



Wholesale ISDN30
price control
Further consultation

Consultation

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Section 1

Executive summary

- 1.1 The purpose of this consultation is to set out certain modifications to some of the wholesale ISDN30 price control proposals set out in the consultation 'Price controls on wholesale ISDN30 services' published 1 April 2011 (the 'April Consultation').¹ This consultation also considers whether there has been a material change in the relevant market since the SMP determination was made and proposes that there have been no material changes since we made the SMP determinations in August 2010.

Background

- 1.2 On 20 August 2010 we concluded our Market Review of retail and wholesale ISDN30 services (the 'Market Review'), in which we carried out analysis of competition in the provision of retail and wholesale ISDN30 services. In particular, we concluded that Openreach² had significant market power (SMP) in the provision of wholesale ISDN30 exchange line services, that the profitability in the provision of wholesale ISDN30 services appeared excessive, that there was a relevant risk of adverse effects arising from price distortion and therefore that the imposition of a price control was appropriate.
- 1.3 On 1 April 2011, Ofcom consulted on the form and level of price controls on Openreach wholesale ISDN30 services. The intention behind these proposals was to ensure wholesale ISDN30 prices are set at an efficient level going forward, where charges are reflective of the underlying costs of provision. This should allow retail ISDN30 prices to be reduced therefore lessening the consumer harm caused by retail ISDN30 prices that are significantly above costs. We received five responses to the April Consultation. We have also conducted further information gathering to update our view of the wholesale ISDN30 market. On the basis of this information, we believe that it is appropriate to re-consult on some aspects of the price control. This is the purpose of this document.
- 1.4 Except for the changes proposed in this document, our proposals remain as set out in the April Consultation. We are still considering responses to the April Consultation and our corresponding decisions will be set out in a subsequent Statement. We note that, in addition to the specific consultation questions, we would welcome comments on any matters set out in this consultation which stakeholders consider to be relevant.

New information on cost floors and ceilings

- 1.5 In the April Consultation, we proposed that adjustments to the starting price for price controls (one-off adjustments) would not be appropriate for wholesale ISDN30 services. We explained that we generally only make one-off adjustments if we believe that the current level of charges is likely to lead to significant distortions.

¹<http://stakeholders.ofcom.org.uk/consultations/isdn30-2011/>

²Openreach is the access division of BT established by Undertakings in 2005. Whilst the proposed SMP services conditions in this document formally apply to British Telecommunications plc, Openreach is the division of BT which provides the wholesale ISDN30 services which we are proposing to regulate. Therefore, throughout this document, we refer to Openreach as the supplier of wholesale ISDN30 services. For retail markets, we refer to BT.

Specifically, we considered that the distributed stand alone cost (DSAC) and distributed long run incremental cost (DLRIC) estimates provided reasonable benchmarks to inform our judgement, noting that there were additional relevant factors to be taken into account in this market that weakened the case for making one-off adjustments.³

- 1.6 Following information requests made under section 135, Openreach provided DLRIC data for the years 07/08 to 09/10 inclusive. We noted that there was significant variability between the cost figures for each year. Openreach does not have a cost orientation obligation for wholesale ISDN30 services and therefore is not formally required to prepare or audit this data for reporting purposes. Openreach indicated to us that the 09/10 figures were the only reliable cost figures.⁴ We therefore based our assessment in the April Consultation on those figures.
- 1.7 The April Consultation noted that the per channel connection charge was above DSAC whereas the per new site connection charge was below DLRIC. We considered three scenarios for connection charges which showed that, on the basis of the 2009/10 data supplied by Openreach and the current level of charges, most customers would pay an average connection charge below DSAC. We also considered whether the total of rental and connection charges paid in the first year of a new connection could be above DSAC. We found that, once one year's rental charges and costs were taken into account as well, it would be highly unlikely that any, customers would pay aggregate connection and rental charges (over one year) which were above DSAC.⁵
- 1.8 Following the April Consultation, we asked Openreach, again under section 135, to provide, amongst other things, updated information regarding the cost of providing wholesale ISDN30 services for 2010/11. The new cost data supplied by Openreach was significantly different from the 2009/10 figures relied upon in the April Consultation. We discussed this with Openreach, who provided a further set of data which was again different.
- 1.9 The difference in the cost figures would, in relation to connection charges, have affected the analysis undertaken in the April Consultation as to how many customers might pay an above DSAC average connection charge. However, we do not consider that it would be appropriate to rely on the final 2010/11 figures supplied in order to propose additional regulation in the market in the form of one-off adjustments, because:
 - there is a lack of consistent data available for the period 2007 to 2010;
 - the data supplied is not consistent with the FAC cost estimates contained within the Ofcom regulatory model (which we use to set wholesale ISDN30 charges); and,
 - we consider the Ofcom regulatory model to be based on the most accurate data for this market, amongst other reasons, because it was audited by Ernst & Young,⁶ and current outputs suggest that relevant charges are within reasonable bounds.

³ April Consultation paragraph 5.156

⁴ April Consultation, paragraph 5.160

⁵ April Consultation, paragraphs 5.174-5.180

⁶ April Consultation, paragraph 5.76.

- 1.10 It is important that we put in place an appropriate charge control in order to deal with the identified risk of excessive pricing in the market to ensure that consumers' best interests are protected. This consultation has already been delayed, potentially delaying the imposition of a control (if one is deemed appropriate). We would not wish to further delay the imposition of an appropriate control. We are therefore not minded to further revisit the cost figures, given the lack of robust data, and that one-off adjustments are not supported by either the output of the Ofcom regulatory model or the identified additional market specific factors discussed at paragraph 1.7 above.

Proposed changes to the length of the price control

- 1.11 In the April Consultation, we proposed a price control that would be in place prior to 1 April 2012. We also proposed that the price control would end on 31 March 2014, as this date preceded the end of the forward look of the Market Review and was aligned with the expiration of the price controls in the WLR and LLU markets. In this consultation, we are now proposing that the price control will come in to place after 1 April 2012; however we are not proposing that the end date of the price control should extend beyond 31 March 2014. This means that the duration of our proposed price control will be less than two years. We are proposing to set the control so that the required decrease in prices brings them into line with our projections of cost over the revised period of the control, which will be slightly less than two years.

Proposed changes to the price control

- 1.12 On the basis of the proposed change to the length of the price control, the revised price ranges are set out in Table 1.1 below.

Table 1.1: Proposed values of X and related Conditions

| Baskets | Proposed control | Proposed Condition |
|--|-------------------------------------|---------------------------|
| Rental and Connections | | |
| - Line rental per channel per year | RPI – 11% to RPI – 17% ⁷ | Condition AAA(IS)4A.7a |
| - Connection charge per-installation | | |
| - Connection charge per-channel | | |
| - Service Maintenance Level 3 and 4 (enhanced care services) | | |
| Safe-guard cap on average connection price | RPI+5% | Condition AAA(IS)4A.8 |
| Safe-guard cap on each enhanced care service | RPI-0% | Condition AAA(IS)4A.9 |
| Transfer | | |
| - Charge per 30 channel access bearer | RPI-0% | Condition AAA(IS)4A.7b |
| DDI – Planning | RPI-0% | Condition AAA(IS)4A.7c |
| Connection per DDI | RPI-0% | Condition AAA(IS)4A.7d |
| Rental per DDI | RPI-0% | Condition AAA(IS)4A.7e |

⁷ Note: the Ofcom base case for X is RPI – 14.57%. The April Consultation proposed a base case of RPI – 10.65% and a range RPI – 8% to RPI – 11%

Section 2

The duration of the price control

Introduction

2.1 In this consultation we are proposing a change to the duration of the price control from three years to two years. We are also proposing that the control should, subject to consultation, commence on 1 May 2012 and therefore will maintain a first year adjustment that allows for introduction of the price control after the start of the first year of the price control (1 April). This section considers the reasons for this proposal, why it is appropriate, and the impact of this change to the price control.

We need to change the duration of the price control

- 2.2 In the April Consultation, we proposed a price control based upon a three year period from 1 April 2011 to 31 March 2014. We also proposed that, in the instance that the price control came into effect after 1 April 2011, but before 1 April 2012, we would adjust the first year of the price control so that the overall reduction in price in the first year was equal to the same reduction that would have occurred had the price control been in place for the full first year.
- 2.3 We explained in the April Consultation that the end date of the control period, 31 March 2014, was set to align with the price control for the WLR/LLU markets. This would ensure that the regulation of all related access exchange line products supplied by Openreach would be aligned. This date was also within the forward look period adopted in the 2010 Market Review.
- 2.4 In light of our reconsultation and the new EU process for notification,⁸ we do not consider that we will be able to introduce the control before April 2012. In those circumstances, and unless we also proposed to change the end date of the price control (31 March 2014), the control would not last longer than two years. In assessing the appropriate length of our price control period we have taken account of the views expressed by stakeholders in their responses to the April Consultation.

Responses to our consultation proposal of a three year price control

2.5 In the April Consultation we proposed to adopt a three year price control period and we specifically asked stakeholders:

Q4. Do you agree that a three year duration for the price controls on wholesale ISDN30 services is appropriate? If not, please explain why.

- 2.6 Three respondents provided substantive comments to this question.
- 2.7 Verizon considered that three years was appropriate given the changes to the European regulatory framework, introduced on the 25 May 2011.

⁸ The new EU Framework requires prior notification of Conditions to the EC 30 days prior to the publications of the final Statement.

- 2.8 Openreach indicated its preference for longer price controls and market reviews, however, it accepted our proposal to set a three year price control to ensure consistency with the European regulatory framework.
- 2.9 C&W considered that a three year period should be the “absolute minimum duration for the control” as, in its view, a shorter period would risk pushing price changes through too quickly. It argued that there could be a case for Ofcom to introduce a four year control to recognize that ISDN30 has reached a maturity stage in its lifecycle and the “uncertainty over the need for any future controls with demand expected to fall away”. C&W points out that we have made the case for extended price controls in previous consultations, in particular, the Mobile Call Termination (MCT) and the “Narrowband Voice”, and that a similar approach for ISDN30 may be appropriate.

Our proposals

We propose to maintain the end of the price control period on 31 March 2014

- 2.10 As recognized in the April Consultation document, in assessing the question of duration we need to find the right balance between incentives for productive and dynamic efficiency for the regulated firm, and the benefits of allocative efficiency. Other things being equal, incentives for dynamic efficiency will be stronger in a longer than a shorter price cap because a longer period gives the firm more opportunity to enhance its profitability through innovation and cost reduction. However, shorter price control periods are more likely to encourage allocative efficiency by ensuring that prices are more closely aligned with underlying costs. We have previously set four year price controls and we consider they have proved effective in providing the right balance between dynamic and allocative efficiency.
- 2.11 We recognize that, as highlighted by C&W, we set a four year price control for MCT.⁹ We are unsure which of the fixed narrowband wholesale services C&W is referring to when referring to “Narrowband Voice”, but have assumed this to be BT’s Network Charge Controls. Both of these controls were set within the forward look of their enabling market reviews. To that extent, in proposing a control that finishes before August 2014 (the end of our forward look period in the ISDN30 Market Review) we are being consistent with those controls.
- 2.12 Additionally, as discussed in paragraph 2.3 above, in setting the end of the price control on 31 March 2014 we recognised the desirability of conducting the ISDN30 price control in parallel to that for the WLR/LLU markets in order to align the regulation of all related access exchange line products supplied by Openreach.
- 2.13 Adopting a control with duration of two, rather than three, years will change the balance between dynamic and allocative efficiency incentives. In particular, it is likely to encourage allocative efficiency as the shorter period between reviews will mean that prices are less likely to get significantly out of line with costs. This may have the advantage of reducing the pressure for interim reviews. In the case of our proposal for price controls for ISDN30, this might be particularly useful as it would be the first time these services have been price controlled in this way. The incentive on Openreach to make efficiency gains may be reduced slightly but, on the other hand, such gains could be passed to customers more quickly.

⁹ See the Wholesale mobile voice termination consultation, 1 April 2010:
http://stakeholders.ofcom.org.uk/binaries/consultations/wmctr/summary/wmvct_consultation.pdf

- 2.14 In these circumstances, we think that a two year control ending on 31 March 2014 is the best available option. A price control duration of two years should also provide sufficient regulatory certainty for wholesale ISDN30 services.

We propose to reduce prices of the combined connections and rental basket to their FAC level by the end of the control period

- 2.15 As identified in the April Consultation, the goal of this price control is to bring the prices for wholesale ISDN30 services in line with the underlying costs of provision by the end of the price control. When prices are at this level, and when reductions in wholesale prices are reflected in retail prices paid by end users, the benefits to end users are maximised as this most closely mimics the efficient outcomes of a competitive market. For this reason we continue to propose that prices should be reduced to underlying costs over the shorter price control. However, achieving the proposed price changes over a shorter period would result in a 'higher X'. Due to the delay in the introduction of the price control and the way we are proposing to implement it (a glide path to FAC costs by 31 March 2014), the actual values of prices would always be higher than those proposed in the April Consultation. However, we believe that maintaining the starting price at the level of current prices, but decreasing to the costs over the shorter control, strikes the right balance between maintaining the benefits of the price control for end users while ensuring that industry is able to adjust to the change adequately (corresponding to Option 3 below, and illustrated in Figure 2.2).
- 2.16 Although we consider that aligning prices to costs should remain the goal of our price control proposals, we recognise that achieving this over a shorter time frame potentially raises concerns with some stakeholders.
- 2.17 In their responses to the April Consultation, C&W and UKCTA were concerned that X values higher than those proposed could undermine OCPs' infrastructure investments. We recognise these concerns, but emphasise that because the prices that would result from our proposed shorter, steeper, price control would always be higher than those proposed in the April Consultation, we would not expect that OCPs' investments would be undermined any more than they were with the April Consultation proposals, if at all. Furthermore, we note that CPs have had an additional year with higher ISDN30 prices due to the delay in the introduction of our price control.
- 2.18 C&W and UCKTA also considered that we should ensure that migrations from Partial Private Circuits (PPCs), which are also used to supply ISDN30 retail services, were kept to a minimum as they were concerned that this would undermine OCPs' investments in these technologies. We note that because ISDN30 prices are likely to remain at higher levels for longer, our current proposals are likely to result in lower volumes of switching towards ISDN30 services over the period of the control. For the same reasons, the impact of our price control proposals on migration to IP will also be less significant (see paragraphs 2.39 and 2.41 below).
- 2.19 In its response, C&W also suggested that a short control would risk pushing price changes through too quickly. We recognize that a two year control will result in higher price decreases that will need to be adopted in a shorter period of time. However, for the reasons highlighted in 2.17 and 2.18 above, we do not believe that the change proposed would be significantly more difficult to adopt than our original proposals. We also think that the circumstances of the ISDN30 market - in which migration to a new technology is likely, but there is uncertainty about its timing - favour a shorter over a longer control.

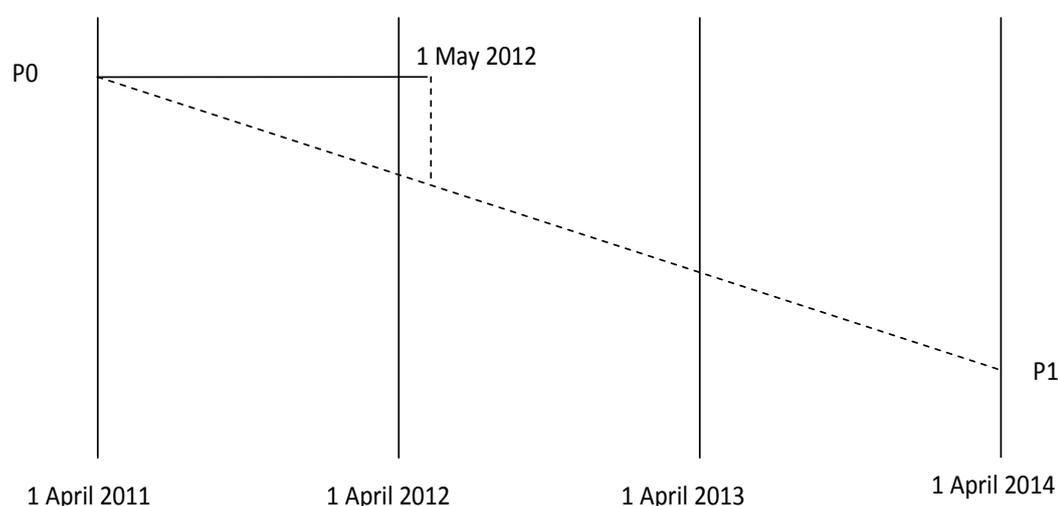
2.20 We have considered a number of options to achieve a price decrease over a shorter price control period:

- **Option 1:** A control with the same glide-path as proposed in the April Consultation, which would leave prices above their underlying costs of provision;
- **Option 2:** A control with an initial one-off adjustment and then maintaining the glide-path proposed in the April Consultation; and;
- **Option 3:** A glide-path that would set prices equal to their FAC by 31 March 2014, resulting in higher values of X in each of the two years of the control than under the 3-year price control period.

