are captured directly within the pricing.

Cable size and fibre density

49. Larger fibre cables tend to be provided in urban areas due to the higher geographic density of business customers meaning that there are more metres of fibre per route metre of duct. Cable costs are not proportional to the number of fibres in the cable – a cable with 144 fibres will be significantly cheaper than 12 times that of a 12 fibre cable, leading to a lower unit cost This will be a factor in both the access fibre and the interexchange fibres as urban exchanges will be interconnected with significantly larger cables than rural exchanges. We estimate that on average access fibre cables in the WECLA will have [✂] fibres compared to [✂] fibres in non-WECLA.

Duct bores

50. BT installs different dimensions of duct in its network, for simplicity one might categorise each duct route as either; 'single', 'two' or 'multi bore' duct. The dig costs for each type of duct is similar. The materials costs are greater for multi than two and one. Multi bore ducts tend to be installed where there is an expectation of high usage, such as areas where there is a high density of customers and extra bores are likely to be required in the future. Urban routes such as metro areas and the WECLA have a higher proportion of multi bore duct.



51. We estimate that in such areas [✂] of duct is multi bore, compared to [✂] in non-metro areas and non-WECLA. Therefore duct costs attributed to specific services are lower in metro and WECLA areas.

Operating Costs

52. We estimate that operating costs related to access and interexchange fibre and duct will follow geographic variations in the underlying assets in the WECLA and non-WECLA. For example, fibre planning costs for a cable with 144 fibres will be significantly cheaper than 12 times that of a 12 fibre cable.

Question 6: Do you agree with our approach and proposals for controls for excess construction charges? *If not, please explain why and propose an alternative approach with supporting information.*

Summary

1. Our key points on Ofcom's proposals for Excess Construction Charges can be summarised as follows.

2. BT agrees with Ofcom that
   - it is not appropriate to apply a cost orientation obligation in addition to the price control
   - ECCs should be price controlled in a separate basket
   - GCBI index is the right index to use for the purposes of the sub cap

3. BT disagrees with Ofcom that all margin should be removed from ECC prices because:
   - BT should be able to earn a reasonable margin, similar to those found in comparable competitive markets;
   - BT employs capital whilst providing ECCs and Ofcom have made no allowance for this
   - BT incurs specific risk when providing ECCs e.g. order cancellation and under-estimation of final costs of ECCs. Ofcom have made no allowance for these specific risks
   - It is counter-intuitive to depress prices in this particular area as is likely to discourage investment by competitors

4. BT disagrees with Ofcom that there should be a start price adjustment
   - The proposal is not in line with Ofcom's criteria for considering starting charge adjustments

Overview

5. ECCs apply when a site needs additional work for connectivity that is not covered by the standard charges for the service; the assets provided are typically dedicated to the customer requesting service and are not expected to serve any other customer in the near future. About [✂] of ECCs relate to the provision of such fibre and duct.

6. Ofcom proposes to control ECCs through separate price controls with a price cap of GBCI-0%[12] on each individual charge. Given that these costs are construction-related, we accept GBCI is appropriate in this instance. The use of a sub cap control will support our ability to demonstrate compliance in an area with limited existing data on volumes and revenues.

7. That said, we strongly oppose Ofcom's other proposals with regard to the removal of ECCs from the Mean Capital Employed (MCE) and the 30% price reduction to be implemented as a starting price adjustment; an extreme position given Ofcom's treatment of ECCs in the current control (in a basket with an RPI-RPI formula) and the fact that one would, and does observe, a margin being made in similar competitive market(s) with commensurate levels of risk e.g. civil engineering.

[12] GBCI: General Building and Construction Index.

8. Ofcom has failed to consider fully all the factors it should take into account when proposing such a radical change and its proposals are therefore disproportionate. In particular:

    a. Disallowing any margin and implementing the price adjustment through a starting charge adjustments is disproportionate, as is not in line with Ofcom's criteria for considering start price adjustments and overstates the materiality of ECCs, in particular where Ofcom's proposed approach would not allow Openreach to cover specific risks involved in the provision of ECCs;

    b. There is some working capital employed associated with the provision of ECCs on which Openreach should be allowed a margin. Furthermore, Openreach should be allowed to earn a value-add margin in line with the dynamics in a competitive market;

    c. Ofcom has not considered certain risk factors involved in providing ECCs that require additional margin;

    d. Ofcom's proposals ignore the opportunity costs of providing ECCs; and

    e. By disallowing any margin on a particular group of services and assets Ofcom risks distorting other CPs' incentives to invest in their own infrastructure to compete with ECC-based services.

9. Ofcom should assess any price reduction with reference to what would happen in a competitive market in addition to the costs that BT actually incurs in the provision of ECCs and the risks that it faces. Moreover, as the current proposal does not meet Ofcom's criteria for start price adjustments, it should use a glide path to the target price over time.

There is some working capital employed in the provision of ECCs and Openreach adds value when providing ECCs

10. Ofcom argues that because Openreach recovers all costs upfront, there is no capital employed in the provision of these assets, and therefore it should not be allowed to earn a return on it. Absent any employed capital, Ofcom argues there is no other rationale for why Openreach should recover more than just a contribution to its common costs.

11. First, Ofcom has underestimated the timescales involved in providing ECCs during which working capital is tied up. We estimate that on average it typically takes six months or longer between an ECC order being placed and ECCs to be paid by customers, during which time Openreach assets are tied up in the provision of ECCs.

12. Second, Openreach provide s a value-adding service when supplying ECCs: for example, it arranges and provides a tailored infrastructure provision to the customer that meets its specific needs, and it will negotiate with contractors on behalf of its customers if required, which is likely to generate some savings due to the volumes generated by Openreach. As in any competitive market it would be normal to earn a margin for value-added services that is over and above a contribution to common costs, even where there is little or no capital were used up in its provision.

13. Third, there is an opportunity cost involved in providing ECCs instead of other services that would earn a return. We discuss this point further below.

Perverse incentives

14. Ofcom has provided little reasoning for the removal of capitalised ECCs from the BT asset base. Ofcom discusses the issue in three short paragraphs, noting simply that the full costs of ECCs are recovered upfront and that allowing BT to earn a return on capital on the asset 'raises the risk of double-recovery' (paragraphs 7.10 to 7.13 of the consultation document). Specifically, Ofcom gives no consideration to the incentives arising from the removal of working assets from BT's regulated asset base.

15. It might become unattractive to serve a "pioneering" customer in an area of new network footprint unless there was sufficient certainty that other customers would later follow. In other words, there could be a "wait and see" incentive at work in serving customers on which significant ECCs are necessary, and some requests for service by remote customers may no longer be regarded as commercially viable. This is contrary to Ofcom's statutory objectives to ensure customers' needs are met, and it would clearly be disproportionate to require Openreach to serve all reasonable customer requests without allowing it to recover reasonable returns that reward its risks and cover all its costs. BT should be incentivised to invest and maintain a portfolio of assets with a view to the effective management of anticipated future capacity. By deciding to remove a class of assets, in this case ECCs, from the working asset base, the incentives to build and manage such a portfolio of assets efficiently may be hampered. There will clearly be less incentive for both BT to build out to far-flung customers under Ofcom's proposals

16. Serving a customer requiring dedicated assets comes with risks. For example, there is the risk that once put in place, the assets could become stranded if the customer were to cease its service. By taking such assets out of the regulatory asset base, the perverse short-term incentive of repudiating or disposing of the assets as soon as practicable might arise, especially if no immediate future usage of the asset can be envisaged. This incentive is grossly inefficient and one that Ofcom should seek to avoid. The presumption should rather be that network assets of this nature be included in the general working asset base, even if not currently in use, given option values for future use.

Ofcom omits specific risks incurred in the provision of ECCs

17. As discussed in the next section, there are specific risks associated with ECCs, for example stranding risks should a customer cease service. As a result, there are also option values to consider, which arise as BT may determine the timing of its investments. These risks and option values would suggest that insufficient return on these assets might lead to an inefficient level of ECCs being incurred. In particular, if ECCs are incurred in serving pioneering customers and driving out network footprint, there are significant specific risks associated with failing to achieve good capacity utilisation for these assets in the long-run (if other customers fail to come). It is entirely reasonable, therefore, that BT should earn a return on these assets due to these risks, and that an appropriate hurdle rate for ECC projects should be in excess of BT's cost of capital.

18. In addition, in the provision of ECCs Openreach faces a number of other specific cost risks that it needs to cover through a margin over and above a contribution to common costs:

    a. Orders for Ethernet circuits get cancelled slightly more frequently where ECCs are involved. On average about [✂] of Ethernet orders get cancelled. In some cases, Openreach has already incurred ECC-related costs that it cannot recover. While analysis of the full extent of ECC-related cancellations is still ongoing, we would estimate that for c. [✂] of all Ethernet

orders a survey would have already been conducted, and for approximately [✂] of all Ethernet orders Openreach has already incurred some costs at its own risk; and

b. In some cases, the estimated costs for ECCs that are contractually agreed with the customer are below the actual costs incurred by Openreach, sometimes significantly so. Openreach takes the full risk of actual costs exceeding planned costs, whereas it passes on to the customer any savings where the actual costs remain below the planned costs.

Distorting incentives for facilities-based competition

19. Where ECCs are incurred, they typically signal that for these services, by definition, BT has a smaller than average cost advantage from its existing network over CPs (because BT also has to build out its network to serve the customer), and therefore on average faces greater competitive constraints than where ECCs are not incurred. It is therefore counter-intuitive to depress prices in this particular area as it might discourage investment by competitors.

Applying a starting charge adjustment is disproportionate

20. Ofcom's proposed price adjustments through a starting charge adjustment are disproportionate. This is a very significant change from its previous approach on ECCs, which had been subject to a price control and the appropriate approach considered in previous market reviews.

21. Ofcom argues that a starting price adjustment is justified as the current ECC margins have not arisen from cost efficiencies, and where ECCs apply they represent a significant price increase for the individual end customer. This is not in line with Ofcom's criteria for considering starting charge adjustments, which are:[13]

    a. strong allocative efficiency arguments for bringing charges into line with costs sooner;

    b. charges are high relative to costs (to an extent that could distort competition);

    c. charges have been unregulated or not subject to a charge control; and

    d. materiality of the issue.

22. In relation to the first and second criteria, we do not believe that the current charges have harmed allocative efficiency and that they do not distort competition as they have covered all costs related to ECCs and provided a reasonable return for ECC-specific risk factors.

23. In relation to the third criterion, ECCs have been subject to a charge control for the last three years, as ECCs have been part of the ancillaries basket with a price cap of RPI-0. We also note that in this and the previous market reviews, process improvements have been made by Openreach to improve transparency and certainty over ECCs.

24. Finally, as regards the fourth criterion, while we accept that for an individual customer ECCs can represent a significant price increase in the first year, these costs represent only a small fraction of all charges paid by CPs to Openreach. For example, ECCs account for less than [✂] of Ethernet-related revenue for Openreach. The proposed measures are not therefore proportionate to the materiality of ECCs.

