



Commission for
Communications Regulation

Further specification of price control obligations in Market 3a (WLA) and Market 3b (WCA)

Non-Confidential Submissions to Consultation 17/26

Submissions to Consultation Document No. 17/26

Reference: ComReg 17/26sR

Version: Final

Date: 28 July 2017

An Coimisiún um Rialáil Cumarsáide
Commission for Communications Regulation

Abbey Court Irish Life Centre Lower Abbey Street Dublin 1 Ireland D01W2H4

Telephone +353 1 804 9600 Fax +353 1 804 9680 Email info@comreg.ie Web www.comreg.ie

Contents

Section

1. Alternative Operators in the Telecommunications Market (ALTO).....	3
2. BT Communications Ireland Limited (BT)	30
3. SIRO.....	53
4. Eircom Limited (Eircom).....	57
5. e-Nasc Éireann Teoranta (Enet).....	352
6. Sky Ireland Limited (Sky).....	365
7. Virgin Media Ireland Limited (Virgin Media).....	405
8. Vodafone Ireland Limited (Vodafone)	420

1. Alternative Operators in the Telecommunications Market (ALTO)

alto

alternative operators in the communications market

Consultation: Pricing of wholesale services in the WLA market and in the WCA markets: Further specification of price control obligations in Market 3a (WLA) and Market 3b (WCA) - Ref: 17/26

Submission By ALTO

Date: June 26th 2017

ALTO is pleased to respond to the Consultation: Pricing of wholesale services in the Wholesale Local Access (WLA) market and in the Wholesale Central Access (WCA) markets: Further specification of price control obligations in Market 3a (WLA) and Market 3b (WCA) - Ref: 17/26.

ALTO welcomes this opportunity to comment on this timely and important consultation.

Preliminary Remarks

ALTO commends ComReg on its worthy work in the area of providing greater certainty to the market.

ALTO calls on ComReg to proceed with this work in conjunction with the WLA/WCA Market Review apace.

ComReg's final decisions for WLA/WCA market reviews and fibre pricing are imperative to the proper functioning of the communications market in Ireland.

ALTO calls on ComReg to seek to provide more transparent reviews of pricing and price change applications from Eir by means of production of cost models and also by means of mini consultations or requests for input on proposed changes on an *ex ante* basis.

ALTO notes that in certain circumstances deregulation is inappropriate without first considering price floors. This is addressed further in our responses to the Consultation set out below.

Response to Consultation Questions:

Q. 1. Do you have any further comments regarding the pricing proposals in ComReg Document 16/96 (WLA / WCA Market Review) in light of the pricing obligations further specified in this Draft Decision? Please provide reasons for your response

A. 1. ALTO suggests that ComReg provides industry with the relevant financial models being utilised by ComReg and effecting industry. The said models should be made available at the same time as publication of the Consultation occurs. The said models are a critical and intrinsic part of assessing ComReg's proposals.

Q. 2. Do you agree with ComReg's preliminary view that the BU-LRAIC+ methodology should be applied to determine the appropriate level of costs associated with the provision of FTTC based VUA (including EVDSL) in the WLA Market and for FTTC based Bitstream and current generation Bitstream and BMB in the Regional WCA Market? Please provide reasons for your response.

A. 2. ALTO considers that with very evident and numerous price increases affecting the WLA market (Reference Para. 4.9 of the consultation) uncertainty is now an unfortunate feature of the market. This underpins Eir's dominant position in the market and the need for ComReg to intervene urgently.

Recent NGA price rises of circa €2 Euro per NGA line per month following ComReg's Decision to apply cost orientation to WLR/copper services appeared to be simple retribution or a cynical ploy rather than justified by increased costs. ALTO has been most vocal on this issue and it is a critical issue for all new entrant operators.

Further, price increases to Standalone services in ALTO's view had the consequence of stifling the competitive opportunities for operators to invest in VoIP as a replacement for WLR services. This is another issue where ALTO has been vocal and transnational operators remain bemused that Ireland is so far behind on

the issue of providing access to competitive VoIP platform services.

It is our working assumption that Eir raised these prices to recover margin lost with the WLR regulatory changes, and separately the increases to standalone NGA prices could to some commentators appear to be attempt to stifle the competitive deployment VoIP. This is a clear demonstration of dominance for self-benefit. The lack of availability of alternative substitute products highlights an active competitive problem that needs urgent resolution by ComReg.

Eir has also recently established a position that many would consider to be a monopoly position i.e., out of 2.2 Million lines they have already rolled their network past 1.6m premises and have agreed with the State to commercially bring this to 1.9m premises by the end of 2018.

While the outcome of NBP bid process has not yet completed it would not be surprising if Eir were to take at least one of the two lots. On a simple 50:50 split, that would underpin Eir's dominance as being almost national. Remaining long line circuits not yet served within areas already deployed by Eir would suggest Eir is best places to serve them.

ALTO agrees with ComReg's preliminary view that the BU-LRAIC+ methodology should be applied to determine the appropriate level of costs associated with the provision of FTTC based VUA (including EVDSL) in the WLA Market and for FTTC based Bitstream and current generation Bitstream and BMB in the Regional WCA Market. This should allow the market to stabilise adequately. Furthermore it appears that ComReg chooses to adopt the standard international model and to set such cost based regulatory pricing. The application of this model will remove Eir's ability to continue its evidently disruptive pricing behaviour and should place an easily reviewable limit on excessive margins.

Q. 3. Do you agree with ComReg's preliminary views regarding the proposed costing methodology for Reusable Assets, Non-reusable Assets and active / other assets in the provision of FTTC based VUA (including EVDSL), FTTC based Bitstream and current generation Bitstream and BMB services? Please

provide reasons for your response

A. 3. ALTO agrees with the concept proposed by ComReg for Reusable and Non-reusable Assets, particularly surrounding ducts can be used to carry both copper and fibre cables where capacity exists.

ALTO also generally agrees with the costing methodology.

ALTO is concerned that there is no fit-for-purpose solution from Eir for the same ducts to carry the fibres of alternative operators. In the Broadband Market Review Consultation ComReg identified a number of issues to be resolved concerning the market, yet the published response received by Eir to the same consultation suggests there is no issue to resolve – “*nothing to see here*”. This is simply wrong and ALTO is glad the ComReg is finally addressing this issue.

Q. 4. Do you agree with the proposed timeframe of the model and with the proposed approach and assumptions used in determining the service volumes / demand for FTTC based VUA (including EVDSL) and FTTC based Bitstream in the NGA Cost Model? Please provide reasons for your response.

A. 4. ALTO does not agree with ComReg’s proposed timeframe of the model and with the proposed approach and assumptions used in determining the service volumes / demand for FTTC based VUA (including EVDSL) and FTTC based Bitstream in the NGA Cost Model for the following reasons:

1. At Clause 6.5.1 Clause (e) – Having reviewed the Government Agreement (available on the web site of the DCCAIE) made between Eir and the DCCAIE concerning some 300k arguably “*cherry picked*” areas from the NBP tender process, it is notable that the agreement is documented as 30Mbit/s downstream and 6Mbit/s upstream suggesting both FTTH and FTTC will be used to achieve this agreement as both these access

technologies can meet these requirements. ALTO also notes that Eir has announced to industry a trial of longer distance cabinet based VDSL suggesting potential changes to this deployment. Given the higher costs of FTTH to FTTC it would be surprising that Eir would always commercially choose the more expensive FTTH option that also is more difficult to deploy. ALTO member studies of the industry pre-qualification file also shows that at some locations both FTTC and FTTH is available and is it reasonable these double costs should be considered and excluded in any model as clearly it must have been a commercial and not a regulatory decision to double supply.

2. At Clause 6.5.1 Clause (i). ALTO suggests that it is wrong to make the assumption that a site with no NGA lines in December 2016 will be served by NBP or FTTH. Eir is still reporting the deployment of new cabinets to the industry in June 2017. It remains a matter of fact that FTTC NGA is still being rolled out. Additionally as in 1 above there are times where it is more efficient and timely to use cabinet based FTTC in some rural villages, etc. It would be surprising if only FTTH was deployed. ALTO does not agree with the assumption that ComReg is making that FTTC rollout stopped at the end of 2016 in consequence.
3. At Clause 6.39 – ALTO considers it too early for ComReg to make the rollout assumptions that it has. There are serious questions as to whether it is still viable for bidders to continue participating in the NBP given the 300k premises land grab by Eir with the remainder potentially non-viable due to lack of scale as Eir also has the potential to win either one or the two NBP lots. The economics of LLU has highlighted to us that the economic viability of a non-incumbent entering a low customer density areas is poor with a high risk the incumbent will simply overlay any potentially commercially viable locations. We saw this with the current generation broadband and it should be expected for NBP. ALTO considers it too early for ComReg to be making the assumptions it has, and the more likely outcome is continued incumbent dominance.

Q. 5. Do you agree with ComReg’s proposed modelling approach for determining the demand and costs inputs associated with the provision of FTTC based VUA, including Remote VUA, Local VUA and EVDSL services? Please provide reasons for your response.

A. 5. ALTO notes that regrettably in the absence of detailed models its not possible to fully assess whether ComReg’s proposed modelling approach is correct for determining demand and costs inputs associated with the provision of FTTC based VUA, including Remote VUA, Local VUA and EVDSL services.

1. At Clause 6.46 – We note Eir are reported to have said the rollout of FTTC DSLAMs is almost complete and ComReg have based their model on this. ALTO believes this to be an incorrect assumption as DLAMs are still being commissioned well into 2017 as reported to the industry NGA meeting. The open wording of the 300k Government Agreement also leaves open FTTC as well as FTTH to be used for this rollout. We consider ComReg needs to keep a close eye on these inputs.
2. At Clause 6.124 – Concerning cabinet design costs. ALTO submits that it is not clear why special mention and consideration is being made of cabinet design costs. The equipment within the cabinet is standard vendor supply and any design would be included in the cost of that equipment, and separately cabinets are being used all over the world and there does not appear to be any special characteristic to the Eir cabinets. ALTO wonders why are design costs significant to the calculation? If such are significant then why, as there are many existing designs that have been simply used or adapted for Ireland.
3. Other than above the physical components being considered as detailed in table 16 of the Consultation paper look correct but without any supporting detail it is not possible to make an assessment as to whether the costing of these components is correct or that the proportions of costs are correct.

Q. 6. Do you agree with the proposed inputs and assumptions in the NGA Cost Model for determining the costs associated with the provision of FTTC based Bitstream? Please provide reasons for your response.

A. 6. ALTO does not agree with the proposed inputs and assumptions in the NGA Cost Model for determining the costs associated with the provision of FTTC based Bitstream and would like to offer the following comments.

ComReg implies at 6.132 that it is considering collecting REO data from OAOs and while this maybe helpful, we request that ComReg does not repeat the approach we have seen through the leased lines market review. Other regulators have given up on such data and the reliability of aspects such as revenues is still highly questionable in our view. Incumbent operators have had years of discussions and refinements with the regulator as to what data to keep and even today arguments still occur on that data. OAOs have had no such experience and if ComReg were to start down that track we trust it will highlight the regulation that is being triggered and give the industry several years notice to put in place the processes and systems to capture the appropriate data. Otherwise the operators will only be able to supply what they have and if not designed for such, the data will not meet ComReg's quality expectations.

Q. 7. Do you agree with the proposed approach for determining the port rental costs for POTS based FTTC NGA services going forward and the proposed additional port rental price for POTS based FTTC services of €4.96? Please provide reasons for your response.

A. 7. ALTO agrees with the logic of the proposed approach for determining the port rental costs for POTS based FTTC NGA services going forward and the proposed additional port rental price for POTS based FTTC services of €4.96.

ALTO considers that this is an important assumption and calculation as it effectively sets the window for the costs and margin for providing a VoIP solution/s. The real issue is whether ComReg can maintain regulatory certainty for such a window as the later removal of such could undermine considerable industry investment as appears to have happened to date with Eir increasing the standalone pricing.

Q. 8. Do you agree with ComReg’s preliminary view that a consistent monthly or annual charge should apply for each year of the price control period in relation to the NGA Cost Model and NGN Core Model? Please provide reasons for your response.

A. 8. ALTO agrees with ComReg’s preliminary view that a consistent monthly or annual charge should apply for each year of the price control period in relation to the NGA Cost Model and NGN Core Model. We would like to offer the following comments.

ALTO submits that there are general market and consumer benefits to stability and certainty of the pricing of key infrastructure components is important to the market. ALTO also submits that a consistent monthly or annual charge should apply over the period of the price control unless material issues arise warranting a review during the period by the regulator.

Q. 9. Do you agree with ComReg’s preliminary view that the single monthly rental charge for FTTC based VUA (including EVDSL based VUA) should be based on the BU-LRAIC+ methodology generally and Eircom’s Indexed RAB for Reusable Assets in those exchanges where Eircom has deployed active FTTC and EVDSL lines? Please provide reasons for your response.

A. 9. ALTO agrees with ComReg’s preliminary view that the single monthly rental

charge for FTTC based VUA (including EVDSL based VUA) should be based on the BU-LRAIC+ methodology generally and Eir's Indexed RAB for Reusable Assets in those exchanges where Eir has deployed active FTTC and EVDSL lines. ALTO notes a certain issue at Clause 7.23 – We submit that assuming re-usable assets are available for other operators, ComReg must query whether the services being offered are fit for purpose or not? ALTO does not anticipate they will be fit for purpose for the lifetime of the market review and this pricing proposal.

Q. 10. Do you agree that in the exceptional case where Eircom reduces the price for FTTC based VUA that any such reduction should also be reflected in the price for FTTC based Bitstream subject to the price floors requirements in Chapter 12 of this document and ComReg's regulatory approval? Please provide reasons for your response.

A. 10. ALTO agrees that in the exceptional case where Eir reduces the price for FTTC based VUA that any such reduction should also be reflected in the price for FTTC based Bitstream subject to the price floors requirements in Chapter 12 of the Consultation document and ComReg's regulatory approval and prevailing regulatory conditions.

Any reductions in component parts of FTTC based VUA such as SLU should also apply to all services that use such a common component, for example LLU and WLR prices should also reduce. The rationale for this view is that there is an opportunity to unfairly squeeze out alternative access products such as LLU and WLR and this would undermine the investments made by other operators. The review by ComReg is necessary to provide an informed and independent check that the market will not be damaged by such price changes.

Q. 11. Do you agree with ComReg's preliminary view that at the time of the Decision the FTTC based VUA and EVDSL footprint should be locked-in for

the purposes of setting the single FTTC based VUA (including EVDSL based VUA) monthly rental price for the entire price control period? Please provide reasons for your response.

A. 11. ALTO does not agree with ComReg's preliminary view that at the time of the Decision the FTTC based VUA and EVDSL footprint should be locked-in for the purposes of setting the single FTTC based VUA (including EVDSL based VUA) monthly rental price for the entire price control period. In our view the roll-out of VUA and EVDSL is likely to continue as we believe at least some of the 300k premises offered in the Eir/DCCAIE agreement is likely to include some FTTC. ALTO submits that it is more likely to be more economical to deploy FTTC in some locations versus more difficult and costly deployment of fibre to the premises.

Separately and somewhat regrettably also note the specification in the DCCAIE agreement is for 30Mbit/s downstream and 6 Mbit/s upstream and FTTC is also capable of meeting this requirement.

Q. 12. Do you agree with ComReg's preliminary views that it is appropriate to maintain a link between the price for FTTC based VUA (including EVDSL) and the price for LLU such that any changes to the underlying costs (e.g. SLU) should be applied consistently to the price of both services? Please provide reasons for your response.

A. 12. ALTO supports this in principle, and we agree it is appropriate to maintain a link between the price for FTTC based VUA (including EVDSL) and the price for LLU such that any changes to the underlying costs (e.g. SLU) should be applied consistently to the price of both services to protect the investment that operators have made in LLU services which still have many years of economic life.

Q. 13. Do you agree with ComReg’s preliminary view that the monthly rental charge for FTTC based Bitstream should be based on the BU-LRAIC+ methodology and Eircom’s Indexed RAB applied to Reusable Assets based on those Local VUA sites yet to be unbundled in the Regional WCA Market and with an adjustment to Bitstream specific costs to reflect the scale of a hypothetical SEO with a 25% retail broadband market share? Please provide reasons for your response.

A. 13. ALTO agrees with ComReg’s preliminary view that the monthly rental charge for FTTC based Bitstream should be based on the BU-LRAIC+ methodology and Eircom’s Indexed RAB applied to Reusable Assets based on those Local VUA sites yet to be unbundled in the Regional WCA Market and with an adjustment to Bitstream specific costs to reflect the scale of a hypothetical SEO with a 25% retail broadband market share. However, we do envisage further VUA sites being accessed and we consider this regulation should be changed to a cost plus floor regulation with an MST put in place to prevent margin squeezing.

Q. 14. Do you agree with ComReg’s preliminary view that the FTTC based Bitstream footprint should be locked-in at the date of the Decision for the purposes of setting the FTTC based Bitstream monthly rental price in the Regional WCA Market for the entire price control period? Please provide reasons for your response.

A. 14. ALTO supports ComReg’s preliminary view that the FTTC based Bitstream footprint should be locked-in at the date of the Decision for the purposes of setting the FTTC based Bitstream monthly rental price in the Regional WCA Market for the entire price control period to bring pricing stability. However ComReg should reserve a right to review if significant further rollout after the Decision occurs.

Q. 15. Do you agree that in exceptional cases only Eircom should be allowed to reduce the price for FTTC based Bitstream so long as any such reduction is reflected in the price for FTTC based VUA (in order to maintain a sufficient economic space between the two services) and subject to the price floor requirements in Chapter 12 of this document and ComReg’s regulatory approval? Please provide reasons for your response.

