Virgin Media's response to Ofcom's Narrowband Market Review Consultation on possible approaches to cost modelling for the Network Charge Control for the period 2013 - 2016

9th November 2012

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INTRODUCTION

Virgin Media is pleased to respond to this initial consultation in Ofcom's review of the Fixed Narrowband Markets.

We believe that this review is a critical activity which will have material consequences for those affected by it. Despite the continued decline in fixed voice volumes, voice services continue to generate significant revenues (and indeed costs) for CPs. The wholesale regulatory framework that supports these services needs to operate in a predictable, transparent and responsive way. Such clarity and consistency are critical if network operators are to embark on the kind of long term infrastructure investment and technology/service evolution to which Ofcom aspires – and which will ultimately deliver benefits in terms of innovation and price competition for consumers.

This consultation comes at a time before Ofcom has consulted on any substantive regulatory proposals for the markets in question. There are some fundamental issues that need to be considered before the mechanism to set a potential price control is considered, and therefore any comments have to be necessarily viewed in that light. We understand that Ofcom is under pressure of time to review and impose price controls before the current NCCs expire in September 2013, and that the potential switch to an alternate modelling approach represents a significant shift of position for Ofcom from its 2009 review. From that perspective, we welcome this early opportunity to provide views on the proposed approach, but will by necessity, have to caveat any comments made to the extent that we have not had sight of the wider proposed regulatory scheme within which they sit.

In particular, although the model is explicitly designed to calculate FTRs on both a LRIC and LRIC+ basis, and there is a reference to the relevant EC Recommendation on regulated termination rates, there is no discussion as to whether it is appropriate to set regulated rates on the basis of pure LRIC or LRIC+ (which can be regarded as a proxy to the current FAC CCA approach to common cost assignment). Virgin Media assumes that this fundamental question will be considered in full in the forthcoming January consultation, given that any proposal to adopt a particular approach will, at the minimum require consideration of the pros and cons of both approaches in order to make a balanced decision as to the appropriate approach to proposed for the UK markets.

Although the EC recommends the use of a "pure LRIC" approach, and NRAs are obliged to take utmost account of the Recommendation, it is certainly not the case that it is mandatory to follow. Should Ofcom consider that there are objective reasons as to why, for the UK markets, it is not appropriate to follow or fully follow the Recommendation, it is entitled, provided it articulates those reasons, to take an alternate, more appropriate approach. Virgin Media looks forward to the full discussion on this point, and notes that from the responses received to Ofcom's Call for Inputs document, there is by no means a universal consensus on the appropriate approach[1]

In responding to this consultation we consider that there is an overriding point to make in relation to the proposed approach in relation to the reliability of the model, which we will discuss in Section 1 of our response below, before providing our answers to the questions in Section 2.

[1] For example BT stated "there are not sufficient benefits to justify changing from the methodology used in the previous control"

SECTION 1 : MODEL RELIABILITY

Ofcom are required to ensure that any price controls set are, inter alia, objectively justifiable and transparent. The proposal is to move from the 2009 TDM model, based on BT's actual network and modelled on a top down basis, to an NGN model, based on a theoretical network modelled on a bottom up (BU) basis.

Virgin Media has a number of concerns regarding the robustness and reliability of the proposed approach.

There are a number of challenges to ensuring that all relevant costs are captured within an NGN BU model. BU models have to accurately identified relevant components required in the network build. There is the potential to miss relevant components, especially where, as here, the build is not unconstrained by current network architecture. BT, in its response to the Call for Inputs noted that cost apportionment would be an important consideration. We also consider that the lack of a national NGN means that there is little real-world benchmarking that can be done to see how a UK based national NGN network would be built.

Additionally, it is important to appreciate that even real world models will be subject to forecasting errors which can fundamentally affect the level of predicted costs. This was the case in these markets when the 2005 model under forecasted volume decline, set costs (on a FAC CCA basis) too low and exceptionally resulted in a positive glidepath being required to be imposed in 2009, which regulated prices gliding back up to cost.

The vulnerability of a theoretical model to such errors is therefore compounded. Further if Ofcom propose in January to regulate termination rates on a pure LRIC basis, then the importance of not underestimating costs becomes more important, as such an underestimate would result in regulated prices being set at below the incremental cost of the service, which would not only be wholly disastrous for industry, but would be entirely incompatible with the relevant statutory tests in section 88 of the Act.