25. For these reasons, if price reductions must be made to ECCs, a glide path should be adopted.

[13] Ofcom LLCC para 4.103/104:

Question 7: Do you agree with our approach and proposals for charge controls for accommodation? *If not, please explain why and propose an alternative approach with supporting information.*

1. Ofcom's main proposals with regard to accommodation are:
   a. a separate control for accommodation items;
   b. approach to regulate shared charges under the WLR/LLU Charge Control;
   c. price cap of RPI-0% proposed for access locate and cablelink; and
   d. removal of cost orientation.

2. We agree with Ofcom's proposal that, if the items identified in the Accommodation basket need to be charge controlled, that it is appropriate to control these in a separate basket. These items will have different cost drivers to other Ethernet services. Consequently movement of their costs over time will differ from those applicable to the other Ethernet services.

3. BT responded as part of the LLU/WLR charge control consultation that, as there were shared products that were regulated via the previous LLCC and the LLU Comingling baskets, it would be difficult for Openreach to comply with both charge controls on the same products, as the timing and the level of price changes were different. We consider that as a matter of good regulatory practice, products should be regulated only via one charge control.

4. We also note that as part of the LLU/WLR charge controls, Condition FAA4(A).4 explicitly states that the LLU/WLR charge controls for the LLU comingling basket cover all comingling services irrespective of their use.

5. We therefore welcome the fact that the previous situation where regulation had been duplicated is not to be repeated.

6. We broadly agree with the format of RPI-X control as already discussed. Openreach agrees that the proposed RPI-0% control is appropriate.

7. We will be able to demonstrate compliance with the control by showing price movements for each and every item, but may not be able to demonstrate revenues with each specific item (particularly Access Locate) due to a lack of reported data on ancillary items. This is covered in greater detail, along with our proposed remedy, in our response to Question 10.

8. We agree that a cost orientation obligation should be removed from accommodation services in line with all other items.

Question 8: Do you agree with our proposal for charge controls for AI services in the WECLA? *If not, please explain why and propose an alternative approach with supporting information.*

Sufficient flexibility with sub-caps

1. We agree that a full RPI-X control is not appropriate for the WECLA and even a safeguard cap as proposed by Ofcom is not necessary. The proposed sub cap on AI services within the WECLA would prevent any nominal price increase. This is overly restrictive and does not allow the flexibility required for efficient pricing, with a particular issue on legacy products discussed below.

2. We believe the range between the RPI-X control and the sub cap should be broad enough to allow flexibility to support efficient pricing. The range in the last control was 12 points, which allowed for price increases. We would look for a range of at least 12 points again, and for some flexibility to increase prices, which would lead to a sub cap control of RPI-0%. This would offer appropriate protection on pricing given the proposed removal of cost orientation obligations.

3. If Ofcom does not agree that the cap should be RPI-0% on all items, then it should apply to legacy products at the very least. Ofcom states that Openreach can encourage migration from legacy to new products using price incentives. Under the control as proposed this is only possible by changing the relative prices (reducing the price of new products more than existing products).

4. As discussed in our BCMR response, we strongly support the removal of cost orientation obligations.

When to count circuits as being within the WECLA area

5. We understand that Ofcom only intends to classify any AISBO or MISBO circuit as being inside the WECLA market for the purpose of the pricing remedies (at least in respect of the element of circuit prices specific to each end of the circuit) if both ends are located within the WECLA. This is described in Ofcom's current consultation proposals for the BCMR.[14]

6. This is inconsistent with the approach used to regulate geographic product markets elsewhere, for example in the Wholesale Broadband Access Market Review – and is not appropriate given the nature of these services.

7. Ofcom should distinguish obligations on two separate types of wholesale service:
   a. Terminating segments, i.e. circuits from a business customer site to a CP network Point of Presence (PoP); and
   b. Wholesale End to End services (i.e. circuits between two business customer sites).

8. For terminating segments, the relevant geographic market should be determined solely on the basis of the location of the business customer end. Therefore, any circuits which connect a business customer site within the WECLA to a network PoP, wherever that PoP is located,should be entirely subject to the regulatory constraint appropriate to the WECLA area.

9. The wholesale end to end obligations should be regarded as an additional set of regulatory constraints and requirements – applying to circuits directly connecting two business customer

[14] BCMR paragraphs 11.234-11.237 and 12.169-12.1720

sites. In this case, we recognise that specific rules need to be formulated to specify how such circuits which cross the WECLA boundary should be treated. For these cases we agree with Ofcom's proposal that price components specific to each end should be treated within the geographic market relevant to each end, and the non-location-specific price elements should be treated according to the regulation applying outside of the WECLA.

10. We would highlight that currently the price structure of Openreach EAD products is such that there is currently no "local end" component specific to each end. However, we would wish to preserve the ability to change that aspect of the pricing structure, during the period of the control.

Rationale for the proposed charge controls on AI services in the WECLA

11. In general, the focus for Ofcom's regulation of wholesale leased lines markets is on the provision of "terminating segments" – i.e. circuits connecting a business customer site to a competitive (core) network. In this respect, the principle is common across several of the regulated UK product markets – including Wholesale Broadband Access and Wholesale Local Access as well as the Business Connectivity markets. For the wholesale AI market, due to the prevalence of wholesale circuits which are of a different form, connecting one business customer site directly to another business customer site, Ofcom's proposals include an additional "wholesale end to end" service obligation. In our view, it is important to preserve that clear distinction between the two types of obligation.

12. For terminating segments, we believe Ofcom should identify the relevant geographic market according to the location of the end point only – in common with WBA, WLA, PPCs, etc. So for AISBO and MISBO (and TISBO) this would be the location of the business customer end. The CP purchasing the terminating segment circuit, generally chooses which of its (or another CP's) network PoP to connect to. In general, the network end of such a circuit is located by definition at a point where there is competitive network presence – whether this is located inside or outside the WECLA. In those cases where a terminating segment circuit connects a business customer within the WECLA, to a network node outside of the WECLA, it is clear that the purchasing CP would have had plenty of choice of competitive network PoP within the WECLA to connect to if they so wished.

13. Currently, Openreach uses various specific products to meet both of these obligations, without necessarily restricting any specific product to be only used for any one of these purposes. So, for example, Openreach supplies EAD circuits, in some cases to meet the obligation to provide a terminating segment, and in other cases to provide an end to end service. This may be seen as a reason for Ofcom seeking to simplify the regulation by simply treating all the obligations as the same – and therefore treating all circuits crossing the WECLA boundary in the same way whether they are terminating segments or end to end circuits. it would be inappropriate to over-constrain the markets in this way. We would wish to preserve the freedom, in future, to differentiate prices for different types of product – and in such an eventuality would not expect regulation to inappropriately affect pricing for terminating segments crossing the WECLA boundary. In the meantime, we may choose to continue with the existing portfolio structure (which would in practice have the effect of "over-regulating" small volumes of circuit ends to a degree).

Question 9: Do you agree with our proposal for charge controls for retail analogue services? *If not, please explain why and propose an alternative approach with supporting information.*

1. In our response to the BCMR consultation document, we set out our view that BT should not be found to have SMP in retail low bandwidth TI leased lines. Nevertheless, and without prejudice to this view, we consider that if this proposal is confirmed at the conclusion of the BCMR, it would then be reasonable for:
   a. price controls to apply only to the analogue circuits within this market; and
   b. these controls to consist of a cap of RPI+3.25% on the retail analogue basket and a cap of RPI+10% on each charge within the basket.

2. The proposed cap recognises the need for BT to recover a reasonable amount of its retail and network costs from retail analogue leased lines, and it allows changes in these costs to be reflected in retail prices in order to encourage efficient migration to newer services.

Question 10: Do you agree with our proposals for the implementation of the new charge controls*? If not, please explain why and propose alternative approaches with supporting information.*

Introduction

1. In our response to this question we address the following points relating to the proposed new charge controls (please note that we have discussed the use of prior year weightings in our response to Question 5):

   a. basket control formula, and amendments required;

   b. level of sub cap;

   c. indices the controls are linked to;

   d. withdrawal and introduction of products;

   e. carry forward mechanisms;

   f. notice periods; and

   g. compliance

Basket control formula, and amendments required

2. We have reviewed the control formulas to test compliance. The basket control formula is better suited for calculating multiple price changes during the year (as discussed in paragraphs 10.37 and 10.38 in the consultation document) and as such is an improvement on the formula in the previous control. However we feel that certain definitions of the formula should be changed for greater clarity:

   a. The definition of *p0,i* is "save for the First Relevant Year of the control, the published charge made by the Dominant Provider…" There is no explanation of what *p0,i* should be for the First Relevant Year (as there was, for example, in the legal instrument in the 2009 LLCC). We believe this should be the prices charged for the relevant products as at 30 September 2012 (i.e. the price before the agreed price reductions made during the interim period between the lapse of the existing control and the coming into force of the new control). Even if the charge control is imposed for a full three years (rather than having a truncated first year), this definition would still need amending to make clear what would be *p0,i* in the First Relevant Year

   b. For all other years, the definition of *p0,i* of being the price "at the beginning of the relevant year" needs clarification that it is actually just prior to the beginning of the relevant year. If, for example, the charge control year commences on 1 October then *p0,i* would be 30 September. As discussed in the consultation document at paragraph10.39 the most straightforward approach to compliance with the basket control would be to introduce price reductions on the 1 October. However for those reductions to count towards compliance in that control year, this price reduction between 30 September and 1 October would need to be taken into account. Amending the definition of *p0,i* to be the day prior to the start of the relevant year would provide this.

   c. While the draft control references that the first control year may be less than twelve months, the definitions of *W1* and *Wt* do not reflect this. These also need to reflect the fact that the

First Relevant Year could be less than 365 days. As it will not be known until the statement is issued exactly how long the First Relevant Year will be, it is difficult to suggest drafting to cover this point. However, Ofcom should make any changes necessary to the legal instrument to address this issue if a shorter charge is imposed.

Level of sub cap

3. We agree with the formula for the price point control to test the sub cap.

Indices the controls are linked to

4. Paragraph 10.29 of the consultation document stipulates that RPI should be taken from the May prior to the start of the relevant year, which is published on 18 June. With a charge control commencing on 1 October, and a requirement to notify price increases with 90 days, It will be very difficult to implement price changes with suitable notice. Instead, the RPI from April should be used, which would bring the time between the RPI month and the start of the control year in to line with the WLR/LLU charge control. If the control commences later than 1 October, then the RPI from a more suitable month would need to be used. BT suggests using the month which is six months prior to the start date of each year of the charge control. Similarly the April GBCI should be used if the control starts on 1 October.

Withdrawal and introduction of products

5. Paragraphs 10.20-10.23 of the consultation document cover the introduction of a new product (or service) which wholly or substantially replaces an existing product, and that this new product would fall within the scope of the charge control. There are a number of situations where products are withdrawn or introduced, and Openreach has interpreted the legal instrument as set out in the following paragraphs: we would appreciate confirmation that this is correct:

Introduction of a new product which wholly or substantially replaces an existing product

6. The new product would be subject to the same control as the replaced product. In this situation, if there is a one to one mapping between the replacement and new products, we would expect that the prior year weight associated with the replaced product is transferred to the new product at the point at which the replaced product is withdrawn from new supply. This will incentivise price reductions on the new products, which would not otherwise have any weighting and therefore would not be effectively recognised by the control. This would also allow price reductions to drive migrations. Mapping from old to the new product would be agreed with Ofcom when withdrawal was announced.