A. 15. ALTO agrees that only in exceptional cases should Eir be allowed to reduce the price for FTTC based Bitstream so long as any such reduction is reflected in the price for FTTC based VUA (in order to maintain a sufficient economic space between the two services) and subject to the price floor requirements in Chapter 12 of this document and ComReg’s regulatory approval. If this is not carried out there is a material risk of a margin squeeze against operators that use VUA. We also consider LLU pricing should reduce if components of the price reduction are shared with LLU such as SLU.

Q. 16. Do you agree with the proposed principles, inputs and assumptions in the NGN Core Model for determining the costs associated with the provision of broadband services? Please provide reasons for your response.

A. 16. ALTO agrees with the high level proposed principles, inputs and assumptions in the NGN Core Model for determining the costs associated with the provision of broadband services however with no transparency of the detail we cannot determine whether the outcome is correct.

One issue which is not clear is whether the voice traffic modelling is based on the existing PSTN switch network which we understand from other discussions is still in place and operational, or the hypothetical use of the NGN. This is important to ensure alignment with the actual networks rather than hypothetical networks.

Q. 17. Do you agree with ComReg’s preliminary view that traffic costs on the core network should be allocated based on revenue per user (option 3 above)? Please provide reasons for your response.

A. 17. ALTO agrees with ComReg’s preliminary view that traffic costs on the core network should be allocated based on revenue per user (option 3 above) as ComReg inform us that this provides more price stability and the allocation is based on what the end user has accepted to pay in the past.

Q. 18. Do you agree with ComReg’s preliminary view that the monthly price for current generation Bitstream and BMB services should be based on the average BU-LRAIC+ costs across the Regional WCA Market as set out in Figure 31 (for 2017/18) and in Figure 37 (of Chapter 14) for each year of the proposed price control period? Please provide reasons for your response.

A. 18. ALTO agrees with ComReg’s preliminary view that the monthly price for current generation Bitstream and BMB services should be based on the average BU-LRAIC+ costs across the Regional WCA Market as set out in Figure 31 (for 2017/18) and in Figure 37 (of Chapter 14) for each year of the proposed price control period. We agree this will act to minimise increasing the digital divide between regional areas and this is helpful for customer pricing.

Q. 19. Do you consider that a price floor for CGA Bitstream services is no longer required for the proposed price control period given the declining demand in CGA investment? Please provide reasons for your response.

A. 19. ALTO does not agree that the price floor for CGA Bitstream services is no longer required as there is an increased risk Eir could reduce these services

through an anti-competitive margin squeeze and we are already aware of an Eir promotion to move customers from LLU.

Separately ALTO notes that the CGA market including Bitstream and LLU are still relatively substantial and ComReg should resist deregulating until such time as an environment is in place that means migration can take place properly.

Q. 20. If you consider that a price floor for CGA services is appropriate, do you agree with ComReg’s preliminary view on the margin squeeze assumptions and the indicative price floors (for 2017/18) for current generation Bitstream services from the NGN Core Model? Please provide reasons for your response.

A. 20. As per response in our to question 19, ALTO submits that a price floor is required and we consider it should be set at Option 2 for 141 exchanges as we are considering increasing our base by another handful of sites for VUA, which would give us the access to run more LLU CGA EFM and potentially LLU NGA EFM.

Q. 21. Do you consider that the price points for CGA Bitstream and BMB services should be set based on Eircom’s BU-LRAIC+ costs or the BU-LRAIC+ costs of a REO i.e., the price floors? Please provide reasons for your response

A. 21. ALTO submits that the price points for CGA Bitstream and BMB services should be set based on Eir’s BU-LRAIC+ costs or the BU-LRAIC+ costs of a REO i.e., the price floors. ALTO’s experience of Eir’s pricing over many years is that Margin Squeeze has been a concern. The various Eir RGM and Styles Reports have critically highlighted compliance and this has been a considerable problem generally in the market. ALTO submits that there is nothing by way of evidence to suggest that the abuse of regulation will cease any time soon. We call on ComReg

to introduce strong *ex ante* remedies rather than those that allow an element of trust. ALTO submits that if Eir is given the ability to change prices for its own benefit it will do so because it can.

Q. 22. Do you agree with ComReg's preliminary views regarding the principles of the wholesale margin squeeze test between FTTH based VUA and FTTH based Bitstream? Please provide reasons for your response.

A. 22. ALTO agrees with ComReg's preliminary views regarding the principles of the wholesale margin squeeze test between FTTH based VUA and FTTH based Bitstream. In order to support our view we submit the following:

1. Margin squeeze compliance has proven to be an issue in the Irish market with a past court case that took a considerable period to resolve highlighting the need for fit for purpose *ex ante* regulation.
2. The considerable level of self-confessed breaches of regulation in the Irish market by the incumbent also leads to concern as to their culture towards compliance. Such also requires better transparency so that its more difficult to breach regulation.
3. ALTO generally agrees with the synopsis supplied by ComReg concerning the incentives for investment and the need to prevent certain activities that could negatively distort or foreclose parts of the market.

Q. 23. Do you agree with ComReg's preliminary views regarding the principles of the margin squeeze test between the price of WLA services in the footprint corresponding to the Urban WCA Market and retail services provided by way of WLA inputs in the footprint corresponding to the Urban WCA Market? Please provide reasons for your response.

A. 23. ALTO does not agree with ComReg's preliminary views regarding the principles of the margin squeeze test between the price of WLA services in the footprint corresponding to the Urban WCA Market and retail services provided by way of WLA inputs in the footprint corresponding to the Urban WCA Market. Critically, we submit the following supporting comment to our views:

1. ALTO submits with caution that ComReg's market analysis appears to be somewhat flawed. The Irish market is characterised by an intermediate wholesale market where wholesale operators resell Eir's VUA connectivity with other network features to a number of retail operators including switchless retail providers of many market sizes. This is a very important issue to ALTO and its members.
2. ALTO submits that ComReg's current proposal substantially risks foreclosing wholesale competition in Ireland as it will allow Eir to reduce its WCA bitstream plus prices towards WLA VUA pricing whilst Eir would still pass the Retail to WLA MST.

Q. 24. Do you agree with ComReg's preliminary views regarding the margin squeeze principles for the wholesale End-to-end margin squeeze tests for both current generation and next generation? Please provide reasons for your response.

A. 24. ALTO agrees with ComReg's preliminary views regarding the margin squeeze principles for the wholesale End-to-end margin squeeze tests for both current generation and next generation. We submit additional comments as follows:

1. We welcome ComReg's proposals to include/continue a Margin Squeeze Test – MST, for white label 'End-to-End' bitstream as this has concerned industry for many years. However, we are also concerned as to how ancillary functions are considered in the MST as such could easily positively

distort the benefit gained by the switchless provider, for example additional service features, web site building, and a raft of other bolt on offerings that attract no charge. Other operators would have to factor in the costs of additional features in the services they offer to provide functioning services and it's not clear the same is true for Eir white label products.

2. The overall transparency of the End-to-End MST against wholesale bitstream is extremely poor and we consider ComReg should provide far more detail in order that operators can make a reasonable assessment of whether the products are being offered fairly or not. Similar to the current retail bundles approach. ALTO submits that ComReg should review White label 'End-to-End' and should also consider the various other benefits that are received and derived during that valuation assessment and review.

Q. 25. Do you agree with ComReg's preliminary view regarding the margin squeeze principles for the retail margin squeeze test for NGA services in the Regional WCA Market? Please provide reasons for your response.

A. 25. ALTO does not agree with ComReg's preliminary view regarding the margin squeeze principles for the retail margin squeeze test for NGA services in the Regional WCA Market.

ALTO submits that by ComReg not following the 2013 European Commission Recommendation it will only test the portfolio basket and not flagship products – this is a problem. It is has been the case since the very first days of MSTs that a portfolio approach can allow key flagship products to be squeezing whilst other less popular products are priced to make the basket or portfolio test past. ALTO submits that it is worrying, as the issue, as it has been consistently and properly highlighted by the European Commission to NRAs. ALTO believes that it is incorrect that ComReg are not taking the utmost account of European

Recommendations.

Q. 26. Do you agree with ComReg's preliminary view that traffic costs on the core network should be allocated based on revenue per user (option 3 above)? Please provide reasons for your response.

A. 26. ALTO does not agree with ComReg's preliminary view on the margin squeeze principles that should apply to the retail margin squeeze test for current generation services in Regional Area 1 and Regional Area 2 of the Regional WCA Market. Please see response to Q. 25 above – re. taking full account of EU Commission Recommendation.

Q. 27. Do you agree with ComReg's preliminary view that the price control period should be for three years but should remain in place any further notice by ComReg and that Eircom should review the models annually for material / exceptional changes? Please provide reasons for your response.

A. 27. ALTO agrees with ComReg's preliminary view that the price control period should be for three years but should remain in place until further notice by ComReg and that Eir should review the models annually for material / exceptional changes. We agree this should bring regulatory certainty over the period with the safeguard to address material issues should they emerge.

Q. 28. Do you agree with ComReg's preliminary views regarding the pre-notification procedures that should apply to all proposed wholesale price changes or for new wholesale prices associated with the price control obligation for all WLA and WCA services mandated in the WLA / WCA Market Review? Please provide reasons for your response.

A. 28. ALTO partially agrees with ComReg's preliminary views regarding the pre-notification procedures that should apply to all proposed wholesale price changes or for new wholesale prices associated with the price control obligation for all WLA and WCA services mandated in the WLA / WCA Market.

ALTO submits that in many cases notification to the consumer market will be required and a 45 day notice period would be more appropriate to allow operators to consider changes to their business models and to potentially notify end customers of price changes. This is an important issue to consider.

Q. 29. Do you agree that there should be no wholesale promotions and discounts going forward for WLA or WCA services? Please provide reasons for your response.

A. 29. ALTO agrees that there should be no wholesale promotions and discounts going forward for WLA or WCA services. Please provide reasons for your response. We would like to offer the following comments:

1. ALTO considers that wholesale promotions have been used inappropriately over the past years causing distortionary influences into the market. For example promotions lasting up to a year or longer become the effective prices in the market and the removal of the promotion appears as a price increase. For example the three Euro discount promotion for the launch of NGA was left in place for such a long period that this became the trading price and industry had believed this would be indefinite. Eir were then able to commercially disrupt the market at a timing of its choice with the removal of the discount. This was unhelpful towards industry whilst it was trying to grow the market. In our view Eir has shown poor behaviour in the use of promotions and we have no alternative but to assume such poor behaviour will continue into the future. Thus given the expectation of future poor

behaviour the ability to offer wholesale promotions should be withdrawn.

2. In an environment of cost based pricing long term promotions raise concerns as to how such can be sustainable without trading below cost floors and thus anti-competitive. If such can be sustained such suggests the regulatory cost based pricing is based on incorrect cost information and ComReg should recalculate the permanent cost based pricing.

Q. 30. Do you agree with ComReg’s preliminary views that pre-notification and pre-clearance is appropriate for retail price changes in the WLA Market and the Regional WCA Market? Please provide reasons for your response.

A. 30. ALTO agrees with ComReg’s preliminary views that pre-notification and pre-clearance is appropriate for retail price changes in the WLA Market and the Regional WCA Market. We consider this will at least go some way to preventing potential margin/product squeeze situations.

ALTO notes ComReg’s comments in Clause 12.35 discussing an Eir self-compliance/RGM approach. Given the numerous compliance breach declarations by Eir in its Regulatory Governance Model (RGMs 1, 2 and 3 commonly called *Styles’ Reports 1, 2 and 3*) it appears to have difficulties complying with mandatory regulation and it’s far to early to consider how self-certification could be allowed at this time. What is even more disturbing is that even after publishing RGM Report 1 it took a further complaint to force Eir to actually resolve the address matching issue and we note ComReg have issued a number of formal non-compliance notices concerning issues in the RGMs. A significant demonstration of a positive culture towards compliance is still required and there is no evidence, even after *Styles* of that happening as yet.

Q. 31. Do you agree with ComReg’s preliminary view regarding the regulatory approval mechanism and that in exceptional circumstances only Eircom may

be allowed to reduce wholesale prices for FTTC based NGA services (VUA and Bitstream) below the regulated price so long as it does not breach the price floor requirements at paragraphs 12.54-12.55 and subject to ComReg's approval? Please provide reasons for your response.

A. 31. ALTO agrees with ComReg's preliminary view regarding the regulatory approval mechanism and that in exceptional circumstances only Eir may be allowed to reduce wholesale prices for FTTC based NGA services (VUA and Bitstream) below the regulated price so long as it does not breach the price floor requirements at paragraphs 12.54 – 12.55 and subject only to ComReg's approval.

Q. 32. Do you agree with ComReg's preliminary view regarding the regulatory approval mechanism (and pre-conditions at paragraph 12.54) that the price for FTTH based VUA should not go below the price floor at paragraph 12.72 and that Eircom's full deployment costs for FTTH based VUA should be calculated with reference to Eircom's own business case / plan? Please provide reasons for your response.

A. 32. ALTO agrees generally with ComReg's preliminary view regarding the regulatory approval mechanism and the various pre-conditions at paragraph 12.54 of the Consultation paper. We also submit that the price for FTTH based VUA should not go below the price floor at paragraph 12.72 of the Consultation paper and that Eir's full deployment costs for FTTH based VUA should be calculated with reference to Eir's own business case and plans. ALTO submits the following comment:

1. We considered the pre-conditions at paragraph 12.54 should issue a public Information Notice and/or a Call for Inputs to alert the industry that such a case is being considered and to review the proposals and implications impacting operators other than just Eir. Those potentially impacted

operators may also seek to make representation to ComReg.

Q. 33. Do you agree with ComReg’s preliminary view that in the context of the price floor for SABB in Regional Area 2 (as per Section 4.2 of the Decision Instrument in Annex 2 of 2016 Access Pricing Decision) that the footprint of the “Modified LEA” should be replaced by those exchanges in Regional Area 1 excluding those exchanges in Criterion 5 of the 2013 Bundles Decision? Please provide reasons for your response.

A. 33. ALTO agrees with ComReg’s preliminary view that in the context of the price floor for SABB in Regional Area 2 (as per Section 4.2 of the Decision Instrument in Annex 2 of 2016 Access Pricing Decision) that the footprint of the “*Modified LEA*” should be replaced by those exchanges in Regional Area 1 excluding those exchanges in Criterion 5 of the 2013 Bundles Decision.

Q. 34. Do you agree with ComReg’s preliminary view that the connection costs associated with CGA and NGA services should be recovered through a combination of an upfront connection charge and a monthly rental charge as set out at paragraph 13.43? Please provide reasons for your response

A. 34. ALTO agrees with ComReg’s preliminary view that the connection costs associated with CGA and NGA services should be recovered through a combination of an upfront connection charge and a monthly rental charge as set out at paragraph 13.43 and submit the following additional comments:

1. ComReg should be commended for including this issue within the consultation as industry discussions to date have failed to find a solution other than end users would pay for ‘non-standard’ access facilities.
2. The discussion suggests ComReg is completely dependent on what Eir is

telling them rather than discussing with industry. We consider ComReg should commence a study to understand more about non-standard solutions and their percentage of the market. It is helpful that Eir will bring their DP to within 150 meters of every premises, however why does Eir then limit the availability of services to less than a 50 meter drop wire. ComReg must study this aspect of provision in more detail to determine where the reasonable threshold exists. If the non-standard market is small the costs should be pooled across the total cost of the product. There is no evidence this is Eir is ultimately successful in the NBP process and whether NBP is paying for connection into the customers' premises.

3. The ComReg proposal to split how the connection costs are recovered is sensible and logical given the different beneficiaries over the lifetime of the product which maybe decades. We also consider the lower allocation that is recovered at installation allows retail providers to decide whether to recover such in their acquisition costs or to charge this amount to the end customer hence creating the facility for retail providers to differentiate their offers.

Q. 35. Do you agree with ComReg's preliminary view that the WEIL charges, including BECS and BECS over WEIL, in the WLA Market and the Regional WCA Market should be based on a BU-LRAIC+ methodology? Please provide reasons for your response.

A. 35. ALTO agrees with ComReg's preliminary view that the WEIL charges, including BECS and BECS over WEIL, in the WLA Market and the Regional WCA Market should be based on a BU-LRAIC+ methodology as these upstream connection components are essential to offer downstream services and Eir do not experience these costs themselves. Cost orientation also provides regulatory certainty and price stability as indicated by Clause 15.14b of the Consultation. It is clear that Eir have been increasing its NGA prices with an inability for industry to reject or seek substitute products. In addition ComReg need to include the co-

location and associated costs of power, space etc. within the cost orientation obligations. Our view is that ComReg must be explicit in what should be cost orientated and all aspects must be listed.

Q. 36. Do you have any comments on the Regulatory Impact Assessment and in your opinion are there other factors which ComReg should consider in completing its Regulatory Impact Assessment? Please provide reasons for your response, clearly indicating the relevant paragraph numbers to which your comments refer, along with relevant factual evidence supporting your views.

A. 36. ALTO agrees with ComReg's policy proposals. We also agree with ComReg's concerns set out at Clause 15.14 of the Consultation paper concerning excessive pricing.

By reference to Clause 15.17 of the Consultation paper we submit that current generation bitstream services are now declining at a fairly rapid rate and it is currently unclear what the implications of BU-LARIC will be on a declining market.

Q. 37. Do you believe that the draft text of the proposed Decision Instrument for the Wholesale Local Access market at a fixed location (WLA Market or Market 3a) is from a legal, technical and practical perspective, sufficiently detailed, clear and precise with regards to the specifics proposed? Please explain your response and provide details of any specific amendments you believe are required.