2.21 Under Option 1 the annual percentage reduction of ISDN30 prices would be the same as under our proposal in the April Consultation. This would ensure a less steep glide-path than if we brought prices in line with the underlying costs of provision by the end of the price control. However, this approach would undermine the allocative efficiency properties of the control as prices would remain above projected costs even at the end of the period, delaying the benefits to consumers of lower prices. For this reason, we do not consider that Option 1 would be appropriate.

2.22 Option 2, illustrated in Figure 2.1 below, combines a one-off adjustment in the first year of the control, to bring prices in line with the glide-path we proposed in the April Consultation, and adopts the same glide-path in the remaining period of the control. Under this approach prices would be brought closer to the underlying costs of provision sooner than under Option 3 below. It would also provide a less steep glide-path after the initial one-off adjustment than in the case of Option 3.

Figure 2.1 Option 2: One-off adjustment in the first year of the two year control

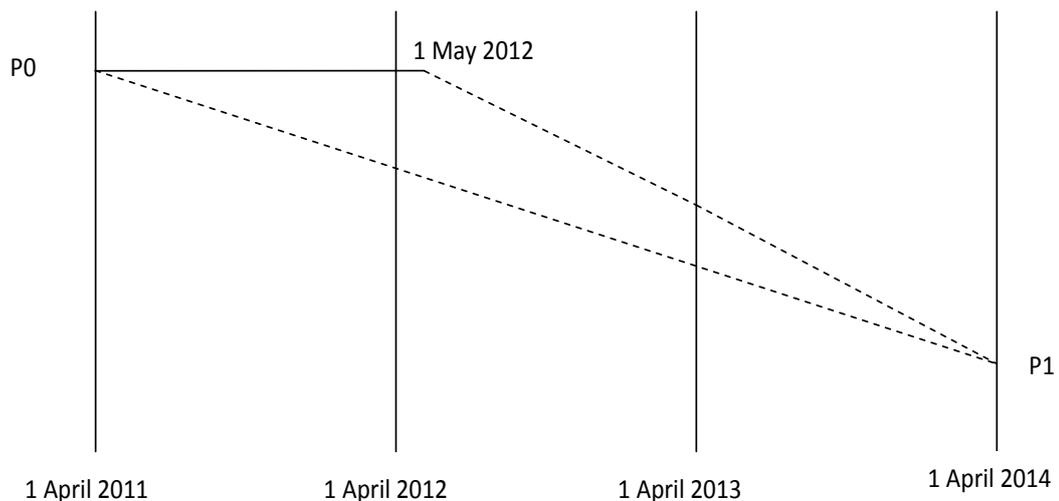


Note: The price levels are shown for illustrative purposes and represent the weighted average price of the connections and rental services

2.23 However, the benefit of the glide-path approach, when compared to the introduction of one-off adjustments, is that it approximates more closely the workings of a competitive market in which excess profits are gradually eroded as rivals improve their own efficiency. It also avoids discontinuities in prices over time and leads to a more stable and predictable background against which investment and other decisions may be taken, by both suppliers and customers in the telecoms market.

- 2.24 We also consider that one-off charge changes may have an impact on regulatory certainty and stability. OCPs have made technology choices around the supply of ISDN30 and made the relevant investments to use their own networks, 2Mbit/s PPCs or Openreach’s wholesale ISDN30. In this regard, we note that none of the respondents to the April Consultation argued in favour of one-off adjustments and that some were concerned about the viability of existing investments in the event of one-off charge reductions.
- 2.25 As discussed in the April Consultation, we tend to consider that the case for a one-off adjustment at the start of a price control is strongest where a charge is out of line with costs to an extent which could cause material distortion. We also note the strong opposition to one-off adjustments expressed by C&W in their consultation response due to their concern that a sudden price reduction would not allow for time to adjust investments and could be potentially destabilising. Similarly, UKCTA considered that we should not impose adjustments to starting charges as this could immediately undermine market confidence.
- 2.26 We use DLRICs and DSACs, which are used as a first-order test for the “cost orientation” of charges, as benchmarks for one-off adjustments to prices. As discussed in the previous sections, at this stage we are not proposing that prices should be adjusted to the ISDN30 core services’ DLRICs or DSACs.
- 2.27 For the above reasons, we do not consider that Option 2 would be the most appropriate approach.
- 2.28 Option 3, illustrated in Figure 2.2 below, brings prices to the services’ FACs by the end of a two year price control period. We consider that this approach would strike the right balance between the allocative efficiency properties of the control and the need for regulatory certainty and stability. It will ensure that charges are aligned with costs by the end of the control, ensuring that consumers benefit from lower prices that most closely mimic those of a competitive market at the end of the price control period. We consider it will also be less disruptive to CPs’ investment decisions than Option 2, which imposes an initial one-off adjustment to prices.

Figure 2.2 Option 3: Glide-path to FAC in two year price control period



Note: The price levels are shown for illustrative purposes and would result from the weighted average price of the connections and rental services.

- 2.29 Our preferred option, taking into account all factors including the tests under section 88 of the Act¹⁰ is therefore Option 3 – that is, we propose to adjust the price control by reducing the length of the control to two years, while ensuring that prices are brought to their FAC by the end of the control (i.e. Option 3 above).
- 2.30 We are also proposing that the price control starts on 1 May 2012. As in the April Consultation,¹¹ we are proposing to use a first year adjustment allowing for the introduction of the price control after the start of the first price control year (1 April 2012). The aim is to ensure that the effect of the control by the end of the control period is the same as it would have been, had the control come into effect on 1 April 2012. The first relevant year adjustment formula is provided in condition AAA(IS)4A.2 in Annex 5 below.
- 2.31 To summarise, we are proposing the following changes to the price control:
- to reduce the period of the price control to two years, maintaining 31 March 2014 as the end date of the price control period;
 - to reduce prices to their underlying costs of provision by the end of the two year control; and
 - to maintain the first year adjustment formula used in the April Consultation.

Q2.1 Do you agree that we should adopt a price control based on a 2 year period and align the prices of ISDN30 core services with their underlying costs of provision?

Q2.2 Do you agree that in this case Option 3 should be preferred to Option 2?

Our proposed changes to the duration of the price control will affect our X value, but wholesale ISDN30 prices will always be higher than those proposed in the April Consultation

- 2.32 As mentioned above, our proposed changes to the price control will affect the value of X for the proposed RPI-X price controls but will result in prices that will always be higher than those proposed in the April Consultation. These effects are described in detail below.

The impact of our proposed changes on the value of X of the combined connections and rental basket

- 2.33 In the April Consultation we proposed to bring the prices of ISDN30 connections and rentals services to their underlying cost of provision by the end of the price control in March 2014. In implementing a two year control, we are proposing to achieve that same reduction in prices over a two (rather than a three) year period. This has the effect of, all other things being equal, increasing the annual percentage reduction of prices, that is, the value of X.

¹⁰ See paragraphs 3.13 – 3.20 below, considering the application of Section 88

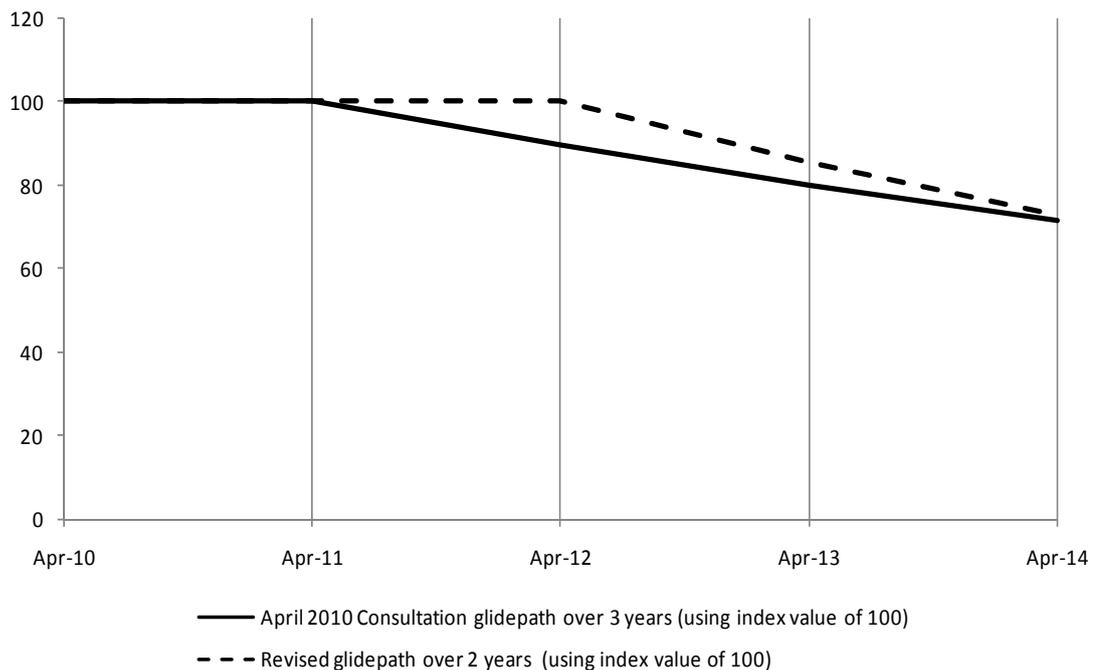
¹¹ See paragraphs 6.25 to 6.31 of the April Consultation, available at <http://stakeholders.ofcom.org.uk/binaries/consultations/isdn30-2011/summary/isdn30-2011.pdf>.

2.34 Additionally, the adoption of a two year price control also has an impact on other variables that are used in the estimation of X, in particular:

- The WLR ISDN30 volumes forecast by the end of the price control will be lower than in the April Consultation. This is due to the relatively higher prices under our current proposals, which in turn will affect the cost forecast, the cost allocation to ISDN30 and our steady state adjustment;
- The underlying unit costs of core ISDN30 services – which comprise the target costs for the price control – will be higher (unit costs will increase due to lower volumes); and,
- We are proposing to increase the inflation rate for the first year of the price control (2012/13) to reflect actual inflation during 2011. To the extent that higher general inflation will be reflected in both projected costs and projected revenues there should be no effect on X.¹²

2.35 On the basis of these changes, we have estimated the value of X for a two year price control. In Figure 2.3 we compare the decline in prices under the April Consultation proposals to our current proposals.

Figure 2.3 Change in the value of X from a three to a two year price control period



2.36 We describe the way that volumes and costs are affected by the proposed price control and the impact of new inflation assumptions in detail below.

¹² However, if higher general inflation is not reflected in higher nominal costs, and is instead accompanied by lower real input prices than previously expected, the result will be lower real unit costs and, hence, a higher X. We note that the remaining assumptions used in the estimation of the value of X for the combined connections and rentals basket under our base case scenario, described in the April Consultation, remain unchanged.

The change to a two year control period impacts our volumes forecast

- 2.37 The April Consultation described the Volumes Forecast model, which estimated the volumes on Openreach's network by the end of the control period.¹³ We estimated WLR ISDN30 volumes using a two stage process. In Stage 1 we forecast volumes of core services at current prices (Stage 1 volume forecasts). These volume forecasts are then used to estimate the initial values of X for core wholesale ISDN30 services. In Stage 2 we adjust our original volume forecasts to take into account the impact on demand of price changes implied by the X derived in Stage 1 (Stage 2 volume forecasts).
- 2.38 We estimate that under a two year price control the volume of rentals (number of channels) on Openreach's network at the end of the price control period will be slightly smaller at 1.713m compared to 1.734m.¹⁴ This is due to a combination of three effects. We describe each of these in turn below.

Higher migration to IP solutions compared to the April Consultation forecasts

- 2.39 As described in the April Consultation, a change in ISDN30 prices would affect the pattern of migration from ISDN30 to IP solutions. Under our current proposals, ISDN30 charges would remain above the level we proposed in the April Consultation. For this reason, migration to IP services is likely to be more significant than before. Whereas in the April Consultation our price control proposals resulted in 89k additional channels on Openreach's network (resulting from the reduction in migration due to our proposed decline in ISDN30 prices), our current proposals result in only 78k additional channels (i.e. 11k channels less than in the April Consultation).

Lower retail demand compared to the April Consultation forecasts

- 2.40 In our model, we assume that price reductions due to the control will tend to increase retail ISDN30 demand. The higher wholesale ISDN30 prices under our current proposals will result in higher retail prices and therefore a smaller increase in ISDN30 demand (i.e. a relatively lower retail demand due to the relatively higher priced services). In the April Consultation we estimated that there would be 78k additional channels resulting from the expansion of demand due to the effect of the control itself, whereas we now estimate that this effect will result in only 70k channels (i.e. 8k channels less than in the April Consultation).

Lower switching from 2Mbit/s PPCs to ISDN30 compared to the April Consultation

- 2.41 Higher wholesale ISDN30 prices are also likely to affect CPs' choice between Openreach's WLR ISDN30 and supply using 2Mbit/s PPCs. In the April Consultation we estimated that price reductions due to the control would result in 12k channels switching to ISDN30 from PPC supply, whereas our current proposals will result in only 10k channels switching (i.e. a difference of 2k channels between the two).

¹³ See Annex 8 of the April Consultation for a description of the Volumes Forecast model, available at <http://stakeholders.ofcom.org.uk/binaries/consultations/isdn30-2011/summary/isdn30-2011.pdf>

¹⁴ As described in the April Consultation, connections volumes are derived from the rental volumes. Therefore, the lower number of rental channels on Openreach's network by the end of the charge control result in smaller connection volumes. Whereas in the April Consultation we estimated that the volume of connections on the last year of the charge control would be 168k channels, under our current charge control proposals we estimate that there will only be 158k channels. The volumes of transfers will not be affected by our current charge control proposals, as we are not proposing any changes to the prices of transfers, and they do not depend on the volume of rentals.

- 2.42 The combination of the above factors will result in slightly lower volumes on WLR ISDN30 by the end of the price control. This in turn will result in slightly higher unit costs, as described below.

Relatively lower volumes will result in higher cost estimates

- 2.43 The fall in volumes described above also affects the cost stack of ISDN30 services, which is estimated using the Cost Forecasting and Cost Allocation models.¹⁵ Where costs are allocated in proportion to volumes (e.g. channels) the reduction in volumes will lead to a reduction in the total costs allocated to ISDN30 services. However, given that volumes will also decline in proportion, there will be no change to the per channel unit costs. Where costs are allocated on an alternative basis (e.g. fixed transfer costs from BT Wholesale), the reduction in volumes will not affect the total costs allocated to ISDN30 services and, due to the decline in volumes, this will lead to an increase in the per channel unit cost for ISDN30 services (i.e. a reduction in the value of X).
- 2.44 Similarly, the volumes forecast affect the additional capital expenditure forecast for 2013/14 in the Steady State model, which estimates the uplift to the ISDN30 cost stack to account for the heavily depreciated assets.¹⁶ The impact of the change in volumes on this capital expenditure is very small, reducing the value of the steady state uplift by approximately £0.10 per channel. This tends to result in a slight offsetting increase in the value of X.
- 2.45 The effect of change in cost estimates described above is small, however, we have reflected this in our target cost for ISDN30 prices.

The change to a two year control period also affects our inflation assumption

- 2.46 In the April Consultation, we calculated the value of X using an inflation of 4.5% for 2010/11, and 3% thereafter. This is because for the purpose of the price control constraint, we proposed that RPI would be taken from the October figure in the preceding year.¹⁷
- 2.47 Since the April Consultation, recently published RPI statistics and forecasts, suggest that an average RPI closer to 4% is more realistic. We have updated our calculation of the price control X's to account for the 5.4% October 2011 RPI statistic (rather than the previous 4.5% we used in the April Consultation). This RPI figure is used for the price control year 2012/13. We have maintained our forecast 3% RPI for the last year of the control in 2013/14. To estimate the value of X we have used an RPI of 4.2% (the average between 5.4% and 3% in the first and second year of the control, respectively). Therefore, our current proposals use a slightly higher RPI estimate than before (4.2% compared to 3.5%).

¹⁵ For a description of these models see Annex 6 of the April Consultation, available at

<http://stakeholders.ofcom.org.uk/binaries/consultations/isdn30-2011/summary/isdn30-2011.pdf>.

¹⁶ The additional capex element is the change in cost as a result of changing volumes of the relevant service relative to the base year (i.e. 2009/10). If volumes increase this will be positive, if volumes fall this will be negative. This is calculated by reference to the proposed AVE for the relevant asset of 0.5 for access electronics and 1 for linecards.

¹⁷ See paragraph A6.139 of the April Consultation, available at

<http://stakeholders.ofcom.org.uk/binaries/consultations/isdn30-2011/summary/isdn30-2011.pdf>.

The estimation of the value of X on the combined connections and rental basket

2.48 We estimate the X for a two year price control period using the following formula:

$$\left\{ \left(\frac{\text{Base cost estimate 2013/14}}{\text{Revenues 2013/14}} \right)^{\left(\frac{1}{2}\right)} - 1 \right\} - \text{RPI estimate}$$

2.49 Using this formula, we estimate that a two (rather than three) year price control period results in a two year X of -14.57%. This compares to the proposed -10.65% base case annual reduction in the April Consultation.