7. However this would not be applicable if the replacement product falls into a product set which is not subject to the charge control (for example if new WDM products are launched that could be used as replacements for existing charge controlled products). Such cases should be treated as product withdrawals with no replacement product.

Introduction of a new product that does not replace an existing product

8. If a new product is launched that enhances the portfolio rather than replaces an existing product, we would not expect this to be covered by the control based on the wording of the draft legal instrument. In this situation, we would expect Ofcom to wait until the next charge control to

include the new product, if inclusion in a new control is warranted, by which time it would then have a prior year weight and the control would be more effective.

Withdrawal of a product with no replacement service

9. If a product is withdrawn with no replacement product (or where there is a replacement product which is not within the scope of the charge control), the prior year weight should be set to zero when the product is completely withdrawn from sale. This would mean that the product would be controlled for as long as it is provided. However if the product is already withdrawn from service at the start of a control year, its prior year weight would be set to zero. If this didn't happen, Openreach would only be able to comply with the control if there was a reduction in excess of RPI-X on all remaining products (as there would be a weighting with no percentage reduction possible).

Prior year weights

10. Where prior year weights have been referred to, this would also apply to the adjustment of prior year weights if Openreach's proposal in our response to Question 5 is accepted.

Carry forward mechanisms

11. We agree that the carry forward mechanism is an appropriate way to deal with price changes above or below the percentage change required by the basket. We believe this flexibility should be extended to sub baskets.

Notice periods

AI Notice period

12. We welcome the reduced notice period for price reductions and special offers of 28 days. We also agree that in order to have pricing come into effect as soon as possible (given there has already been a delay to the LLCC), a 28 day notification on all price changes for the start of the control is a pragmatic and appropriate proposal. We would request that the control is not implemented for eight weeks after publishing. This would give Openreach enough time to complete the work required to prepare price changes and complete internal governance processes prior to the 28 day notification period. This would still be extremely challenging to deliver given the hundreds of prices changes that may be required, but we appreciate that the control should be implemented as soon as possible.

13. We would like confirmation that the price change at the end of the special offer from the offer price back to the long term price would not require a 90 day notification period as long as it reverted to a price at the same level (or below) the pre offer price.

14. We feel the proposed approach to deal with the interim period between controls is appropriate. However the wording of the control formula is not currently consistent with this intent due to the weighting applying over 365 days. This has been discussed above.

TI Notice period

15. The 90 day period normally required for price changes means that there will be a lead time of up to four months for any price change because of the desirability for billing purposes of only making changes on the first day of the month. Therefore should Ofcom require the charge control to take effect from the date of their Statement, BT would inevitably have to make larger price changes to comply because they would not be implemented until after the effective date of the control. If the control takes effect part way through the first year, a four month lead time would significantly affect the size of the price change required.

16. Therefore Ofcom's proposed reduction in the notification period required for the first price change under the control to 28 days[15] is necessary if continuity of pricing is to be maintained. The only alternative would be for BT to anticipate the change by issuing a price notification in anticipation of the Statement with the likelihood that a further price change would be required to comply with the actual terms of the Statement when published

AI Compliance Issues

17. Paraqraph 10.43 stipulates that compliance data should be submitted within three months of the end of the relevant year. Due to difficulties in obtaining data, this may not be sufficient. Alternatively, a different approach to demonstrating compliance with the control could be devised. We discuss below the following specific compliance issues.

    a. Separation of the WECLA revenues for Ethernet Services

    b. Inclusion of ancillaries within the Ethernet Service basket

    c. ECCs

    d. Accommodation Services

    e. Specific items within Ethernet Services; and

    f. Confirmation of compliance

Separation of the WECLA revenues for Ethernet Services

18. In order to demonstrate compliance with the sub cap price control on products in the WECLA, only price information is required. However in Annex 8 Part 4 Condition 5.2 (d) iii) relevant revenues for each specific product are required. This should be removed from the information needed to demonstrate compliance, as it would not provide any benefit and adds an unnecessary burden on BT.

19. In order to demonstrate compliance with Condition 5.3 we would need to understand revenues for each specific product in the WECLA area. This geographic analysis is not currently available within Openreach but could be created in one of two ways.

    Option 1 - Derive from asset volumes:

    a. The inventory data base could be interrogated to search for circuits by postcode. This would provide a snap shot of the rental volumes at each month end;

[15] Paragraph 10.52

b. From these we could create a mid-month view as the best approximation of rental volumes;

c. The percentage split of volumes for each product (e.g. EAD LA 10Mbit/s) would then be applied to total monthly revenues to derive the revenue for each product outside the WECLA;

d. The same percentage split could be applied to other charges such as connections and ancillary items; and

e. It would take around three days to complete the historical reports and half a day each month to generate the data going forward. This is the approach that has been used by Ofcom and BT to model the WECLA revenues to date.

Option 2 - Obtain from billing back up:

a. We do not have the ability to report revenues geographically today. A new reporting system (Hermes) should be live during this control period. Geographic reporting of revenues has been designed into the system, however this is only at an exchange level as this is how Openreach is organised. There is no automated ability to report revenue by postcode. Given the reporting system is still in development, no changes are being accepted and we would be unable to amend the system to allow reporting for the WECLA until late in this control period, if at all.

b. There is postcode data available however, and in the absence of a system automated solution this would need to be obtained as follows:

   - Extract line item data from billing back up files from the Atlantis billing system each month. Circuit A-end and B-end postcodes are recorded in these files;

   - Build a database to capture circuit ID, postcodes and revenues for each billed item. This could then be interrogated to report revenue by postcode. This would be of significant scale to capture all billing data;

   - Circuit rental charges are associated with a postcode in the billing file, but other items are not. We would need to match main link charges to a circuit using the circuit ID and identify the appropriate postcode;

   - For connections, the information could only be obtained indirectly, using the circuit ID code to identify the postcode; and

   - Ancillary items have a similar issue but can be more complicated. For example the billing system will record EAD migration. We can trace that it is, for example, a migration to EAD 100Mbit/s from the circuit ID, but the only way to check if this was from EAD 10Mbit/s, WES 10Mbit/s or WES 100Mbit/s etc. is to check for a corresponding cease.

c. This method has the advantage of being linked to the billing system and will require fewer assumptions. However the information will be far more onerous to obtain, requiring specialist resources to build the initial database. The database would be of significant scale in order to replicate our billing system. This would take a few months to initially set up and cost around [✂].

d. We believe it would be disproportionate to provide data from the billing system and therefore we consider Ofcom should agree to Option 1, and continue to derive a revenue split from the inventory system.

Inclusion of ancillaries within the Ethernet Service basket

20. Ancillary items have low volumes and revenues associated, and as such we do not currently report these items. In the future this data should be available within the Hermes revenue reporting system. This is not currently operational but should be at some point during the control period. A work-around therefore needs to be agreed.

21. In order to demonstrate full compliance we would need to obtain this data from the billing system back up files, similar to the method for splitting out WECLA revenues as described above. This is more complex for ancillary items as when the data comes from the COSMOSS system to the Atlantis billing system detail is lost. We will see "EAD migration" but not detail on what the circuit was being migrated from and to. We could track this by comparing the circuit ID to a product to try to match against a cease and connection and then make assumptions about the corresponding cease.

22. Obtaining this data is possible, but the information will be onerous to obtain, requiring specialist resources to build the initial database. This would take a few months to initially set up and costs of around [✂]. There are approximately 100 items included within the ancillary category.

23. In the past, Openreach and Ofcom have informally agreed pragmatic workarounds to be able to avoid this data processing burden for the LLCC and WLR /LLU Charge Control. Ofcom recognises the issues in obtaining the data on this multitude of small value items. In annex 5.16 Ofcom states:

> "*we propose to only model core services. There would be a significant amount of additional data and assumptions required in order to forecast the volume of ancillary services. The table below shows that they make up a small proportion of the Ethernet market*."[16]

24. Given all these factors, the best way to manage compliance on ancillary items would be to remove them from the main basket. The proposed sub cap could still apply to safeguard future prices. In this situation only price information would be needed to demonstrate compliance and not volume or revenue data.

25. Given that Ofcom has not modelled the costs or revenues from ancillaries to calculate the value of X, Ofcom should not have any concerns with this approach. In fact including ancillaries within the basket when they have not been included to calculate X would result in Openreach reducing revenue by more than intended.

ECCs

26. The sub cap pricing control on ECCs can be demonstrated by providing prices for the items throughout the control period and the calculation of the percentage changes in line with the test formula. However in Annex 8 Part b Condition 5.6 (d) Ofcom states that to demonstrate compliance Openreach will need to provide all relevant revenues for specific products.

[16] Annex 5.16

27. This would be an onerous activity to generate revenues (similar to the process for ancillary items of generating the data from billing back up line item detail). Given that it is not required to demonstrate compliance, item (d) iii should be removed from the compliance monitoring conditions.

Accommodation Services

28. We assume that where overlapping items are regulated by the WLR/LLU Charge Control, compliance will need to be demonstrated under that control only. To demonstrate compliance with the control twice a year would be onerous and provide no extra value.

Specific items within Ethernet Services

29. Within the meaning of services are “Shifts and Cancellations”. These items do not have a charge in their own right (and are derived from the price of another product), and so we will be unable to demonstrate compliance with the price control sub cap. We would like confirmation that if the prices these products are derived from are compliant, then by implication so are these items provided that the relationship between them does not change. For example, where an EAD circuit is cancelled with less than two days’ notice there is a charge of 95% of the connection charge. If the EAD connection charges are compliant, the cancellation charge would also be complaint if the 95% remains constant.

30. Within the meaning of WECLA services, EBD 10Gbit/s and EBD ER 10gbit/s circuits have been included in the definition. It is our understanding that this is an error and they should be removed from the final statement as they are MI circuits not subject to price control in the WECLA.

31. Within the meaning of all other Ethernet services we find that EBD modify/upgrade charges for 1Gbit/s to 10Gbit/s and 1Gbit/s ER to 10Gbit/s ER have been excluded. It is our understanding that this is an error and they should be included.

32. Within the meaning of all other Ethernet services we find that migration charges from BES to OSA have been included. A migration to OSA is essentially a connection to that service. As the charge control does not apply to optical services, these migration charges should not be included in the definition. This is consistent with the definition of WECLA services where migrations from 1Gbit/s circuits to uncontrolled 10Gbit/s circuits have been excluded.

33. In the Legal Instrument, Ofcom has identified a number of items that should not be classified as products. We understand that these have been included because the items have been presented unclearly in the price list, and so will make corrections to the price list to resolve this. The items that should be removed from the definition of services are listed in Annex 4.

Confirmation of compliance

34. Openreach considers it would be beneficial to itself and other stakeholders for Ofcom to formally verify that the price control requirements are being met, within a month of Openreach supplying the compliance data. This ‘signing off’ arrangement should provide greater confidence and certainty to all stakeholders that Openreach is complying with the charge controls.