A. 37. ALTO agrees with ComReg's proposed text in the Decision Instrument for the Wholesale Local Access market at a fixed location (WLA Market or Market 3a) is from a legal, technical and practical perspective, sufficiently detailed, clear and precise with regards to the specifics proposed, subject to the remarks made to

ComReg in answering the above questions within this Consultation paper.

Q. 38. Do you believe that the draft text of the proposed Decision Instrument for the Wholesale Central Access market for mass market products at a fixed location is from a legal, technical and practical perspective, sufficiently detailed, clear and precise with regards to the specifics proposed? Please explain your response and provide details of any specific amendments you believe are required.

A. 38. ALTO agrees with ComReg's proposed text in the Decision Instrument for the Wholesale Central Access market for mass market products at a fixed location is from a legal, technical and practical perspective, sufficiently detailed, clear and precise with regards to the specifics proposed, subject to the remarks made to ComReg in answering the above questions within this Consultation paper.

ALTO

26th June 2017

2. BT Communications Ireland Limited (BT)

BT Response to ComReg's Consultation:**Pricing of wholesale services in the Wholesale Local Access (WLA) market and in the Wholesale Central Access (WCA) markets:****Further specification of price control obligations in Market 3a (WLA) and Market 3b (WCA)****Issue 1 – 26th June 2017****Introduction - Background and Key Points**

BT Ireland is appreciative of the opportunity to provide observations and comments on this important Consultation. As background to our submission, we would like to highlight three factors in particular:

- **State of NGA rollout.** FTTC is to a large extent now an established technology at least in terms of supply and according to Eircom has passed 1.6 Million premises which are 68% of Irish Premises¹. It is therefore appropriate to give consideration to incentives for investment using FTTC recognising an appropriate regulatory environment to facilitate this.
- **Poor record of compliance** by Eircom as seen by numerous non-compliance notifications issued by ComReg and most recently the ComReg publication² of 22 June 2017 that refers five issues to the High Court for declarations of non-compliance and a financial penalty. Our experience in this marketplace has influenced our response to this Consultation to the extent that we are advocating greater regulatory intervention than otherwise would be our normal position. We provide specific examples relevant to this market where we believe that distortions caused by Eircom's actions are material and detrimental to competition.
- **Eircom proposal to extend its footprint.** We note Eircom has decided commercially to extend its NGA rollout by an additional 300k lines by end 2018³ in response to their inclusion in the Government intervention area. We suggest this clearly demonstrates Eircom's recognition of the value of their dominance in supply. We also consider it highly likely that Eircom will acquire further funding through the NBP bid process to supply other areas potentially contiguous to its existing network. We also note the speed with which Eircom notified the launch of FTTH in territories announced in Siro's rollout plan. Taken overall, there is a clear risk that Eircom will deepen and broaden their monopolistic grip on the supply of broadband supply in the Irish Market and this needs to be taken into account by ComReg when considering the scope and level of charge controls.

At a high level, we support the broad framework presented by ComReg at Figure 2 as proportionate and necessary. We do however have some specific and material disagreements with some of the modelling and assumptions made in which to set and check Eircom prices. In part we are unable to provide views here as ComReg has not supplied the actual detailed models alongside the Consultation itself.

¹ Eircom Investor Relations Presentation 1st quarter FY17 Results Presentation

² ComReg Information Notice Reference 17/57 issued 22nd June 2017 containing five non-compliance issues as documented in their own right in ComReg documents 16/99, 16/100, 16/101, 16/102 and 16/103.

³ NATIONAL BROADBAND PLAN - COMMERCIAL DEPLOYMENT COMMITMENT – <http://dcca.gov.ie/documents/Commitment%20Agreement.pdf>

The following are the areas of disagreement with the charge control proposals and we provide further detail in our response below:

- We consider ComReg have made some serious errors in the assessment of areas for the Wholesale Central Access Market in two key ways.

1 – WLA VUA Unreachable for some exchanges – WCA Urban definition wrong.

- a. ComReg has incorrectly assessed that WLA is economically viable in some of the exchange areas listed in the Urban WCA market⁴. In recent times Eircom has increased the number of VUA locations. However, as with LLU, it is not economically viable for operators to deploy to a considerable number of the locations and ComReg does not appear to recognise this. BT has unbundled ✕ of the 88 exchanges designated as “Urban”, and of these ✕.
- b. ✕.
- c. We are concerned that our direct experience in using 3rd party solutions to reach exchanges has proven to be expensive, both at time of establishment and in renewal negotiations. Eircom’s very recent enthusiasm for providing NGN based backhaul options, even modifying the ARO to make this easier to consume, may simply be a self-serving effort to argue for deregulation in those very exchanges where they seek to be deregulated for the provision of NGN itself.
- d. ✕.

2 –MST to maintain Wholesale competition in WCA Urban areas.

- e. ✕
- The timescales and assumptions used to provide the volumes for FTTC in the NGA cost model.
 - The suggestion that the price floor for CGA bitstream services is no longer required.

We are largely supportive of ComReg proposals in the other aspects of the Consultation where details have been provided. However our support of the rest of the document is undermined by the two over-arching concerns above concerning the WCA Urban market which appear to eliminate wholesale competition, ✕. We note the MST issue can easily be resolved as ComReg has proposed a similar remedy to that we are seeking for FTTH.

There are some other specific matters which we wish to highlight at this stage.

1. **VoIP.** –The global industry is modernising to the increased efficiency and flexibility of providing voice services using VoIP technology – a migration that is becoming a necessity as traditional Time Division Multiplex (TDM) platforms become obsolescent with the burden of additional end of life maintenance costs. The standalone WLA broadband access service

⁴ ComReg 16/96 – – Market Reviews: Wholesale Local Access and Wholesale Central Access - Appendix 6.

(internationally known as naked DSL) offered by Eircom is suited to support broadband and VoIP. However Eircom has in our view unjustifiably increased the price of the monthly rental for this service (circa €5.50 per month increase in recent years) and created uncertainty for investment given the possibility of yet further increases in the future. Ireland is also highly dependent on the incumbents WLR services⁵ given the very lateness of ComReg setting appropriate price control regulation for LLU and the consequence of this delay largely undermined investment for full unbundling (UMLP) that would have also brought forward competition in voice networks rather than just broadband competition. Hence Ireland is late to strong network voice competition and we welcome this price control which should stimulate investment NGN based voice competition in Ireland.

2. **Enhanced Broadband Provisioning Service.** We are most concerned at ComReg's failure to address the financial and operational benefits that Eircom downstream business will acquire from the wholesale broadband enhanced provisioning service. The management of provisioning new access services traditionally rests with the retail provider as they manage the customer. Eircom wholesale has introduced a free service to provide this activity and Eircom's downstream business has evidently taken advantage of this. Other operators generally do not require this service as they already have the facilities to maintain their own relationship with the customer. ✕. We believe that ComReg urgently need to review this matter.
- 3 **Promotions.** We consider that Eircom is misusing promotions over extended periods which are causing distortions in the marketplace and we provide some specific evidence on this matter in our response below.
- 4 **Locking in FTTC Footprint** - Whilst we do not agree to the FTTC based footprint should being 'locked in' for the purposes of the VUA monthly rental price for the entire period of the price control, we do consider it of sufficient scale to offer a good view of costs, provided monitoring continues for any material changes.

2.0 Detailed Questions

Chapter 1 Introduction

Q1 Do you have any further comments regarding the pricing proposals in ComReg Document 16/96 (WLA / WCA Market Review) in light of the pricing obligations further specified in this Draft Decision? Please provide reasons for your response.

Response 1 – We would like to make the following comments.

1. In reviewing the price control obligations two material issues have emerged which prevent BT from being able to accept the conclusions of both Consultation 16/96 and this consultation. In our view both of the material issues are resolvable but before addressing these issues we wish to address the nature of the wholesale bitstream market in Ireland.

The bitstream Market

⁵ ComReg Decision D05/15 document 15/82 Market Review Wholesale Fixed Voice Call Origination and Transit Markets reference clause 1.24 and its subsections.

2. BT supplies Bitstream and Bitstream plus equivalent services to both large and smaller operators in the WCA urban areas. We have leveraged our LLU platform of ✂ exchange locations to reach WLA VUA access points, ✂.
3. There are circa 141 VUA locations and based on recent increases this VUA number is rising hence the ability to reach the majority of the WLA VUA footprint is looking increasingly difficult and will be more difficult if leased lines are de-regulated above 2Mbits as proposed by ComReg. Our overall mix of VUA to Bitstream plus is circa ✂ respectively demonstrating there is a market for bitstream plus and we note there is still a material split shown in the ComReg market report. BT Ireland supplies wholesale bitstream and bitstream plus services to ✂ and many smaller operators such as ✂. As above it's not possible for BT to reach all the VUA sites even in the WLA Urban market and impossible for smaller operators who will need bitstream/bitstream plus from Eircom or BT. Hence demand and a market exists.

Incorrect Dimensioning of the WCA market.

4. ComReg has incorrectly assessed that WLA is economically viable in some of the exchange areas listed in the Urban WCA market. In recent times Eircom has increased the number of VUA locations however, as with LLU it is not economically viable for operators to deploy to a considerable number of the locations and ComReg does not appear to recognise this. ✂.
5. ✂.
6. We are concerned that our direct experience in using 3rd party solutions to reach exchanges has proven to be expensive, ✂. Eircom's very recent enthusiasm for providing NGN based backhaul options, even modifying the ARO to make this easier to consume, may simply be a self-serving effort to argue for deregulations in those very exchanges where they seek to be deregulated for the provision of NGN itself.
7. ✂.
8. We are therefore seeking for ComReg to urgently review the exchanges within the WCA Urban area and to consider the viability for operators to reach them using openly available products in the market rather than the fact they are there. We believe a small number must move to the WCA Regional Market.

Potential for Margin Squeeze in the WCA Urban market

9. We note clause 4.3 of the WCA Urban Draft Decision in 16/96 proposes no ex ante regulation will apply in this area. I.e. no competition regulation other than Competition Law will apply. This consultation through the WLA market seeks to create an MST to prevent Eircom from margin squeezing retail provides between the retail prices and the WLA VUA prices. This model appears to assume there is no market for bitstream plus in WCA Urban areas, however we have shown above there is a wholesale market which is growing in the

WCA Urban market. ComReg has therefore erred in its price control proposals as the absence of an MST between WLA VUA and the bitstream plus prices allows Eircom to drop the price of their bitstream service to a point where no margin, and more likely only a loss is possible by an alternative operator given their lack of scale. This will foreclose wholesale competition in both the WCA Urban and WCA Regional markets for Broadband. ✂

10. This situation will also stifle further volume VoIP services which will be dependent on broadband access. In our view both 16/96 and this consultation are seriously flawed but two modest corrections will resolve the matter. I.e. Align the Urban WCA exchanges with what is viable for VUA and add the bitstream /bitstream plus MST to WLA VUA.

Chapter 5 – Appropriate Costing Methodology

Q2 Do you agree with ComReg’s preliminary view that the BU-LRAIC+ methodology should be applied to determine the appropriate level of costs associated with the provision of FTTC based VUA (including EVDSL) in the WLA Market and for FTTC based Bitstream and current generation Bitstream and BMB in the Regional WCA Market? Please provide reasons for your response.

Response – We are of the view there has been inappropriate pricing behaviour from the incumbent in the WLA market with numerous price increases (Reference Para. 4.9 of the consultation) and which has created uncertainty in the marketplace. These increases simply highlight that the dominance of Eircom is not only established it is becoming entrenched and indeed strengthened. We would also make the following observations:

1. The NGA price rises of Sept 2016 of circa €2.11 for its POTs based NGA/Voice line per month following ComReg’s Decision to apply cost orientation to WLR services (reducing Voice costs by circa €2 per line per month) appeared wholly unwarranted and unjustified.
2. The two price increases totalling circa €5.50 to FTTC Standalone services during 2015 and 2016 in our view had the consequence of stifling the competitive opportunities for operators to invest in VoIP as a replacement for WLR services.

Our view is that Eircom chose to raise these prices to recover margin lost with the regulatory changes ComReg introduced for WLR, and separately the increases to standalone NGA prices simply show that there are competition problems that need resolution to enable long-term sustainable voice network competition.

It is also noticeable that Eircom has now established what may be considered a *de facto* monopoly position i.e. out of 2.2 Million lines they have already rolled their network past 1.6 Million premises and have agreed with the State to commercially bring this to 1.9 Million premises by the end of 2018. Whilst the outcome of the NBP bid process has not yet completed it would not be surprising if Eircom were to take at least one of the two lots and this would translate to almost national dominance. The remaining long line circuits not yet served within areas already deployed by Eircom would suggest Eircom is also best placed to serve them.

We agree with ComReg’s preliminary view that the BU-LRAIC+ methodology should be applied to determine the appropriate level of costs associated with the provision of FTTC based VUA (including

EVDSL) in the WLA Market and for FTTC based Bitstream and current generation Bitstream and BMB in the Regional WCA Market. We consider this action will bring pricing stability and regulatory certainty.

✂

Q3 Do you agree with ComReg’s preliminary views regarding the proposed costing methodology for Reusable Assets, Non-reusable Assets and active / other assets in the provision of FTTC based VUA (including EVDSL), FTTC based Bitstream and current generation Bitstream and BMB services? Please provide reasons for your response.

Response 3

We agree with the proposal by ComReg for Reusable and Non-reusable Assets; for example we agree ducts can be used to carry both copper and fibre cables where capacity exists. We generally agree with the costing methodology; however we are concerned that there is no fit-for-purpose solution from Eircom for the same ducts to carry the fibres of alternative operators. For example, ComReg in the Broadband Market Review Consultation identified at least 33 issues to be resolved whilst on the other hand the published response of Eircom to the same consultation suggests there are no material issues to be resolved. Even the simple lack of a fit for purpose SLA makes the ducts unusable for both broadband and leased lines services as operators cannot assure service in the event of failure. Hence if ComReg is simply assuming reusable by itself allows others to use the ducts then in our view this would be simply wrong.

Chapter 6 Cost Modelling: NGA Cost Model

Q4 Do you agree with the proposed timeframe of the model and with the proposed approach and assumptions used in determining the service volumes / demand for FTTC based VUA (including EVDSL) and FTTC based Bitstream in the NGA Cost Model? Please provide reasons for your response.

Response 4 – We do not agree with the proposed timeframe of the model and with the proposed approach and assumptions used in determining the service volumes / demand for FTTC based VUA (including EVDSL) and FTTC based Bitstream in the NGA Cost Model for the following reasons:

1. Reference Clause 6.5.1 clause (e) – In the light of the 300k agreement between Eircom and the DCCAIE (available on the web site of the DCCAIE) it is interesting the agreement is documented as 30Mbit/s downstream and 6Mbit/s upstream. This suggests that both FTTH and FTTC will be used to meet this obligation as both these access technologies can meet these requirements. We also note Eircom has announced to industry a trial of longer distance cabinet based VDSL suggesting potential changes to this deployment. Given the higher costs of FTTH to FTTC it would be surprising that Eircom would always commercially choose the more expensive FTTH option which also is more difficult to deploy. ✂.
2. Reference Clause 6.5.1 clause (i). We consider it wrong to make the assumption that a site with no NGA lines in December 2016 will be served by NBP or FTTH. ✂ It is a matter of fact

that FTTC NGA is still being rolled out. Additionally, as in 1 above there are circumstances where it is more efficient and timely to use cabinet based FTTC in some rural villages for example hence it would be surprising if only FTTH were deployed. Hence we do not agree with the assumption that ComReg is making that all FTTC roll-out stopped at the end of 2016.

3. Reference clause 6.39 – We consider it far too early for ComReg to make the roll-out assumptions here. There are serious questions as to whether it is still viable for bidders to continue participating in the NBP given the 300k premises offer by Eircom with the remainder potentially becoming non-viable due to lack of scale, especially as Eircom also has the potential to win either one or the two NBP lots. The economics of LLU has highlighted to us that the economic viability of a non-incumbent entering a low customer density areas is inherently poor with a high risk the incumbent will subsequently overlay any potentially commercially viable locations. This was our observation with the current generation of broadband and it should be expected for NBP.
4. In conclusion whilst FTTC has largely been rolled out, ✂, although more slowly. As FTTC can meet the specification for NBP we also believe it will be used where commercially feasible alongside FTTH to complete the 300k deployment.

Q5 Do you agree with ComReg’s proposed modelling approach for determining the demand and costs inputs associated with the provision of FTTC based VUA, including Remote VUA, Local VUA and EVDSL services? Please provide reasons for your response.

Response 5 – ✂, we would like to offer the following comments.

1. It is our view that ComReg should have provided detailed models for this consultation with the publication of the consultation, and we have to assume Eircom were in possession of such from a much earlier time than the redacted data was offered. We consider this has placed the industry at a disadvantage in being able to fully understand the variance analysis that each proposal creates in practice. This is not the first instance this has arisen and we know from previous pricing consultations that detailed models can be provided at an earlier date; there is no obvious reason why key information has not been made available to industry until this late stage in the process.
2. Reference clause 6.46 – We note Eircom are reported to have said the roll-out of FTTC DSLAMs is almost complete and we assume ComReg have based their model on this. We understand DSLAMs are still being commissioned well into 2017 although at a slower rate ✂. We believe the technical specification of the 300k agreement and NBP potentially leaves deployment open for FTTC where financially viable as well as FTTH to be used for this roll-out. We consider ComReg needs to keep a close eye on these inputs.
3. Reference 6.124 – Cabinet design costs. It is not clear why special mention and consideration is being given to cabinet design costs. The equipment within the cabinet is standard vendor supply and any design would be included in the cost of that equipment, and separately cabinets are being used all over the world and there does not appear to be any particularly unique characteristic to the Eircom cabinets. The relevance of design costs is not obvious as there are many existing designs that could have been simply used or adapted for Ireland.