2.50 The combined effect of the changes described above is shown in Figure 2.3 above. Our current proposals result in a slightly smaller decline in ISDN30 real prices by the end of the price control than under the April Consultation proposals. Whereas under the April Consultation proposals ISDN30 prices would have to decline by 29% in real terms, under our current proposals the decline is 27% by the end of the price control period.

2.51 In the April Consultation we conducted some sensitivity analysis on the value of X,¹⁸ which we used to derive the upper and lower bound of the range of X over which we consulted on: -8.29% to -12.17%.¹⁹ We have estimated the range for the values of X in a two year control by using the range in the April Consultation and applying the formula in paragraph 2.48 above. We estimate that the revised two year range of Xs is -11.30% to -16.93%, which becomes -11% to -17% to the nearest 0.25.²⁰

We are not proposing any further changes to other ISDN30 services

2.52 As discussed above, we are proposing to change the duration of the price control from three to a two year period. Although, as we have described above, this change affects the value of X on the combined connections and rentals basket, it does not affect the safeguard caps we proposed in the April Consultation. For the avoidance of doubt, the proposed Condition retains those safeguard caps, which are as follows:

- An RPI+5% on the average connection price;
- An RPI-0% on the price of each enhanced care service;
- An RPI-0% on the transfer charge; and,

¹⁸ See Annex 6 of the April Consultation, available at

<http://stakeholders.ofcom.org.uk/binaries/consultations/isdn30-2011/summary/isdn30-2011.pdf>.

¹⁹ The lower bound of the range corresponded to the adoption of the volumes forecast submitted by Openreach (forecasting a 3% decline in rental volumes, a 3% decline in connections and 3% decline in transfers by the end of the charge control). The upper bound of the range corresponded to the assumption of an AVE of 1 for both access electronics and line cards. For further details see Annex 6 of the April Consultation, available at

<http://stakeholders.ofcom.org.uk/binaries/consultations/isdn30-2011/summary/isdn30-2011.pdf>.

²⁰ We acknowledge that this range for the value of X will not be completely accurate. This is because to estimate the value of X we need to run the two-stage volume scenarios described in paragraph 2.37 above. However, as indicated in paragraph 2.38 to 2.42, the move from a three to a two year charge control has a very small impact on volumes and costs. Therefore, we are confident that the difference between the range of X estimated using the approach in 2.51 and the approach we followed in the April consultation (i.e. running the two-stage volume scenarios) is likely to be very small.

- An RPI-0% on the DDI planning, connection and rental charges.

Provisional conclusion

2.53 Table 2.1 below summarises the proposed values of 'X' for each ISDN30 service or basket.

Table 2.1 Proposed values of X and relating Conditions

| Baskets | Proposed control | Proposed Condition |
|--|--|------------------------|
| Rental and Connections | | |
| - Line rental per channel per year | (RPI – 11% to RPI – 17%) ²¹ | Condition AAA(IS)4A.7a |
| - Connection charge per-installation | | |
| - Connection charge per-channel | | |
| - Service Maintenance Level 3 and 4 (enhanced care services) | | |
| Safe-guard cap on average connection price | RPI+5% | Condition AAA(IS)4A.8 |
| Safe-guard cap on each enhanced care service | RPI-0% | Condition AAA(IS)4A.9 |
| Transfer | | |
| - Charge per 30 channel access bearer | RPI-0% | Condition AAA(IS)4A.7b |
| DDI – Planning | RPI-0% | Condition AAA(IS)4A.7c |
| Connection per DDI | RPI-0% | Condition AAA(IS)4A.7d |
| Rental per DDI | RPI-0% | Condition AAA(IS)4A.7e |

²¹ Note: the Ofcom base case for X is RPI – 14.57%. The April Consultation proposed a base case of RPI – 10.65% and a range RPI – 8% to RPI – 11%

Section 3

Price control implementation and legal tests

Price control implementation

- 3.1 In Section 6 of the April Consultation we explained how the proposed price control was structured and how the proposed condition would work in practice. In particular we discussed the following:
- How the proposed conditions would work alongside other regulation;
 - How the proposed condition sets the “baskets” of services;
 - The proposed values of X for each service;
 - The effect of changes that Openreach makes to the prices of controlled services;
 - How we would calculate whether Openreach is complying with the proposed charge ceilings created by the proposed RPI-X style of control; and,
 - How the proposed condition allows for corrections where there has been over or under recovery.
- 3.2 While we do not seek to repeat this explanation here, it remains relevant to the revised conditions set out in Annex 5 of this consultation since the drafting and effect of the proposed conditions remains largely the same.
- 3.3 There is one key change to the price control conditions as proposed in the April Consultation:
- The draft condition has been amended to reflect that the control will not be in place for the period 1 April 2011 to 31 March 2012 (previously defined as “the First Relevant Year”), and is now proposed to be imposed after 1 April 2012. The effect of this is explained in Section 2 above. This impacts the level of X proposed for the control.
- 3.4 Other than indicated above, we are not proposing any specific revisions to the text of the price control condition. Our proposal to revoke the current interim price ceiling imposed under the MR statement, which is contingent upon the implementation of a substantive price control condition, remains unaltered.

Legal tests

- 3.5 At paragraphs 2.13 to 2.23 of the April Consultation we explained the legal framework for our proposals and at paragraphs 4.222 to 4.247 we reviewed the proposed control against that legal framework. We do not seek to replicate that discussion here but provide a brief summary.

- 3.6 With reference to Annex 7 of the Market Review consultation, we set out an overview of the market review process, including the imposition of remedies, to provide appropriate context and understanding to the matters discussed in that review.
- 3.7 We explained that before imposing an SMP condition requiring a price control we are required to satisfy certain legal tests set out in the Act, specifically:
- section 88 which prohibits the setting of SMP conditions under section 87(9) of the Act except where it appears, from the market analysis, that there is a relevant risk of adverse effects arising from price distortion; and it appears that the setting of the condition is appropriate for the purposes of promoting efficiency, promoting sustainable competition and conferring the greatest possible benefits on end users. We are also required to take into account the extent of BT's investment in the relevant market.
 - section 47 which requires that any SMP condition must not be imposed unless it is:
 - Objectively justifiable in relation to the services to which it relates;
 - Not such as to discriminate unduly against particular persons;
 - Proportionate to what the condition is intended to achieve;
 - In relation to what it is intended to achieve, transparent.
 - we need to ensure that the conditions proposed remain consistent with our general duties under section 3 of the Act and our duties for the purpose of fulfilling our Community obligations as set out under section 4 of the Act.
- 3.8 To give regulatory effect to the proposals set out in this document, we are proposing modified versions of the Condition AAA(IS)4A which we set out in the April Consultation. The revised text of the condition is set out in schedule 1 to the statutory notifications published under sections 48(A) and 86 of the Act in Part I of Annex 5.
- 3.9 We are satisfied that the proposed legal instrument meets our duties and the tests under the Act. Our reasoning for this view is set out below making reference to the analysis set out in the April Consultation where appropriate.

Aims and effects

- 3.10 As we explained in the April Consultation, the new proposed SMP condition AAA(IS)4A requires Openreach to ensure that its charges for specified ISDN30 wholesale services do not increase by more than RPI minus a value of 'X' that varies according to each relevant basket and individually controlled service. The baskets and services with their respective values for 'X' are set out in this document.
- 3.11 Ofcom's reasons for proposing to impose this particular form of control and the values for 'X' are set out in the April Consultation and this document.

Our duties and policy objectives

- 3.12 We discuss our duties and objectives specific for this review in detail in Section 2 of the ISDN30 April Consultation and we explain our duties and policy objectives in

Section 5 of that document. For the reasons set out there and in this document, our opinion of the likely impact of implementing the proposals is that the performance of our general and specific duties under section 3 and 4 of the Act continues to be secured or furthered by our proposal to adopt the revised price control.

Powers under sections 87 and 88

- 3.13 Section 87(1) of the Act provides that, where Ofcom has made a determination that a person (here, Openreach) has SMP in an identified services market (here, the ISDN30 wholesale exchange lines market within the UK, but not including the Hull Area), Ofcom shall set such SMP conditions authorised by that section as Ofcom considers it appropriate to apply to that dominant provider in respect of the relevant network or relevant facilities and apply those conditions to that person.
- 3.14 Section 87(9) authorises the setting of SMP service conditions, including price controls and the setting of rules in relation to recovery of costs and cost orientation. Further, where Ofcom seek to set an SMP condition falling within section 87(9) Ofcom is also required to comply with the requirements of section 88.
- 3.15 Section 88 restricts the setting of price control conditions to where there is a relevant risk of adverse effect arising from price distortion ('the relevant risk'), and where the condition to be set is the condition is appropriate for the purposes of: promoting efficiency; promoting sustainable competition and conferring the greatest possible benefits on end users.
- 3.16 The relevant risk was identified in the Market Review (and we consider below whether there has been a material change since that decision), so we must ensure that any proposed conditions fulfil the tests set out in section 88.
- 3.17 In our opinion for the reasons set out at paragraphs 4.222 to 4.236 of the April Consultation, the proposed revised Condition AAA(IS)4A continues to satisfy section 88. In coming to this provisional view we have assessed the effect of the changes proposed in this consultation.
- 3.18 In particular we have considered whether the shorter duration of the control remains appropriate for the purpose of promoting efficiency, noting at paragraph 2.13 above that adopting a control with duration of two, rather than three, years will change the balance between dynamic and allocative efficiency incentives. We consider that for the reasons discussed in Section 2 above a shorter control remains appropriate for the purpose of promoting allocative efficiency.
- 3.19 We consider that the proposed control remains appropriate for the promotion of sustainable competition, for the reasons set out in our discussion of the three potential options at paragraph 2.20 to 2.29 above. We consider that the proposed control most closely mimic those of a competitive market, and will cause less disruption to the industry.
- 3.20 We have also considered whether the proposed control is appropriate for conferring the greatest possible benefit on end users. In our discussion of the three potential options in Section 2, above, we considered that, in maintaining the goal of regulation to bring prices down to cost, the revised proposed control remains appropriate for conferring greatest possible benefit on end users.

The section 47 tests

- 3.21 In addition to above-mentioned matters, Ofcom must be satisfied that Condition AAA(IS)4A satisfies the test in section 47(2) of the Act, namely: objectively justifiable; not unduly discriminatory; proportionate; and transparent.
- 3.22 We consider that the proposed control remains appropriate for the promotion of sustainable competition, for the reasons set out in our discussion of the three potential options at paragraph 2.20 to 2.29 above. We consider that the proposed control most closely mimic those of a competitive market, and will cause less disruption to the industry.
- 3.23 We continue to be satisfied that this test is met in relation to the proposed revised condition AAA(IS)4A.

The proposed control is objectively justifiable

- 3.24 We explain at paragraphs 4.239 to 4.240 of the April Consultation why we consider that the proposed price controls are objectively justified. In our view, none of the revisions to the proposed price control conditions undermine that objective justification.

The proposed control does not discriminate unduly

- 3.25 We explain at paragraph 4.241 of the April Consultation why we consider that the proposed price controls do not discriminate unduly. None of the changes we are proposing change the fact that any CP (including BT itself) can access the services at the charge levels fixed. Further, Ofcom is still proposing only to impose the price control on Openreach, the only CP to hold SMP in this market (for the UK excluding the Hull Area).

The proposed control is proportionate

- 3.26 We explain at paragraphs 4.242 to 4.243 of the April Consultation why we consider that the proposed price controls to be proportionate and we continue to hold that view for the reasons set out.

The proposed controls are transparent

- 3.27 We explain at paragraph 4.244 of the April Consultation why we consider that the proposed price control is transparent. We are consulting again in light of revisions to our April Consultation proposals and the proposed text of the revised condition has also been published with this consultation. Its intended operation is also aided by our explanations in this consultation and our April Consultation. Our final statement will set out our analysis of any responses and the basis for our final decision.

We have considered sections 3 and 4 of the Act

- 3.28 We also consider that the proposed price control condition continues to fit with our duties under sections 3 and 4 of the Act for the reasons set out at paragraphs 4.245 to 4.247 of the April Consultation.

Conclusion

- 3.29 As this consultation is an extension of the April Consultation, we are specifically seeking stakeholder comments on the specific revisions to proposed SMP conditions AAA(IS)4A. Given the limited changes to the proposed condition and the explanation and analysis set out in our April Consultation, we consider that a consultation period of four weeks is sufficient and appropriate. However, given that the consultation will take place over the Christmas period, we will increase the consultation by two weeks to a total of six weeks, in line with our 2007 guidelines on consultations.²² We are therefore seeking responses to this consultation by 2 February 2012.

Following our consideration of the responses to this consultation, where relevant, we will notify our proposals (after making any modifications to them that we consider are appropriate) to the European Commission, BEREC and the regulators in other Member States for EU consultation under section 48B and section 49B of the Act. In that notification, we will address the responses we have received during this consultation, as well as all other stakeholder comments made in response to our April Consultation which we have not addressed in this document. We hope to give effect to our proposals (with any appropriate modifications to address any comments we may receive by those EU bodies) by a final decision which we expect to publish by 6 April 2012.

Notification

- 3.30 Notification of our revised proposal is set out at Annex 5. We have decided to re-notify all of the proposals made in the April Consultation as they are interrelated. Therefore the Notification annexed to this document proposes both the setting of the new condition and the revocation of Condition AAA(IS)4 (the interim charge ceiling set under the Market Review).
- 3.31 We are not proposing to alter our proposal to revoke Condition AAA(IS)4 and the reasons for the proposal, which still remains contingent on the imposition of the new control proposed as AAA(IS)4A, remain as set out at paragraphs 6.9 to 6.10 of the April Consultation.

Impact assessment

- 3.32 The analysis presented in this document represents an impact assessment, as defined in section 7 of the Act. In sections 2, 3, and 4 we discuss all of the relevant considerations and options that we have considered, including their impact.
- 3.33 Impact assessments provide a valuable way of assessing different options for regulation and showing why the preferred option was chosen. They form part of best practice policy-making. This is reflected in section 7 of the Act, which requires Ofcom to carry out impact assessments where its proposals would be likely to have a significant effect on businesses or the general public, or when there is a major change in Ofcom's activities. However, as a matter of policy Ofcom is committed to carrying out and publishing impact assessments in relation to the great majority of its policy decisions. For further information about Ofcom's approach to impact

²² <http://stakeholders.ofcom.org.uk/consultations/how-will-ofcom-consult>

assessments, see the guidelines, *Better policy-making: Ofcom's approach to impact assessment*, which are on the Ofcom website.²³

- 3.34 Specifically, pursuant to section 7 of the Act, an impact assessment must set out how, in our opinion, the performance of our general duties (within the meaning of section 3 of the Act) is secured or furthered by or in relation to what we propose.

Equality Impact Assessment

- 3.35 Ofcom is separately required by statute to assess the potential impact of all our functions, policies, projects and practices on race, disability and gender equality. Equality impact assessments (EIAs) also assist us in making sure that we are meeting our principal duty of furthering the interests of citizens and consumers regardless of their background or identity. Unless we otherwise state in this document, it is not apparent to us that the outcome of our review is likely to have any particular impact on race, disability and gender equality. Specifically, we do not envisage the impact of any outcome to be to the detriment of any group of society.
- 3.36 We do not see a need to carry out separate EIAs in relation to race or gender equality or equality schemes under the Northern Ireland and Disability Equality Schemes. This is because we anticipate that our regulatory intervention will affect all industry stakeholders equally and will not have a differential impact in relation to people of different gender or ethnicity, on consumers in Northern Ireland or on disabled consumers compared to consumers in general. Similarly, we are not envisaging making a distinction between consumers in different parts of the UK or between consumers on low incomes. Again, we believe that our intervention will not have a particular effect on one group of consumers over another.

²³ <http://www.ofcom.org.uk/about/policies-and-guidelines/better-policy-making-ofcoms-approach-to-impact-assessment/>

Section 4

No material change assessment

Introduction

- 4.1 Section 86 of the Act restricts Ofcom from setting an SMP condition other than when also making a market power determination unless the condition is set by reference to a market power determination:
- a. which has been reviewed and, in consequence of that review, is reconfirmed in the notification setting the condition; or,
 - b. in a market where Ofcom is satisfied that there has been no material change since the determination was made.
- 4.2 For the reasons set out below, and in light of the specific characteristics of the wholesale ISDN30 market, our provisional conclusion is that we are satisfied that there has been no material change in that market since the market power determination was made.
- 4.3 We consider that there is no evidence that the market has changed materially since our review, on 20 August 2010, of the ISDN30 markets (the 'MR statement'). In the MR statement we found BT (Openreach)²⁴ to have SMP in the wholesale ISDN30 exchange line services market in the UK excluding the Hull Area. We imposed remedies in order that other communications providers ('CPs') are able to gain access to services that allow them to provide retail products in competition with BT.
- 4.4 In this section we:
- a. summarise the conclusions of the ISDN30 Market Review;
 - b. review the basis for relevant decisions in the MR statement; and
 - c. consider any evidence of changes in the market and consider the materiality of any changes.

Summary of the conclusions of the Market Review

- 4.5 The main conclusions of our MR statement that are relevant to the proposed imposition of regulation on Openreach at the wholesale level, can be summarised as follows:

The market definition

- ISDN30 services are a distinct product market at both the retail and wholesale levels.