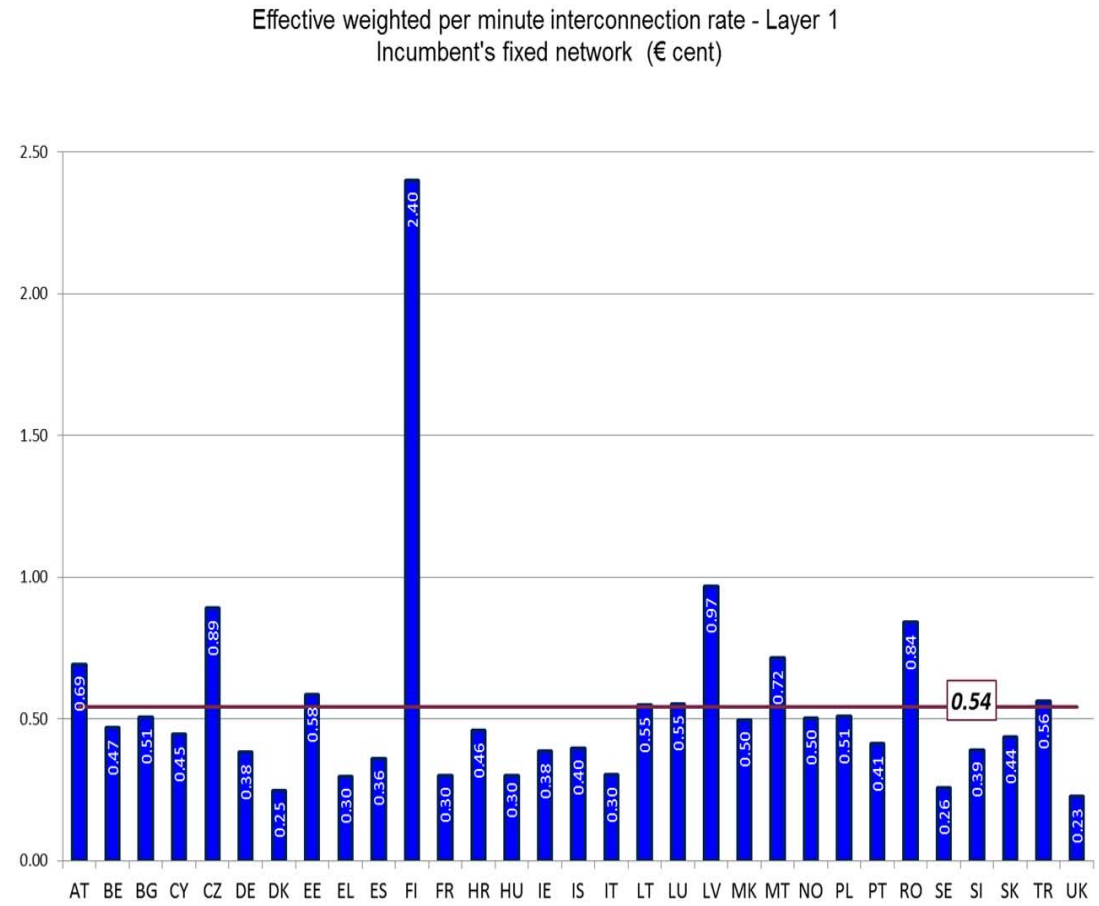
If the proposed use of an NGN BU model is confirmed, then Virgin Media consider that it is vital that Ofcom ensure that the output of the model is cross checked in some meaningful way. Ofcom acknowledge this in the consultation and suggests a cross check may involve a check against sub-national NGNs or a check against other NRA NGN models[2]. Virgin Media considers that neither approach would provide an appropriate level of comfort, and in any event Ofcom have, thus far failed to provide any explanation as to how or why such data would have application as an appropriate cross check.

We suggest that the most appropriate check in this case is to compare the results with the output of the existing 2009 NCC model, which Ofcom refer to as providing a "ceiling" for NGN unit costs[3]. We consider that the check should act as more of a ceiling as if the modelled LRIC+ costs vary significantly from FAC CCA costs that would have been obtained from the 2009 model, then this would indicate a concern in the approach taken, and a need to consider reducing that gap.