4. Other than above, the physical components being considered as detailed in table 16 appear to be correct but without any detail it is not possible to make an assessment as to whether the costing of these components is correct or that the proportions of costs are correct.

Q6 Do you agree with the proposed inputs and assumptions in the NGA Cost Model for determining the costs associated with the provision of FTTC based Bitstream? Please provide reasons for your response.

Response 6 – We do not agree with the proposed inputs and assumptions in the NGA Cost Model for determining the costs associated with the provision of FTTC based Bitstream and would like to offer the following comments.

1. We note that ComReg implies in 6.132 that it is considering collecting REO data from OAOs and whilst this may be helpful, we request that ComReg does not repeat the approach we have seen in the leased lines market review. Other regulators have given up trying to collect such data and the reliability of aspects such as revenues is still highly questionable in our view. Incumbent operators have had years of discussions and refinements with the regulator as to what data to keep and even now there are differences of view regarding data. OAOs have had no such experience and if ComReg were to start down that track we would request appreciation of the nature of the consequential regulation that is being envisaged and adequate time for the industry to put in place the processes and systems to capture the data. Otherwise the operators will only be able to supply what they have and if not designed for such, the data will not meet ComReg’s quality expectations.
2. Reference 6.134 – ComReg’s assumption appears to be that the retail operator will purchase VUA directly and their 25% retail market share is appropriate for assuming their scale for estimating costs. The following issues need to be considered.
 - a. Whilst this maybe the model for one retail provider (☒), it does not consider or address the intermediate wholesale market or the retail market shares of other operators and that the intermediate wholesaler (BT) will not avail of the benefits of being a retail provider. For example BT does not have a share of the retail consumer Broadband market. We consider ComReg need to further refine this model to consider the impact of the intermediate wholesale market that exists in Ireland. As per our introduction key points and our response to question 1, ComReg does not appear to have correctly characterised the wholesale market in its thinking and model.
 - b. ☒.
3. Reference 6.138 – Demand is already driving BT towards Wholesale Ethernet Interconnect Link Services (WEILS) with a 100Gbit/s connection capacity. ☒

Q7 Do you agree with the proposed approach for determining the port rental costs for POTS based FTTC NGA services going forward and the proposed additional port rental price for POTS based FTTC services of €4.96? Please provide reasons for your response.

Response 7 - We agree with the logic of the proposed approach for determining the port rental costs for POTS based FTTC NGA services going forward and the proposed additional port rental price for POTS based FTTC services of €4.96. We would like to make the following comment.

1. We consider this an important proposal as it effectively sets a stable investment window where a return on investment can be obtained by volume operators that migrate to VoIP based voice services. The concern for industry is whether ComReg can maintain regulatory certainty for such a window until critical mass of roll-out is reached. Without such a window the risk of deploying VoIP is high as demonstrated by the lateness of the market moving from WLR.

Q8 Do you agree with ComReg’s preliminary view that a consistent monthly or annual charge should apply for each year of the price control period in relation to the NGA Cost Model and NGN Core Model? Please provide reasons for your response.

Response 8 – We agree with ComReg’s preliminary view that a consistent monthly or annual charge should apply for each year of the price control period in relation to the NGA Cost Model and NGN Core Model. We would like to offer the following comments.

1. Stability and certainty of the pricing of key infrastructure components is important to the market and we agree a consistent monthly or annual charge should apply over the period of the price control unless material issues arise warranting a review during the period by the regulator.

Chapter 7 – Pricing approach for FTTC based NGA services

Q9 Do you agree with ComReg’s preliminary view that the single monthly rental charge for FTTC based VUA (including EVDSL based VUA) should be based on the BU-LRAIC+ methodology generally and Eircom’s Indexed RAB for Reusable Assets in those exchanges where Eircom has deployed active FTTC and EVDSL lines? Please provide reasons for your response.

Response 9 - We agree with ComReg’s preliminary view that the single monthly rental charge for FTTC based VUA (including EVDSL based VUA) should be based on the BU-LRAIC+ methodology generally and Eircom’s Indexed RAB for Reusable Assets in those exchanges where Eircom has deployed active FTTC and EVDSL lines. We would also like to offer the following comments:

1. Reference clause 7.23 – The problem assuming re-usable assets are available for other operators is that the services being offered are not fit-for-purpose and we do not anticipate they will be for the lifetime of the market review and this pricing proposal. ComReg’s own market review consultation identified 33 issues to be resolved and our view is the lack of a fit for purpose SLA to resolve faults/failures means no operator could viably use these for

supplying a community of broadband customers or business critical services for companies. Hence if ComReg are using re-usable assets in assuming REO pricing for other operators that would be wrong as such are not genuinely available now and are not likely to be for many years.

Q10 Do you agree that in the exceptional case where Eircom reduces the price for FTTC based VUA that any such reduction should also be reflected in the price for FTTC based Bitstream subject to the price floors requirements in Chapter 12 of this document and ComReg’s regulatory approval? Please provide reasons for your response.

Response 10 - We agree that in the exceptional case where Eircom reduces the price for FTTC based VUA that any such reduction should also be reflected in the price for FTTC based Bitstream subject to the price floors requirements in Chapter 12 of this document and ComReg’s regulatory approval. However we consider there should be the following additional condition.

1. The reduction in component parts of FTTC based VUA such as SLU should also apply to all services that use such a common component, for example LLU and WLR prices should also reduce.

The reason for our view is that there is an opportunity to unfairly squeeze out alternative access products such as LLU and WLR and this would undermine the investments made by other operators. The review by ComReg is necessary to provide an informed and independent check that the market will not be damaged by such price changes.

Q11 Do you agree with ComReg’s preliminary view that at the time of the Decision the FTTC based VUA and EVDSL footprint should be locked-in for the purposes of setting the single FTTC based VUA (including EVDSL based VUA) monthly rental price for the entire price control period? Please provide reasons for your response.

Response 11 – Whilst we consider the rollout of VDSL mature in Ireland (1.6Million premises passed) the rollout appears to be continuing at a much lower rate \approx . Separately we believe VDSL is a viable option for some aspects of the 300k offer and potentially for some of the NBP deployment as the 30Mbit downstream and 6Mbits NBP specification can be reached in some situations.

We agree sufficient VDSL rollout has been achieved for the purposes of setting the single FTTC based VUA (including EVDSL based VUA) monthly rental price for the entire price control period with a proviso that the costs are monitored by ComReg on an annual basis for material changes on which ComReg can decide whether to act.

Q12 Do you agree with ComReg’s preliminary views that it is appropriate to maintain a link between the price for FTTC based VUA (including EVDSL) and the price for LLU such that any changes to the underlying costs (e.g. SLU) should be applied consistently to the price of both services? Please provide reasons for your response.

Response 12 – We agree it is appropriate to maintain a link between the price for FTTC based VUA (including EVDSL) and the price for LLU such that any changes to the underlying costs (e.g. SLU) should be applied consistently to the price of both services to protect the investment that operators have made in LLU services which still have many years of economic life.

Q13 Do you agree with ComReg’s preliminary view that the monthly rental charge for FTTC based Bitstream should be based on the BU-LRAIC+ methodology and Eircom’s Indexed RAB applied to Reusable Assets based on those Local VUA sites yet to be unbundled in the Regional WCA Market and with an adjustment to Bitstream specific costs to reflect the scale of a hypothetical SEO with a 25% retail broadband market share? Please provide reasons for your response.

Response 13 – Given the instability in NGA prices to date we agree with ComReg’s preliminary view that the monthly rental charge for FTTC based Bitstream should be based on the BU-LRAIC+ methodology and Eircom’s Indexed RAB applied to Reusable Assets based on those Local VUA sites yet to be unbundled in the Regional WCA Market and with an adjustment to Bitstream specific costs to reflect the scale of a hypothetical SEO with a 25% retail broadband market share.

Q14 Do you agree with ComReg’s preliminary view that the FTTC based Bitstream footprint should be locked-in at the date of the Decision for the purposes of setting the FTTC based Bitstream monthly rental price in the Regional WCA Market for the entire price control period? Please provide reasons for your response.

Response 14 – We consider ComReg has chosen an incorrect footprint as WLA VUA (please see our response to question 1) is not always viable in the WCA Urban area and this needs to be corrected – i.e. WCA Urban can only exist where it is viable to connect to WLA VUA services. We agree the pragmatism of ComReg’s preliminary view that the FTTC based Bitstream footprint, once corrected, should be locked-in at the date of the Decision for the purposes of setting the FTTC based Bitstream monthly rental price in the Regional WCA Market for the entire price control period to bring pricing stability. However ComReg should reserve a right to review if significant further roll-out after the Decision occurs.

Q15 Do you agree that in exceptional cases only Eircom should be allowed to reduce the price for FTTC based Bitstream so long as any such reduction is reflected in the price for FTTC based VUA (in order to maintain a sufficient economic space between the two services) and subject to the price floor requirements in Chapter 12 of this document and ComReg’s regulatory approval? Please provide reasons for your response.

Response 15 – We agree that Eircom should be allowed to reduce the price for FTTC based Bitstream so long as any such reduction is reflected in the price for FTTC based VUA (in order to maintain a sufficient economic space between the two services) and subject to the price floor requirements in Chapter 12 of this document and ComReg’s regulatory approval. If this is not carried out there is a

material risk of a margin squeeze against operators that use VUA. We also consider LLU pricing should reduce if components of the price reduction are shared with LLU such as SLU.

Chapter 8 - Cost Modelling: NGN CORE MODEL

Q16 Do you agree with the proposed principles, inputs and assumptions in the NGN Core Model for determining the costs associated with the provision of broadband services? Please provide reasons for your response.

Response 16 – We agree with the high level proposed principles, inputs and assumptions in the NGN Core Model for determining the costs associated with the provision of broadband services. However without transparency of the detail we cannot determine whether the outcome is correct. One issue which is not clear is whether the voice traffic modelling is based on the existing PSTN switch network which we understand from other industry discussions is still in place and operational, or alternatively from the hypothetical use of the NGN.

Q17 Do you agree with ComReg’s preliminary view that traffic costs on the core network should be allocated based on revenue per user (option 3 above)? Please provide reasons for your response.

Response 17 – We agree with ComReg’s preliminary view that traffic costs on the core network should be allocated based on revenue per user (option 3 above) as ComReg inform us this provides more price stability and the allocation is based on what the end user has accepted to pay in the past.

Chapter 9 Pricing Approach for Current Generation Bitstream and BMB services.

Q18 Do you agree with ComReg’s preliminary view that the monthly price for current generation Bitstream and BMB services should be based on the average BU-LRAIC+ costs across the Regional WCA Market as set out in Figure 31 (for 2017/18) and in Figure 37 (of Chapter 14) for each year of the proposed price control period? Please provide reasons for your response

Response 18 – We agree with ComReg’s preliminary view that the monthly price for current generation Bitstream and BMB services should be based on the average BU-LRAIC+ costs across the Regional WCA Market as set out in Figure 31 (for 2017/18) and in Figure 37 (of Chapter 14) for each year of the proposed price control period. We agree this will act to minimise increasing the digital divide between regional areas and this is helpful for customer pricing.

Q19 Do you consider that a price floor for CGA Bitstream services is no longer required for the proposed price control period given the declining demand in CGA investment? Please provide reasons for your response.

Response 19 – We do not agree that the price floor for CGA Bitstream services is no longer required for the proposed price control period given the declining demand in CGA investment. We would like to offer the following comments.

1. ComReg was late in establishing the investment environment for LLU (work started in 2001 but it took until 2010⁶ to create the incentive environment) given the extensive difficulties ComReg faced bringing forward such regulation (including legal challenges on the ability to appeal, not having seamless migrations and a pricing regime that set high and increasing prices with no relation to costs to name a few issues). Operators such as BT have since made a substantial investment in LLU and associated infrastructure and it's a concern to find ComReg now considering removing the regulation early. It's our view the history in Ireland demonstrates LLU won't be allowed to survive without regulatory remedies such as price controls hence we are of the strong view LLU should be allowed to survive for its natural life cycle rather than early foreclosure absent regulation.
2. We acknowledge and are engaged in the natural migration of customers to NGA; however there are still a very considerable number of current generation customers in the market. For many customers LLU and CGA based services (up to 24Mbit/s) adequately meet their needs and will do so for many years. I.e. LLU is quite capable of supporting the current demand for modern internet and TV for many if not most of its lines. We also note some retail providers charge a premium for fibre based broadband; hence removing LLU will remove customer choice.
3. We are already using CGA LLU for EFM services to business customers and looking at leveraging our existing investing in LLU for NGA EFM going forward.
4. We consider the GCA (bitstream and LLU) market is still substantial and ComReg should delay considering removing the price floor question until at least the next price control as it's far too early to be considering de-regulating the environment that protects LLU.

Q20 If you consider that a price floor for CGA services is appropriate, do you agree with ComReg's preliminary view on the margin squeeze assumptions and the indicative price floors (for 2017/18) for current generation Bitstream services from the NGN Core Model? Please provide reasons for your response.

Response 20 – As in our response to question 19 we strongly believe the price floor is required and we consider it should be set at Option 2 for 141 exchanges ✂.

Q21 Do you consider that the price points for CGA Bitstream and BMB services should be set based on Eircom's BU-LRAIC+ costs or the BU-LRAIC+ costs of a REO i.e., the price floors? Please provide reasons for your response.

Response 21 We consider the price points for CGA Bitstream and BMB services should be set based on the BU-LRAIC+ costs of a REO (the price floors). We consider Eircom will always have a higher

⁶ ComReg Decision reducing the monthly rental price for Line Share – Settlement of Legal Proceeding doc. 10/06. Line Share price reduced from €8.41 to €0.77 per line per month,

volume of customers than entrant operators for CGA broadband, hence the Reasonably Efficient Operator (REO) model will more accurately reflect the scale difference even in a declining market.

Chapter 10 – Margin squeeze test in WLA Market

Q22 Do you agree with ComReg’s preliminary views regarding the principles of the wholesale margin squeeze test between FTTH based VUA and FTTH based Bitstream? Please provide reasons for your response.

Response 22 - We agree with ComReg’s preliminary views regarding the principles of the wholesale margin squeeze test between FTTH based VUA and FTTH based Bitstream. We would like to offer the following comments in support.

1. Competing wholesale operators have to compete with Eircom through purchasing Eircom FTTH VUA and must sell their own bitstream NGA services ~~to~~. If Eircom were to reduce their bitstream price a margin squeeze would commence against the other operator until a point where they are forced to leave the market. To protect other operators from this behaviour we agree an MST between the FTTH VUA and the FTTH bitstream service should be mandated by ComReg.
2. We agree there is opportunity, motive and behavioural history where Eircom could reduce the bitstream plus prices to drive out competitors such as BT. We note Margin squeeze characteristics in the Irish market were demonstrated through the unreasonable bundling of products that were stated by ComReg to fail the established Net Revenue Test and required a reference to the courts to resolve. Given this past history ex anti regulation is required where there is a risk of Margin Squeeze⁷.

Q23 Do you agree with ComReg’s preliminary views regarding the principles of the margin squeeze test between the price of WLA services in the footprint corresponding to the Urban WCA Market and retail services provided by way of WLA inputs in the footprint corresponding to the Urban WCA Market? Please provide reasons for your response

Response 23 – We **strongly do not** agree with ComReg’s preliminary views regarding the principles of the margin squeeze test between the price of WLA services in the footprint corresponding to the Urban WCA Market and retail services provided by way of WLA inputs in the footprint corresponding to the Urban WCA Market. We would like to offer the following comments to support our view and alternative remedy.

1. Please also see our response to question 1 and the Introduction Key Points.

⁷ ComReg Information Notice – Obligation on Eircom not to unreasonably bundle pursuant to ComReg Decision D07/61 – Settlement of Legal Proceedings. Document Reference 09/79 and Decision D02/09.

2. We believe ComReg has incorrectly analysed the market by not characterising the intermediate wholesale market where wholesale operators resell Eircom VUA connectivity to a number of retail operators including switchless retail providers of different market sizes.
3. ComReg in clause 10.54 drops the requirement for an MST between the Retail and WCA bitstream plus market in favour of a Retail to WLA MST. Whilst we can see the logic of this, the solution is flawed as ComReg are not assessing the market as it actually exists. The broadband market is characterised with a least one wholesale competitor (BT) to Eircom that combines the resale of Eircom VUA with other network features to retail operators. The ComReg proposal as it stands risks foreclosing wholesale competition in Ireland as it will allow Eircom to reduce its WCA bitstream plus prices towards WLA VUA pricing whilst Eircom would still pass the Retail to WLA MST.

This is counter to the Minister’s policy objectives⁸ “ensuring that there is no distortion or restriction of competition in the electronic communications sector,” and “... ensuring that users, including disabled users, derive maximum benefit in terms of choice, price and quality,” which are mandatory Government obligations on ComReg.

4. We cannot accept the ComReg proposal as it stands, however the problem can easily be remedied by including an MST regulatory remedy between Eircom wholesale bitstream plus and WLA VUA in the area that is defined as the WCA Urban market in addition to the existing proposed Retail to WLA test.

MST Basket Test

Regarding Reference clause 10.78, we consider ComReg is incorrect ignoring the 2013 European Commission Recommendation as it is going to only test the portfolio (basket) and not flagship products. It has been the case since the very first days of MSTs that a portfolio approach can allow key flagship products to be market squeezing whilst other less popular products are priced to make the basket or portfolio test pass. Hence it is not surprising this has been highlighted by the European Commission and it is wrong that ComReg are not taking the utmost account of European Recommendations.