Question 11: Do you agree with our approach to cost forecast modelling? *If not, please explain why and propose an alternative approach with supporting information.*

General comments

1. BT agrees that Ofcom should base its modelling on financial data from the RFS and use the well-established modelling approach used in previous charge controls. However, there are a number of specific issues which Ofcom should address, which are outlined below.

2. Ofcom has published its model as part of its consultation for the charge. This model contains the formulae that Ofcom has used to construct and calculate the X(s). BT has had a relatively short time period to review the model, which is detailed and complex, spanning over 100 different excel tabs. BT will continue to review the model and will raise any further issues or questions with Ofcom.

Operating cost calculations

3. Before moving on to specific issues regarding choice of assumptions, we question the forecast of operating cost used in the modelling. This includes a term (1+APC(t)) to reflect the impact of price changes on costs (reference table A5.22). The APC(t) term is defined as the "real asset price change", this being the difference in value of assets over and above general inflation.

4. BT believes that this is not appropriate to apply real asset price changes to operating cost , and instead a forecast input price inflation term for pay and non-pay costs should be used[17]. This is because there is no reason to believe that unit pay costs should change in line with the valuation of underlying assets.

5. For pay costs, it would be expected that these will increase at a small margin higher than the rate of general inflation as the workforce shares in the value of efficiency improvements. For non-pay costs, in the absence of any detailed evidence of input price changes, it is reasonable to assume these increases by the rate of general inflation.

6. BT therefore suggests that the term (1+APC(t)) be removed, and separate pay and non-pay input prices assumptions included. These should be justified by reference to evidence on input prices, as it is inappropriate to simply use an asset price index as this bears no relationship to the input cost inflation of pay and non-pay operating costs.

7. BT suggests that pay cost increase by 1% p.a. in real terms whilst non-pay costs increase at the rate of general inflation (i.e. at a rate of 0% above RPI). This is because pay increases will usually be linked to increases in productivity, so where efficiency is improving this provides the means by which employees are able to share in the productivity gains through pay increases at above the rate of inflation. Long term historical trends in pay inflation support a real wage increase[18].

[17] BT believes that in the detailed modelling, Ofcom has included pay and non-pay input cost inflation factors, but this is not reflected in the documentation of the model calculations set out in A5.22 of the consultation, where the term APC(t) has been used in place of an input price inflation term.

[18] BT's analysis of ONS data for real average UK wage earnings from January 1991 to July 2012 shows a real wage increase of 0.9%.

Specific issues on Ofcom's modelling approach for the TI control

8. BT considers that the majority of Ofcom's assumptions in relation to key inputs appear reasonable. However, BT believes there are a number of aspects of the TI cost forecast modelling that need to be revised.

21CN Assets and the ongoing hypothetical network modelling approach

9. As explained in our response to Q4, BT believes that Ofcom should make adjustments to depreciation and mean capital employed to represent properly the costs of an ongoing hypothetical network. By using values from the RFS without adjustment, Ofcom risks pricing TI services on the basis of a "run down" network with insufficient allowance for replacement capital expenditure, some of which is now being spent on investment in 21CN assets. This is especially relevant when considering depreciation and mean capital employed, where depreciation should be based on a gross book value divided by the expected economic life of the assets employed, whilst Net Replacement Cost would be expected to be around 50% of the Gross Replacement Cost.

10. The justification for removal of 21CN assets in the 2009 LLCC was that Ofcom adopted the use of an ongoing hypothetical network[19]. The alternative is to include the 21CN costs and identify the actual cost facing BT. The exclusion of 21CN costs can only be justified if an ongoing hypothetical network cost basis is used, with appropriate adjustments to reflect a steady state network using the technology neutral modelling approach as set out in the 2009 LLCC Statement.

TI operating cost efficiency target

11. The efficiency target reflects past efficiency improvements, and does not reflect the increasing difficulty to achieve further efficiency gains with old technology assets. Ofcom should therefore make a downward adjustment to the efficiency target to reflect this if assets are to be valued using an anchor pricing basis.

Specific issues on Ofcom's modelling approach for the AI control

AI Forecast Volumes

12. BT submitted its forecast volumes to Ofcom for the purpose of the charge control in December 2011. This was based on connection and rental "run rate", customer feedback and plans, analyst views and economic forecasts in the preceding period (six to nine months). There was no update prior to Ofcom issuing its consultation document in July 2012.

13. The AI market and the downstream markets it serves are characterised by a high rate of innovation and change and the end customers of the services are particularly vulnerable to the worsening economic situation. Since Jan 2012, Openreach has experienced demand each month below forecast and CP feedback suggests this will persist in the medium term.

14. In order to get an independent view of current and future demand Openreach commissioned Analysys Mason to conduct an analysis of the UK market. Their report is attached in Annex 5. The key conclusion from this market research, of a CAGR in low single digits to 2016, is not

[19] See s 4.129 of the Leased Lines Charge Control Statement, Ofcom, 2 July 2009

consistent with our current view of future demand but we are considering how it might influence our forecasts going forward. However, it does highlight that BT's and Ofcom's forecasts are not as conservative as those of others, and the size of the market going forward may well be much lower than we forecast at the end of 2011.

15. That said, our current view is that the Openreach forecast we provided to Ofcom last year was too bullish for the charge control period, mainly due to lower than forecast demand to date, and direct market insight that this trend that is likely to persist. We therefore believe that Ofcom should reduce its forecast volumes.

AVE/CVE approach

16. We have three separate comments upon the AVE/CVE approach relating to the Access Fibre AVE, the multiplication of CVE by AVE and of the arbitrary adjustment of the General Management and Other CVE.

Access Fibre Asset Volume Elasticity

17. As Ofcom has stated[20], BT has provided Ofcom, on request, with Asset Volume Elasticities (AVEs) and Cost Volume Elasticities (CVEs) following the same methodology used in the previous LLCC.

18. However, BT does not believe that it is always appropriate to calculate AVEs and CVEs using Cost Volume Relationships (CVRs) within the Long Run Incremental Costing (LRIC) system. This is because the LRIC system uses a decremental [21] approach which may not be relevant to forecasting future cost movements. This approach is appropriate where the network has largely been built (in terms of national coverage) and volume changes are a result of an existing network being used more (or less) intensively. Intuitively, the Access Fibre AVE should be relatively high as the growth in Ethernet services has led to expansion of BT's access network where there are few opportunities for economies of scale. In such circumstances, we would expect relatively low fixed common costs, which implies a high AVE. However, the Access Fibre AVE is 0.13[22], when we would expect an AVE near 1.

19. We have further evidenced our belief from the RFS that the AVE is understated. The per circuit HCA unit costs for Access fibre for WES and BES Ethernet services increased by [✂] between 2007/8 and 2008/9; by [✂] in 2008/9 to 2009/10; and by another [✂] for 2009/10 to 2010/11. It shows that the unit cost of Access Fibre is increasing over time as volumes have increased which would support an AVE of more than 1. This is clearly not consistent with a very low AVE of 0.13.

20. We propose a more robust Access Fibre AVE. We have used Ofcom's approach to financial modelling of capex to calculate a superior estimate[23]. We have re-arranged Ofcom's formula in order to estimate the AVE as a function of the capex, CCA GRC, APC and rental volume change.

[20] A5.112

[21] CVRs are constructed by calculating how much cost would be avoided if we no longer had the volume of services provided in that year. If the asset (or cost) to volume relationship is a linear one, say 0.1, then this would mean that 90% of costs are fixed. In other words, if volumes reduced by half then total costs would fall by 5%. Likewise, 50% more volumes could apparently be added for just 5% more total cost.

[22] Table A5.12

[23] See Table A5.20, and specifically the formula for "Additional capex"

$AVE = Capex_{(t)} / [GRC_{(t-1)} \times (1+APC_{(t)}) \times Volume\ change\ \%_{(t)}]$[24]

21. We used four years' data (2008/9 to 2011/12) to make three estimates of the AVE on rental volumes and these come out at [✂], [✂] and [✂], giving an average of [✂]. Alternatively, defining the AVE as the percentage change in GRC divided by the percentage change in rental volumes gives an AVE of 0.80.

22. In summary, BT believes that the AVE for new fibre circuits is much higher than 0.13 and our own analysis generates a range from 0.8 (from capex analysis) to 1 (from analysis of RFS). To correct this error, Ofcom should change the fibre AVE to 0.8.

Multiplication of CVEs by AVEs

23. BT does not believe it is logical to multiply each components' CVE by AVEs. The CVEs are derived from the CVRs within BT's LRIC model. The CVR of operating costs typically show how operating costs change with, as the volume driver, asset volumes. There are also CVRs for assets which show how asset costs change with the component volumes. The Asset CVRs from the LRIC model have been used as AVEs, whilst CVEs have been derived from the Operating Cost CVRs.

24. As the LRIC model has Operating Cost CVRs showing relationship between operating costs and asset volumes, the relationship between asset volumes and component volumes must also be included to derive a relationship between operating cost and component volumes. To derive CVEs from the LRIC model, BT therefore multiplied the Asset CVR by the Operating Cost CVR to derive a CVE. As such, BT believes the CVEs derived already include the impact of multiplication of a CVR by an AVE.

25. Whilst Ofcom states that BT has proposed CVEs be multiplied by AVEs[25], we feel this misrepresents BT's position. BT replicated what was done in previous charge controls by Ofcom and, on request from Ofcom, also explained how the CVEs were derived. Ofcom have seemingly misunderstood this explanation and now present it as BT's proposal.

26. Notwithstanding how BT and Ofcom have arrived at this adjustment, multiplication of each component's CVE by AVEs is flawed as a principle and is not justified. This is because the AVE factor has already been incorporated into the CVE estimates provided by BT to Ofcom when these were derived from the LRIC Model.

General Management and Other

27. Ofcom proposes making a reduction of 10% to the submitted CVE for the category of 'General Management and Other' and for the CVEs for other categories of administration costs not linked to specific services. Ofcom has provided no evidence to support this reduction apart from reference to "analysis of the data available on the level of such shared costs within BT's data".[26] Moreover, Ofcom also states that this adjustment has "limited impact". Accordingly, we propose that Ofcom remove this adjustment on the basis that it does not have a material impact.

[24] BT has used the same definitions as Ofcom

[25] A5.116

[26] LLCC, paragraph A5.122

Forecast Efficiency Gains

28. Ofcom splits efficiency into two elements – operating cost efficiency and capital cost efficiency.

Operating Cost AI

29. Ofcom's operating cost efficiency target of 3.5% takes no account of the investment required to achieve productivity gains, either in terms of investment in capital equipment, new processes or in the cost of reducing headcount through leaver programmes. Ofcom recognises that its target is a gross efficiency target[27]. It also the case that Ofcom takes insufficient notice of external benchmarking, such as the Deloitte studies. These suggest that the benchmark trend rate of unit cost reductions is of the order of 2% per annum.

30. Whilst Ofcom has some concerns about the findings of the study, nevertheless this provides useful information about the trend rate of productivity improvements that can be expected in major European telecommunications companies, including BT.

31. One further factor that Ofcom has not taken into account, is the fact that past productivity improvements may well have involved BT "catching up" with the efficiency frontier. Further productivity improvements become more difficult as the "catch-up" element diminishes, and as easy-to-do productivity improvements are implemented.