Although the 2009 model was constructed on an entirely different basis, it is well known within in industry and such a check would provide a valuable constraint on the

[2] Paragraph 4.22
[3] Paragraph 3.54

potential for significant variations in the new model. Basing a model on BT costs means that it can be compared with the published RFS, which provides a further level of reassurance to stakeholders. Additionally, the 2009 model produced a predicted cost target that still maintained the UK as the country with the lowest fixed termination rates in the EU. The following table is reproduced from BEREC's May 2012 report[4], which shows that, in the year (2012) of the required implementation date for the Termination Recommendation, the UK is still comfortably leading the pack. Given that rates within the EU are supposed, if NRAs have followed the Recommendation, to reflect pure-LRIC of termination on an efficient network, this shows that the 2009 model can clearly act as a very good proxy to efficient rates based upon a LRIC+ basis, given that they sit below rates potentially modelled on a pure LRIC basis.



To the extent that to allow the 2009 model to bring up LRIC rates that significantly diverged, we consider that this would not be against the EC Recommendation. As Ofcom notes, the Recommendation specifically acknowledges the appropriateness of BU models being cross checked by a top down model.

[4] BEREC Report BoR 12(56) : TR Benchmark snapshot (as of January 2012) Integrated report on MTR, SMS TR and FTR
http://berec.europa.eu/eng/document_register/subject_matter/berec/reports/331-tr-benchmark-snapshot-as-of-january-2012-integrated-report-on-mtr-sms-tr-and-ftr

Virgin Media also consider that Ofcom must not afford too much weight to the approach undertaken in the setting of mobile termination rates. On a number of occasions Ofcom state that the approach taken in the MCT case was endorsed before the CC and the CAT. Whilst it was true that the approach (in this regard) was upheld on appeal, two issues need to be borne in mind.

Firstly, the appellate body considering a decision of Ofcom does not have an unfettered right to re-take the decision appealed. The CC in the MCT case explicitly acknowledged that "*In a case where there were a number of alternative solutions to a regulatory problem with little to choose between them, we do not think it would be right for us to determine that Ofcom erred simply because it took a course other than the one that we would have taken*."[5] This approach has been confirmed in the recent 08x termination rate case before the Court of Appeal[6]. Therefore, whilst an appellate court may uphold an Ofcom approach, it does not necessarily mean that it is the only approach that can be taken in any circumstance, and it is incumbent on Ofcom to assess the various options open to it.

Secondly, there are substantial factual differences between the mobile and fixed termination markets. In the mobile markets, as Ofcom acknowledge, there is an ability to cross check model results against real world mobile networks, which as we have stated above contrasts starkly with the absence of comparable networks in the fixed world. Additionally, the issue of IP conversion did not arise in the setting of regulated mobile termination rates, where as it will be a key concern in this review, where Ofcom have the task of assessing how an efficient operator will seek to interconnect when BT's national network remains TDM-based (with IP conversion costs borne by an interconnecting party with NGN traffic), in the context of an NGN model build.

In conclusion, whilst Virgin Media acknowledge the Commission's Recommendation proposes the use of an NGN based model, we retain concerns about the ability of Ofcom to generate a sufficiently robust model due to the theoretical nature of its design. If such a model is to be used, it is vital that it is cross checked against a suitable benchmark, which we suggest remains the existing NCC model. Indeed, it could still be argued that the current model remains fit for purpose and should be retained, given the overall circumstances of the UK market. It is particularly telling that in Ofcom's Call for Inputs for its Fixed Access Market Review[7], it suggests that for the purpose of WLR/LLU charge control modelling a move to adopt a model that is consistent with the 2009 Narrowband model is appropriate as Ofcom (as well as CPs) are experienced in this approach and it would be consistent with the approach we used in the Leased Lines Charge Control, the Wholesale Broadband Access Charge Control and the last Network Charge Control; and it is based on audited and up to date information that captures recent movements in costs and efficiencies. There appears to be little or no discussion in this review as to whether it is appropriate, in order to align with the Commission's Recommendation, to create an entirely different model for Narrowband services when all other Ofcom models are being aligned and will operate on a consistent basis, especially when the call costs being regulated in this review will pass over the access networks being regulated in the Access review.

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[5] Paragraph 1.26 CC Determination cases 1180-4 /3/3/11 dated 9 Feb 12

[6] Telefónica O2 Ltd and others v British Telecommunications plc [2012] EWCA Civ 1002, 25 July 2012

[7] Paragraph 6.39 Ofcom's Call for Inputs Fixed Access Market Reviews published 9 November 2012

SECTION 2 : CONSULTATION QUESTIONS

Question 1: Do you agree with our proposal that NGNs can be considered the MEA for the purposes of modelling call origination and call termination services? If not, please explain why.