Chapter 10 – Margin squeeze test in the Regional WCA Market

Q24 Do you agree with ComReg’s preliminary views regarding the margin squeeze principles for the wholesale End-to-end margin squeeze tests for both current generation and next generation? Please provide reasons for your response.

Response 24 – We agree with ComReg’s preliminary views regarding the margin squeeze principles for the wholesale End-to-end margin squeeze tests for both current generation and next generation and we would like to offer the following comments:

1. We specifically agree with the proposals to include/continue an MST test for white label ‘End-to-End’ bitstream as this has concerned us for many years. However, we are also

⁸ Communications Regulations Act 2002 – Objectives of the Commission

concerned as to how ancillary functions are considered in the MST as these could easily cross-subsidise between non regulated and regulated components to distort the benefit which are offered to the switchless provider (for example additional service features ✂ and other benefits that attract no charge). Other operators would have to factor in the costs of additional features in the services they offer to provide functioning services and it is not clear the same is true for Eircom white label products.

2. Transparency of the End-to-End MST test against wholesale bitstream is poor and we consider ComReg should provide a lot more detail of the actual test format so that other operators can make a reasonable assessment of whether the products are being offered fairly. Similar to the retail bundles approach we consider White label 'End-to-End' test should consider all benefits that are received.

Q25 Do you agree with ComReg's preliminary view regarding the margin squeeze principles for the retail margin squeeze test for NGA services in the Regional WCA Market? Please provide reasons for your response.

Response 25 – We generally agree with ComReg's preliminary view regarding the margin squeeze principles for the retail margin squeeze test for NGA services in the Regional WCA Market. Please see our comments below. However we don't agree with the Decision to ignore the European Commission guidance on flagship products and margin squeeze.

Q26 Do you agree with ComReg's preliminary view on the margin squeeze principles that should apply to the retail margin squeeze test for current generation services in Regional Area 1 and Regional Area 2 of the Regional WCA Market? Please provide reasons for your response.

Response 26 – We generally agree with ComReg's preliminary view on the margin squeeze principles that should apply to the retail margin squeeze test for current generation services in Regional Area 1 and Regional Area 2 of the Regional WCA Market. However we don't agree with the decision to ignore the European Commission guidance on flagship products and margin squeeze.

Chapter 12 Other Regulatory Measures

Q27 Do you agree with ComReg's preliminary view that the price control period should be for three years but should remain in place any further notice by ComReg and that Eircom should review the models annually for material / exceptional changes? Please provide reasons for your response.

Response 27 – We agree with ComReg's preliminary view that the price control period should be for three years but should remain in place until further notice by ComReg and that Eircom should review the models annually for material / exceptional changes. We agree this should bring regulatory certainty over the period with the safeguard to address material issues should they emerge.

Q28 Do you agree with ComReg’s preliminary views regarding the pre-notification procedures that should apply to all proposed wholesale price changes or for new wholesale prices associated with the price control obligation for all WLA and WCA services mandated in the WLA / WCA Market Review? Please provide reasons for your response.

Response 28 – We partially agree with ComReg’s preliminary views regarding the pre-notification procedures that should apply to all proposed wholesale price changes or for new wholesale prices associated with the price control obligation for all WLA and WCA services mandated in the WLA / WCA Markets. In many cases notification to the retail market will be required and a 45 day notice period would be more appropriate to allow operators to consider changes to their business models and to give customers adequate notice of price changes where necessary.

Q29 Do you agree that there should be no wholesale promotions and discounts going forward for WLA or WCA services? Please provide reasons for your response.

Response 29 – We fully agree that there should be no wholesale promotions and discounts going forward for WLA or WCA services. We would like to offer the following comments:

1. We consider longer term price promotions of circa a year or longer can lead the market to settle on the discount price only for Eircom to then to destabilise the market without the appropriate level of scrutiny that would exist with a price change. For example the three Euro discount promotion for the launch of NGA was left in place for such a long period that this became the trading price. Eircom were then able to commercially disrupt the market with the removal of the discount which felt like a considerable three Euro price hike and this was unhelpful towards industry at a time when it was trying to grow the market. Where these promotions pass through to end users such can also be disruptive in the retail market.
2. In an environment of cost based pricing, long term promotions raise concerns as to how such can be sustainable without trading below cost floors and thus anti-competitive. If such can be sustained such suggests the regulatory cost based pricing is based on incorrect cost information and ComReg should recalculate the permanent cost based pricing.

Q30 Do you agree with ComReg’s preliminary views that pre-notification and pre-clearance is appropriate for retail price changes in the WLA Market and the Regional WCA Market? Please provide reasons for your response.

Response 30 – We agree with ComReg’s preliminary views that pre-notification and pre-clearance are appropriate for retail price changes in the WLA Market and the Regional WCA Market. We would like to offer the following comments.

1. We consider this approach will at least go some way to preventing potential margin/product squeeze situations.

2. We note ComReg's comments in clause 12.35 discussing an Eircom self-compliance approach. Given the numerous compliance breach admissions by Eircom in its Regulatory Governance Model (RGMs 1 and 2 commonly called Styles 1 and 2) it is clearly far too early to consider self-certification at this time. What is particularly difficult for us to accept is even after Eircom published RGM1, ~~3~~. We note ComReg have issued a number of formal non-compliance notices concerning issues in the RGMs and that five of these are now headed towards the High Court.
3. In our view we have not seen any evidence of a positive change of culture towards compliance in Eircom and in our view self-certification should not be on the table at this time.

Q31 Do you agree with ComReg's preliminary view regarding the regulatory approval mechanism and that in exceptional circumstances only Eircom may be allowed to reduce wholesale prices for FTTC based NGA services (VUA and Bitstream) below the regulated price so long as it does not breach the price floor requirements at paragraphs 12.54-12.55 and subject to ComReg's approval? Please provide reasons for your response.

Response 31 – We agree with ComReg's preliminary view regarding the regulatory approval mechanism and that in exceptional circumstances only Eircom may be allowed to reduce wholesale prices for FTTC based NGA services (VUA and Bitstream) below the regulated price so long as it does not breach the price floor requirements at paragraphs 12.54-12.55 and subject to ComReg's approval and the following comments:

1. That MSTs to LLU should remain.
2. That any discount to any component should also be applied to other products that use that component. For example LLU and WLR should benefit from price reductions to SLU.

Q32 Do you agree with ComReg's preliminary view regarding the regulatory approval mechanism (and pre-conditions at paragraph 12.54) that the price for FTTH based VUA should not go below the price floor at paragraph 12.72 and that Eircom's full deployment costs for FTTH based VUA should be calculated with reference to Eircom's own business case / plan? Please provide reasons for your response.

Response 32 – We generally agree with ComReg's preliminary view regarding the regulatory approval mechanism (and pre-conditions at paragraph 12.54) that the price for FTTH based VUA should not go below the price floor at paragraph 12.72 and that Eircom's full deployment costs for FTTH based VUA should be calculated with reference to Eircom's own business case / plan. We would like to add the following comments.

1. We agree the measures in paragraph 12.54 provide safeguards to prevent disruptive pricing behaviour for FTTC and should also apply to FTTH.
2. We agree with the tests in 12.72 however ComReg should also seek to stay informed of Eircom costs to develop a working knowledge of the costs for when a test of the price floor maybe required.

Q33 Do you agree with ComReg’s preliminary view that in the context of the price floor for SABB in Regional Area 2 (as per Section 4.2 of the Decision Instrument in Annex 2 of 2016 Access Pricing Decision) that the footprint of the “Modified LEA” should be replaced by those exchanges in Regional Area 1 excluding those exchanges in Criterion 5 of the 2013 Bundles Decision? Please provide reasons for your response.

Response 33 – We agree with ComReg’s preliminary view that in the context of the price floor for SABB in Regional Area 2 (as per Section 4.2 of the Decision Instrument in Annex 2 of 2016 Access Pricing Decision) that the footprint of the “Modified LEA” should be replaced by those exchanges in Regional Area 1 excluding those exchanges in Criterion 5 of the 2013 Bundles Decision. This is subject to ComReg resolving the exchanges where it is not viable to achieve WLA access in Urban WCA areas.

Chapter 13 – Ancillary charges

Q34 Do you agree with ComReg’s preliminary view that the connection costs associated with CGA and NGA services should be recovered through a combination of an upfront connection charge and a monthly rental charge as set out at paragraph 13.43? Please provide reasons for your response.

Response 34 – We agree with ComReg’s preliminary view that the connection costs associated with CGA and NGA services should be recovered through a combination of an upfront connection charge and a monthly rental charge as set out at paragraph 13.43 and would like to add the following comments:

1. The ComReg proposal to split how the connection costs are recovered is sensible and logical given the different beneficiaries over the lifetime of the product which maybe decades. We also consider the lower allocation that is recovered at installation allows retail providers to decide whether to recover such in their acquisition costs or to charge this amount to the end customer hence creating the facility for retail providers to differentiate their offers.
2. We are also concerned Eircom maybe taking a short term view of its return on investment given its statements that it may issue an IPO in the relatively near future. We consider the installation of FTTH is a reasonably long term investment and would assume this principle to apply to prices.

Q35 Do you agree with ComReg’s preliminary view that the WEIL charges, including BECS and BECS over WEIL, in the WLA Market and the Regional WCA Market should be based on a BU-LRAIC+ methodology? Please provide reasons for your response.

Response 35 – We would like to offer the following comments:

1. These upstream internetwork connection components are essential to offer downstream services and we agree with ComReg’s preliminary view that the WEIL charges, including BECS

and BECS over WEIL in the WLA Market and the Regional WCA Market - should be based on a BU-LRAIC+ methodology.

2. Cost orientation also provides regulatory certainty and price stability as indicated in clause 15.14b of the consultation and is required as Eircom has been increasing its NGA prices without the opportunity for industry to reject or seek substitute products.
3. In addition, ComReg need to include the co-location and associated costs of power, space etc. within the cost orientation obligations. Our view is that ComReg must be explicit in what should be cost orientated and all aspects must be listed.

Chapter 15 Regulatory Impact Assessment (“RIA”)

Q36 Do you have any comments on the Regulatory Impact Assessment and in your opinion are there other factors which ComReg should consider in completing its Regulatory Impact Assessment? Please provide reasons for your response, clearly indicating the relevant paragraph numbers to which your comments refer, along with relevant factual evidence supporting your views.

Response 36 – We would like to offer the following comments to the Regulatory Impact Assessment.

1. As discussed in our Introduction, Key Points and response to the questions we generally agree with the policy proposals with comments however we have considerable concerns with the definition of the WCA Urban area – which exchanges are in and which are out, and the omission of an MST between WLA VUA and WCA Bitstream area in the area defined as Urban WCA.

Annex 1 – Draft Decision Instrument – WLA Market

Q37 Do you believe that the draft text of the proposed Decision Instrument for the Wholesale Local Access market at a fixed location (WLA Market or Market 3a) is from a legal, technical and practical perspective, sufficiently detailed, clear and precise with regards to the specifics proposed? Please explain your response and provide details of any specific amendments you believe are required.

Response 37 – We would like to offer the following comments:

1. Reference 1.2 (iv) Compliance with the Communications Act. We consider ComReg has erred in its consideration of the Ministerial Policy Directions concerning:

“ensuring that there is no distortion or restriction of competition in the electronic communications sector,” and “... ensuring that users, including disabled users, derive maximum benefit in terms of choice, price and quality,”

ComReg has erred through the omission of an MST test between the Eircom bitstream plus price and the WLA VUA price in the area defined as the WCA urban area. This omission will potentially foreclose wholesale competition in this market hence it will be ComReg that

is distorting a competitive market by causing its foreclosure. This is not acceptable and contrary to its legal obligations as set out in the 2002 Communications Act.

2. Reference 4.1 we agree with the avoidance of doubt statement in the last sentence but ComReg do not indicate how such will be enforced. There is incentive and opportunity for Eircom not to follow this in practice and specific transparency measures are required to ensure this does not happen.
3. Reference 4.2 – This clause could be misinterpreted that different prices can be charged to different undertaking and this should be corrected so that it's the same price to all.
4. Reference 5.3 – We do not agree with the reference to 4.4 of the WCA decisions as Eircom will have costs that are lower than those of a competitor. If Eircom were to imply such a case the regulation should require ComReg to evaluate the information, and possibly even actually asking the other operator for its actual REO costs rather than allowing Eircom to be judge and jury.
5. Reference clause 6 – Our comments to Reference 2.1 (iv) and our comments to question 1 and question 23 apply. Whilst we don't have issue with the proposed test, the omission of the MST between WLA VUA and the bitstream plus price in the area defined as WCA Urban is a very material oversight which we cannot accept.
6. Notification periods – please see our response to question Q28.

Annex 2 – Draft Decision Instrument – WCA Market

Q38 Do you believe that the draft text of the proposed Decision Instrument for the Wholesale Central Access market for mass market products at a fixed location is from a legal, technical and practical perspective, sufficiently detailed, clear and precise with regards to the specifics proposed? Please explain your response and provide details of any specific amendments you believe are required.

Response 38 - We would like to offer the following comments:

1. Reference 1.2 (iv) Compliance with the Communications Act. We consider ComReg has erred in its consideration of the Ministerial Policy Directions concerning:

“ensuring that there is no distortion or restriction of competition in the electronic communications sector,” and “... ensuring that users, including disabled users, derive maximum benefit in terms of choice, price and quality,”

ComReg has erred through the omission of an MST test between the Eircom bitstream plus price and the WLA VUA price in the area defined as the WCA urban area. This omission will potentially foreclose wholesale competition in this market hence it will be ComReg that is distorting a competitive market by causing its foreclosure. This is not acceptable and contrary to its legal obligations as set out in the 2002 Communications Act.

2. We also consider the rationale of 1 above applies to correctly modelling which exchanges should be in the WCA area and those that are not. In our view the criteria should be changes to exchanges operators can reasonably reach as the proposal will risk existing supply of bitstream plus for certain exchange in the WCA Urban areas. We also cannot understand why ComReg has not even sought to discuss these important issues with industry, instead opting to record them at the back of documents of over 700 pages.
3. Please see our response to Q74 (4).
4. Reference clause 6 – Our comments to Reference 2.1 (iv) and our comments to question 1 and question 23 apply. Whilst we don't have issue with the proposed test, the omission of the MST between WLA VUA and the bitstream plus price in the area defined as WCA Urban is a very material oversight which we cannot accept.

End

3. SIRO

SIRO RESPONSE
TO
COMREG CONSULTATION 16/27
PRICING OF WHOLESALE SERVICES IN THE WHOLESALE
LOCAL ACCESS (WLA) MARKET AND IN THE WHOLESALE
CENTRAL ACCESS (WCA) MARKETS

Version 2
21st June 2017

1. Summary

SIRO welcomes ComReg's consultation and is broadly supportive of the direction taken in the Draft Decision and in particular the proposal to continue to apply a margin squeeze test to FTTH products. We believe that this will continue to foster investment in higher-speed FTTH rollout. We would like to bring certain specific concerns to ComReg's attention and have set them out below in answer to specific questions.

However, SIRO would disagree with the conclusions expressed in clause 5.8 of the consultation; ComReg states that *“ComReg considers that infrastructure-based competition from OAOs has in theory the most potential to offer sustainable competition to Eircom in the provision of broadband to the benefit of end-users. In general, operators with their own infrastructure are better able to offer differentiated retail products and to set prices independently of Eircom as compared to those OAOs using WCA services. However, it requires significant investment to duplicate infrastructures in their entirety, thus this option will rarely be chosen by OAOs in the short to medium term nor by OAOs nationally. There is also a debate on whether this is desirable for society and whether it is feasible in the longer term to have duplicate access networks working in parallel given the lower economies of scale and scope (and therefore higher costs translating into higher prices) generated by the presence of competing local loops.”* SIRO would agree with ComReg that the infrastructure competition provided by Virgin Media and SIRO provides the most effective competition to the Openair network and would also argue that this is a sustainable option in the longer term. SIRO believes that infrastructure competition should be the preferred option from a regulatory perspective and all decisions made should promote alternative investment. A regulatory regime which attempts to promote investment utilising the incumbent infrastructure is likely to act a barrier to the utilisation of alternative infrastructure.

In particular, the use of HCA in some elements of the pricing models may result in prices being set at a level below that which would be required to sustain investment in alternative infrastructure. This could have the effect of deterring alternative infrastructure investment and thus reduce the level of potential competition in the market. The statement at 5.50 that *“A key criterion in asset valuation is the principle of asset replicability. In other words, if there is no prospect of a competitor replicating the service in question (or bypassing the bottleneck with an alternative platform), it is reasonable to base the regulatory pricing on historical costs.”* would seem to indicate that ComReg's view is that alternative infrastructure investment is unlikely to any great extent. SIRO would challenge this assertion and believes that there may well be investment in alternative infrastructure in Regional Area 1 and to a lesser extent in Regional Area 2.

Question 3

SIRO agree with the categories of cost proposed by ComReg but would have some concerns with Historic rather than Replacement cost being used in the RAB approach used in the Revised CAM in the 2016 Access Pricing Decision as this may result in prices being set at a level which creates a barrier to alternative infrastructure investment.

Question 4

SIRO would have some concerns with the assumption that *“Existence of rival platforms will result in Eircom facing greater competition for NGA customers at a number of sites: it is assumed that on average rival platforms will attract in the region of 30% of the potential NGA base including Eircom's FTTC / EVDSL services;”*. This assumption implies that the NGA network will retain 70% of customers and thus the price will be determined as lower than would be the case with a lower market share. SIRO would suggest that the

current embedded alternative infrastructure of Virgin Media has already established a precedence in this area and that should be considered in setting this assumption.