32. Consequently, BT believes that the AI efficiency target should be reduced by 1% point to a range of 1% to 4%, with a mid-point value of 2.5%. This would reflect both the cost of the investment needed to achieve productivity gains, and also recognise that an element of the past unit cost improvements relate to BT catching-up with best practise, and hence that past unit cost achievements cannot be expected to continue indefinitely in future at the same rate.

Capital costs AI

33. Ofcom's approach for capital cost efficiency for the AI control is to use the Modern Equivalent Assets costing (MEA) and asset price changes. The MEA approach assumes that Ethernet services are provided using the most efficient technology available.

34. The use of MEA is potentially very material for the estimation of the relevant X. We estimate that the adoption of the MEA approach has increased considerably the effective efficiency assumption for Openreach. If MEA approach is to be used, then Ofcom should also recognise that moving to MEA has an extra cost to Openreach in terms of the stranded assets which we explained in our answer to Question 5. Openreach therefore suggests that either Ofcom uses an efficiency factor of 2.25% on future Capital Expenditure (consistent our position with regard operating cost efficiency, as explained above) or that if a higher capital efficiency assumption is made because of the MEA approach, then the impact of stranded assets caused by a switch in technology should be factored into the X in order to ameliorate the "super-efficiency" target upon BT's capital costs.

[27] LLCC, paragraph A5.100

Question 12: Do you agree with our assumptions of key inputs? *If not, please explain why and propose an alternative approach with supporting information.*

1. To avoid repetition in this response, BT has responded on Ofcom's key assumptions in other questions which cover the modelling assumptions, in particular Questions 4, 5 and 11.

AI Key inputs

- Base Case Cost Adjustments (Question 5)
    - Geographic costs
    - RAV adjustment (also Annex 2)
- Volume Forecasts (Question 11)
- MEA approach (Question 11)
    - Operating cost and capital cost efficiency
    - Access Fibre AVE/CVE
    - Stranded assets
    - Asset price changes
- Return on capital (Question 14).

TI Key Inputs

- Base Case Cost Adjustments (Question 4)
    - Exclusion of 21CN costs
    - Payment terms adjustment
    - PoH adjustment
    - RAV adjustment (also Annex 2)
- Main Forecasting assumptions (Question 11)
    - Input cost inflation
    - Operating cost and capital cost efficiency target
- Return on capital (Question 14).

Question 13: Do you agree with our approach in relation to POH charges? *If not, please explain why and propose an alternative approach with supporting information.*

1. The approach in relation to POH charges to include these services in a separate basket without adjustment to starting prices is both sensible and pragmatic. Given the large number of low value products on the price list, an extensive costing exercise to review all prices would have had a disproportionate resource cost for little benefit.

2. BT agrees that there should be no starting price adjustments for the reasons Ofcom sets out in the consultation document and that POH services should be in the wider TI basket. This ensures that the common costs not recoverable in POH charges can be recovered elsewhere within the TI basket.

3. However, BTdisagrees that the level of the sub-cap should be RPI-0% as Ofcom has not considered how the costs recovered within POH are likely to move over time. Given prices are set by reference to incremental cost there is less opportunity to achieve efficiency gains in the provision of POH services by exploiting economies of scope. Maintenance and repair costs of the POH equipment may increase as a result of the ageing technology used in PPCs. It is also not possible to achieve greater economies of utilisation for POH as the pricing is based on the physical handover rather than a per circuit charge. For these reasons, it is more challenging to achieve cost reductions and so the level of the sub-cap should therefore equal the overall price cap for the TI basket.

Question 14: Do you agree with our proposals for the treatment of cost of capital? *If not, please explain why and propose an alternative approach with supporting information.*

1. In Annex 7 of the consultation document, Ofcom sets out its proposals for estimating BT's cost of capital in setting the charge controls for leased lines services. In substance, the analysis and detail set out in this consultation repeats the analysis contained in the LLU and WLR charge control decision of 7 March 2012. That decision in turn set out Ofcom's view that its estimate of WACC should remain as set out in the July 2011 Wholesale Broadband Access charge control decision.

2. We agree that in setting charge controls for leased lines services, Ofcom should use the 'Rest of BT' WACC rather than the disaggregated WACC for the copper access business. Ofcom's reasoning at paragraphs 4.92 to 4.95 is in line with previous regulatory decisions and remains valid.

3. However, we do not agree that Ofcom should continue to effectively rely on the assessments it made in July 2011 to estimate the value of the 'Rest of BT' WACC. Ofcom should fully review all parameters based on the latest available information. We believe this would support a higher WACC than the pre-tax real cost of capital proposed of 6.5% (9.7% nominal).

4. The analysis in Annex 7 of the LLCC consultation document basically concludes that observed (upwards) movements in rolling averages for BT's Beta and (downwards) movements in BT's gearing would not materially change the previous July 2011 estimate of BT's cost of capital given downwards movements in the parameters used to estimate the risk free rate in the July 2011 decision.

5. However, Ofcom's assessment in the LLCC appears to rely exclusively on the data used in the March 2012 WLR and LLU Charge Control decision – i.e. historic data sets running up to January 2012. Ofcom does not attempt to re-estimate BT's Beta or the risk free rate from the updated data. Our assessment based on data sets running to August 2012 suggests that, following a similar approach to that adopted in making the initial July 2011 estimates, revised estimates on those individual parameters would be unlikely to simply 'net off' overall and an increase in the WACC would be justified.

6. Most notably, we highlighted at the time of the July 2011 decision that Ofcom was using estimates of BT's Beta and gearing that were heavily skewed by rolling averages which captured a period where there was a sharp fall in BT's share price due to a profit warning in BT's Global Services division. The low share price (and resulting reduced market capitalisation) impacted on the level of gearing and we argued that the rolling averages were not providing informative information to establish the forward looking WACC. Notwithstanding Ofcom's decision at that time and the detail of issues raised in our appeal of the July 2011 decision, the data sets themselves have now moved on significantly. The recovery in the share price since the 2010 profits warning and the ongoing reduction in BT's level of debt has moved rolling averages back in line with longer term trends and future market expectations.

7. The data against the parameters for gearing and equity/asset betas shown in Table A7.1 is simply unsupportable by current data sets. For instance:

    a. Table A7.1 shows the July 2011 WACC estimate was based on assumed gearing of 50%. Most recent data shows the 2-year average gearing below 40%;

b. The current data on BT's Equity Beta shows this to be at the top end of the range shown in Table A7.1 when the midpoint would have driven WACC estimates; and

c. Measures of BT's asset beta (driven by gearing) are now above the range set out in Table A7.1.

8. We note that each of these points is reflected in Ofcom's own Table A7.2 based on January 2012 data.

9. We also note that the data presented by Ofcom on the risk free rate and the changes in the corporation tax rate. However, for the estimate of the WACC to remain unchanged – as proposed by Ofcom – despite the changes in beta/gearing detailed above would require a significant reduction in the risk free rate compared to the view taken in July 2011. While we accept the direction of the movement in the data on gilt yields, we do not believe a shift of in the estimate of the risk free rate of the magnitude required to maintain a flat WACC is warranted. Furthermore, it is recognised that the global macro-economic climate has had an impact on UK gilt yields ("flight to quality" from the Euro-zone as well as impact of QE) and this suggests additional caution is required in estimating longer term rates.

10. Overall, while we welcome the comments at paragraph A7.59 that Ofcom would consider any changes in parameters prior to making a final decision on these controls, we would urge Ofcom to conduct a more thorough review of the evidence at the earliest opportunity to ensure stakeholders have the opportunity to engage effectively in that process before a decision is made. We believe a higher WACC is justified.

11. Finally, we would note that the data sets up to January 2012 which provide the backdrop to Ofcom's assessment in the consultation document could be as much as a year out of date by the time a final decision is made establishing the basket controls for leased lines. The need for 'consistency' and 'certainty' over time should not over-ride the need to make fresh judgments in different controls based on a transparent assessment of the latest available information. To do otherwise risks attaching longer term relevance to the data actually relied upon in July 2011 to estimate WACC for a charge control running to March 2014 than is actually warranted given changes in financial markets in the intervening period and the current need to estimate WACC for charge controls running to October 2015.

Annex 1

Prior year weightings when there is migration from one technology to another

As shown in this paper, the use of "prior year weighting" for the control will tend to make it difficult for Openreach to achieve the RPI-X in such a way as to reduce prices of new technology services such as EAD compared to old technology WES, in order to stimulate migration from old to new, without Openreach giving away significantly more than "RPI-X" throughout the control period in revenue terms. This problem arises due to the relatively large growth rates of Ethernet product volumes simultaneous with a period of technology change, and hence has not arisen in other charge control reviews.

Under any rational hypothetical price profile, either:

- Openreach meets the RPI-X control seeking to make price reductions on EAD in excess of RPI-X to increase the differential.

  Because of the small relative prior year weight on EAD this would result in Openreach reducing revenue by up to [✂] more than required under the control over the three year period (i.e. if RPI-X was applied evenly to every product).

  This could even result in revenue heading below cost at the end of the control – clearly a bizarre and unintended consequence of the charge control.

- In an alternative hypothesis where Openreach seeks to make the required RPI-X reductions with prior year weightings in such a way as to limit the revenue reduction to that required by the control, this would likely result in the price differential between WES and EAD not being sufficient to support migration.

  This would mean customers would not benefit from the superior features and benefits of new products.

To be clear, the key factors which will drive our pricing approach in this area include:

- It is clearly desirable to manage the shift of volumes from old to new technology platforms such that the benefits of the new technology are felt by the market in reasonable timescale – i.e. we want to go with the grain of industry expectation for the technology move and industry are receptive to this desire. We are not intending to foist the new technology on an unwilling market.

- As with any commercial company, we do need to consider very carefully the commercial impacts of all our pricing decisions. If the prevailing charge control regime incentivises particular approaches we will of course need to consider all options, even where this tends to act against broader goals.

Openreach would like to continue to work with the Ofcom team to find a suitable alternative to the prior year weights approach for this charge control period. The pros and cons of a number of possible options have been considered.

Openreach propose that two specific changes should be made to the proposed control:

- Start the control on 1st April 2013 for three years with a prior year of April 2012 – March 2013, only 12 months prior; and

- Amend prior year weights by the forecast product growth/decline to combine the certainty of prior year weights with the appropriate current year weighting.

Applying these two changes would reduce the issue. If Openreach made price changes that encouraged migration, this would reduce the financial penalty on Openreach from [✂] over the control to [✂]. We appreciate that this is a complex issue and so have assessed a number of options to resolve this issue (discussed further in section five). We would welcome working further with Ofcom to find the optimal solution for the market.

1. Ofcom propose to use prior year weights to assess compliance

The use of prior year revenues to weight basket price movements has been used across charge controls previously because it provides certainty.