²⁴ Openreach is the access division of BT Group established by Undertakings in 2005. Whilst the proposed SMP conditions in this document formally apply to British Telecommunications plc, Openreach is the division of BT which provides the wholesale ISDN30 services which we are proposing to regulate. Therefore throughout this document, we refer to Openreach as the supplier of wholesale ISDN30 services.

- There are two geographic markets at both the retail and wholesale levels and these are the UK excluding the Hull area and the Hull area.

Wholesale market power assessment in the UK excluding the Hull area

- We concluded that Openreach had SMP in the market for the supply of wholesale ISDN30 exchange line services in the UK excluding the Hull area.

Wholesale level remedies

- We reimposed both general and product specific remedies on Openreach that had been in place prior to the MR statement.²⁵
- We imposed an interim price ceiling.
- We also concluded that a new price control supported by a cost accounting obligation should be imposed on Openreach to address an identified competition concern that wholesale charges for ISDN30 appeared to be above the competitive level.

4.6 We will now consider the basis for these decisions, the evidence of changes in the market since August 2010 and the materiality of those changes to the proposed setting and revocation of the SMP conditions detailed in this consultation.

Market definition

4.7 In considering the competitive conditions in the supply of ISDN30 services, in line with our MR statement²⁶, we have considered the supply and demand for ISDN30 and its potential substitutes at both the retail and wholesale level. We consider that there have been no significant changes since our MR statement that would justify a different market definition at the wholesale or retail level.

Retail market

4.8 The assessment of the retail market is required to inform the definition of the wholesale market, given that demand for wholesale services is derived from demand at the retail level. In the MR statement we considered whether the ISDN30 product market should be widened to include alternative products. In particular, we considered the demand-side and supply-side substitutability of analogue exchange lines, ISDN2, leased lines, local loop unbundling (LLU) and IP solutions (including SIP Trunking, IP Centrex and Hosted VoIP).

4.9 We concluded that:

- the relevant retail product market is the market for retail ISDN30 exchange line services;
- the relevant geographic markets are:

²⁵ See paragraph 8.4 of our MR statement, available at <http://stakeholders.ofcom.org.uk/binaries/consultations/isdn30/statement/statement.pdf>.

²⁶ At paragraphs 2.23-2.25 of the MR statement we explained that we adopted the analysis, reasoning and information set out in the 2010 Market Review consultation (the 'MR consultation') document. Therefore this review takes account of, and references, both documents.

- the market for retail ISDN30 services in the UK excluding the Hull area; and
- the market for retail ISDN30 services in the Hull area.

4.10 We have not explicitly assessed any changes in the definition of the retail geographic market. This is because we are only interested in the validity of our wholesale market definition and the justification for the imposition of wholesale SMP remedies. For this purpose, and given that the wholesale geographic market does not require to previously define the retail geographic market,²⁷ we have only considered the definition of the wholesale geographic market below.

Demand-side substitution

4.11 The MR statement considered the scope for retail level demand-side substitution for ISDN30 services. We considered that none of the services identified as potential demand substitutes for ISDN30 (listed in paragraph 4.8 above) provided a sufficient competitive constraint on ISDN30 prices to be considered part of the same relevant market.

4.12 In reaching this conclusion we considered that the potential ISDN30 demand substitutes were each unlikely to provide a sufficient competitive constraint on ISDN30 due to technical and functional differences between these products and ISDN30, in particular:

- Analogue exchange lines differ from ISDN30 in that the latter is designated for large business sites, providing multiple telephone lines (with a minimum of 8 channels) and is charged on a per channel (rather than line) basis (see paragraphs 4.20 to 4.25 of the MR consultation);
- It would not be cost effective for a customer purchasing more than 8 channels to substitute an ISDN30 service for ISDN2, which only includes up to two channels. Therefore, substitutability between these two services is significantly limited (see paragraphs 4.20 to 4.25 of the MR consultation);
- Leased lines only provide the bearer service²⁸ and therefore can only be considered an upstream input, rather than a substitute. Significant investments would be required in switching equipment and updates to the operational support systems to provide telephony services using leased lines (see paragraphs 4.26 to 4.27 of the MR consultation); and,
- Differences between SIP Trunking, Hosted VOIP, IP Centrex and ISDN30, include, amongst other (see paragraphs 4.34 to 4.62 in the MR consultation):

²⁷ Consistent with the relevant guidance, our approach to geographic market definition is based on identifying areas in which competitive conditions are (sufficiently) homogeneous. It is also consistent with the 'modified Greenfield approach', which states that the definition of a relevant market should not take into account SMP regulation which is dependent on the outcome of the SMP analysis of that same market. Therefore, in the absence of wholesale regulation, the geographic pattern of retail competition would come to resemble the pattern of wholesale level competition. This is because in the (likely) absence of wholesale ISDN30 products, competition would be on an end to end basis. Hence, we can directly proceed to the analysis of wholesale level competition and the wholesale geographic market. We used a similar approach in the Wholesale Local Access market review, see paragraphs 3.7 – 3.8, available at

http://stakeholders.ofcom.org.uk/binaries/consultations/wla/statement/WLA_statement.pdf.

²⁸ Leased lines are fixed connections between two or more customer premises providing un-contended dedicated capacity between these sites.

- Businesses' reservations concerning SIP Trunking's ability to provide a reliable and consistent high quality of service (as shown by the market research conducted during the MR consultation²⁹);
 - The requirement for an IP enabled PBX for SIP Trunking, which acts as an additional barrier to IP take up given businesses sunk investment in legacy PBXs;
 - The lack of standardisation of the SIP signalling used to communicate with the PBX, implying that PBXs may not always be able to connect to any SIP services³⁰; and,
 - End users' stated preference for ISDN30 over IP (as shown by the market research conducted during the MR consultation).
- 4.13 In addition to the functional and user differences between ISDN30 and IP solutions, the MR consultation considered the uptake of ISDN30 and IP services to assess substitutability between the two services. We noted that while IP services were likely to gain momentum in future, this was unlikely to happen to a significant extent in the following three to four years. We also noted that ISDN30 volumes had remained flat for a number of years and that the observed 3% decline between Q4 2008 and Q3 2009 was consistent with only limited (and gradual) substitution from ISDN30 to other alternative services. We considered that "even if there were significant growth to say 500,000 IP channels in the next couple of years, this would still only represent around 16% of the current ISDN30 market"³¹.

Material change assessment of retail demand-side substitution

- 4.14 We do not consider that there have been any relevant changes to the technical characteristics of ISDN30 or its potential demand substitutes. We consider that the end user survey³² results remain valid as the questions were asked on a forward looking basis and remain consistent with other updated evidence we have obtained. Therefore we do not consider it necessary to repeat the survey for the purpose of this assessment. We have considered whether there is evidence of increased switching which could indicate that IP services are now seen as closer substitutes. For this purpose we have assessed the uptake of ISDN30 and IP services since the publication of our MR statement.
- 4.15 In the April Consultation we forecast that ISDN30 volumes would decline by an annual 8% from March 2010 to March 2014. ISDN30 volumes have declined by 6% in the period from June 2010 to June 2011, which is roughly in line with our expectations, representing only a slightly smaller decline than the one projected in the April Consultation (see Table 4.1 below).

²⁹ <http://stakeholders.ofcom.org.uk/binaries/consultations/isdn30/narrowband.pdf>

³⁰ We expected that in the medium term this would become less of an issue as CPs would be likely to offer SIP service that are compatible with recent model PBXs.

³¹ See the MR consultation, paragraph 4.61, available at <http://stakeholders.ofcom.org.uk/binaries/consultations/isdn30/summary/isbn30.pdf>

³² <http://stakeholders.ofcom.org.uk/binaries/consultations/isdn30/narrowband.pdf>

Table 4.1 ISDN30 volumes, Jun-2010 to Jun-2011 (channels)

| | Jun-10 | Sep-10 | Dec-10 | Mar-11 | Jun-11 |
|------------------------|------------------|------------------|------------------|------------------|------------------|
| ISDN30 channels | 2,893,237 | 2,866,902 | 2,883,096 | 2,782,575 | 2,725,999 |
| Difference | | -26,334 | 16,194 | -100,521 | -56,576 |

Note: The ISDN30 volumes of one operator had to be adjusted as they previously included IP VPN volumes. We have used the 12 month period June 2010 to June 2011 as we consider this the most reliable 12 month data window. ✂. Hence, the volume data above is different from that used in the April Consultation. However, we do not consider this adjustment to have any material effect, given that the reduction in ISDN30 volumes over the 12 month period shown above (6%) is in line with our April Consultation forecast that ISDN30 channels would decline annually by 8%.

Source: Operators' responses to S135 information requests.

- 4.16 Since the publication of our April Consultation document we have requested an update of CPs' ISDN30 volumes and forecasts under our s135 powers. In these new forecasts CPs have projected smaller declines in ISDN30 volumes than they had previously forecasted. We consider this to be consistent with smaller levels of switching towards IP products than they had previously anticipated.
- 4.17 Table 4.2 below shows the evolution of IP volumes from June 2010 to June 2011. It shows that IP volumes decreased in the first quarter of the period and increased thereafter, particularly in the last quarter considered.

Table 4.2 IP volumes, Jun-2010 to Jun-2011 (channels)

| | Jun-10 | Sep-10 | Dec-10 | Mar-11 | Jun-11 |
|--------------------|--------|--------|--------|--------|--------|
| IP channels | ✂ | ✂ | ✂ | ✂ | ✂ |
| Difference | | ✂ | ✂ | ✂ | ✂ |

Note: No IP volume data available for ✂ on Jun-10, the previous quarter volume figure is assumed. We have used the 12 month period June 2010 to June 2011, as we consider this the most reliable 12 month data window. ✂. Hence, the volume data above is different from that used in the April Consultation. However, for the reasons discussed in paragraphs 4.18 to 4.21 below, we do not consider this adjustment to have any material effect on our April Consultation or Market Review.

Source: Operators' responses to S135 information requests.

- 4.18 We consider that this trend in IP volumes is consistent with the findings in both our MR consultation and statement (the 'Market Review'), in particular, that:
- We had observed a shift to the use of IP-based technologies for communications networks in the last few years;³³ and,
 - IP based services were likely to gain momentum in the future and may eventually be an effective substitute for ISDN30.³⁴

³³ See paragraph 4.17 of our MR consultation, available at <http://stakeholders.ofcom.org.uk/binaries/consultations/isdn30/summary/isbn30.pdf>.

- 4.19 However, we continue to believe that, in line with our MR statement (as highlighted in paragraph 4.13), the current level of IP volumes and their increase in the last year is not sufficient to consider IP services an effective substitute for ISDN30. The current level of IP volumes (≈ channels or around ≈% of the combined ISDN30 and IP volumes) indicate that at this stage only a minority of customers are choosing IP as an alternative to ISDN30.
- 4.20 The evidence in Table 4.2 is restricted to the period June 10 to June 11 and it shows an increase in IP volumes only in the last three quarters of that period. Therefore, we believe that we should be careful regarding forecasting future changes to volumes on the basis of such a small sample. We will in any event continue to monitor trends between now and the publication of our Statement.
- 4.21 We consider that the evidence described above is consistent with our conclusion that IP based services are not effective substitutes for ISDN30. That is, consumers have not switched to IP services in greater numbers than we predicted in the Market Review and the April Consultation. This is also consistent with the outcome of our market research conducted during the MR consultation. The research asked ISDN30 consumers questions based upon their future intentions over a five year period and it found that 84% of customers were not considering switching away from ISDN30 in the next two years.³⁵ We consider that, in light of the evidence on IP and ISDN30 volumes described above, this finding remains valid. Therefore we do not propose to conduct a further survey on ISDN30 consumers.
- 4.22 Our provisional conclusion is that, there has been no material change to affect the narrow market definition based on ISDN30 services only, which remains appropriate. However, we recognise the competitive constraints from IP services in the SMP assessment below.

Supply-side substitution

- 4.23 In the MR statement, we also considered the scope for supply-side substitution for ISDN30 services. We considered that none of the services identified as potential supply-side substitutes for ISDN30 (i.e. analogue exchange lines, ISDN2, LLU, leased lines and IP services) provided a sufficient competitive constraint on ISDN30 prices to justify widening the relevant market definition.
- 4.24 The key points considered in reaching this conclusion were:
- Considerable sunk investments would be required for CPs currently providing analogue exchange lines, ISDN2, LLU, leased lines and IP services to upgrade their networks to provide ISDN30 (see paragraph 3.7 of the MR statement and paragraphs 4.63 to 4.67 of the MR consultation); and,
 - Given that ISDN30 is a declining market, we considered that such investments were unlikely to be economic given the limited period of time over which they could be recovered (see paragraph 4.64 of the MR consultation).

Material change assessment of retail supply-side substitution

³⁴ See paragraph 3.10 of our MR consultation, available at <http://stakeholders.ofcom.org.uk/binaries/consultations/isdn30/statement/statement.pdf>.

³⁵ See paragraph 4.43 of the MR consultation, available at <http://stakeholders.ofcom.org.uk/binaries/consultations/isdn30/summary/isbn30.pdf>.

- 4.25 We consider that there has been no change in the technical aspects of the provision of potential ISDN30 supply-side substitutes that would significantly affect the investment required to supply ISDN30 services over alternative technologies.
- 4.26 We also looked at whether the provision of ISDN30 over LLU provides a constraint on retail ISDN30. We consider that the large fixed costs associated with establishing a point of presence at a BT exchange (e.g. ordering the space, installation and commissioning of equipment and backhaul circuits) is likely to limit the provision of ISDN30 services using LLU. For this reason, we argued that the use of LLU to provide ISDN30 was only likely to occur where unbundling had already happened for broadband and/or telephony.³⁶
- 4.27 In the April Consultation we discussed that there were no CPs offering ISDN30 services over LLU and that only one operator had expressed interest in doing so in future. In its s.135 submission, dated 10 October 2011, this operator indicated that their plans to supply ISDN30 services over LLU were still at the trial stage. This operator expects to launch its LLU-based service in \times , although it has noted that the launch is dependent on improvements to the multi-line porting process. This CP has indicated that the equipment costs to deliver ISDN30 services are too high for them to develop a competitive offer. They now plan to offer only a very limited ISDN30 service (\times), and their main focus for future service development will be on the provision of SIP Trunking rather than ISDN30. In as far as this LLU-based service can be characterised as an IP-like service, we note that we have already accounted for the competitive constraints from IP in our assessment in paragraphs 4.16 to 4.22 above. As discussed, we do not consider that the competitive constraints from IP services will be sufficiently strong to be considered part of the ISDN30 market over the period of the charge control.
- 4.28 Additionally, we note that, even if this CP manages to launch this new service, it only expects to supply around \times channels by the end of the charge control period. This represents a small fraction (\times) of the 1.7m channels forecast on Openreach's network by the end of the charge control. We therefore do not consider that future supply over LLU is likely to constrain ISDN30 prices over the period of the charge control.
- 4.29 The switching and incremental cost analysis conducted in the April Consultation showed that provision of ISDN30 services using leased lines was likely to be economical in a limited number of circumstances due to the costs involved. Our analysis showed that CPs tend to use leased lines to supply circuits that are close to full capacity (i.e. 30 channels). This allows CPs to spread the circuit cost over a higher number of revenue-generating channels (retail ISDN30 services are charged on a per channel basis, so amortising the one-off cost of the leased line over a larger number of channels increases the margin on each retail ISDN30 channel). Where retail customers require a small amount of channels, CPs are likely to favour Openreach's WLR offering which is charged on a per-channel rather than a per-circuit basis.
- 4.30 Additionally, leased lines rented from BT or another third party typically incur distance charges, which increase the longer the length of the circuit's trunk and terminating segments. For this reason, supply over leased lines is also limited by the distance

³⁶ See, for example, paragraph 7.17 of our MR consultation, available at <http://stakeholders.ofcom.org.uk/binaries/consultations/isdn30/summary/isbn30.pdf>; and paragraph A10.14 of our ISDN30 price control consultation, available at <http://stakeholders.ofcom.org.uk/binaries/consultations/isdn30-2011/summary/isdn30-2011.pdf>.

from the end user premises to the CP's network. In some circumstances, if distance costs are too high supply over leased lines is uneconomical and WLR ISDN30 is the only viable alternative.

- 4.31 Even at current prices for WLR ISDN30 – that represent a significant profit margin, and would therefore encourage market entry – provision of ISDN30 using leased lines has remained broadly unchanged since 2010, representing only around $\times\%$ of the total ISDN30 retail market. Therefore, we do not consider that potential future entry into the ISDN30 market using leased lines will provide any additional constraint on its prices.
- 4.32 We also note that, as shown in Table 4.1 above and broadly consistent with our forecast in the April Consultation, the ISDN30 market has continued to decline. We therefore continue to believe that CPs are unlikely to make further investments to enter in a declining market, given the limited time period over which such sunk costs could be recovered and the fact that adding further capacity to a market forecast to decline is likely to lead to a fall in the expected wholesale price of ISDN30 over the period of the investment.