Question 9

While generally supportive of ComReg's methodology, SIRO has a concern around ComReg's proposal to base the VUA FTTC pricing on exchanges with active FTTC/EVDSL lines (option 2) rather than all VUA sites (option 1). In particular we would question whether this gives other operators an appropriate incentive to invest in infrastructure to serve additional exchange areas. Setting the price based on a smaller number of exchanges essentially lowers the incentive for alternative operators to invest, given the lower potential return. Because of this we would question whether the selection of exchanges in Option 2 would be in the spirit of the Commission's 2013 Recommendation as well as the BEREC common position (BoR (12) 127) both of which aim to foster investment in NGA services.

Question 22

SIRO is generally supportive of ComReg's approach to FTTH regulation and specifically of the use of a margin squeeze test rather than a cost-plus model. However, we would be concerned by ComReg's proposal to implement a single per-port price for FTTH, as has been done with FTTC.

VUA prices, especially remote VUA, involve some element of usage-based cost for an efficient operator. In the case of FTTC the difference between the maximum and minimum profile speeds is only 94Mbps; whereas for FTTH profiles the difference is over nine times as much, or 850Mbps. With the increase in penetration of FTTH products as well as the average usage of an FTTH customer of in excess of [REDACTED] GB per month] the usage cost has the potential to account for a significantly increased portion of costs compared to FTTC.

While in FTTC areas the technology provides a natural limit to the top speed obtainable, an FTTH network provides the scope to deliver at least an order of magnitude higher speeds. In addition, the use of a single port price has provided an expectation in the market that customers will receive the fastest NGA speed available in their premises; while this is appropriate for an FTTC product with a relatively small variation between fastest and lowest profile, it places artificial constraints on the ability of retail operators to differentiate FTTH products based on speed and price. For a retailer, the cost of delivering a 1Gbps service will likely be significantly higher than delivering a 150Mbps service, regardless of wholesale input price.

Therefore, we would be in favour of allowing eir to retain differing wholesale price points for differing FTTH product speeds. The proposal also seems to be at odds with the ComReg proposed methodology for the allocation of traffic based costs in the core network where it is stated that "*ComReg's preliminary view that traffic costs on the core network should be allocated based on revenue per user*". This proposal recognises that network revenue can be optimised by charging users at a level appropriate to their usage of the service. This theory is well established in other markets.

We note also that eir have indicated that they will seek a higher price for new FTTC profiles greater than 100Mbps (using the VDSL 35b profile); this aligns with our position that products over 100Mbps should command a premium at the wholesale level, and that multiple product and price points are warranted for higher-speed services.

4. Eircom Limited (Eircom)

eir

Response to ComReg Consultation & Draft Decision Paper:

**Pricing of wholesale services in the Wholesale Local Access (WLA) market
and in the Wholesale Central Access (WCA) markets:**

**Further specification of price control obligations in Market 3a (WLA) and
Market 3b (WCA)**

Consultation and Draft Decision

ComReg Document 17/26



26th June 2017



DOCUMENT CONTROL

Document name	eir response to ComReg Consultation & Draft Decision Paper 17/26
---------------	--



Executive Summary

1. Ireland's digital economy approaches a critical juncture for the delivery of high-speed broadband to all its citizens and businesses, through a combination of commercial investments and State Aid intervention.
2. The timing of ComReg's review of the Wholesale Local Access ('WLA') and Wholesale Central Access ('WCA') markets is opportune to not only shape Ireland's digital economy over the next three years (ComReg's current market review period) but to provide the building-blocks that will influence the connectivity investment, innovation, use and infrastructure investment in Ireland beyond 2020.
3. Since the last market reviews in 2013, eir has continued to invest into its FTTC and FTTH networks, to the tune of € million to date, now reaching 1.6 million homes and business and expected to reach 1.9 million premises by the end of 2018. At the same time, competition in the market has thrived. At the wholesale level, there has been a plethora of activity: Vodafone and ESB's Siro FTTH network now reaches ca. 70,000 premises and is expected to reach 200,000 by the end of 2017, with the target of reaching half a million homes by the end of 2018 well in reach; Virgin Media has confirmed that it plans to expand its footprint by another 200,000 homes over the next 2 years (a 25% increase in coverage); BT and eNet have both reached network agreements with Siro; and Imagine is in the process of upgrading its network nationwide to TD-LTE with a commitment of providing a wholesale TD-LTE service¹. At the retail level, it is in particular the rising importance of TV in the overall service offering that stands out, and with it the broadband market entry of Sky, the launch of an IPTV offering by Vodafone, and the expanding content offering of Virgin Media (including a multi-year partnership with Netflix and the acquisition of two terrestrial television companies in Ireland, as well as the acquisition of the Formula 1 franchise by its parent company Liberty Global). The presence of these well-established retail brands with mature customer bases, ample funding and broad experience, make for an increasingly competitive Irish retail market in which eir's market share continues to decline. With the impending launch of the National Broadband Plan ('NBP'), the associated benefits to consumers will increasingly be felt across the country.

¹ Time Division Long-Term Evolution service.



4. It is important that any market intervention by ComReg now supports these developments and does not stymie investment that has been happening to the benefit of consumers, whether by eir or its competitors.
5. Prices play an important role in the delicate balance of stimulating demand and investment decisions. For mature technologies, prices are determined by commercial operators using long-standing know how and forecasting. For nascent technologies, pricing is far more complex and there are a number of inter-related variables — the outcomes of which are unknown and may change quickly over time, and which are inherently difficult to forecast.
6. Consequently, price regulation which sets specific prices and/or influences prices can have significant impacts on demand and investment decisions. For nascent technologies such impacts can be even more pronounced, especially when the business case for these investments remains challenging. Therefore, any regulation in these areas needs to tread lightly and be sufficiently flexible to ensure that this balance is kept in equilibrium.
7. After careful review of ComReg’s Consultation and Draft Decision paper 17/26 (the ‘Consultation’), and of the preliminary views developed therein by ComReg, including the forms of price control proposed and the price levels indicated, it does not appear that any such balance has been achieved. The proposed set of remedies fails to appreciate the competitive dynamics and inter-related nature of the relevant upstream and downstream markets and as a result is unnecessarily prescriptive. The proposed remedies are not a proportionate response to any realistic assessment of the risk of market failure, and in their heavy-handedness risk having significant unintended consequences by interfering with retail and wholesale markets and distorting investment incentives.

Pricing remedies: regulated price points

8. As identified in eir’s response to ComReg’s market analysis consultation (ComReg document number 16/96), ComReg’s market analysis is flawed and falls significantly short of the detailed appreciation of market dynamics now required when deciding on appropriate remedies. In particular, ComReg has not taken due account of the competitive constraints in the market. It has excluded from its analysis mobile broadband and broadband services provided over fixed wireless networks and



satellite; it has downplayed the fact that the bulk of the leased line market is now competitive; and in the relevant market itself it has not given sufficient consideration to the fact that current and planned investments by alternative network providers over the regulatory period will substantially constrain eir's pricing. Such omissions and oversights have resulted in an inaccurate competitive assessment. Based on this flawed analysis, ComReg then proposes to place wide-ranging constraints on eir's wholesale prices.

9. Both the market review (ComReg document 16/96) and this Consultation use a particularly narrow lens to discuss the imposition of either a cost-orientation or a margin squeeze obligation. As considered in the paper submitted with this response, "*Supporting fibre rollout in Ireland*" by Brian Williamson², a wider assessment of these options needs to be considered from a policy perspective. In an evolving market, which is central to Ireland's digital economy and future, it is the incentives for innovation and investment, including in competing infrastructures that are likely to be of greater importance for long term outcomes than detailed concerns about current prices. It is not sufficient in this context to view the imposition of a price control as a narrow technical exercise. Instead, the potential costs of regulatory failure need to be considered within a wider policy perspective.
10. Moreover, eir's submission, supported by analysis undertaken by CEG³, shows that even on a narrow technical view, ComReg's justification for moving to a cost-orientated price control for FTTC NGA services is flawed and lacks any credible evidential support.
11. In particular, ComReg appears to be proposing that it can, by eye and without further analysis, determine whether current prices are above competitive levels.⁴ Penetrative pricing is a common strategy for nascent technologies. Furthermore, eir has been a price follower rather than a leader, responding to price changes by Virgin Media and to regulatory changes from ComReg which reduced the scope for common cost recovery from copper loops.

² This is being submitted as part of eir's response to the Consultation.

³ The CEG analysis is also being submitted as part of eir's response to the Consultation.

⁴ ComReg, ComReg market analysis consultation, paragraph 8.626 (b).



12. ComReg also appears to consider that simply because some penetration data now exists, the FTTC market can be treated as effectively mature with costs and volumes sufficiently easy to forecast.⁵ In the face of infrastructure-based competition that is only just emerging, this is simply not correct, and the European Commission's ('EC') 2013 Recommendation⁶ states that "*it is important in order to promote efficient investment and innovation ... to allow those operators investing in NGA networks a certain degree of pricing flexibility to test price points and conduct appropriate penetration pricing*".
13. Furthermore, ComReg appears to be oblivious to the impact on investment incentives by changing to cost-orientation at such an early point in the investment life cycle for FTTC, which is both unprecedented internationally and was not foreshadowed in any way prior to the current market reviews. "[P]romoting regulatory predictability by ensuring a consistent regulatory approach over appropriate review periods" is a central tenet of the regulatory framework and is likely critical in achieving ComReg's objective of "*promoting efficient investment and innovation in new and enhanced infrastructures*" (see Regulation 16 2 (a) and (d) of the Framework Regulations).
14. ComReg has failed to undertake any analysis of whether moving to cost-orientation now would interfere with eir's ability to realise a 'fair bet' on its FTTC investment by distorting retrospectively the returns available. As identified in Brian Williamson's paper, there are sound economic and policy reasons for assessing a 'fair bet' relative to the investment risk as it presented itself to eir when it made its decision to invest in 2011, or at the appropriate point to other operators that have invested since. Failure to do so will impact future investment cases and is likely to have a chilling effect on investment by both eir and other operators considering or already investing in alternative infrastructures.
15. In the event, analysis undertaken by CEG demonstrates that eir has not yet been able to attain an appropriate return on its investment. Such an outcome is inconsistent with ComReg's statutory objectives and runs counter to specific obligations, such as that "*[t]o encourage investments by the operator, including in next generation networks, the Regulator shall, ...take into account the investment*

⁵ ComReg, ComReg market analysis consultation, paragraph 8.626 (a).

⁶ <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32010H0572&from=EN>; recital (49)



made ... and allow the operator a reasonable rate of return on adequate capital employed, taking into account any risks involved specific to a particular new investment network project” (Regulation 13 [2] of the Access Regulations).

16. Indeed, in imposing cost-orientation on the basis of the same returns as allowed in relation to CGA infrastructure, ComReg has failed to take any account of the higher risks associated with investment in new infrastructure. While, as in the case of FTTC, the risk associated with a partial upgrade of the circuit may not be as pronounced as for FTTH investments, it is unrealistic for ComReg to suggest that a fibre-based infrastructure which is continuing to penetrate the market and where infrastructure competition is emerging, has an investment risk equivalent to that of legacy copper. Any such suggestion completely misreads the investment framework set out in the EC’s 2010 NGA Recommendation (in particular section 6)⁷, which is clear about the need for a risk premium.
17. The risk of regulatory failure (i.e., that regulatory intervention leads to poor market outcomes for both industry and consumers) of imposing cost-oriented prices for FTTC based services is aggravated by the fundamental inconsistency of the treatment of access network cost and recovery in the cost models used by ComReg — which means a substantial proportion of eir’s investment costs will not be recovered.⁸ In addition, based on the series of modelling errors which continue to be discovered by eir, eir is concerned that the models in place are simply not fit-for-purpose and require a more extensive review and scrutiny by ComReg and its consultants.
18. Taken all together, the current wholesale price levels proposed by ComReg indicate to other operators planning upstream NGA investments that the regulated market will deliver lower wholesale revenues going forward than are currently available. This is likely to have a chilling effect on their willingness to invest in competing infrastructure, and raises a significant question as to what incentives there are for eir to continue to invest in its network (for any new technology) if the ability to earn a

⁷ http://ec.europa.eu/smart-regulation/impact/ia_carried_out/docs/ia_2013/c_2013_5761_en.pdf.

⁸ The pricing approach proposed in this Consultation diverges from the approach used in ComReg Decision D03/16 by proposing FTTC VUA price ceilings to recover only the lower contribution to the Regulatory Asset Base (“RAB”) required for shorter urban paths. The EC Recommendation specifically considers the need for consistency of recovery of investments in civil engineering assets in regulatory pricing in developing the concept of the RAB.



fair return is truncated and liable to be restricted retrospectively by regulatory decisions. Finally, as FTTC prices provide an anchor as to what price premium FTTH services can reasonably attain, ComReg should consider in how far, as a result of its FTTC interventions, contractors tendering for the state aided NBP may require higher subventions to serve the intervention areas.

Pricing remedies: margin squeeze tests

19. In conjunction with cost-orientation, this Consultation also proposes a number of retail margin squeeze tests ('MSTs') to address what ComReg has erroneously identified as a foreclosure concern stemming from retail prices. Such remedies are proposed against a backdrop where eir's retail market share is in decline and one which is significantly below the 40% threshold normally considered necessary to find dominance under European competition law.
20. Where wholesale prices are set based on cost-orientation, the regulatory concern of foreclosure is illogical and unfounded. As explained more fully in this response (see e.g., response to Question 23), eir has neither the ability nor the incentive to impose a price squeeze in the light of cost-oriented wholesale prices. As a result, ComReg's proposals are disproportionate and inconsistent with the nature of the market identified over the current review period. ComReg's analysis appears to be based almost exclusively on a theoretical discussion of the economic theory of foreclosure, without presenting an actual cogent theory of harm based on an assessment of the likelihood of the identified market failure actually occurring in the current circumstances.
21. This error is further compounded, in that the proposed MSTs depart from the well-established economic principles and methodologies of a margin squeeze assessment as set out for example in the EC's 2013 Recommendation.⁹ By relying on too generous a cost standard in relation to both retail and wholesale costs, ComReg's proposals are creating a pricing umbrella in the retail market below which eir cannot compete and its competitors need not compete. This is liable to result in an unnecessary and unwarranted transfer of welfare from end-users to other operators.

⁹ Or as established in assessing competitive markets in ex-post competition law.



22. In addition, eir is concerned that the imposition of retail MSTs in combination with a fixed wholesale reference point amounts to *de facto* regulation of retail tariffs. ComReg has no power to impose such regulation under the Access Regulations in the context of the current market review, nor does it purport to exercise any such powers (which exist under the Universal Services Regulations¹⁰).
23. Moreover, ComReg’s description of the retail market in the market reviews document (which does not amount to a formal market analysis for the purposes of Regulation 27 of the Framework Regulations which would also be required) does appear to indicate an effective competitive market, which as stated above still underestimates the competitive constraints faced by eir. The regulatory framework is clear that it is not appropriate to interfere with pricing in such a market. Apart from the Three Criteria Test required by the EC’s Recommendation on markets susceptible to *ex ante* regulation, which requires a market to be designated as not effectively competitive, ComReg’s own regulatory principles and in particular Regulation 16 (f) of the Framework Regulations¹¹ state that it should be “*imposing ex-ante regulatory obligations only where there is no effective and sustainable competition and relaxing or lifting such obligations as soon as that condition is fulfilled*”.

Regulatory approval mechanism

24. For FTTC-based services ComReg has introduced, a regulatory approval mechanism which allows eir in exceptional circumstances to apply to ComReg to reduce its cost-oriented prices below that specified in a final Decision, subject to a price floor. The market uncertainty portrayed by ComReg to justify such a mechanism is in stark contrast to the certainty it puts forward to justify cost-oriented FTTC prices.
25. A similar proposal is put forward for FTTH-based prices. However, as ComReg is aware FTTH-based services are not cost-oriented. In addition, the drafting of the regulatory approval mechanism while describing it as an *ex-ante* assessment creates significant regulatory uncertainty as to its assessment. It would appear to be more commercially prudent to not invest and to obtain approval from ComReg of all its pricing before deploying any further network. Certainly this level of regulatory

¹⁰ S.I. No. 337/2011 - European Communities (Electronic Communications Networks and Services) (Universal Service and Users' Rights) Regulations 2011

¹¹ European Communities (Electronic Communications Networks and Services) (Framework) Regulations 2011.



intervention was not what is envisioned in ComReg's statutory powers or in the 2013 EC Recommendation.

26. Finally, the drafting of the regulatory approval mechanism appears to be defined largely by reference to a previous ComReg decision¹², and the associated price floors which show little consideration as to the practicality of their implementation — for example, eir is unlikely to be able to demonstrate, as it must under ComReg's proposal, how its pricing compares to the wholesale pricing (or retail pricing minus relevant costs) of a competitor. This lack of detailed consideration impacts also on the draft decision instruments, which in their current form lack the necessary clarity for eir as the regulated entity to be able to understand what is expected of it, and what in turn it can expect of ComReg. eir expects ComReg to consult again, at the very minimum, on the final text of the Decision Instruments in their entirety, in any event.

The Way Forward

27. As currently drafted, ComReg's proposals would result in much more severe regulation of FTTC access services in Ireland than in any other similarly competitive EU market. No other EU regulator has imposed cost-based regulation of FTTC VUA when the incumbent operator has as low a share of the national broadband market as eir. No other EU regulator imposes both cost-orientation and a MST on FTTC bitstream.
28. Furthermore, the existing legal, regulatory and market constraints already address ComReg's foreclosure concern. ComReg's proposed application of MSTs in combination with cost-oriented wholesale prices risks exceeding ComReg's powers and interfering inappropriately in the retail market. As explained in this response, eir's alternative proposals on how to apply an MST(s) to FTTC (see e.g., response to Question 24) are more consistent with ComReg's regulatory objectives, including the 2013 EC Recommendation, and would lead to better regulatory outcomes for end-users.
29. ComReg's current proposed set of remedies bears a significant risk of regulatory failure as a result of its heavy handedness, which is out of synch with the dynamics

¹² ComReg Decision D03/16.



of the relevant markets, the approach of other regulators in similarly competitive markets, and both the general theme and detail of relevant EC Recommendations.