Ofcom discuss an alternative in the consultation document: using current year weights. This has been rejected primarily due to uncertainty leading to retrospective adjustments to correct forecasting errors. In the 2009 LLCC, Ofcom also referred to the risk of Openreach 'gaming' the control by manipulating the forecast.[28]

The prior year (relevant financial year) is defined as the 12 months ending 31st March immediately preceding the relevant control year, which means in the case of the LLCC it is 18 months prior. With the delay in the first year of the control the issue is even greater as there will be almost two years between the "prior year" and the implementation of the control.

2. Issue of using prior year weights for Ethernet Services in the next LLCC

Within the consultation document Ofcom acknowledge there is a disadvantage with prior year weights "where the revenues from different products within a basket are expected to change markedly relative to each other over the period of the charge." [29]

Ofcom also reference two areas where this will be the case:

1. The migration of legacy volumes to new technologies which is discussed in 6.107 of the consultation document.

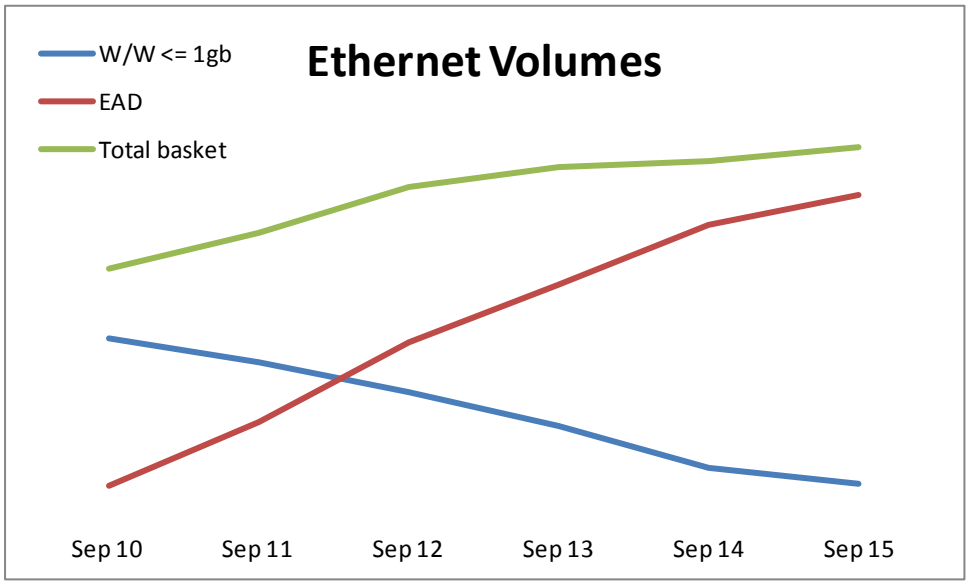
2. The significant variations in revenue growth by product over the period of the control. Ofcom point out in A5.58 pointing out there will be significant growth in high bandwidth services during the period of the control

The first issue can clearly be seen in the graph below that shows the circuit volumes (revenue system size) for all Ethernet Services products, EAD and WES up to and including 1Gbit/s. The gradient of the lines shows the rate of growth or decline. For EAD this is particularly steep (rapid growth) between the "prior year" (April 11 to March 12) and first year of the control (October 12 – September

[28] Ofcom, *Leased Lines Charge Control – A new charge control framework for wholesale traditional interface and alternative interface products and services*, Statement, 2 July 2009, paragraphs 3.121-3.122.

[29] Ofcom, *Leased Lines Charge Control 2012 consultation document* paragraph 4.115

13). This is even more pronounced for some specific EAD products. This demonstrates the dangers of using out of date "prior year" data.



Source: Ofcom LLCC model

The proposed control using prior year weights would mean that "if Openreach wishes to make all price reductions on EAD services (and not on legacy Ethernet services) to encourage migration, prior year weights would mean that the price reduction required would be greater than if in year weights were used." [30]

This is exactly the situation Openreach are facing: Greater price reductions will be needed on new products relative to legacy to encourage migrations and in this situation, the use of prior year weightings means Openreach will be over penalised in terms of revenue reduction. The control therefore leads to a situation where the incentive is towards price reductions on legacy products – inhibiting self-selecting migration by customers.

Ofcom state in 6.109 that they believe the existing differential between WES and EAD prices is enough to maintain a differential for the three years of the new control despite this issue. The premise is that if the current differential is sufficient to drive migrations then it will remain sufficient during the three years of the control. However that could only be the case if the WES and EAD prices were reduced by the same amount over the control. This does not provide Openreach with any pricing flexibility and counteracts the benefit of a broad basket covering both WES and EAD. Openreach believe the current differential is not sufficient, and furthermore it does not exist between BES and EBD (where BES is priced lower than EBD today, see table below).

Openreach commissioned research earlier this year on migration from legacy to new and the price changes that would be required to drive this. There are factors other than price which affect this decision, and a notable minority would not migrate regardless of the price (even if EAD were free). The majority of volumes would not migrate unless EAD rental prices were reduced by 20%. This would suggest a higher differential is required than exists today (see table below).

[30] Ofcom, *Leased Lines Charge Control 2012consultation document* paragraph 6.107

Current differential between charges (£/annum)

	WES	EAD	% difference
10 mbit/s	3,544	3,353	-5%
100 mbit/s	4,260	3,629	-15%
1 Gbit/s	9,060	7,779	-14%

	BES	EAD	% difference
1 Gbit/s	7,528	7,782	3%
10 Gbit/s	25,570	30,400	19%

Prices are for rental only excluding main link and connection
WES and BES prices have been doubled to equate two ends to a single EAD circuit.
Prices as per Openreach price list effectve 1st October 2012. Band A selected for EAD.

Required Year 1 differential based on customer feedback

	WES	EAD	% difference
10 mbit/s	3,544	2,682	-24%
100 mbit/s	4,260	2,903	-32%
1 Gbit/s	9,060	6,223	-31%

	BES	EAD	% difference
1 Gbit/s	7,528	6,226	-17%
10 Gbit/s	25,570	21,280	-17%

[✂] we expect this differential to have to increase over the three years of the control, to encourage more reluctant customers to migrate.

Please note the current differential between WES and EAD does not match the table within with Ofcom consultation document in 6.108. It is our understanding that Ofcom have not selected the correct charges for their comparison.

2. **Effect of incentives**

To comply with the control Openreach would prefer to make price reductions on new products such as EAD and EBD in excess of RPI-X for the following reasons:

- Benefit of commercially driven low prices taken nationally even where there is no competition which will benefit end customers
- Increase the current differential to encourage self-selecting migration from legacy to new. Customers benefit from the improved features of new products. Also allows Openreach to operate efficiently (as assumed by the MEA approach).
- High volume products benefit the largest number of customers (as opposed to price reductions on legacy which is closed for new supply)
- Stimulate growing markets

Openreach believe that this would bring the greatest benefit to the national market. However, if price reductions are made to new products, Openreach will reduce revenue by more than required by the RPI-X control because the low prior year weighting. This will not be affordable as the control is

currently proposed, as the revenue reduction would be [✂] [31] than required under the RPI-X control. This could also lead to the unintended consequence of revenue falling below cost at the end of the control.

Alternatively, if the in year revenue reduction was constrained to the amount required by the RPI-X control, a rational approach would be to make significant reductions to legacy products to balance reductions on new products. Openreach believe that the control as currently proposed could lead to a situation where legacy is priced far lower than the comparable new product. We have modelled an illustrative scenario that makes price reductions on EAD and EBD slightly in excess of the RPI-X control, balanced with reductions on legacy so that revenue reduces by the amount required and the control is complied with. This leads to a differential between legacy and new as shown in the table below.

[✂]

These prices would not benefit the wider market, as there are significant price reductions on products withdrawn from new supply. These prices would also significantly inhibit self-selecting migration. It would also lead to a price shock when the legacy services are withdrawn from support as customers would experience a significant price increase as they adopt the new products. By encouraging customers to remain on legacy products, the wider market will not benefit from the features and services that the new products provide, and the market benefit from innovation will be less.

In conclusion use of prior year weights as proposed will either:

- Financially penalise Openreach if price greater relative reductions are made to new products to support migration; or

- Incentivise price reductions on legacy products which would:
  - Distort prices away from where an efficient market would determine them
  - Inhibit self-selecting migration, reducing the market benefit from innovations on new products
  - Limit the extent of price reductions possible on new products
  - Favour discounts on products that have been withdrawn from new supply, which could lead to a market shock when legacy products are fully withdrawn and customers move to new technology.

3. Alternative proposals

Openreach have considered a number of alternatives to prior year weights as proposed in the LLCC consultation document. The full ranges of options is at the bottom of this section, but Openreach propose two complementary options that offer the best balance between efficient market pricing, certainty and simplicity, both of which we believe should be implemented by Ofcom.

[31] [✂]

A. Prior year should be the 12 month period immediately before the control starts

The current 18 month time lag between the "prior year" and the control year exacerbates the issue of different relative growth rates. This is particularly the case in the first year when the growth in new technology circuits is at its greatest, and the lag at its longest.

If the control implementation is delayed so that it will begin around 1st April Openreach would welcome this becoming the start point for a full three year control. This would allow the prior year to be the financial year that has immediately completed (2012/13 for the first year of the control). The relative growth rates will be closer because of the shorter time lag, and the prior year could easily be reconciled back to the regulated financial statements.

This has all the advantages of simplicity and certainty of prior year weights, but with a smaller distortionary effect on prices.

B. Simple adjustment to prior year weights

The distortion to prices is caused by the high weight attached to declining legacy products. Openreach propose to amend prior year weights to a current year view. This would be done by amending the prior year revenue by the movement between prior year volumes and forecast current year volumes (assuming volumes from the Ofcom LLCC model).

This would have the certainty benefit of the prior year weight system, while reducing the distortionary impacts as weightings would be brought in line with current year. It is also simple to understand, calculate and demonstrate compliance with.

Unlike using current year weights, there is certainty and no need to 'true up'. However some could criticise this as it uses forecast volumes to adjust prior year weights. However if this forecast was the volumes used within the Ofcom modelling, then it adds no greater risk of forecasting that is already inherent in the charge control setting process.

We believe both these proposals should be implemented (though they could be applied separately). If implemented the issues would be largely resolved. If Openreach made price changes that encouraged migration, this would reduce the financial penalty on Openreach from [✂] over the control to [✂]. However the only solution that would fully correct this issue would be the use of current year weights, though this would bring the complexity of a 'true up' for actual revenues at the end of the year. It may well be that Ofcom believe the materiality of this issue is sufficient that the complexity caused by uncertain current year weights is preferable.

In the 2009 control Ofcom recognised the issue of using prior year weights with a legacy to new migration. The consultation document suggested an adjusted weighting system where the legacy and new products were mapped (e.g. WES 10mbit/s and EAD 10mbit/s) and compliance would be demonstrated on average across the two products. Openreach have also considered this system for the 2012 LLCC, and concluded, as Ofcom did in 2009 that this should be rejected due to complexity. (Not all products have a straightforward one to one mapping.) Openreach believe Ofcom could be open to our proposed adjusted weighting system as it is a simpler form of their suggesting in 2009. The 2009 mapping was also rejected as the level of migration was not expected to be material enough in the 2009 control to warrant a remedy, but with WES products having been withdrawn from new supply (to be withdrawn from service at the end of this control period), the issue is more significant and requires remedy.