Retail market material change view

- 4.33 Our provisional conclusion is that there has been no material change to the retail market definition set under the MR statement. The key points considered in reaching this view are:
- there have not been any significant changes in the technical or functional characteristics of ISDN30's potential substitutes that would increase the demand or supply-side substitutability for ISDN30;
 - the low uptake and the continued gradual migration to IP services indicate that these are unlikely to become effective demand substitutes for ISDN30 over the period of the charge control;
 - LLU supply is unlikely to provide a competitive constraint on ISDN30 prices given that it requires significant sunk costs and the only CP that has expressed interest in launching such service will only be able to reach a relatively small scale (if it begins commercial deployment at all) over the charge control period; and,
 - leased lines supply is unlikely to provide a competitive constraint on ISDN30 prices given that it requires significant sunk costs and can only be economical under certain (limited) conditions.

Wholesale market

- 4.34 In assessing the competitive conditions for the wholesale supply of ISDN30 exchange lines, the MR statement considered the direct constraints on supply of ISDN30, including demand-side substitution and supply-side substitution. We also considered the indirect competitive constraints posed by the possibility that end-customers could switch to products outside of our retail market definition, such as SIP Trunking or Hosted IP.
- 4.35 We considered the focal product of ISDN30 exchange lines to include both wholesale lines that are self-supplied (including via LLU) and those where the exchange line is provided to a third-party retailer (e.g. WLR).

4.36 We concluded that:

- wholesale ISDN30 exchange lines comprise a single market (see paragraph 5.25 of the MR statement), and;
- the geographic markets for the supply of wholesale ISDN30 are the UK market excluding Hull and a separate market for the Hull area (see paragraph 5.27 of the MR statement).

Direct competitive constraints

Demand-side substitution

4.37 In the Market Review we assessed the direct competitive constraints posed by demand-side substitution. In particular, we considered the possibility that purchasers of wholesale ISDN30 exchange lines could obtain wholesale access through:

- self-supply (i.e. using their own PSTN, cable or fibre networks, or using LLU);
- obtaining access to Openreach's network using WLR; and,
- negotiating third-party access to a non-Openreach network.

4.38 We also considered supply-side substitution, that is, whether suppliers of alternative products would switch to supplying wholesale ISDN30 in response to a price increase above the competitive level in the wholesale ISDN30 market.

4.39 We found that:

- wholesale ISDN30 exchange lines supplied over all narrowband networks provide a demand-side competitive constraint on wholesale ISDN30 (see paragraph 6.15 of the MR consultation);
- other type of exchange lines, such as ISDN2 and IP solutions, did not provide a direct competitive constraint on the wholesale demand for ISDN30, as they required wholesale ISDN30 inputs to supply ISDN30 retail customers (see paragraph 6.16 of the MR consultation);
- whether these other wholesale services could be considered a competitive constraint on ISDN30 could be determined by the extent to which end users would switch to IP, or other substitute products, as a response to a SSNIP on wholesale ISDN30. We assessed this as an indirect competitive constraints on ISDN30 and we found that it was unlikely that any of the services identified could constrain ISDN30 prices to a sufficient extent to be considered an indirect competitive constraint (see paragraph 6.23 to 6.53 of the MR consultation); and,
- leased lines did not provide a demand-side substitute for wholesale ISDN30 exchange lines as they provided transmission capacity only (see paragraph 6.18 of the MR consultation).

4.40 The key points considered in reaching this conclusion were:

- the major ISDN30 retailers predominantly obtain access through self-supply. Self-supply over the operators' narrowband networks accounted for a large proportion (79%, including BT self supply) of all ISDN30 wholesale channels;

- self-supply and third-party access to non-BT networks were functionally equivalent to obtaining access to Openreach's network using WLR and therefore should be considered demand-side substitutes;
- retailers of ISDN30 could not use other types of exchange lines, such as ISDN2, LLU, IP based technologies and leased lines to supply ISDN30 to their retail customers, as they would require additional wholesale ISDN30 inputs; and,
- for a 10% increase in wholesale ISDN30 charges above the competitive level to be unprofitable, demand for ISDN30 would have to drop by around 13%-17%. We considered that this level of switching to the services identified as potential indirect competitive constraints was unlikely.

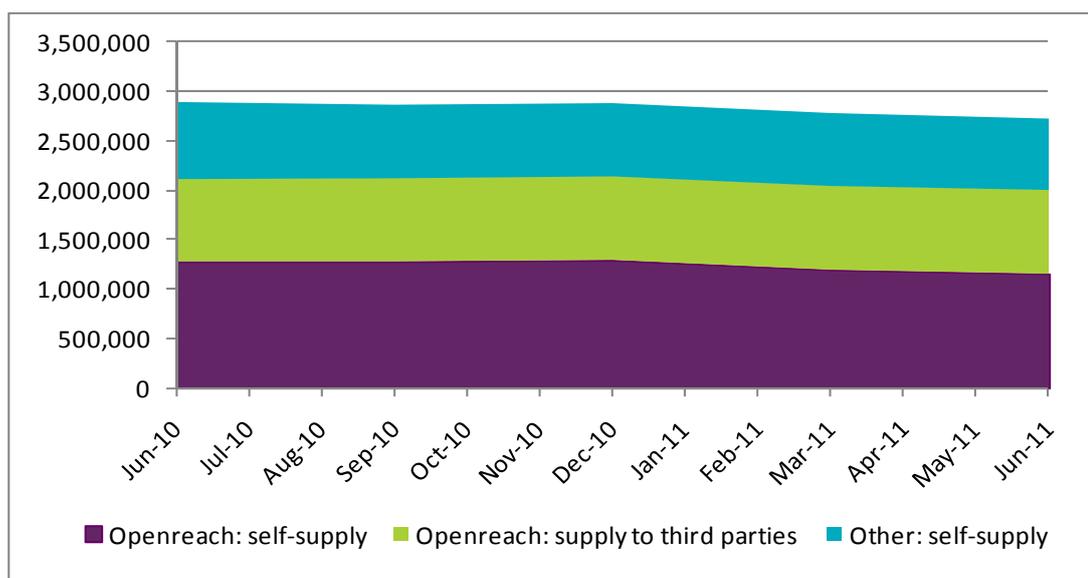
Supply-side substitution

- 4.41 In the MR statement we noted that it was technically feasible for any type of access network to be upgraded to provide ISDN30 access. However, we concluded that we did not think supply-side substitution from these alternative access networks was sufficient to warrant inclusion in ISDN30's relevant market.
- 4.42 The key points considered in reaching this conclusion were:
- analogue lines, broadband, LLU or leased lines involve considerable sunk-costs. With the ISDN30 market forecast to decline over the medium term, investment in these alternative networks to provide ISDN30 was unlikely to be economic and, by adding capacity to a mature market, was likely to lead to a fall in the expected wholesale prices (see paragraph 6.21 of the MR consultation); and,
 - in practice, we had observed very limited supply-side substitution over time, with the number of exchange lines self-supplied by non-BT CPs remaining relatively constant at approximately 800,000 channels (see paragraph 6.22 of the MR consultation).

Material change assessment of direct competitive constraints

- 4.43 In relation to demand-side substitution, we have considered the developments in ISDN30's wholesale supply. Figure 4.2 below shows that the volumes of wholesale ISDN30 channels sold to June 2011, including Openreach self-supply, Openreach supply to third parties, and third party self-supply, have been in line with the trends identified in both our Market Review and our April Consultation. In particular, the supply of wholesale ISDN30 has declined slightly, falling from 2.9m channels in June 2010 to around 2.7m channels by June 2011. As in previous years, BT's self-supply has fallen over the period, reflecting its loss of retail market share, which has to some extent been offset by third-party growth.

Figure 4.2 Wholesale supply of ISDN30 (channels)



Note: The ISDN30 volumes of one operator had to be adjusted to exclude IP VPN volumes, which had been previously included. We have used the 12 month period June 2010 to June 2011, as we consider this the most reliable 12 month data window. ✂.

Source: Operators' responses to S135 information requests.

- 4.44 We do not consider that there have been material changes in the technical characteristics of wholesale ISDN30 and its potential substitutes that would change the conclusions of our MR statement, in particular:
- self-supply and third-party access to non-BT networks are functionally equivalent to obtaining access to Openreach's network using WLR; and,
 - retailers of ISDN30 cannot substitute other types of exchange lines, such as ISDN2, IP based technologies, LLU and leased lines to supply their customers with ISDN30 as they would need to purchase other wholesale inputs to provide retail ISDN30 services to their customers.
- 4.45 Regarding supply-side substitution, there have been no significant changes identified in the technology used to supply ISDN30 that would facilitate further supply-side substitution. The continuing decline of the retail ISDN30 market makes it less likely that CPs with alternative networks would find it economic to invest further to supply ISDN30 (as discussed in paragraph 4.32 above).
- 4.46 We consider that supply over LLU is similarly unlikely to constrain ISDN30 prices given that, as discussed in paragraphs 4.26 - 4.27 above, there are large fixed costs associated with unbundling exchanges. There is only one CP that has expressed interest in supplying an IP-like voice service using LLU over the period of the charge control, and we have taken this into account when assessing the competitive constraints from IP on ISDN30 prices. We have also noted that the expected low volumes from this CP are unlikely to constrain ISDN30 prices over the charge control period. Our assessment of the costs involved in the provision of ISDN30 services over leased lines, discussed in paragraphs 4.29 - 4.31 above, shows that these could only constrain ISDN30 prices in a very limited number of circumstances. We take further account of competition using LLU and leased lines in our analysis of SMP.

- 4.47 For the above reasons, we continue to believe that the ISDN30 wholesale market should not be widened to include any of the alternative supply-side substitute products identified.

Indirect competitive constraints

- 4.48 In the MR consultation we considered whether indirect competitive constraints could limit the profitability of a price rise in wholesale ISDN30 exchange lines. We concluded that this would be most likely where such a price increase leads to a relatively large increase in retail prices, and where this in turn causes a significant number of consumers to switch to substitute retail products (e.g. IP based services) whose price is unchanged.
- 4.49 To understand the impact of indirect competitive constraints, we conducted a critical loss analysis and concluded that, although some switching away from ISDN30 was likely after a 10% price increase in wholesale charges above the competitive level, it was highly unlikely to occur in a sufficient volume to make the price increase unprofitable. On these grounds, we concluded that IP should not be included in the ISDN30 wholesale market.
- 4.50 The key points considered in reaching this conclusion were:
- The 'critical loss' analysis indicated that a 10% increase in the price of wholesale ISDN30 would only be profitable if demand for ISDN30 did not decrease by more than 13-17% as a reaction to that price increase (see paragraph 6.51 of the MR consultation); and,
 - The retail analysis conducted found that demand for retail ISDN30 was relatively price inelastic and we therefore considered it highly unlikely that such a price increase over the competitive level could result in demand falling by more than 13-17%, supporting the conclusion that wholesale ISDN30 was in itself a relevant market (see paragraph 6.52 to 6.53 of the MR consultation).
- 4.51 Our critical loss analysis for a 10% price increase considered:
- the proportion of wholesale charges to ISDN30 charges (the 'dilution effect'), which we estimated to lie between 81% and 94% of retail charges (assuming a middle point of 85% for our critical loss analysis);
 - the wholesale margin over marginal costs, which we assumed to lie between 60%-80%;
 - our assessment that the retail ISDN30 market was increasingly competitive, with BT no longer having SMP in the supply of retail ISDN30; and,
 - the relative price inelasticity of ISDN30. Our consumer survey data indicated, amongst other, that 84% of the sampled ISDN30 users were not considering switching from ISDN30 to SIP Trunking in the next two years, and that consumer switching is often led by exogenous events (such as the need to move offices) rather than the relative price of services. This indicated that the retail demand for ISDN30 is relatively inelastic to price changes.

Material change assessment of the indirect constraints

4.52 We have replicated the critical loss analysis conducted in the MR consultation. We consider that there have not been any significant variations in the input variables used to conduct it, in particular:

- Openreach wholesale charges have remained unchanged and BT Retail's prices have not varied significantly. BT Retail's standard ISDN30 tariff at the time of the MR consultation was £202.80³⁷ and is currently £198.12 (i.e. a 2% decline in its standard retail tariff relative to the MR consultation).³⁸ We believe it is reasonable to assume that CPs' retail prices will have followed a similar pattern.³⁹ Assuming a 2% decline in ISDN30 retail prices across the entire market, this would imply that wholesale charges account for approximately 87% of the total retail price now (compared to 85% at the time of the MR consultation); and,
- the profitability of wholesale ISDN30 has remained relatively stable⁴⁰ and we consider that wholesale margins over marginal costs lying between 60%-80% - consistent with the range considered in the MR consultation - are still appropriate.

4.53 We estimated the critical loss elasticity for a 10% price increase to be:⁴¹

Critical loss elasticity = $-1/[\text{dilution effect} * (0.1 + \text{wholesale price cost margin})]$

4.54 Using the input variables described in paragraph 4.51 (an 87% dilution effect and the same wholesale price cost margins used in our MR consultation, for the reasons highlighted in paragraph 4.52 above) a 10% price increase results in very similar critical loss elasticities to those estimated in our MR consultation:

Table 4.3 Critical loss elasticity estimates

| Wholesale margin | Critical loss elasticity |
|------------------|--------------------------|
| 60% | -1.64 |
| 70% | -1.44 |
| 80% | -1.28 |

4.55 Table 4.3 suggests that if a hypothetical monopoly supplier of wholesale ISDN30 exchange lines increased charges by 10% above the competitive level, this price increase would be unprofitable if demand for retail ISDN30 exchange lines fell by

³⁷ See paragraph 6.34 of our MR consultation, available at <http://stakeholders.ofcom.org.uk/binaries/consultations/isdn30/summary/isbn30.pdf>.

³⁸ See <http://business.bt.com/phone-services/phone-lines-and-calling-plans/isdn/>.

³⁹ This follows a similar assumption, that CPs' prices follow those of BT, made in our geographic retail market definition in the MR consultation paragraph 4.71 (<http://stakeholders.ofcom.org.uk/binaries/consultations/isdn30/summary/isbn30.pdf>). The geographic retail market definition was confirmed on this basis in the MR statement paragraph 3.26.

⁴⁰ The ROCE was 65% in 2008, 74% in 2009, 62% in 2010 and 67% in 2011. After our asset adjustment the ROCE was approximately 23% in 2010 and 24% in 2011. We discuss these estimates below in paragraphs 4.73 to 4.78.

⁴¹ See paragraph 6.48 of the MR consultation, available at <http://stakeholders.ofcom.org.uk/binaries/consultations/isdn30/summary/isbn30.pdf>.

more than 12.8% to 16.4% (depending on the wholesale margin).⁴² As discussed above, these are very similar critical elasticity levels to those estimated in our MR consultation.

- 4.56 We also consider that other factors accounted for in the analysis of indirect competitive constraints in our MR consultation have remained unchanged, in particular:
- as discussed above, the retail ISDN30 market is increasingly competitive, with BT Retail losing market share to other CPs, in line with our findings in the MR statement; and
 - as forecast in our April Consultation, and recognised in our Market Review, there are some signs of increasing IP volumes. However, these are still very small and we consider that they are insufficient to constrain ISDN30 prices over the period of the charge control (as discussed in paragraphs 4.16 to 4.32 above).
- 4.57 On these grounds, we believe that the MR finding that a 10% price increase in wholesale ISDN30 charges above the competitive level would be profitable remains valid. As shown by our analysis of demand-side substitution in the discussion of direct constraints above, we continue to believe that it is highly unlikely that a 10% price increase above the competitive level would lead to a drop in demand of sufficient magnitude to render a SSNIP unprofitable. This is consistent with our retail market definition.

Geographic Market Definition

- 4.58 In the MR statement, we concluded that there was a single UK wholesale market excluding Hull and a separate market for the Hull area.
- 4.59 The key points considered in reaching this conclusion were:
- in the UK market, excluding Hull, customers are only able to choose between CPs that supply services in their geographic area (see paragraph 6.56 of the MR consultation); and,
 - WLR is made available to retailers at a uniform price across the UK, excluding the Hull area (see paragraph 6.56 of the MR consultation).

Material change assessment of the wholesale geographic market

- 4.60 Openreach's wholesale prices continue to be uniform across the UK (excluding the Hull area). Therefore, we continue to believe that there is a wholesale ISDN30 market corresponding to the UK excluding Hull and a separate market for the Hull area.⁴³

⁴² This compares to 13.1% and 16.8% in our MR consultation, see paragraph 6.51 of our MR consultation.

⁴³ As noted above, one CP has announced plans to offer an ISDN30-like service using LLU. We expect this to be offered within its existing and already-planned LLU footprint which does not cover the whole of the UK excluding the Hull area. However, given the very small scale of its expected supply, and hence its limited impact on competitive conditions, we do not believe that it has any implications for our geographic market definition.