30. Given the manifest failure to meet most of ComReg's regulatory objectives, the errors exhibited in the drafting of the Consultation (which includes a failure to consult transparently on a number of important matters), taken together with the shortcomings of the cost modelling, lead eir to find at minimum further rounds of consultation are required.
31. eir is looking forward to engaging on these consultations to arrive at an eventual remedies package that supports ComReg's statutory objectives and the continued evolution of NGA in Ireland.



Response to Consultation Questions

Question 1 Do you have any further comments regarding the pricing proposals in ComReg Document 16/96 (WLA / WCA Market Review) in light of the pricing obligations further specified in this Draft Decision? Please provide reasons for your response.

32. There is insufficient economic assessment undertaken in ComReg’s market analysis consultation 16/96 to allow ComReg to suitably determine whether the theoretical competition problems identified, arising from hypothetical pricing behaviours, are in reality likely to occur in practice and in particular given that — with the exception of FTTH services — all wholesale inputs are proposed to be cost-oriented. Consequently, the potential impact of eir distorting competition is overstated in both the market analysis consultation 16/96 and this Consultation. This results in ComReg proposing complex and disproportionate regulatory pricing remedies — which are further specified in this Consultation — to “address” potential market failures well beyond any uncompetitive market outcomes that are actually likely to occur.
33. In particular, eir considers that ComReg has:
- a. failed to provide any meaningful economic analysis to justify changing from a MST to a cost-orientation remedy for FTTC-based services;
 - b. failed to maintain regulatory consistency between adjoining price control periods;
 - c. not assessed the full effects of each pricing remedy, in particular effects across multiple markets or value chains; and
 - d. proposed ex-ante pricing remedies in competitive markets without an adequate economic assessment to determine whether any competition concerns are likely to arise.

Weak economic justification for moving to cost-orientation for FTTC-based services

34. The analysis included by ComReg in its market analysis consultation 16/96 and this Consultation — in particular, its assessment of the relative pricing constraints for NGA services — does not stand up to closer scrutiny. This is further discussed in Chapter 4 of CEG’s supporting paper to eir’s submission.



35. As identified there and in Brian Williamson’s supporting paper to eir’s submission, ComReg’s approach does not constitute a detailed and careful analysis of the relevant benefits and risks associated with introducing yet further intrusive regulation. In addition, Brian Williamson’s paper sets out a number of regulatory policy considerations which provide a clear basis to revisit the cost-orientation proposal, consistent with the principle of proportionality.
36. Finally, as set out in more detail in Chapter 2 of CEG’s paper and summarised in Figure 1 and Figure 2 below, ComReg’s proposals are much more severe than regulation elsewhere in the EU. eir would be the only SMP-designated operator in Europe that would be subject to concurrent cost-orientation and margin squeeze obligations for both FTTC Bitstream and FTTC-based — an even starker fact when considering eir’s relatively low retail market share compared with that of other European incumbents.

Figure 1: Regulation of FTTC Bitstream

Country	No regulation	Margin squeeze (or retail minus)	Cost-oriented (some with a mark-up over costs)	Margin squeeze and cost-oriented	Incumbent's national broadband market share
Luxemburg		✓			67%
Croatia			✓		59%
Austria		✓			59%
Estonia			✓		58%
Denmark			✓		53%
Macedonia	✓				53%
Switzerland	✓				52%
Malta	✓				50%
Latvia	✓				50%
Lithuania	✓				50%
Belgium		✓			50%
Italy			✓		46%
Cyprus			✓		46%
Greece			✓		45%
Spain			✓		44%
Netherlands	✓				42%
Norway		✓			41%
Germany		✓ ¹			41%
France			✓		40%
Slovakia	✓				39%
Hungary		✓			38%
UK	✓				37%
Sweden	✓				37%
Slovenia		✓			35%
Ireland		✓		✓	32%
Portugal	✓				33%
Poland			✓ ²		32%
Finland	✓				29%
Czech Republic	✓				28%
Romania	✓				27%
Bulgaria	✓				26%

Source and notes: Pricing regulation from national regulators websites and Incumbent's broadband market share from Telegeography, GlobalComms Database. ¹Price squeeze test, IP-BSA: Ex post price control for abusive prices, L2-BSA: Ex ante price control based on LRIC+15% and PST, ² Cost regulation only in areas considered not competitive <https://en.uke.gov.pl/new-regulations-concerning-wholesale-broadband-internet-access-services-in-poland-14775>

Figure 2: Regulation of FTTC-based VUA

Country	No regulation	Margin squeeze (or retail minus)	Cost-oriented	Margin squeeze and cost-oriented	Incumbent's national broadband market share
Luxembourg	✓				67%
Croatia	✓				59%
Austria				✓	59%
Denmark			✓		53%
Estonia	✓				58%
Macedonia		✓			53%
Switzerland	✓				52%
Malta		✓			50%
Latvia			✓		50%
Lithuania			✓		50%
Belgium			✓		50%
Italy				✓	46%
Cyprus	✓				46%
Greece				✓	45%
Spain				✓ ¹	44%
Netherlands	✓ ²				42%
Norway		✓			41%
Germany			✓		41%
France			✓		40%
Slovakia			✓		39%
Hungary	✓				38%
UK		✓ ³			37%
Sweden			✓ ⁴		37%
Slovenia	✓				35%
Ireland		✓		✓	32%
Portugal	✓				33%
Poland	✓				32%
Finland	✓				29%
Czech Republic		✓			28%
Romania	✓				27%
Bulgaria	✓				26%

Source and notes: Pricing regulation from national regulators websites and Incumbent's broadband market share from Telegeography, GlobalComms Database, ¹No VULA obligation in the more competitive 66 municipalities, ²ACM said it would only adopt a price control decision if the market does not reach an agreement. In that case, a combination of a price cap and a price squeeze test would apply. ³Proposed to move to price regulation for speed up to 40 Mbit/s. ⁴At the time of last market review in Sweden, TeliaSonera has 39% of the retail market, almost double the next largest operator (Telenor with a share of 20%) and much higher than the cable operator Com Hem with a share of 18%.



Failure to maintain regulatory consistency between adjoining price control periods

37. This Consultation proposes to change the price control for FTTC-based NGA services from a margin squeeze (imposed in 2013) to a cost-orientation obligation and to change the costing methodology for current generation Bitstream and BMB service from HCA (imposed in 2014) to BU-LRAIC+.
38. No acknowledgment is given in ComReg’s market analysis consultation 16/96 or this Consultation to Regulation 16 2 (a) of the Framework Regulations which provides that ComReg, in pursuit of its objectives shall apply regulatory principles by, amongst other things, “promoting regulatory predictability by ensuring a consistent regulatory approach over appropriate review periods” [emphasis added].
39. Regulatory consistency is critical for providing certainty to market participants in the context of investment decisions that may have pay-off period in excess of the current three year market review periods. ComReg has failed to consider what impacts such a sudden change from a margin squeeze obligation to a cost-orientation obligation for FTTC-based services will have on future investment in the Irish market. In particular, ComReg has failed to consider whether such a change of regulatory policy would still allow the opportunity for investors to earn a reasonable return on past risky investments. This issue is further considered in Chapter 5 of CEG’s paper.
40. In addition, as identified in Chapter 3 of Brian Williamson’s paper, ComReg has previously specifically identified uncertainty about demand as justification for the greater pricing flexibility afforded by MST only regulation. The potential benefits of pricing flexibility are foregone if ComReg now impose cost-orientation for FTTC-based services. ComReg has provided no credible factual analysis to show that the underlying uncertainty which it previously argued necessitated that flexibility no longer exists.
41. Furthermore, the derived prices arising from ComReg’s modelling runs a high risk of setting wholesale CGA prices at such a low rate that it will have the effect of reducing the efficient rate of migration to NGA services that are provided by open eir or migration to services offered by competing NGA providers¹³. Such an approach is also inconsistent with the 2013 EC Recommendation and in particular paragraph 40 which provides that any intervention in NGA costing “*should be accompanied by*

¹³ ✂



documented projections of copper network prices showing that ... they will remain stable”.

42. Indeed, the form of price setting proposed by ComReg for CGA services carries a substantial risk of removing incentives from investors in NGA service to extend their footprints into areas currently only reached by open eir CGA. In this context eir is particularly disappointed that the Regulatory Impact Assessment (‘RIA’) undertaken by ComReg makes no attempt at a quantitative assessment of the regulatory risk arising from the type of intervention proposed.

Each pricing remedy is not assessed for its impact across multiple markets and value-chains

43. In designing and imposing regulatory price controls, ComReg does not adequately consider whether more targeted remedies would better achieve its statutory objectives and would be more proportionate.
44. ComReg’s market analysis consultation 16/96 fails to adequately consider whether remedies (including pricing remedies) proposed in one market also address the competition concerns identified in another. ComReg undertakes its market assessment as a narrow technical exercise. In doing so, it considers whether regulatory remedies are warranted in isolation, but fails to consider whether by imposing remedies in a vertically related market (in this case WLA) it will address any competition concerns in another (in this case the WCA market), or that it may create unintended consequences beyond the market it is imposing a remedy on (e.g., see paragraphs 45, 52, 307 and 341).
45. For example, by further specifying a national pricing remedy for VUA, any additional price control for NGA Bitstream is unwarranted and inconsistent with ComReg’s regulatory objectives. This is because an operator can fully compete as a retailer and/or wholesaler in the same footprint as eir in the NGA Bitstream market by accessing 141 VUA handover sites. VUA regulation coupled with the competitive nature of the market for modern interface wholesale high quality access services (“MI WHQA services”)¹⁴ means that there also is a competitive market for the provision of Bitstream service to all VUA access seekers. In other words, access, non-

¹⁴ https://www.comreg.ie/?d1m_download=market-review-wholesale-high-quality-access-fixed-location



discrimination, pricing and transparency regulatory obligations for FTTH-based VUA and FTTC-based VUA will mean that other operators can rely on their own or other operators' infrastructure investments (as recognised by ComReg market analysis consultation 16/96) to compete effectively in the NGA Bitstream market. As evident in eir's quarterly submissions to ComReg, over the last 10 quarters since Q4 2014 there is a strong migration trend from NGA Bitstream to VUA. This is due to operators using open eir NGA VUA access together with their own backhaul capacity to self-provide, or sell on, Bitstream services to Retail Service Providers ("RSPs"). This progressive expansion of VUA and the corresponding contraction of NGA Bitstream is evident in **Error! Reference source not found.:**



46. Consequently, eir considers that the Regional WCA market should be further distinguished between NGA services (FTTC, EVDSL, and FTTH) on the one hand and CGA (BMB and Legacy ADSL) on the other. Such an approach would be more consistent with Regulation 8(6) of the Access Regulations — which requires ComReg to impose only such obligations as are objectively justifiable by reference to an identified problem, and proportionate — as the proposed obligations could then be targeted at CGA services rather than the NGA bitstream where, with VUA regulated, eir would not hold any specific market power.
47. A further consideration not obviously appreciated in ComReg's analysis is the anchoring of prices across competing technologies. Much of the existing open eir FTTC footprint overlaps with DOCSIS and FTTH deployments made by competing infrastructure providers. From the pricing of the retail operators using these platforms it is clear that there is currently no retail price premium available from their entry-level broadband service, even where the entry-level speed is substantially above that provided by open eir FTTC. The most relevant example of this is Virgin Media's entry level broadband proposition of 240 Mbps which is priced at the same level as eir retail's FTTC service that offers speeds of no more than 100 Mbps.¹⁵ This indicates that there is currently no price premium available at the wholesale level either for the entry-level service from a platform that delivers higher speeds. There may be a small increase in wholesale ARPU available from a portfolio of FTTH access

¹⁵ See <https://www.virginmedia.ie/broadband/buy-a-broadband-package/#bundles> and <https://www.eir.ie/broadband/>



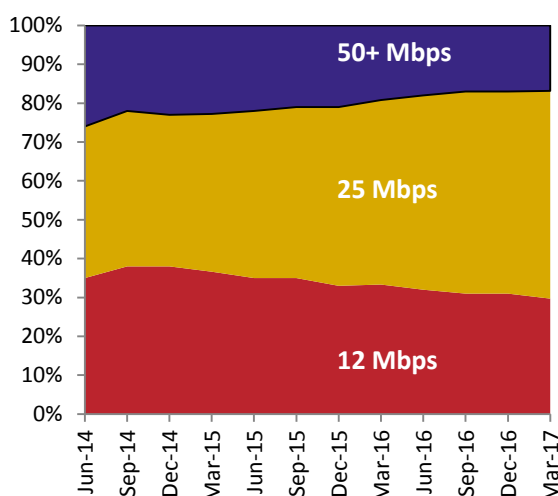
services at different speeds due to the small minority of retail customers who are prepared to pay a price premium for the substantially higher line speed available from the premium FTTH VUA inputs (although this Consultation is also incorrectly proposing to remove any such pricing differential at the wholesale level (see paragraphs 189-198)). However, the entry-level FTTH bundle prices will still be anchored (for all retailers) to the price of retail bundles delivered using open eir FTTC VUA. This is because the vast majority of premises passed by the open eir NGA network are served by either FTTC/EVDSL or FTTH – **not both**.

48. The anchoring of prices between FTTC and FTTH is also evident in other markets. As set in Chapter 4 of Brian Williamson’s paper both FTTH and FTTC services are offered by NBN in Australia. These services are differentiated by speed-price at the wholesale level and this differentiation is reflected at the retail level. The price premium of 50 Mbps over 25 Mbps is AUS\$10, as is the price premium of 25 Mbps over 12 Mbps.¹⁶ Figure 3 shows that the proportion of customers taking a speed of 25 Mbps or less has been growing, whilst the proportion of those taking more than 25 Mbps and less than 12 Mbps has been shrinking.¹⁷ In other words it appears that a declining proportion of people are willing to pay a AUS\$10 premium for 50+ Mbps, but a growing proportion are prepared to pay a AUS\$10 premium for 25 Mbps.

¹⁶ Based on retail prices from one provider: [V4 NBN Pricing and Product Information](#), [accessed 22 February 2017]

¹⁷ Wholesale tiers include 12/1, 25/5, 25/10, 50/20 and 100/40 Mbps. The two 25 Mbps download packages, and 50 and 100 Mbps packages, are combined in the figure.

Figure 3 : Fibre share by speed tier in Australia¹⁸



49. European research has also found:

“Most of this evidence suggests that customers are likely to have high incremental willingness to pay for a high speed service, but a low incremental willingness to pay for a very high speed.

The representative household is willing to pay \$20 per month for more reliable service, \$45 for an improvement in speed from ‘slow’ to ‘fast’, and \$48 for an improvement in speed from ‘slow’ to ‘very fast’. This indicates only a \$3 WTP for an improvement in speed from fast to very fast.

This premium for fibre is considered to be relatively modest – at least in the EU scenario - with respect to what is needed to spur consumers’ migration from copper to fibre infrastructure”.¹⁹

50. This suggests that in Ireland there will be a very limited return available over the period of the price control for open eir to overbuild FTTC with FTTH. For these reasons the constraint on retailing pricing flexibility resulting from Virgin Media’s offerings in urban areas affects all other retailers including those using open eir FTTC/FTTH to serve provincial regions. In addition, prices of ADSL provide a form of anchor as it

¹⁸ ACMA, [NBN Wholesale Market Indicators Report](#), May 2017.