4. Conclusion

In conclusion, Openreach believe the current proposal to use "prior year" revenues from 18 months before the control year will distort prices and not benefit the market.

Openreach recommend that Ofcom agree to bring the prior year to be the 12 months immediately preceding the control period and make an adjustment to prior year weightings to bring towards current year forecast. This will allow:

- Price reductions on new products that will bring significant benefit to the market
- Comparable prices between legacy and new that will allow migrations when combined with migration offers

Given Ofcom have adopted a MEA approach on costing, Openreach believe Ofcom should support a proposal which allows Openreach to achieve the migration MEA assumes.

For clarity, Openreach agree that the use of prior year weights is the most appropriate system to assess compliance in a charge control in general. The move away from this is only justified on Ethernet Services within the current control due to the exceptional differences in relative growth rates.

5. Alternative proposals discounted

The proposals that have been reviewed are assessed in the table below.

Approach	Certainty	Complexity	Financial penalty to BT	Conclusion
Current proposal: 'prior year' 18 months behind	●	●	○	Impact on market price too significant
Prior year 12 months behind	●	●	◑	Proposed: balance of certainty and impact on market price
Adjusted prior year weights	●	◕	◑	Proposed: balance of certainty and impact on market price
Prior year 12m behind & adjusted prior year weights	●	◕	◕	Openreach recommendation: balance of certainty and impact on market price
Complex prior year adjustment (product mapping)	●	◑	◑	Rejected: complexity caused by lack of one to one mapping
Current year weights	○	○	●	Rejected: uncertainty and complexity from 'true up'

● Excellent ◕ Good ◑ Satisfactory ◔ Poor ○ Very poor

Openreach have also considered changes to the basket design that could resolve the issue, however this has been discounted this because it would require a further consultation that would increase the delay in the implementation of the control.

We would be happy to work with Ofcom to explore all methods to resolve the issue.

6. Conclusion

For the reasons given above, Openreach believes that Ofcom should change to using revue weights from the period 12 months immediately preceding the control period and make an adjustment to prior year weightings to bring this towards the current year forecast for revenue weights across services. This will allow:

- Price reductions on new products that will bring significant benefit to the market
- Comparable prices between legacy and new services that will allow migrations when combined with migration offers

Given Ofcom have adopted a MEA approach on costing, Openreach believe Ofcom should support a proposal which allows Openreach to achieve the migration MEA assumes.

Annex 2

Imposition of RAV adjustment on ducts assets

Introduction

1. Ofcom stated in 2005 that it decided to

   - *revert to the Historical Cost Accounting ('HCA') value for the duct assets that BT had in place in 1997, but indexed at RPI going forward, while adopting CCA replacement value for assets that had been built since 1997.*[32]

   and that

   - *The reason for this decision in 2005 was that, as a result of the 1997 revaluation, there was a risk that BT would earn an excessive return on pre 1 August 1997 ('pre-1997'). This was a consequence of the change in accounting approach during the lifetime of the assets.* [33]

2. Further, in its statement on the WLR LLU CC in March 2012, Ofcom says it concluded that the RAV valuation was still appropriate, although with a different method of determining the post-1997 duct CCA valuation.

3. In the LLCC consultation Ofcom has reasoned (i) that it is impossible to determine what specific services use pre-1997 duct and that (ii) services which have been introduced since 1997 (and relevant to this consultation, TI and AI services) will use pre-1997 duct.

4. On TI services, Ofcom has decided to apply the RAV adjustment because:[34]

   - *if we do not take into account the RAV adjustment for the value of pre-1997 access duct and cable consumed by TI terminating segments, this would lead to an over-recovery of BT's investment in these assets; and*

   - *for consistent economic regulation, assets should be valued on a similar basis for all the services that consume those assets. Using different valuation approaches would risk distorting relative prices and decisions based on those prices.*

5. Regarding AI services, Ofcom provides the same two reasons for this proposal:[35]

   - Ethernet services use pre-1997 duct

   - For consistent economic regulation assets, should be valued on a similar basis for all the services that consume those assets.

[32] LLCC Consultation paragraph 5.114
[33] LLCC Consultation paragraph 5.115
[34] LLCC Consultation paragraph 5.121
[35] LLCC Consultation paragraph 6.130

6. As Ofcom states, it did not take this approach to either TI or AI fibre services in the LLCC 2009. For the reasons given below, BT requests that Ofcom reconsiders its proposals regarding both the RAV adjustments as applied to both (i) core duct and (ii) to TI and AI fibre services.

RAV applied to copper access assets

7. Ofcom's explanation for the need for the RAV adjustment has been that without this BT would over-recover certain of its access costs. BT does not agree that Ofcom provided an adequate factual explanation of this claim and, as BT set out in its response to the WLR/LLU Consultation,[36] we think that Ofcom has not demonstrated that there has been any 'over-recovery' by BT's shareholders from the regulatory allowances that it has been given on pre-1997 duct.

8. However, in the LLCC Ofcom goes further than this and extends the RAV adjustment (i) the fibre services as well as copper services and (ii) to the valuation of duct used in the provision of both access and core services.

9. Before addressing these two issues, we first note that the fundamental rationale that Ofcom has given in its Defence to BT's appeal on this point[37] actually points to the use of CCA as the first price control on Leased Lines was based on an CCA valuation of all assets.[38] If the first price control establishes a permanent valuation, as Ofcom argued in the case for HCA in the WLR/LLU control, then for consistency, and without any reasons being given to the contrary, this same approach should apply to AI and TI services too where the first valuation for price control purposes was CCA. Put another way, Ofcom has given no linkage from the PSTN price control in 1989 to 1993 (on which the copper access RAV adjustment has been justified by Ofcom) to either TI or AI services.

Extension to core services

10. The RAV adjustment was introduced by Ofcom following a consultation in 2005. Two paragraphs quoted below show the clear focus of that consultation process (emphasis added):

    In Phase 2 of the Telecommunications Strategic Review Ofcom set out its view that much of BT's copper access network is not effectively competitive and that there is little sign of this situation changing in the near term. In light of this, wholesale access services are an important mechanism for introducing sustainable competition in downstream markets.

    For those wholesale products which use a copper loop, namely wholesale line rental (WLR), local loop unbundling (LLU) and the terminating segments of Partial Private Circuits (PPCs), the cost of that loop is an important component of the overall cost-oriented charge for the product. As such it is important to ensure that the copper loop cost is correctly determined within the regulatory framework prevailing at the time the wholesale product charges are determined. This consultation

36 Openreach Response to Ofcom's Consultation on Charge control review for LLU and WLR services, Response dated July 2011, paragraphs 112 to 130.

37 That HCA was established by the first price control on BT's PSTN services, in 1989.

38 Peter Culham Witness Statement, CAT Case No 1193/3/3/12, 3 July 2012, paras 35-38, 'The Valuation at the First Review'.

was initiated with the aim of establishing what the annual cost of a copper line is, in a manner consistent across all relevant regulated products.[39]

11. Similarly, the March 2012 statement for the WLR / LLU charge control to which Ofcom refers[40] also relates to BT's Copper Access Network.

12. BT's understanding, however, is that in the LLCC, Ofcom proposes to apply the RAV adjustment to duct used in both access and core services. This change in treatment is inconsistent with its 2005 policy when the RAV adjustment was introduced, when it was clear that they adjustment only applied to services supplied over BT's copper access network. In this, the LLCC consultation is also inconsistent with the approach adopted in the 2009 LLCC when the RAV adjustment was applied to copper access assets only ie to the access duct between the Local Exchange and the end customer.

13. On this point, Ofcom has not quoted itself accurately when it states that:[41]

    'In the LLCC 2009 the adjustment was applied only to local ends on the basis that the local ends consume most of pre-1997 copper.'

14. What Ofcom said in 2009 was that (emphasis added):

    'On the assumption that only local end rental services would consume pre-97 access copper and duct, we only applied this adjustment to these services.'[42]

15. BT points out that although it is not possible to determine precisely the pre-1997 duct used by specific services, it is possible to identify which TI services use copper access duct. This is because copper-based delivery of TI local ends are separately identified within the RFS. This means that it is straightforward to treat the costing of copper access assets used by PPC Local Ends consistently with the cost treatment of these assets used in WLR and LLU services.

16. BT wrote to Ofcom about the impact of RAV being extend to core services in terms of its impact on TI costs on 29 August 2012. We explained there that data extracted from the Aspire system shows that, in the base year, of the [✂] of duct apportioned into TI markets, [✂] was being used by Local End services, [✂] by Main Link Distribution services and [✂] by Main Link Trunk services. This means that of the total [✂] of Access Duct, only 2.4% ([✂]) relates to Duct apportioned to the PPC local end access services.[43] This compares with the 10% figure used in Ofcom's model (see 5.124 of the 2012 consultation page 79). Applying the RAV adjustment only to PPC local end access services should therefore reduce the adjustment by about three quarters. Applying the RAV to copper access assets only reduces the adjustment further because the above figures include both fibre and copper-based local ends.

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[39] 2.1 and 2.2, Valuing copper access, Part 2 – Proposals, Ofcom Consultation document, Issued: 16 March 2005

[40] LLCC consultation, paragraph 5.117

[41] LLCC consultation, paragraph 5.123

[42] Table A8.2 Adjustments to originally reported 2006/07 costs, revenues and volumes for traditional interface (TI) basket services, from Leased Lines Charge Control A new charge control framework for wholesale traditional interface and alternative interface products and services, 8 December 2008.
http://stakeholders.ofcom.org.uk/binaries/consultations/llcc/summary/leasedlines.pdf

[43] See 6.3, page 26 of the 2010/11 RFS.

17. This is an important policy question because efficient prices are generally set such that operators with competing networks can compete with BT's network. For this, the correct basis for these prices is on a replacement costs ie CCA basis - otherwise this risks distorting competition between BT and alternative core network providers. The clear intention at the time when the RAV adjustment was introduced was that policy would encourage competition in core services and not be set to have exactly the opposite effect.

18. In BT's view, Ofcom should therefore not extend the RAV adjustment to core services, either for TI or AI.

Extension to fibre AI services

19. BT does not consider that the reasons in the LLCC regarding AI services provides an adequate justification for such a significant change since 2009 in approach to identifying allowable costs and we note that Ofcom does not provide any evidence as to why a different approach has been adopted in 2011. The only explanations given for the change in approach are that:

    - Ethernet *'uses duct some of which predates 1997'*[44] and that

    - Ofcom *'does not consider that competition is likely to become sufficiently effective over the course of the review period.'*[45]

20. The fact is that both the same reasons applied at the time of LLCC 2009 when the RAV was not applied to AI services. The only difference between then and now is that Ofcom proposes not to impose a charge control on services supplied within the WECLA. On this basis, Ofcom considers that the adverse effect on competition from using the RAV adjustment is likely to be small.[46]

21. However, it is inexplicable that prices outside the more competitive area (including many large business areas where further competition is plainly possible) are being reduced further when the only factual change since 2009 is that a more competitive area has been recognised.