Virgin Media would agree that NGN can be considered MEA in the context of a notional CP who was considering building a network from scratch.

However, we consider that the need to stretch the model to fit the UK's existing network complicates the question, and the answer is not straight forward.

An efficient new build NGN network would (based on current technology) be likely to run VDSL from cabinets, rather than the exchange based model that maps onto BT's existing TDM network and is proposed by CMSG's model.

Whilst we fully understand this "scorched node" approach (as discussed in paragraph 5.24 of the consultation), and agree that a scorched earth approach would be more complex to model (for example ensuring that it included all relevant efficient migration costs), it give rise to a need to allow for the use of assets for voice and data services that may not be shared (as they could be on a true NGN network).

We consider that if a (VDSL) cabinet approach[8] was taken, then, as is proposed under Ofcom's current model, it would be appropriate to allocate costs between voice and data, given the shared infrastructure used.

However, in a model based on BT's exchanges, given that the network map is based on an ADSL network that uses exchange assets in a non-shared manner, maintaining copper to support voice (narrowband) services, we consider that it is less clear as to whether or how a cost allocation can be made between voice and data assets.

Therefore, whilst NGN can be used as the MEA for this model, the model needs to reflect the fact that there are still some legacy, TDM based, concepts that are used within the model, and the cost allocations needs to be adjusted to capture these to ensure that the efficient cost of running this modelled network is accurately calculated.

An alternate approach could be to use a blend of NGN and TDM modelling (as used by some NRAs). Although we note that Ofcom proposes to use TDM costs as a cross check, so that NGN costs are not higher than those in a hypothetical ongoing TDM network (rolling forward the 2009 derived model), this does not necessarily build in appropriate safeguards to an NGN model that fails to account for such anomalies as we have described above . This is especially important given that there is no national NGN network against which the model can be benchmarked (unlike the previous TDM-based NCC models), so the risk of unrealistic modelling is increased, and some form of safety net link to a model grounded in reality should be built in. That said, Virgin Media accepts that it would not be appropriate to embrace technology simply because it had not been universally adopted, but our concern is that in moving to a more theoretical approach, a reality based cross check has an

[8] NB additional costs would need to be included in such a model to ensure that an appropriate degree of resilience was built into the network, which would differ from the exchange based model proposed.

important role to play. This is especially important given that most CPs are still running (and are likely to continue to run for the forward look period) TDM with its associated SS7 protocol.

Question 2: Do you agree with our proposal that our NGN model should include PoIs based on IP interconnection? If not, please explain why.

In the consultation, Ofcom discusses the change from the current model which is TDM based and models costs based upon conveyance from the customer to the DLE. Ofcom propose that their hypothetical NGN network should have fewer POIs than the c650 DLEs[9] in BT's network.

Aside from our views on the overall approach to network build, Virgin Media considers that, from a theoretical perspective, a new build NGN network would indeed have fewer POIs than BT's TDM based network, and, given the fact that it would carry IP traffic, it would follows that interconnection would use an IP-based interconnection product.

We consider that the crucial question relates not to the interconnection product that is used within the model, but the treatment of the cost of conversion between IP and TDM networks, and we discuss this further in our response to Question 4 below.

Therefore, subject to our comment on interconnection, we understand Ofcom's proposal to model POIs based on IP interconnection.

Question 3: Do you agree with our proposal on 20 PoIs for our NGN model? If not, please explain why.

We have reservations regarding the overall approach in relation to network architecture, but taken in isolation a relatively small number of interconnects (such as 20) would be more appropriate than a larger number (as characterised by the current BT network).

Question 4: Do you consider that if the MEA is NGN, the costs of conversion from TDM to IP should be excluded from cost-based call origination and call termination rates? If not, please explain why.

If all networks were IP based, then the cost of conversion would be an irrelevant issue. It only arises because there are a mix of NGN and TDM networks in the UK, indeed most CPs currently run TDM with SS7 protocol, so any model (NGN or otherwise) designed to assess efficiently incurred costs within the UK market needs to take account of this factor.

Currently, BT who continue to operate a largely TDM network, charge more for IP interconnection than for TDM interconnection. Therefore, an efficient operator in the UK market is not incentivised to make an investment to upgrade or replace a TDM network when it would result in increased interconnection costs.