Wholesale market definition material change view

4.61 Our provisional conclusion is that there has been no material change to affect the wholesale market definition set under the MR statement. The key points considered in reaching this view can be summarised as follows:

- the developments in wholesale self-supply are in line with those predicted in our Market Review and they do not show any material changes;
- there have not been any significant changes in the technical or functional characteristics of ISDN30's potential substitutes that would increase the demand or supply-side substitutability for ISDN30;
- alternate forms of supply for ISDN30 services, via leased lines and LLU, are unlikely to constrain ISDN30 prices due to the large fixed costs associated with their provision. We have taken into account the levels of current and expected provision of ISDN30 through these forms of supply over the period of the charge control; and,
- we consider that the finding of our critical loss analysis, that a 10% increase in the price of wholesale ISDN30 above its competitive level would not result in a sufficient fall in demand to render a SSNIP unprofitable, remains valid and therefore substitution to IP services is unlikely to constrain ISDN30 prices.

4.62 We continue to think that there are two geographic markets, the UK excluding Hull and the Hull area. The key consideration in reaching this conclusion is that Openreach's wholesale prices are uniform across the UK (excluding the Hull area).

Wholesale market power assessment

4.63 In the MR statement we assessed whether any firms had SMP in the market for wholesale ISDN30 services. In particular, we looked at market shares, barriers to entry and expansion, prices and profitability, and whether there was countervailing buying power. In relation to Openreach, we concluded that it held SMP in the supply of wholesale ISDN30 exchange lines in the UK excluding Hull.

4.64 The key points considered in reaching our conclusion regarding the SMP of Openreach were:

- Openreach's market share has remained broadly unchanged since the 2003 review;
- anticipated increase in competition from PPCs and other self-supply had not materialised;
- there had been no change in Openreach's nominal prices, despite falls in real and nominal costs; and
- reported profits were very high (ROCE⁴⁴ of 64%) and were forecast to grow as investment in ISDN30 declined.

4.65 We have considered this evidence in turn in our material change assessment below.

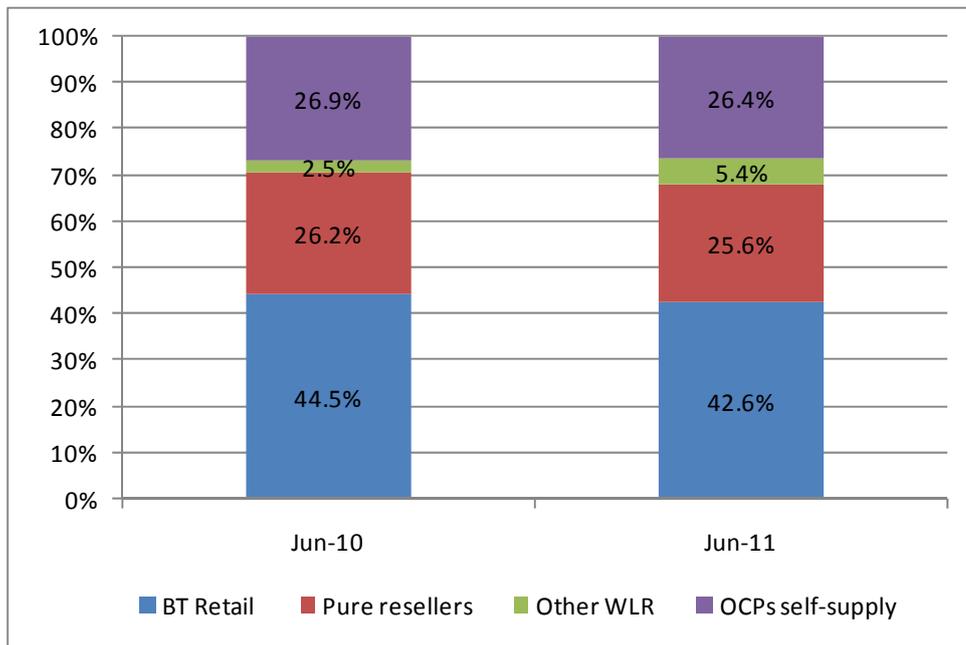
⁴⁴ Return on capital employed.

Material change assessment of the finding of SMP of Openreach in the wholesale ISDN30 market

Market shares

- 4.66 In the MR consultation, we considered that Openreach’s market share had remained constant over the period: between 71% and 75% of the wholesale market from September 2004 to September 2009. Openreach’s market share has remained fairly stable within these boundaries since 2010: it was 73% in June 2010 and 74% in June 2011.
- 4.67 Openreach’s high market shares and their stability are indicative that Openreach has entrenched SMP in the ISDN30 market allowing it to keep wholesale charges high. Furthermore, due to its entrenched SMP, Openreach also has the incentive to keep charges high, as higher wholesale charges are likely to lead to increased profits whereas lower prices are unlikely to result in significant market expansion given the market’s maturity.
- 4.68 The evidence from the updated market shares shown in Figure 4.3 below confirms that current market shares are too small for self-supply from OCPs to provide a significantly strong constraint on ISDN30 prices. As shown, OCPs’ self-supply only represented around a fourth (26%) of the total wholesale market in June 2011, slightly declining with respect to the previous year. In June 2011 there were 720k ISDN30 channels self-supplied by OCPs (down from around 780k a year earlier).⁴⁵

Figure 4.3 Wholesale ISDN30 market shares (%)



Source: CPs’ responses to S135 requests.

- 4.69 In the April consultation, we explained that OCPs may have been unable to gain wholesale market share at the expense of Openreach, as they may be less efficient than Openreach on average due to scale and scope disadvantages and therefore only able to compete in certain areas or under certain conditions.

⁴⁵ There is a difference between the 780k channels figure in June 2010, as shown above, and the 800k channels figure that we presented in our MR consultation (paragraph 4.65). This is due to

- 4.70 As described in our MR consultation, the observed increase in competition in the retail market has affected the composition of Openreach's wholesale market share, with sales to third parties gaining ground relative to the internal sales to BT Retail. We also considered that since the peak in June 2008 we had observed a substantial decline in the volumes of ISDN30 channels which coincided with the economic recession. In the April consultation we argued that the decline in ISDN30 volumes had been matched by similar falls in IP volumes and that this was an indication that the declining volumes were more likely to be caused by the economic recession than by a structural change in demand for ISDN30 (e.g. an increase in switching towards IP).
- 4.71 We consider that the analysis of the volumes of ISDN30 and IP based services in paragraphs 4.14 to 4.22 above is consistent with the expectations set out in our Market Review and April consultation. We continue to believe that demand for IP is unlikely to be sufficient for IP services to be considered a sufficiently strong competitive constraint on ISDN30 over the period of the charge control.

Barriers to entry and expansion

- 4.72 As discussed above, there remain important barriers to entry and expansion, in particular:
- the large sunk costs required to provide an ISDN30 exchange line and the fact that, due to the continuing decline in ISDN30 demand, there will be a shorter period of time over which these sunk costs can be recovered;
 - the cost disadvantages in the provision of ISDN30 using leased lines, as discussed in paragraphs 4.29 - 4.31 above; and,
 - the sunk costs required to upgrade switches to allow ISDN30 to be provided over a LLU line and the fact that LLU investment has been primarily driven by the provision of broadband access (and bundled voices and broadband), as well as the limited time period to recover any investment in ISDN30. Some provision of ISDN30-like services using LLU is expected in the price control period but on a relatively small scale.

Prices and profitability

- 4.73 In the MR statement, we stated that it was important to assess Openreach's past profitability in ISDN30 services. Openreach reported a ROCE in 2009/10 of 62.1% for core wholesale ISDN30 services (excluding the impact of BT's re-valuation of duct). We noted that this was significantly in excess of the cost of capital, and we believed it was *prima facie* evidence that wholesale charges for ISDN30 might be above the competitive level.
- 4.74 However, we also recognised that, due to the significant depreciation of some of the assets involved in the supply of ISDN30, estimates of its profitability using ROCE (which measures the return – earnings before interest and tax – divided by the MCE⁴⁶) could overstate the true profitability of the service in question.
- 4.75 Therefore, in the April consultation we considered that a more appropriate estimate of the profitability of ISDN30 services could be obtained by adjusting the NRC⁴⁷ of

⁴⁶ Mean capital employed

⁴⁷ Net replacement cost

the heavily depreciated assets so that they would approximate their steady state values more closely. Using these steady state asset values we could then recalculate an 'adjusted ROCE'.

- 4.76 The assets that had been subject to significant depreciation were, in particular:
- ISDN30 line-cards (with an NRC/GRC ratio of 8% in 2009/10); and
 - Access Electronics (with a NRC/GRC ratio of 13% in 2009/10).
- 4.77 This resulted in the accounting value of these assets (the NRC) being significantly less than their economic value. By adjusting the NRC/GRC ratios of these two heavily depreciated assets from their current low ratios to 47% of the GRC (the average NRC/GRC ratio of the remaining ISDN30 assets), we estimated the adjusted ROCE for 2009/10 to be 24%. We noted that this was still considerably higher than Openreach's WACC of 11% for that period.⁴⁸
- 4.78 In 2010/11 the ROCE (on a non adjusted basis) has increased to 67.1% across core wholesale ISDN30 services. The increase reflects that certain assets continue to be depreciated without being replaced which has the effect of reducing the value of the MCE and increases the ROCE. Following the same approach used in the April Consultation to estimate an 'adjusted ROCE' for 2009/10, we estimate that the adjusted ROCE in 2010/11 was 23%. This is consistent with similar levels of profitability in both years.
- 4.79 We also note that, as described in the executive summary of this document, we have received further information on the 2010/11 DSAC, DLRIC and FAC costs of providing wholesale ISDN30 services. Although we did not use these in our assessment of profitability in the Market Review or April Consultation, we note that these updated cost figures have changed from those relied on in the April Consultation. However we do not consider that this change is material because we do not consider that these cost figures provide a reliable estimate of wholesale ISDN30 costs.⁴⁹ Additionally, these 2010/11 cost figures provided by Openreach show a fall in costs from those relied on in the April Consultation (i.e. for the financial year 2009/10), and, in any event, if we were to rely on them, they would be consistent with a view that profitability remains at a similar (or higher) level than estimated in our April Consultation.

Countervailing buyer power

- 4.80 In the MR consultation we argued that given the lack of choice of wholesalers, retailers had very limited countervailing buyer power. In particular, self-suppliers such as C&W or Virgin had little incentive to supply rival providers competing with them in the downstream retail market.
- 4.81 BT argued that ISDN30 customers (e.g. business customers who multisource) had significant buying power, reducing its ability to impose high prices. We considered that while some large customers could have some degree of buyer power, most customers purchasing ISDN30 were relatively small. Furthermore, as discussed in paragraph 4.67 above, due to its entrenched SMP at the wholesale level, Openreach was able and had the incentive to keep wholesale charges at an excessive level.

⁴⁸ See paragraph 3.52 of the April Consultation, available at <http://stakeholders.ofcom.org.uk/binaries/consultations/isdn30-2011/summary/isdn30-2011.pdf>.

⁴⁹ See paragraph 1.6-1.8

Therefore, even if end users could exert some buyer power at the retail level, this was unlikely to reduce prices significantly, as retail prices are mostly driven by the retailers' wholesale costs.

- 4.82 There is little likelihood of any change in the nature of retail customers or, as noted above, the available choices of wholesale supplier. For these reasons, we continue to believe that there is no significant countervailing buyer power.

SMP material change assessment

- 4.83 Our provisional conclusion is that there has been no material change to affect the finding that Openreach holds an SMP position in the wholesale ISDN30 exchange lines market in the UK excluding the Hull area. The key findings in reaching this view can be summarised as follows:

- Openreach's market share has continued to remain constant, oscillating between 71% and 75% (it was 73% in Jun-2010 and 74% in Jun-2011);
- although there is some evidence of increased switching towards IP, as we had previously projected, this is unlikely to provide a sufficient competitive constraint on ISDN30 prices over the period of the charge control;
- there remain significant barriers to entry and expansion, particularly, the sunk costs associated with provision of ISDN30 services through ISDN30 exchange lines, LLU or leased lines;
- profitability of ISDN30 core services has remained stable. We estimate that the adjusted ROCE of core services was 24% in 2009/10 and 23% in 2010/11 (compared to an unadjusted ROCE of 62.1% and 67.1%, respectively)⁵⁰; and,
- there is no sufficient countervailing buyer power in the wholesale ISDN30 market.

Wholesale remedies for Openreach

- 4.84 In the Market Review statement we concluded that due to its entrenched SMP, there was a risk that Openreach could set prices for wholesale ISDN30 services at an excessively high level and that this posed a risk of adverse effects arising from price distortion.⁵¹ In light of this, we considered that it was appropriate to introduce a price control remedy, supported by a cost accounting obligation, on ISDN30 to address this risk.
- 4.85 We considered that it was appropriate that any price controls for ISDN30 services would be supplemented by an appropriate reporting framework, and that this should be transparent to stakeholders. We therefore concluded that a new cost accounting obligation was needed, subject to the setting of an appropriate price control.
- 4.86 We also concluded that an interim price ceiling (in the form of a price control requiring Openreach to keep prices at or below the level at the time of the Market Review statement) was appropriate. We considered that this action would be proportionate pending a full and comprehensive assessment of the costs in providing

⁵⁰ See BT's RFS, page 30, available at <http://www.btplc.com/Thegroup/RegulatoryandPublicaffairs/Financialstatements/2011/CurrentCostFinancialStatements2011.pdf>.

⁵¹ See paragraphs 8.21 – 8.23 in the Market Review statement

wholesale ISDN30 services, as it provided protection without interfering with current pricing levels. We concluded that an interim price ceiling was the most appropriate route to ensure that prices did not increase until we had assessed fully our review of costs.⁵²

- 4.87 In the April Consultation we considered, amongst other things, what type of control was appropriate and proposed that a charge control and cost accounting obligation was the most appropriate remedy to address Openreach's SMP.
- 4.88 As discussed above, our provisional view is that there have been no changes to relevant decisions made under the MR statement that would be material to the setting of the proposed charge control SMP condition (or the consequential revocation of the current interim price ceiling).
- 4.89 We consider therefore that it remains appropriate to propose that a charge control (in the form set out in Annex 5 to this consultation) and a cost accounting obligation be imposed on Openreach in order to address the continuing risk that Openreach continues to be able to set prices at an excessively high level.
- 4.90 As intended in the Market Review statement, we have also proposed to revoke the interim charge ceiling on Openreach's prices, as this would no longer be required once the charge control comes into effect.

Q4.1: Do you agree with our assessment that there has been no material change in the wholesale ISDN30 exchange lines market since our determination that Openreach had SMP in the MR statement? If not, please explain why.

⁵² See paragraphs 8.25 – 8.26 of the Market Review

Annex 1

Responding to this consultation

How to respond

- A1.1 Ofcom invites written views and comments on the issues raised in this document, to be made **by 5pm on 2 February 2012**.
- A1.2 Ofcom strongly prefers to receive responses using the online web form at <https://stakeholders.ofcom.org.uk/consultations/isdn30-price-control/howtorespond/form>, as this helps us to process the responses quickly and efficiently. We would also be grateful if you could assist us by completing a response cover sheet (see Annex 3), to indicate whether or not there are confidentiality issues. This response coversheet is incorporated into the online web form questionnaire.
- A1.3 For larger consultation responses - particularly those with supporting charts, tables or other data - please email isdn30.chargecontrol@ofcom.org.uk attaching your response in Microsoft Word format, together with a consultation response coversheet.
- A1.4 Responses may alternatively be posted or faxed to the address below, marked with the title of the consultation.
- Chia Seiler
Floor 4
Competition Policy
Riverside House
2A Southwark Bridge Road
London SE1 9HA
- Fax: 020 7981 3333
- A1.5 Note that we do not need a hard copy in addition to an electronic version. Ofcom will acknowledge receipt of responses if they are submitted using the online web form but not otherwise.
- A1.6 It would be helpful if your response could include direct answers to the questions asked in this document, which are listed together at Annex 4. It would also help if you can explain why you hold your views and how Ofcom's proposals would impact on you.

Further information

- A1.7 If you want to discuss the issues and questions raised in this consultation, or need advice on the appropriate form of response, please contact Chia Seiler on 020 7981 3957.

Confidentiality

- A1.8 We believe it is important for everyone interested in an issue to see the views expressed by consultation respondents. We will therefore usually publish all

responses on our website, www.ofcom.org.uk, ideally on receipt. If you think your response should be kept confidential, can you please specify what part or whether all of your response should be kept confidential, and specify why. Please also place such parts in a separate annex.

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

Next steps

- A1.11 Following the end of the consultation period, Ofcom intends to publish a statement in April 2012.
- A1.12 Please note that you can register to receive free mail Updates alerting you to the publications of relevant Ofcom documents. For more details please see: http://www.ofcom.org.uk/static/subscribe/select_list.htm

Ofcom's consultation processes

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

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

Tel: 020 7981 3601

Email Graham.Howell@ofcom.org.uk

Annex 2

Ofcom's consultation principles

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

Before the consultation

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

During the consultation

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

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

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

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

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

After the consultation

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

Annex 3

Consultation response cover sheet

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

Cover sheet for response to an Ofcom consultation

BASIC DETAILS

Consultation title:

To (Ofcom contact):

Name of respondent:

Representing (self or organisation/s):

Address (if not received by email):

CONFIDENTIALITY

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

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

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

DECLARATION

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

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

Name

Signed (if hard copy)

Annex 4

Consultation questions

Q2.1 Do you agree that we should adopt a price control based on a 2 year period and align the prices of ISDN30 core services with their underlying costs of provision?