22. BT urges Ofcom to recognise that competition outside the WECLA exists as there is a substantial overlap in BT footprint with the duct network of VM and other CPs. This is not a question of the *whole* of the rest of the UK being outside WECLA, as in the case of the copper access network, and that part of the UK served by AI services is predominantly located where there is some competition and alternative infrastructure which can serve these customers. It would be wrong to dismiss adverse 'competition considerations' as being relatively unimportant.

23. Regarding the need for consistent regulation across services in order to minimise the risk of distorting relative prices and decisions based on those prices, we note that in the BCMR Consultation, Ofcom provides a number of reasons why the risk associated with 'distorted prices' ought anyway below:

    - '*a comparison of relative prices and migration trends indicates that even with quite large price differentials there has only been a limited degree of switching between the two services, with SDH/PDH in gradual decline;*

[44] LLCC consultation paragraph 6.132
[45] LLCC consultation paragraph 6.135
[46] LLCC consultation paragraph 6.134

- *a qualitative assessment shows that while carrier class Ethernet has closed the performance gap between AI and TI, there are still differences which mean that on a forward looking basis some legacy and specialist applications will continue to require TI services for the duration of this review period;*

- *consumer survey evidence shows that many TI end-users still identify challenges and concerns about switching to Ethernet which reflects differences in the characteristics of TI and AI leased lines, or at least end-users perceptions of them; and*

- *there are barriers to switching, including switching* costs.'[47]

24. In other words, in the circumstances which Ofcom itself believe to exist in the business connectivity markets, where AI services form a distinct market, prices which are based on different cost approaches are not likely to cause important distortions between the choice of AI or TI services.

25. Unless there is a strongly reasoned case otherwise, regulation ought to be consistent over time. Ofcom has not provided such a case in the Consultation and any reasoning on the case indicates that the RAV ought not be applied. BT's assessment is in summary that:

    - There is infrastructure competition to BT's AI services and the prospect of greater competition in many areas outside the WECLA and this ought not be discouraged

    - There is little risk of a 'distortion' in consumption between TI and AI services given Ofcom's own assessment of the level of switching prompted by price differentials between TI and AI services

    - Even the original justification for the RAV related to local copper access assets, and Ofcom has provided no empirical support to "over recovery" of costs unless the RAV is applied to fibre services.

26. BT therefore believes that Ofcom should not make the adjustment imposing the RAV on costs for the AI price control.

Extension to TI fibre services

27. Regarding TI, BT notes that in the LLCC consultation Ofcom uses exactly the arguments (regarding alleged over-recovery and consistent regulation) now as it used in the 2009 Leased Lines Charge Control.[48] However, in 2009, Ofcom applied the RAV adjustment to PPCs delivered over copper lines only.

28. There is no new justification given by Ofcom for an extension of the RAV adjustment to TI services provided over fibre, or for any core services. The only application of RAV that was considered appropriate was to ensure that copper access being used as an input into PPCs was treated on a consistent basis as copper access used as an input into LLU and WLR.

[47] BCMR Consultation paragraph 3.73

[48] Paragraph 4.121, Leased Lines Charge Control, 'A new charge control framework for wholesale traditional interface and alternative interface products and services', Statement, July 2009http://stakeholders.ofcom.org.uk/binaries/consultations/llcc/statement/llccstatement.pdf

29. BT fails to understand how Ofcom can use the same reasoning as in 2009 but now come to a different conclusion without any assertive explanation. The situation is that:

    - Nothing has been found to have changed regarding the competitive conditions surrounding the provision of PPCs over copper since 2009.

    - As explained above, it is straightforward to identify copper access assets used by TI services – this is shown in the costing of PPCs using a copper local end, components within the RFS identify this.

30. We would point out in addition that PPC price controls were based on CCA costs when first introduced, and have continued to be based on CCA costs in the 2005 and 2009. There has never been a change in accounting methodology as relied upon by Ofcom to justify the RAV adjustment in 2005.

Annex 3

Stranded Fibre Methodology and Estimation

			Released Fibres		Stranded fibre vol		Stranded fibre cost	
			Vol	Vol	Vol	Vol	£k	£k
Service	**Mapped to**	**12/13 volumes**	**Spine**	**Backhaul**	**Spine**	**Backhaul**	**Spine**	**Backhaul**
BES 1000Mbit/s	EAD 1000Mbit/s	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
BES Extended reach 1000Mbit/s	EAD Extended reach 1000Mbit/s	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
BES 100Mbit/s	EAD 100Mbit/s	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
BES 10Mbit/s	EAD 10Mbit/s	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
BES 155Mbit/s	EAD 1000Mbit/s	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
BES 622Mbit/s	EAD 1000Mbit/s	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
WES 1000Mbit/s	EAD 1000Mbit/s	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
WES Local access 1000Mbit/s	EAD Local access 1000Mbit/s	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
WES Extended reach 1000Mbit/s	EAD Extended reach 1000Mbit/s	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
WES 100Mbit/s	EAD 100Mbit/s	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
WES Local access 100Mbit/s	EAD Local access 100Mbit/s	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
WES 10Mbit/s	EAD 10Mbit/s	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
WES Local access 10Mbit/s	EAD 100Mbit/s	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
WES 155Mbit/s	EAD 1000Mbit/s	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
WES 622Mbit/s	EAD 1000Mbit/s	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
WES 2Mbit/s	EAD 10Mbit/s	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]	[✂]
Total		[✂]			[✂]	[✂]	[✂]	[✂]

Notes:

Stranded fibre cost = stranded fibre volume x cost from RFS

% of Released Fibre not re-used within three years	
Spine	[✂]
Backhaul	[✂]

Cost of Released Fibre (from RFS)	
Spine	[✂]
Backhaul	[✂]

Annex 4

Corrections to be made to Ethernet Price List Entries

1. **Changes where price list contains a value of "0", but there is no connection price forming part of the charge for the service (**should be listed as N/A as shown in the tables below**)**

WES/WEES Resilience Option 1 (Hot Standby) Connection & Rental Charges

Applicable condition	Price List	Product Area	Feature	CONNECTION £ Exc VAT	ANNUAL RENTAL £ Exc VAT
5.2 & 5.3	3.1.2	WES/WEES	Main link per metre or part thereof - up to and including 1Gb/s	N/A	0.42
5.2 & 5.3	3.1.2	WES/WEES	Main link per metre or part thereof - over 1Gb/s	N/A	TOA
5.2 & 5.3	3.1.2	WES/WEES	Resilience link per metre or part thereof - up to and including 1Gb/s	N/A	0.42
5.2 & 5.3	3.1.2	WES/WEES	Resilience link per metre or part thereof - over 1Gb/s	N/A	TOA

WES Resilience Option 2 - Rental Charges

Applicable condition	Price List	Product Area	Feature	CONNECTION £ Exc VAT	ANNUAL RENTAL £ Exc VAT
5.2 & 5.3	3.1.2	WES	Main link per metre or part thereof - up to and including 1Gb/s	N/A	0.42
5.2 & 5.3	3.1.2	WES	Main link per metre or part thereof - over 1Gb/s	N/A	TOA
5.2 & 5.3	3.1.2	WES	Resilience link per metre or part thereof - up to and including 1Gb/s	N/A	0.42
5.2 & 5.3	3.1.2	WES	Resilience link per metre or part thereof - over 1Gb/s	N/A	TOA

WEES Resilience Option 2 - Rental Charges

Applicable condition	Price List	Product Area	Feature	CONNECTION £ Exc VAT	ANNUAL RENTAL £ Exc VAT
5.2 & 5.3	3.1.2	WEES	Main link per metre or part thereof - up to and including 1Gb/s	N/A	0.42
5.2 & 5.3	3.1.2	WEES	Main link per metre or part thereof - over 1Gb/s	N/A	TOA
5.2 & 5.3	3.1.2	WEES	Resilience link per metre or part thereof - up to and including 1Gb/s	N/A	0.42
5.2 & 5.3	3.1.2	WEES	Resilience link per metre or part thereof - over 1Gb/s	N/A	TOA

WES - Aggregation Connection and Rental Charges

Applicable condition	Price List	Product Area	Feature	CONNECTION £ Exc VAT	ANNUAL RENTAL £ Exc VAT
5.2 & 5.3	3.1.2	WES	Distance charge between exchanges metre or part thereof (spoke)	N/A	0.372
5.2 & 5.3	3.1.2	WES	Distance charge between exchanges (Aggregated link) per metre or part thereof (> 0m)	N/A	0.372

WES - Aggregation Resilience RO1 Connection & Rental Charges

Applicable condition	Price List	Product Area	Feature	CONNECTION £ Exc VAT	ANNUAL RENTAL £ Exc VAT
5.2 & 5.3	3.1.2	WES	Distance charge between exchanges (includes charge for both Aggregated link and Resilient link) per metre or part thereof (> 0m)	N/A	0.84
5.2 & 5.3	3.1.2	WES	WES Aggregation Resilient Link 1Gb Remote Handover only Monitoring Fee per path (Charged for both Aggregated Link and Resilient Link)	N/A	800.00

Openreach Network Backhaul Services Connection and Rental Charges

Applicable condition	Price List	Product Area	Feature	CONNECTION £ Exc VAT	ANNUAL RENTAL £ Exc VAT
5.2 & 5.3	3.1.4	ONBS	Main link per metre or part thereof (> 0m) - 100Mb/s service	N/A	0.42
5.3	3.1.4	ONBS	Main link per metre or part thereof (> 0m) - 10Gb/s service	N/A	TOA

Openreach Network Backhaul Services Connection and Rental Charges Resilient Option 1

Applicable condition	Price List	Product Area	Feature	CONNECTION £ Exc VAT	ANNUAL RENTAL £ Exc VAT
5.2 & 5.3	3.1.4	ONBS	Main link per metre or part thereof - 100Mb/s service	N/A	0.42
5.3	3.1.4	ONBS	Main link per metre or part thereof - 10Gb/s service	N/A	TOA
5.2 & 5.3	3.1.4	ONBS	Resilience link per metre or part thereof - up to 1Gb/s	N/A	0.42
5.2 & 5.3	3.1.4	ONBS	Resilience link per metre or part thereof - 1Gb/s	N/A	0.00
5.3	3.1.4	ONBS	Resilience link per metre or part thereof - over 1Gb/s	N/A	TOA

2. Change due to errors in description on price list

Ethernet Backhaul Direct Modify - Upgrade Charges

Applicable condition	Price List	Product Area	Feature	Connection Charge per circuit £ Exc VAT
5.3	3.2.1	EBD	10Gbps ER to 10Gbps ER	TOA
To be replaced with:				
5.3	3.2.1	EBD	1Gbps ER to 10Gbps ER	TOA

BTL Additional charges: Interfaces

Applicable condition	Price List	Product Area	Feature	Note	Per Annum £ Exc VAT
5.2 & 5.3	3.2.2	BTL	S Mode Interface	1000 Base LX (1310nm Single Mode). Reach approx 10km.	258.57
5.2 & 5.3	3.2.2	BTL	S Mode Interface	Used on customer PoP sites	258.57
To be replaced with:					
5.2 & 5.3	3.2.2	BTL	S Mode Interface	1000 Base LX (1310nm Single Mode). Reach approx 10km. Used on Customer POP sites	258.57