[9] Paragraph 3.62

Further, Virgin Media consider the question focuses too much on IP/TDM conversion. A broader issue relates to conversion costs in general. Currently, there are a number of different IP interconnects in use within the UK, such as Codec HD to non-HD interconnections. An example of this is the situation where MNOs interconnect with an AMR standard which is not compatible with BT's favoured G711 variant.

Therefore, it needs to be considered whether IP to IP conversion costs are also taken account of in the model.

The reality remains that most CPs continue to run TDM with associate SS7 protocol, and it does not seem appropriate to model a network which is unable to connect with the bulk of mobile and fixed networks unless conversion is undertaken. Clearly as CPs transition from TDM to IP networks the cost of conversion will reduce, but Virgin Media consider that this process will take far longer than the three year forward look of this review, and that conversion costs need to be factored into the modelling assessment.

Virgin Media therefore disagrees with the proposal that the cost of conversion should be excluded from modelled rates. To do so would risk setting charges below the real level of efficiently incurred costs incurred by a TDM based network which, given the need to interconnect with BT, and their policy with regard to charging for IP conversion, remains an efficient network concept at this time. Virgin Media considers that, at the very least, given the relative split between TDM and IP network presence in the UK today, conversion costs should be included within cost based regulated charges during the lifetime of this control.

This potential to set charges below the incurred cost of an operator maintaining a TDM network in order to interconnect with the BT network in the most cost efficient manner (especially if pure LRIC is used for setting regulated termination rates), emphasises the importance to undertake a reality cross check of any such rates against the costs associated with a hypothetical on going TDM network, with the potential to make an appropriate adjustment to the regulated rate. This particular characteristic derives from the nature of the UK telecoms market, and therefore comparisons with the rest of the EU may not be helpful in this regard.

Question 5: Should we use a bottom-up modelling approach for calculating the efficient costs of call termination and call origination? If not, please explain why.

Whilst a bottom up model is not inappropriate in itself, it has the potential to "miss" legitimate costs that should be allocated to relevant services, thus producing an output that understates the level of efficient rates. Some potential examples of this are discussed in our answers above.

The reason for this is the manner in which network elements are allocated to various "buckets" within the model, and the over simplified assumptions applied in relation to those buckets. The potentially arbitrary nature of the assumptions applied and the inability to drill down and analyse the methodology means that the model cannot be effectively challenged or tested by stakeholders.

Virgin Media consider that this could be a real concern in this market review as the information request process focussed on individual assets, but did not enquire into how they were being used within any particular network. Where a network uses separate data and voice streams, then networks will be used in an entirely different

manner than a combined voice/data network, and therefore the associated costs can differ significantly between networks. Additionally, the nature (and cost) of an individual component can also vary depending upon the need that it is designed to fulfil (for example components in cabinet (VDSL) and exchange (ADSL) based systems will have different roles and specifications). Virgin Media is concerned that reliance upon the data gathered could result in incorrect assumptions being made in relation to the cost and use of individual components that cannot be then checked by stakeholders.

Therefore, a cross check to a bottom up model is important. Ofcom discuss potentially using sub-national NGN networks to cross check costs, or using other NGN models built by NRAs. Ofcom also discuss using a top down model to cross check but only in the context of setting a notional TDM based ceiling on the level of regulated charges. VM consider that a cross check based on the 2009 model would be more valuable than one based upon sub-national networks (which will have significantly different costings) or models developed by other NRA, given the variation in national markets. However, we consider that use of the 2009 model should not be confined to setting a ceiling for regulatory charges, but also as the relevant benchmark, which if the bottom up modelling diverges too far from the top down cross check, it would be appropriate to balance the results of the outputs.

Question 6: Do you agree that we should use a decremental approach when calculating the pure LRIC of call termination? If not, please explain why.

The approach described in the consultation results in a particularly strict application of LRIC, and whilst this has been upheld by the CAT, whilst it means that this is an appropriate approach (or was an appropriate approach in the setting of MTRs), it does not mean that it is the most appropriate approach to take in this case.

It is relevant that the Analysis Mason report suggests that this approach has not been taken in other EU countries, save for France, despite the EU Recommendation, and therefore, Virgin Media still has concerns that this element of the proposed approach, combined with the other proposals may give a result that sets termination rates at below efficient cost having regard to the market as it exists in the UK. Therefore, whilst a decremental approach is not theoretically objectionable, it could lead to an inappropriate outcome which would not promote sustainable competition.

Question 7: Do you agree with our approach to network cost verification? If not, please explain why.