Q2.2 Do you agree that in this case we should adopt Option 3 should be preferred to Option 2?

Q4.1: Do you agree with our assessment that there has been no material change in the wholesale ISDN30 exchange lines market since our determination that Openreach had SMP in the MR statement? If not, please explain why.

Annex 5

Legal instruments

PART 1 – PROPOSED SETTING OF AND REVOCATION OF SMP CONDITIONS

NOTIFICATION OF PROPOSALS UNDER SECTIONS 48(A) AND 86 OF THE COMMUNICATIONS ACT 2003

Proposals for the setting of and revocation of SMP services conditions to be imposed upon BT as a result of the proposed market power determinations made by Ofcom in its Review of retail and wholesale ISDN30 services as published on 20 August 2010.

Background

1. On 28 November 2003, the Director General of Telecommunications (“The Director”) published a document entitled *Review of the fixed narrowband line, call origination, conveyance and transit markets*⁵³ (‘the 2003 Wholesale Statement’).
2. In the 2003 Wholesale Statement the Director set out his decisions on market definitions, market analyses and the setting, where appropriate, of Significant Market Power (‘SMP’) conditions for the markets under review including the markets for wholesale ISDN30 exchange line services.
3. On 29 December 2003, Ofcom took over the functions and responsibilities under the Communications Act 2003 relating to the EC Communications directives from The Director.
4. On 19 March 2009, Ofcom published its consultation entitled a *Review of the fixed narrowband services wholesale markets : Consultation on the proposed markets, market power determinations and remedies*⁵⁴ (‘the 2009 Wholesale Consultation’) on proposals reviewing market definitions, market analyses, and where appropriate, the setting of SMP conditions. The 2009 Wholesale Consultation proposed, inter alia, a market for wholesale ISDN30 exchange line services for the UK excluding the Hull Area, that BT had SMP in that market, and that appropriate SMP conditions, including cost orientation, should be imposed on BT as person having SMP.
5. On 15 September 2009, Ofcom published a statement and further consultation entitled *Review of the fixed narrowband services wholesale markets: Statement on the markets, market power determinations and remedies including further consultation*⁵⁵ (‘the 2009 Wholesale Statement’).

⁵³ *Review of the fixed narrowband wholesale exchange line, call origination, conveyance and transit markets*, 28 Nov 2003

http://www.ofcom.org.uk/static/archive/oftel/publications/eu_directives/2003/fix_narrow_retail0803.pdf

⁵⁴ *Review of the fixed narrowband services wholesale markets*, 19 March 2009

http://www.ofcom.org.uk/consult/condocs/review_wholesale/

⁵⁵ *Review of the fixed narrowband services wholesale markets*, 15 September 2009

http://stakeholders.ofcom.org.uk/binaries/consultations/wnmr_statement_consultation/summary/main.pdf

6. Having given careful consideration to every representation about the proposals made in relation to the wholesale ISDN30 market, Ofcom considered it appropriate to review its proposals in relation to that market and confirmed in the 2009 Wholesale Statement that no decisions had been taken in relation to wholesale ISDN30 and a further review would be conducted.

7. On 4 May 2010, Ofcom published a consultation entitled *Review of the retail and wholesale ISDN30 markets*⁵⁶ ('the Market Review consultation'), consulting on proposals made in relation to the ISDN30 markets identified at the wholesale and retail levels. The Market Review consultation proposed, inter alia, that a charge control would be an appropriate SMP condition to impose at the wholesale level, but the setting of such a condition should be subject to separate consultation.

8. On 20 August 2010, Ofcom published a statement entitled *Review of the retail and wholesale ISDN30 markets*⁵⁷ ('the Market Review'), setting out its decisions made in relation to the ISDN30 markets.

9. The Market Review set out our conclusions that BT held SMP in the market for wholesale ISDN30 exchange line services for the UK excluding the Hull Area and it was appropriate to impose a number of SMP remedies on BT. It also concluded that, on the evidence then available, a price control would be an appropriate remedy to impose, but that the imposition of such a remedy should be considered under a separate review which would fully review the costs associated with the provision of wholesale ISDN30 services.

10. On 1 April 2011, Ofcom published a consultation entitled *Price controls for wholesale ISDN30 services*⁵⁸ ('the Price Control Consultation'). The Price Control Consultation made proposals for the implementation of a charge control under the authority of the market analysis undertaken and notified under the Market Review. It proposed a three year charge control for the period to 31 March 2014 should be imposed.

11. Ofcom have decided to amend some of the proposals set out in the Price Control Consultation. In light of those amendments, this Notification relates to the proposed setting of SMP condition AAA(IS)4A and the proposed revocation of SMP condition AAA(IS)4 under the market definitions and market analysis as set out in Notification under the Market Review (in relation to which Ofcom are satisfied there has been no material change since the determination was made) in order to address the identified risk of BT having the ability and the incentive to price excessively.

Proposals

Proposals to set SMP Conditions

12. Ofcom hereby proposes, in accordance with section 48A(3) of the Communications Act 2003, to set SMP service condition AAA(IS)4A, in relation to the market "wholesale ISDN30 exchange line services" as identified in the Market Review.

⁵⁶<http://stakeholders.ofcom.org.uk/binaries/consultations/isdn30/summary/isbn30.pdf>

⁵⁷<http://stakeholders.ofcom.org.uk/binaries/consultations/isdn30/statement/statement.pdf>

⁵⁸<http://stakeholders.ofcom.org.uk/binaries/consultations/isdn30-2011/summary/isdn30-2011.pdf>

13. The proposed SMP condition AAA(IS)4A is set out in Schedule 1 to this Notification, and shall have effect from 28 days after the publication of any Notification under section 48(1) of the Act adopting the proposal set out in paragraph 12 above.

14. The effect of, and Ofcom's reasons for making, the proposals to set the SMP conditions set out in Schedule 1 to this Notification are contained in Sections 5 and 6 of the Price Control Consultation and Sections 2 to 4 of the consultation accompanying this notification.

Proposals to revoke SMP Conditions

15. Ofcom hereby also proposes, to revoke SMP Service Condition AAA(IS)4 as set under paragraph 17 of the Notification to the Market Review.

16. The proposed revocation set out at paragraph 15 above, would only take effect 28 days after the publication of any Notification under section 48(1) of the Act adopting the proposal set out in paragraph 12 above.

17. The effect of, and Ofcom's reasons for making, the proposals to revoke SMP condition AAA(IS)4 are contained in Section 6 of the Price Control Consultation and Sections 2 to 4 of the consultation accompanying this notification.

Ofcom's duties and legal tests

18. Ofcom are proposing, in accordance with section 86(1)(b) of the Act, to set and revoke the SMP Conditions, described at paragraphs 12 and 15 above, by reference to the market power determination made in relation to the services market identified in the Notification to the Market Review in which Ofcom are satisfied that there has been no material change since the determination was made.

19. Further, Ofcom consider that the proposed new SMP condition referred to in paragraph 12 of this Notification and the proposed revocation of the SMP condition referred to in paragraph 15 of the Notification comply with the requirements of sections 45 to 47, 86, 87 and 88 of the Act as appropriate and relevant to each of those SMP service conditions.

20. In making all of the proposals referred to in paragraphs 12 to 15 of this Notification, Ofcom has considered and acted in accordance with its general duties set out in section 3 of the Act and the six Community requirements in section 4 of the Act.

Making representations

21. Representations may be made to Ofcom about any of the proposals set out in this Notification and the accompanying explanatory statement by no later than **2 February 2012**.

22. A copy of this Notification and the accompanying explanatory statement has been sent to the Secretary of State in accordance with section 48(1)(c) of the Act.

Interpretation

23. Save for references made to the identified wholesale ISDN30 exchange line services market in the Notification as set out in the Market Review and except as otherwise defined in paragraph 24 of this Notification, words or expressions used shall have the same meaning as they have been ascribed in the Act.

24. In this Notification:

(a) “**BT**” means British Telecommunications plc, whose registered company number is 1800000, and any of its subsidiaries or holding companies, or any subsidiary of such holding companies, all as defined by section 1159 of the Companies Act 2006;

(b) “**the Act**” means the Communications Act 2003 c21

(c) “**the Market Review**” means the statement entitled “*Review of the retail and wholesale ISDN30 markets*” and its accompanying Notification published by Ofcom on 20 August 2010.

(d) “**the Price Control Consultation**” means the consultation document entitled “*Price controls for wholesale ISDN30 services*” and its accompanying Notification published by Ofcom on 1 April 2011.

25. For the purpose of interpreting this Notification—

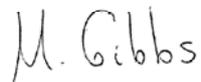
(a) headings and titles shall be disregarded; and

(b) the Interpretation Act 1978 (c. 30) shall apply as if this Notification were an Act of Parliament.

26. Schedule 1 to this Notification shall form part of this Notification.

Marina Gibbs

Competition Policy Director



A person duly authorised in accordance with paragraph 18 of the Schedule to the Office of Communications Act 2002

22 December 2011

SCHEDULE 1

[DRAFT] Setting of SMP services conditions AAA(IS)4A as a result of the market power determination made by Ofcom in the statement entitled Review of the retail and wholesale ISDN30 markets dated 20 August 2010 in respect of the services market for wholesale ISDN30 exchange line services in the United Kingdom but excluding the Hull Area in which it was decided that BT is a person having significant market power.

1. In Schedule 1 to Annex 2 of the final statement entitled Review of the retail and wholesale ISDN30 markets dated 20 August 2010, there shall be set the following SMP services condition AAA(IS)4A, inserting it after Condition AAA(IS)3.

“Condition AAA(IS)4A

Charge control – ISDN30 Services

AAA(IS)4A.1 Subject to paragraphs AAA(IS)4A.4, AAA(IS)4A.6 and AAA(IS)4A.7, the Dominant Provider shall take all reasonable steps to secure that, at the end of each Relevant Year, the Percentage Change (determined in accordance with paragraphs AAA(IS)4A.3 and AAA(IS)4A.4) in each of the five categories of services specified in paragraphs AAA(IS)4A.1(a) to (e) below:

- a. the aggregate charges for:
 - i. ISDN30 Rental Services;
 - ii. ISDN30 Connection Services; and
 - iii. ISDN30 Enhanced Care Services;
- b. the charge for ISDN30 Transfer Service;
- c. the charge for the ISDN30 Direct Dial In Planning Service;
- d. the charge for the ISDN30 Direct Dial In Connection Service; and
- e. the charge for the ISDN30 Direct Dial In Rental Service;

is not more than the Controlling Percentage (determined in accordance with paragraph AAA(IS)4A.7).

AAA(IS)4A.2 For the purpose of complying with paragraph AAA(IS)4A.1, the Dominant Provider shall take all reasonable steps to secure that the revenue it accrues as a result of all individual Charge Changes during any Relevant Year shall be no more than that which it would have accrued had all of those Charge Changes been made

- a) for the First Relevant Year, on [Date]⁵⁹ of that year; and
- b) for the Second Relevant Year, on 1 April of that year.

The Dominant Provider shall be deemed to have satisfied this obligation where, by example in the case of a single Charge Change in the Relevant Year in question, the following formula is satisfied:

$$RC(1 - D) \leq TRC$$

where:

⁵⁹The date of coming into effect of the condition, as set out at paragraph 13 of the Notification.

RC is the revenue change associated with the single Charge Change made in the Relevant Year in question, calculated by the relevant Percentage Change immediately following the Charge Change multiplied by the revenue accrued during the Relevant Financial Year;

TRC is the target revenue change required in the Relevant Year in question to achieve compliance with paragraph AAA(IS)4A.1, calculated by the Percentage Change required in the Relevant Year in question to achieve compliance with paragraph AAA(IS)4A.1 multiplied by the revenue accrued during the Relevant Financial Year; and

D is the elapsed proportion of the Relevant Year in question, calculated as:

- a. for the First Relevant Year, the date on which the Charge Change takes effect, expressed as a numeric entity on a scale ranging from [x]⁶⁰ = 0 to 31 March = [x]⁶¹, divided by [x]⁶²; and
- b. for the Second Relevant Year, the date on which the Charge Change takes effect, expressed as a numeric entity on a scale ranging from 1 April = 0 to 31 March = 364, divided by 365;

AAA(IS)4A.3 The Percentage Change for the purposes of the service specified in paragraphs AAA(IS)4A.1(b), (c), (d) and (e) (which are referred to in this paragraph as a “single charge category”) shall be calculated for the purposes of complying with paragraph AAA(IS)4A.1 by employing the following formula:

$$C_{t,i} = \frac{(P_{t,i} - P_{0,i})}{P_{0,i}}$$

where:

C_t is the Percentage Change in charges for the specific service i in the single charge category in question at a particular time t during the Relevant Year;

$P_{0,i}$ is the published charge made by the Dominant Provider for the specific service i in the single charge category in question immediately preceding the Relevant Year; and

$p_{t,i}$ is the published charge made by the Dominant Provider for the specific service i in the single charge category in question at the time t during the Relevant Year.

AAA(IS)4A.4 The Percentage Change for the purposes of each of the products and/or services specified in paragraphs AAA(IS)4A.1(a), (which is known as a “basket”) shall be calculated for the purposes of complying with paragraph AAA(IS)4A.1 by employing the following formula:

$$C_t = \frac{\sum_{i=1}^n \left[(R_i) \frac{\{p_{t,i} - p_{0,i}\}}{p_{0,i}} \right]}{\sum_{i=1}^n [R_i]}$$

⁶⁰The date of coming into effect of the condition, as set out at paragraph 13 of the Notification.

⁶¹The number of days between start date of the charge control and 31 March 2013, minus 1.

⁶²The number of days between start date of the charge control and 31 March 2013.

Where:

C_t is the Percentage Change in the aggregate of charges for the services in the basket at a particular time t during the Relevant Year;

n is the number of individual services in the basket;

i is a number from 1 to n for each of the n individual services in the basket;

R_i is the revenue accrued during the Prior Financial Year in respect of the individual service i that forms part of the basket;

$p_{0,i}$ is the published charge made by the Dominant Provider for the individual service i that forms part of the basket immediately preceding the Relevant Year;

$p_{t,i}$ is the published charge made by the Dominant Provider for the individual service i that forms part of the basket at the time t during the Relevant Year.

AAA(IS)4A.5 Where the Percentage Change in the Relevant Year in question is less than the Controlling Percentage (the “Excess”) then the Controlling Percentage for the following Relevant Year shall be determined in accordance with paragraph AAA(IS)4A.7, but increased by the absolute value of the Excess.

AAA(IS)4A.6 Where the Percentage Change in the Relevant Year in the Relevant Year in question is more than the Controlling Percentage (the “Deficiency”) then the Controlling Percentage for the following Relevant Year shall be determined in accordance with paragraph AAA(IS)4A.7, but decreased by the absolute value of the Deficiency.

AAA(IS)4A.7 Subject to paragraphs AAA(IS)4A.5 and AAA(IS)4A.6, the Controlling Percentage in relation to any Relevant Year in question means:

- a. for ISDN30 Rental, ISDN30 Connection Services and ISDN30 Enhanced Care Services;
 - i. for the First Relevant Year, [RPI decreased by X_1 ⁶³ percentage points]; and
 - ii. for the Second Relevant Year, [RPI decreased by X percentage points].
- b. for the ISDN30 Transfer Services, [RPI decreased by 0 (zero) percentage points].
- c. for the ISDN30 Direct Dial Inward Planning Service, [RPI decreased by 0 (zero) percentage points].
- d. for the ISDN30 Direct Dial In Connection Service [RPI decreased by 0 (zero) percentage points].

⁶³Value of $X_1 = (1 + \text{change in RPI}) - [\text{Sum}\{w_i * P_{m,i}\} / \text{Sum}\{w_i * P_{0,i}\}] * (1 + \text{change in RPI} - X)$, where w_i is the weight of the service in the basket as calculated in paragraph AAA(IS)4A.6; $P_{0,i}$ is the published charge made by the Dominant Provider for the individual service i that forms part of the basket immediately preceding the Relevant Year, excluding any Discounts offered by the Dominant Provider; $P_{m,i}$ is the published charge made by the Dominant Provider for the individual service i that forms part of the basket on 1 April 2011, excluding any Discounts offered by the Dominant Provider; change in RPI is the change in the Retail Prices Index in the period of 12 months ending on 31 December 2011 expressed as a percentage (rounded to two decimal places) of that Index as at the beginning of that period; and X is value set out in paragraph AAA(IS)4A.7(a)(ii).

- e. for the ISDN30 Direct Dial In Rental Service [RPI decreased by 0 (zero) percentage points].

AAA(IS)4A.8 In the case of the ISDN30 Connection services, the Dominant Provider shall also and, in any event, take all reasonable steps to ensure that, at the end of each Relevant Year, the Percentage Change for those services is no more than [RPI increased by 5 percentage points]. For the purpose of this paragraph AAA(IS)4A.8, the Percentage Change shall be calculated by employing the following:

$$C_t = \frac{(p_t - p_0)}{p_0}$$

where:

C_t is the Percentage Change in charges for ISDN30 Connection services at a particular time t during the Relevant Year;

p_0 is the average charge made by the Dominant Provider for ISDN30 Connection services immediately preceding the Relevant Year;

p_t is the average charge made by the Dominant Provider for ISDN30 Connection services at the time t during the Relevant Year; and

the average charge is calculated as total revenues from ISDN30 Connection services divided by the number of channels connected in that year.

AAA(IS)4A.9 In the case of the ISDN30 Enhanced Care Services, the Dominant Provider shall also and, in any event, take all reasonable steps to ensure that, at the end of each Relevant Year, the Percentage Change for each of those services is no more than [RPI decreased by 0 (zero) percentage points]. For the purpose of this paragraph AAA(IS)4A.9, the Percentage Change shall be calculated by employing the formula set out in paragraph AAA(IS)4A.3 and its references to each service comprising ISDN30 Enhanced Care Services.

AAA(IS)4A.10 Where:

- a. the Dominant Provider makes a material change (other than to a Charge) to any Charge Controlled Service for which a Charge is charged;
- b. The Dominant Provider makes a change to the date on which its financial year ends; or
- c. there is a material change in the basis of the Retail Prices Index,

paragraphs AAA(IS)4A.1 to AAA(IS)4A.9 shall have effect subject to such reasonable adjustment to take account of the change as Ofcom may direct to be appropriate in the circumstances. For the purposes of this paragraph AAA(IS)4A.10, a material change to the Charge Controlled Service includes (but is not limited to) the introduction of a new product and/or service wholly or substantially in substitution for an existing Charge Controlled Service.

AAA(IS)4A.11 The Dominant Provider shall, no later than three months after the end of each Relevant Year, supply to Ofcom, in writing, the data necessary to perform the calculation of the Percentage Change. The data shall include:

- a. pursuant to Condition AAA(IS)4A.3, AAA(IS)4A.4 and AAA(IS)4A.8 the calculated percentage change relating to ISDN30 services;
- b. pursuant to Condition AAA(IS)4A.2, calculation of the revenue accrued as a result of all relevant individual charge changes during any Relevant Year compared to the target revenue change;
- c. All relevant data the Dominant Provider used in the calculation of the percentage change C_t pursuant to Conditions AAA(IS)4A.3, AAA(IS)4A.4 and AAA(IS)4A.8;
- d. All relevant revenues accrued during the Relevant Financial Year in respect of ISDN30 services;
- e. Published charges made by the Dominant Provider at time t during the Relevant Year;
- f. The relevant published charge at the start of the Relevant Year;
- g. Other data necessary for monitoring compliance with the charge control.

AAA(IS)4A.12 If it appears to Ofcom that the Dominant Provider is likely to fail to secure that the Percentage Change does not exceed the Controlling Percentage for the Second Relevant Year beginning on 1 April 2013 and ending on 31 March 2014, the Dominant Provider shall make such adjustment to any of its charges for the provision of ISDN30 Services and by such day in the Second Relevant Year (or if appropriate in Ofcom's opinion, by such day that falls after the end of the Second Relevant Year) as Ofcom may direct for the purpose of avoiding such a failure.

AAA(IS)4A.13 Paragraphs AAA(IS)4A.1 to AAA(IS)4A.12 shall not apply to such extent as Ofcom may direct.

AAA(IS)4A.14 The Dominant Provider shall comply with any direction Ofcom may make from time to time under this Condition.

AAA(IS)4A.15 In this Condition:

- a. "**Charge**" means for the purposes of paragraph AAA(IS)4A.10, the charge (being in all cases the amounts offered or charged by the Dominant Provider) to a Communications Provider for the Charge Controlled Service;
- b. "**Charge Change**" means a change to any of the charges for the provision of ISDN30 Services;
- c. "**Charge Controlled Service**" means a product or service which forms part of (or is comprised in) the provision of ISDN30 services;
- d. "**Controlling Percentage**" is to be determined in accordance with paragraph AAA(IS)4A.6;
- e. "**DDI**" means Direct Dial Inward;
- f. "**ISDN30 Services**" means the following services provided by BT in the within the market for wholesale ISDN30 exchange line services, as defined in the Notification to the Market Review:
 - i. ISDN30 Rental;
 - ii. ISDN30 Transfer Services
 - iii. ISDN 30 Enhanced Care Services;
 - iv. ISDN30 Connection Services; and
 - v. ISDN30 Direct Dial Inward Services,
- g. "**ISDN30 Rental Services**" means the rental of an ISDN30 access channel for control and billing purposes;
- h. "**ISDN30 Transfer Services**" means the charges for the transfer of control of an ISDN30 line levied per 30 channel access bearer;

- i. “**ISDN30 Enhanced Care Services**” means the products described as Service Maintenance Level 3 and Service Maintenance Level 4 in Openreach’s price list⁶⁴ correct at the date of this statement, or any such product that, from time to time, replaces or supplements those products;
- j. “**ISDN30 Connection Services**” means the charges for the connection of a new ISDN30 line to a premises comprised of:
 - (a) The new installation charge charged per end user on a single installation basis; and
 - (b) The installation per channel charge;
- k. “**ISDN30 Direct Dial Inward Services**” means the ISDN30 Direct Dial Inward Planning Service, Direct Dial Inward Connection Service and the Direct Dial Inward Rental Service;
- l. “**ISDN30 Direct Dial Inward Planning Service**” means the charge per DDI installation or change to numbers at a DDI installation
- m. “**ISDN30 Direct Dial Inward Connection Service**” means the connection charge per DDI number at a DDI installation;
- n. “**ISDN30 Direct Dial Rental Charge**” means the rental charge per number at a DDI installation;
- o. “**Ofcom**” means the Office of Communications;
- p. “**Percentage Change**” has the meanings given to it in paragraphs AAA(IS)4A.3, AAA(IS)4A.4 and AAA(IS)4A.8;
- q. “**Relevant Financial Year**” means the period of 12 months ending on 31 March immediately preceding the Relevant Year in question;
- r. “**Relevant Year**” means a defined period covered by either of the First Relevant Year or Second Relevant Year.
- s. “**First Relevant Year**” means the period beginning on [DATE]⁶⁵ and ending on 31 March 2013;
- t. “**Second Relevant Year**” means the period of 12 months beginning on 1 April 2013 and ending on 31 March 2014;
- u. “**Retail Prices Index**” means the index of retail prices compiled by an agency or a public body on behalf of Her Majesty’s Government or a governmental department (which is the Office of National Statistics at the time of publication of this Notification) from time to time in respect of all items;
- v. “**RPI**” means the amount of the change in the Retail Prices Index in the period of twelve months ending on 31 December immediately before the beginning of a relevant year, expressed as a percentage (rounded to two decimal places) of that Retail Prices Index at the beginning of that first mentioned period; and
- w. “**the Market Review**” means the statement entitled “*Review of the retail and wholesale ISDN30 markets*” and its accompanying Notification published by Ofcom on 20 August 2010.

⁶⁴ <http://www.openreach.co.uk/orpg/home/products/pricing/loadProductPriceDetails.do?data=o1GUUZ A4oSgmoXU5lc%2BgZQD265lt6W32TNnfEUU7w1FZ6rNZujnCs99NbiKJZPD9hXYmiiixH6wr%0AC Qm97GZMyQ%3D%3D>

⁶⁵ The date of coming into effect of the condition, as set out at paragraph 13 above.

Annex 6

Glossary

Backhaul: Connection from the first access node (for example the local exchange or street cabinet) to the core network.

Bandwidth: In digital telecommunications systems the rate at which information can be transferred. In digital systems, it is measured in bits per second (bit/s).

Capital expenditure: Spending on assets that have physical substance and are held for use in the production or supply of goods or services, for rental to others, or for administrative purposes on a continuing basis in an entity's activities.

Core network: The backbone of the network which carries multiple services over highcapacity routes around the country.

CP (Communications provider): A person who provides an Electronic Communications Network or provides an Electronic Communications Service.

Current cost accounting (CCA): An accounting convention, where assets are valued and depreciated according to their current replacement cost whilst maintaining the operating or financial capital of the business entity.

Distributed long run incremental cost (DLRIC): The LRIC of the individual service with a share of costs which are common to other services over BT's "core" network.

Distributed stand alone cost (DSAC): An accounting approach estimated by adding to the DLRIC a proportionate share of the inter-increment common costs. Rather than all common costs shared by a service being allocated to the service under consideration, the common costs are instead allocated amongst all the services that share the network increment.

Early termination charge (ETC): The total fee that will be charged for early termination of a contract or agreement.

Earnings before interest and tax (EBIT): An approximate measure of a company's operating cash flow based on data from the company's income statement. It is calculated by looking at earnings before the deduction of interest expenses and taxes.

Fully allocated cost (FAC): An accounting approach under which all the costs of the company are distributed between its various products and services. The fully allocated cost of a product or service may therefore include some common costs that are not directly attributable to the service.

Hosted VoIP: A term used to describe IP Centrex services. It is generally used to describe services provided to small sites that are accessed via an ordinary broadband internet connection.

Incremental costs: Those costs which are directly caused by the provision of that service in addition to the other services which the firm also produces. Another way of expressing this is that the incremental costs of a service are the difference between the total costs in a situation where the service is provided and the costs in another situation where the service is not provided.

IP Centrex: An exchange line service that includes the functionality of a PBX within a CP's network. This enables businesses to have the call management features of a PBX such as extension numbering and inter-extension calling without the need to purchase and operate a PBX.

IP (Internet Protocol): The packet data protocol used for routing and carriage of messages across the Internet and modern telecommunications networks.

ISDN2: A type digital telephone line service that supports telephony and switched data services. ISDN2 allows a business to handle two phone calls simultaneously. It is primarily used by smaller businesses.

ISDN30: A type of digital telephone line service that provides up to 30 lines over a common digital bearer circuit. These lines provide digital voice telephony, data services and a wide range of ancillary services. It is primarily used by larger businesses.

Line terminating equipment (LTE): Transmission equipment that transforms the signals into a form that can be transmitted over the bearer (either electrical or optical signals). In some cases the equipment may also perform a multiplexing function, combining several circuits onto a higher capacity bearer.

Local loop: The access network connection between the customer's premises and the local serving exchange, usually comprised of two copper wires twisted together.

Local loop unbundling (LLU): A process by which a dominant provider's local loops are physically disconnected from its network and connected to competing provider's networks. This enables operators other than the incumbent to use the local loop to provide services directly to customers.

Long run incremental cost (LRIC): The cost caused by the provision of a defined increment of output given that costs can, if necessary, be varied and that some level of output is already produced.

Mean capital employed (MCE): The mean value of the assets that contribute to a company's ability to generate revenues.

Minimum contract period (MCP): The amount of time a customer must remain in a contract for before being able to cancel it.

Net replacement cost (NRC): Gross replacement cost less accumulated depreciation based on gross replacement cost. An alternative is *Depreciated replacement cost (of tangible fixed assets other than property)*: -The cost of replacing an existing tangible fixed asset with an identical or substantially similar new asset having a similar production or service capacity, from which appropriate deductions are made to reflect the value attributable to the remaining portion of the total useful economic life of the asset and the residual value at the end of the asset's useful economic life.

Openreach: The access division of BT established by Undertakings in 2005.

Partial private circuit (PPC): A generic term used to describe a category of private circuits that terminate at a point of connection between two communications providers' networks. It is therefore the provision of transparent transmission capacity between a customer's premises and a point of connection between the two communications providers' networks. It may also be termed a part leased line.

Private branch exchanges (PBX): Telephone switching systems used by businesses to provide onsite telephony facilities such as extension numbering, inter-extension calling and outbound and inbound external calling.

Return on capital employed (ROCE): The ratio of accounting profit to capital employed. The measure of capital employed can be either Historic Cost Accounting (HCA) or Current Cost Accounting (CCA).

Retail price index (RPI): A measure of inflation published monthly by the Office for National Statistics. It measures the change in the cost of a basket of retail goods and services.

SIP Trunking: An exchange line service that uses IP for voice and data transmission and Session Initiation Protocol (SIP) for the telephony control signalling. SIP Trunking services are generally multi-line services that are used to provide exchange line services to modern IP PBXs that support this type of interface.

Annex 7

List of evidence

Introduction

- A7.1 We have referenced the evidence we have relied upon in relation to our findings throughout this consultation; and we have also explained how we have relied upon that evidence.
- A7.2 Whilst this annex lists the main evidence we have relied upon, the list is for convenience only and is not intended to be exhaustive. Further, it relates only to this supplementary consultation, and does not replace the list of evidence included at Annex X of the April Consultation.

Ofcom documents : regulatory statements / consultations

Consultation on price controls for wholesale ISDN30 services, including:
<http://stakeholders.ofcom.org.uk/consultations/isdn30-2011/>

- Consultation: 1 April 2011
- Responses
- Market Research

A7.3 Review of retail and wholesale ISDN30 services, including:
<http://stakeholders.ofcom.org.uk/consultations/isdn30/>

- Consultation : 4 May 2010
- Responses
- Market Research
- Statement : 20 August 2010

A7.4 Wholesale mobile voice termination consultation (MCT), 1 April 2010:
http://stakeholders.ofcom.org.uk/binaries/consultations/wmctr/summary/wmvct_consultation.pdf

A7.5 Wholesale Fixed Narrowband Market Review, 2003:
<http://stakeholders.ofcom.org.uk/binaries/consultations/750148/fixednarrowbandstatement.pdf>

A7.6 Wholesale Fixed Narrowband Market Review, 15 September 2009:
http://stakeholders.ofcom.org.uk/binaries/consultations/wnmr_statement_consultation/summary/main.pdf

A7.7 Review of the wholesale local access market, October 2010:
http://stakeholders.ofcom.org.uk/binaries/consultations/wla/statement/WLA_statement.pdf

Ofcom documents: other statements / guidance

- A7.8 Better policy-making: Ofcom's approach to impact assessment:
<http://www.ofcom.org.uk/about/policies-and-guidelines/better-policy-making-ofcoms-approach-to-impact-assessment/>
- A7.9 How will Ofcom consult?: Ofcom Consultation Guidelines November 2007:
<http://stakeholders.ofcom.org.uk/consultations/how-will-ofcom-consult>

Information requests - S135 requests

- A7.10 Ofcom issued a series of notices under section 135 of the Communications Act 2003 ('the Act') requiring various CPs to provide specified information as set out in the Notice for the purposes of an analysis of identified markets as contemplated by Section 79 under the Act. These are commonly known as S135 requests. In this review we have relied upon information provided under such notices that were served in connection with the Market Review; the WLR/LLU Review (where the information related to cost data for modelling);⁶⁶ the April Consultation and notices served specifically in relation to the current review. We summarise those notices below.
- A7.11 S135 request of 16 July 2010 ('1STOpenreach135') covering accurate and detailed information to assist our understanding, including to populate our own cost forecast and allocation models used for the purposes of each of these reviews. Information was received from Openreach.
- A7.12 S135 requests of 16 July 2010 ('1st OCP 135s') requesting information to assist our understanding of how infrastructure competitors provide ISDN30 services, the costs of provision and the volumes involved. The information was received from key competitors to Openreach in the supply of wholesale ISDN30 products and services.
- A7.13 S135 request of 16 July 2010 ('2ndOpenreach135') covering accurate and detailed information assisting us to understand the differences between the incremental costs of WLR ISDN30 and 2Mbit/s PPCs' rental and connection services; to further understand the profitability of ISDN30 services. Information was received from Openreach.
- A7.14 S135 request of 16 July 2010 ('3rdOpenreach135') covering accurate and detailed information to assist us understanding the demand for WLR ISDN30 compared with other wholesale services provided by Openreach/ BT. Information was received from Openreach.
- A7.15 S135 request of 25 August 2011 ('4th Openreach 135') covering updated volumes information of ISDN30 and IP-based services, including actual and forecasts for the period of the charge control. Information was received from Openreach.
- A7.16 S135 request of 10 October 2011 ('5th Openreach 135') requesting updated information to assist our understanding, including to populate our own cost forecast

⁶⁶ See Annex 15 at:
<http://stakeholders.ofcom.org.uk/consultations/wlr-cc-2011/>

model; to understand the differences between the incremental costs of WLR ISDN30 and 2Mbit/s PPCs' rental and connection services; and the 2010/11 cost floors and ceilings for core wholesale ISDN30 services. Information was received from Openreach.

- A7.17 S135 requests of 14 September 2011 ('2nd OCP 135s') requesting updated information of how infrastructure competitors provide ISDN30 services and the volumes involved. The information was received from key competitors to Openreach in the supply of wholesale ISDN30 products and services.

Other BT information

- A7.18 BT Regulatory Financial Statements (RFS) 08/09; 09/10; 10/11;
- A7.19 BT Retail's price offering, available at: <http://business.bt.com/phone-services/phone-lines-and-calling-plans/isdn/>
- A7.20 BT's *Long Run Incremental Cost Model: Relationships and Parameters 2011*, available at: <http://www.btplc.com/Thegroup/RegulatoryandPublicaffairs/Financialstatements/2011/LongRunIncrementalCostModel2011.pdf>.