The bottom-up model proposed by Ofcom is, by necessity, a simplified representation of a network. Whilst it would certainly not be appropriate to seek to model a more complex network (with additional assumptions), the current model has, by its nature, a tendency to simplify incredibly complex network design decisions and there is a danger that by underestimating complexity relevant costs are also underestimated.

A real world example of NGN modelling that appeared to underestimate real costs was BT's 21CN, which following detailed proposal for full migration was abandoned in favour of retaining and sweating the existing network.

Ofcom acknowledge at paragraph 4.22 that *'no such network exists for us to check our models outputs against*'. Any approach that cannot be checked against the real world will be inherently less reliable than one that can. In this proposal Ofcom cannot check the assumed investments and costs involved in building the NGN network against any 'actual' network deployment. Even though sub-national NGN networks exist, these do not lend themselves to cross checking as they are, by definition, geographically limited and may not have 'rigorous' cost accounting systems applied to them that allow the identification of NGN costs to be separated from other costs.

This puts Ofcom in a considerably different position to when it imposed regulated termination rates in the mobile markets. In that review, Ofcom was able to conduct a robust cross check of its NGN BU model, ensuring that the regulated rates set were aligned to the realities of the UK based MNOs networks. The ability to rely on the mobile model as "best practice", as appears to be suggested by Ofcom in this consultation is considerably reduced, as is any implication that the model has been endorsed through the CC and CAT decisions.

We consider that the effective way of providing a real world cross check is, as we have discussed above, to use the output of the TDM model as more than just a ceiling on NGN costs, and to ensure that modelled costs produced by the NGN model are not wholly out of line with the efficient cost of running a "real world" TDM network.

It is suggested that one cross check could be to ensure that modelled NGN costs enabled BT to recover its efficiently incurred costs in particular those of TDM assets[10]. This would involve an assessment of BT's costs in running its heavily depreciated network. Given that the model is being proposed to set efficient termination rates, and this may be applied to all terminating operators who are found to have SMP in the termination market, this approach appears to be overly BT-centric. An efficient network operator who continues to run a TDM network (for the reasons discussed above in relation the need to interconnect with BT at the lowest cost) may well have assets that are at a different stage of their life cycle than BT. Although TDM networks are likely to be depreciated to some extent given the nature of the technology, to apply BT's level of depreciation (when it had planned to cease using its TDM network under its 21CN plans) is unlikely to be an appropriate proxy for UK TDM networks generally. To this end a better cross check would be to use the results of the hypothetical on going network and adjust for a degree of depreciation.

Question 8: Do you agree with our proposed approach to traffic forecasting and the modelled market share? If not, please explain.

Virgin Media agrees that, from the three options presented by Ofcom in the consultation at paragraph 5.15, the appropriate approach would be to model on an assumed 25% market share, as proposed by Ofcom.

Again, although this was the approach taken in the mobile model, the absence of a real world cross check means that Ofcom need to proceed with caution on traffic forecasting.

[10] Paragraph 4.17

Question 9: Do you agree with our approach to non-network costs and passive network elements? If not, please explain.

Ofcom's proposed approach suggests that this is one area where a bottom-up approach is not appropriate, given that it is proposed that passive network assets are allocated on a top-down basis, using existing methodology from the current NCC. Therefore this element of the model, at least, takes on a more hybrid bottom up / top down approach.

We consider that this exposes the potential for a bottom up model to be subject to a more real world check, and this should apply more generally, rather than just declining to model passive costs on a bottom up basis.

In relation to non-network costs, we consider that detailed comment is premature as it is noted by Ofcom that evidence as to whether such costs vary with traffic volume is still being gathered, and therefore, it is equally premature for Ofcom to assess that it would not be appropriate to include these costs, solely on the basis that BT's PPP costs have varied year on year. This is a matter that requires further explanation and reasoning in Ofcom's January consultation.

Question 10: Do you agree with our proposed approach to cost recovery? If not, please explain why.

Virgin Media consider that it is appropriate to use the "Rest of BT" WACC as proposed by Ofcom for this model. We note that Ofcom indicated in its 2012 LLU/WLR Statement, that a full review of the WACC methodology would be undertaken later in 2012, and would appreciate an update as to whether this is being undertaken and if and how it will impact on the setting of controls in the Narrowband review.

We do not have any comment over Ofcom's proposal to adopt Original Economic Depreciation.

VIRGIN MEDIA
9 NOVEMBER 2012