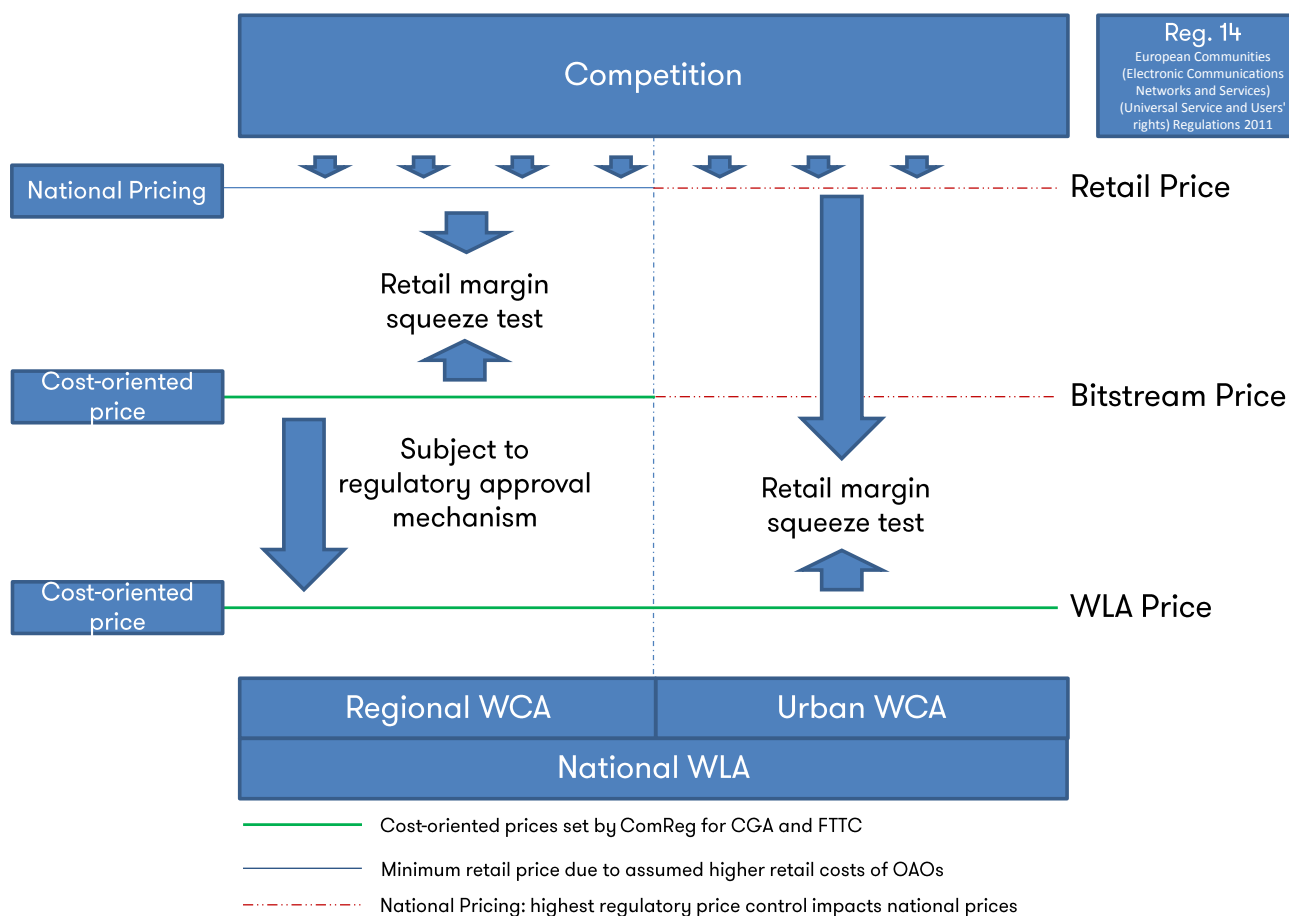
¹⁹ Carlo Cambini (2015), Economics aspects of migration to fibre and potential welfare gains and losses from an uplift to copper prices, page 16.



creates the cost premium for demand for moving from current generation broadband to next generation broadband.

51. Had ComReg undertaken an assessment of each pricing remedy and their interaction with other pricing remedies and competitive restraints in the market it would have been evident that a price control by MST of both FTTC and FTTH is sufficient to address any competition concerns identified by ComReg — in both the WLA and WCA market beyond the reach of Virgin Media’s network and planned roll-outs of alternative network providers such as Siro. This is further discussed in Chapter 3 of CEG’s supporting paper to eir’s submission.
52. Finally, as is evident in Figure 4, by imposing regulations in one market ComReg is in effect also setting prices in other markets. ComReg has not assessed whether there are any unintended harmful consequences of the proposed pricing obligations. Poorly designed pricing remedies can have significantly detrimental impacts on the market and fails to “mimic” competitive market outcomes. The risk of regulatory failure is likely to be greater the more complex the ex-ante pricing obligations and the more likely it is to affect multiple value chains. For examples of undesirable effects across more than one market, see paragraphs 176, 228, 307.

Figure 4: Illustrative overview of multiple regulatory price controls on eir



Failure to undertake an economic assessment of competitive markets it proposes to regulate

53. In this Consultation, ComReg has further specified a series of retail MSTs. Where these are imposed in combination with cost orientation at the wholesale level, or in a situation where the wholesale price is firmly anchored against a cost oriented price (see paragraphs 47-50 as to the relationship between FTTH and FTTC), this amounts to “de facto” regulation of the *retail* market. Apart from the consumer detriment this is liable to create by imposing a price umbrella under which eir cannot compete and competitors need not compete, ComReg simply has no powers in the context of the current market review to regulate retail tariffs. Such powers exist under the Universal Services Regulations, but would require ComReg first of all to identify the relevant retail market as susceptible to ex ante regulation, then to analyse that market, determine that it is not effectively competitive, and finally determine that eir has SMP in that market. ComReg has undertaken no such analysis. However, ComReg has failed to undertake even the first step, a Three Criteria Test analysis to justify any



proposed ex-ante regulation—and such a test would likely not have succeeded in relation to the retail market, ComReg’s own description of which in the market reviews consultation indicates that it is effectively competitive. This is contrary to the EC Recommendation which states that *“The application of the three criteria should limit the number of markets within the electronic communications sector where ex ante regulatory obligations are imposed and thereby contribute to the aim of the regulatory framework to reduce ex ante sector-specific rules progressively as competition in the markets develops”*.

54. In addition, ComReg proposes to implement a wholesale MST between the price of End-to-End Bitstream and the price for Bitstream in the Regional WCA Market, relating to both current generation and next generation End-to-End services. It is important to highlight that an End-to-End Bitstream service essentially contains two elements. The first is the regulated WCA component which uses exactly those inputs and prices from the equivalent Bitstream service. The second can vary, but in its simplest form can contain, for example, the provision of onward access to the internet/world-wide-web or billing and account support. In all cases the second component of the End-to-End service is unregulated. ComReg has not undertaken any economic assessment of whether it is proportionate and justified to regulate competitive services. See also paragraphs 260-275.
55. As identified by CEG in its supporting paper to eir’s submission *“Whether an ex ante MST is warranted requires a careful assessment of the likely risks of imposing such a test compared with not imposing such a test. Compared with relying on competition law, ex ante tests carry a significant risk of preventing or hindering pro-competitive price offers.”*
56. In proposing these regulatory ex-ante price controls which will have a clear impact on competitive markets, ComReg has failed to undertake an adequate assessment of all the options that might also address its regulatory concern — in particular, the sufficiency of ex-post competition law.
57. Finally, Regulation 16 (f) of the Framework Regulations²⁰ authorises ComReg in *“imposing ex-ante regulatory obligations **only where there is no effective and sustainable competition** and relaxing or lifting such obligations as soon as that*

²⁰ European Communities [Electronic Communications Networks and Services] (Framework) Regulations 2011



condition is fulfilled”[emphasis added]. ComReg does not have the power, accordingly, to impose these proposed regulations.

Other Considerations

58. eir notes that in the intervening period since the publication of ComReg’s review of the WLA and WCA markets, there have been a number of market developments, all lending themselves to even more competitive outcomes and benefits for end-users.

eNet & Siro partnership agreement

59. eNet and Siro have announced a partnership agreement whereby eNet will become a Siro aggregator and will integrate Siro’s last mile fibre access, with the Metropolitan Area Networks (MANs) as well as its own national fibre network to provide a full end-to-end offering to all RSPs. eNet and Siro had already reached an agreement that allowed Siro use of eNet’s network as part of its build.

60. The partnership will allow RSPs to target individual Siro towns or to offer services on a national basis, as well as delivering a more cost effective solution for smaller operators to sell FTTH/B services to their local area and in this manner will further drive competition in the broadband market by giving more telecoms companies access to Gigabit connectivity.

Siro & Rocket Broadband

61. Siro has now contracted with five different RSPs, the latest of which is Rocket Broadband. This partnership is the latest example of Siro enabling regional broadband providers in Ireland to compete with operators that are national and international in scale.



Pure Telecom's Expansion Plans

62. Pure Telecom has signed a €1.75 million deal with sales agency DSM to provide support in expanding its customer base. The company, which currently has approximately 42,500 residential customers, has plans to double that number to 100,000 by the end of 2019 as well as looking to double its revenue within the next three years.

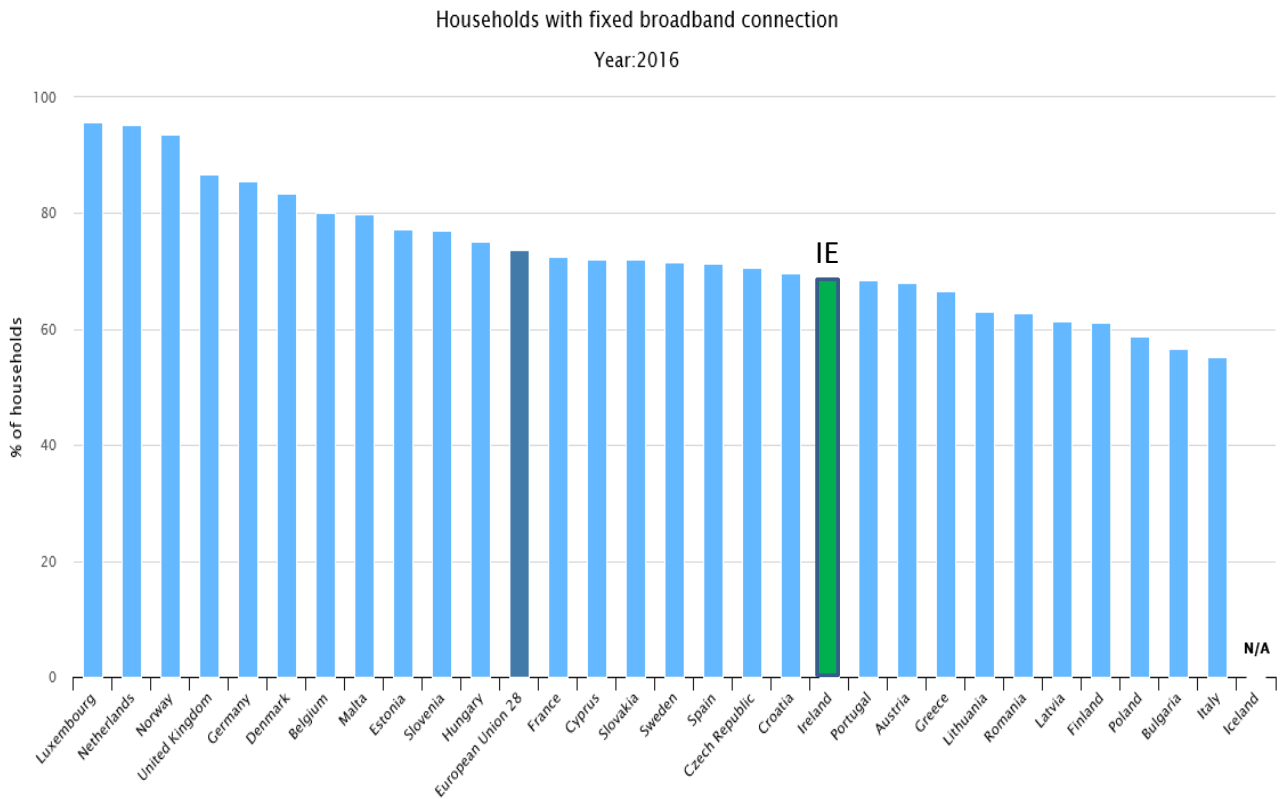
Imagine's expansion plans

63. According to Imagine's CEO, the company is signing up roughly 2,500 customers a month and as of Q1 2017 had a base of circa 14,000 customers.²¹ Imagine is currently spending more than €1 million a month on the national rollout of its 4G TD-LTE network²² and was one of the winners in the recent 3.6 Ghz spectrum auction. Imagine, which is currently the country's largest wireless broadband operator, will pay €10 million for 60 MHz in each of four rural regions assigned in the auction.
64. Imagine already has a footprint covering 500,000 homes and businesses and plans to reach a target of 1 million homes passed with wireless broadband by 2018. Imagine currently has 50 live sites in Ireland and plans to grow this to 400 sites and 160,000 customers within three years.
65. The exclusion of fixed broadband provided over fixed wireless access (FWA) from the retail and thereby the wholesale broadband markets would therefore seem highly incompatible with the concept that a market review should be completed on a forward-looking basis. In addition, eir would like to reiterate the extent to which not only FWA but also mobile broadband and satellite broadband serve as effective substitutes, particularly in rural areas in Ireland.
66. According to the European Commission's Digital Scoreboard, 85.6% of households in Ireland have a broadband connection (DSL, cable, FTTx, Ethernet, private leased circuit (PLC), fixed wireless, satellite and mobile wireless). However, Ireland is at the lower end of the scale in terms of households that have access to a fixed broadband connection with 68.8% of households nationally utilising a fixed connection compared to the EU 28 average of 73.8% (See Figure 5),

²¹ <http://www.irishtimes.com/business/technology/fibre-broadband-figures-an-indictment-of-government-strategy-1.3005472>

²² *ibid.*

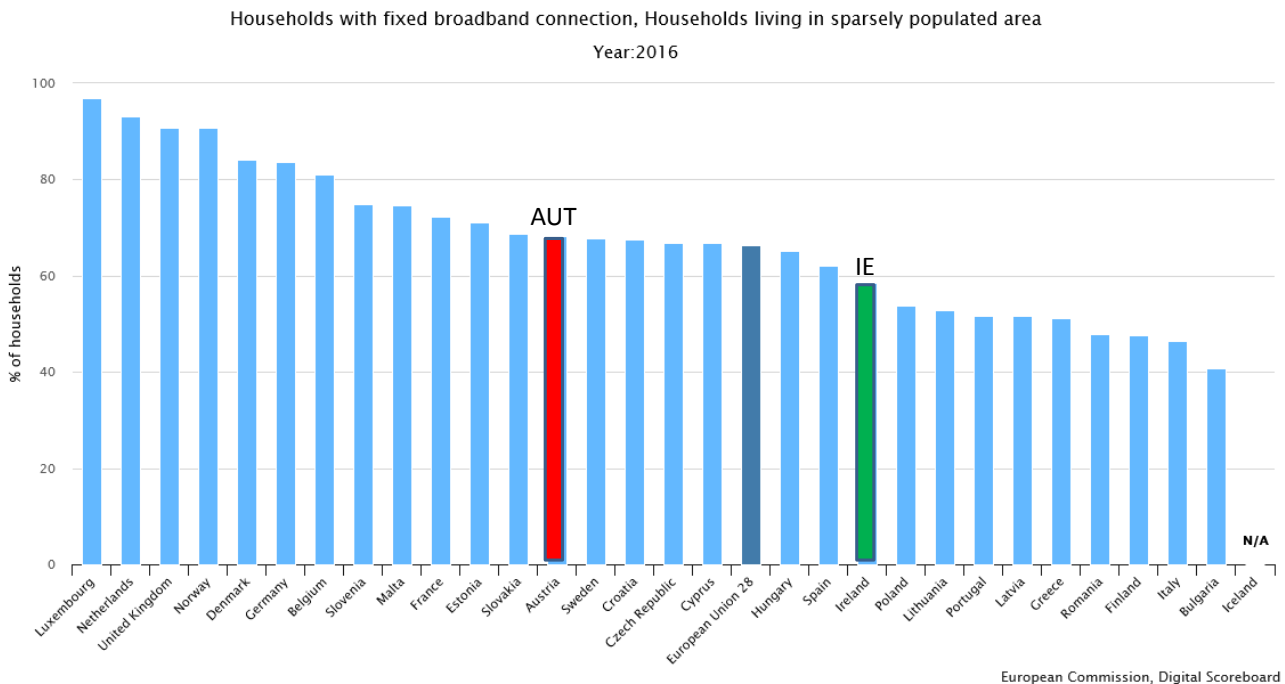
Figure 5: EU 28 households with a fixed broadband connection, by country



European Commission, Digital Scoreboard

67. In terms of rural areas, there is only a slight drop in the number of households that have a broadband connection (of any type) at 81.4%. However, the change in the number of households with a fixed broadband connection as opposed to urban areas is however, as one would expect, more dramatic. Just over half (58.6%) of households in rural areas in Ireland have a fixed broadband connection (see Figure 6).
68. For comparison purposes, in Austria, the first country to propose that mobile broadband is a substitute for ADSL and cable in the retail market for residential users), 68% of households nationally have a fixed broadband connection, while the corresponding figure in rural areas is 68.1%.

Figure 6: EU 28 households in rural areas with a fixed broadband connection, by country



69. In addition, according to ComReg's latest quarterly report, there has been an increase of 1.8% in FWA broadband subscriptions from Q4 2016 to Q1 2017, and a year-on-year growth of 12.8%.
70. ComReg is proposing to impose heavily interventionist and burdensome pricing remedies in the WLA and WCA markets on the basis of what appears to be a fundamentally flawed categorisation of the retail market which is compounded by the fact that ComReg has not properly taken into account a number of developments in upstream markets such as Siro's network agreements and Imagine's roll-out plans. There is significant market entry and expansion absent reliance on open eir's network infrastructure. This increasingly dynamic infrastructure competition and the increasingly competitive state of the markets does not support ComReg's proposal to indiscriminately impose more heavy handed obligations, which by their very nature are extremely prone to regulatory error.



Question 2: Do you agree with ComReg’s preliminary view that the BU-LRAIC+ methodology should be applied to determine the appropriate level of costs associated with the provision of FTTC based VUA (including EVDSL) in the WLA Market and for FTTC based Bitstream and current generation Bitstream and BMB in the Regional WCA Market? Please provide reasons for your response.

71. eir does not agree that BU-LRAIC+ methodology is appropriate to inform the price control for CGA in the Regional WCA Market.
72. CGA services have been offered for over ten years by open eir and the market for these services is in decline. eir’s investment in CGA has been complete for some time and wholesale CGA services have been replaced by migration to wholesale NGA. Just a year ago (in July 2016), as shown in **Error! Reference source not found.**, the wholesale demand on the open eir network for NGA overtook the demand for CGA. Competition from competing NGA platforms (DOCSIS, GPON, and FWA) has seen the continuing decline in CGA volumes.
- ✂
73. eir considers that a HCA costing methodology achieves the appropriate balance of ensuring eir cannot charge excessive prices relative to aged investment while at the same time ensuring that eir can recover any additional money invested in maintaining or upgrading this network technology. Given the extent of depreciated assets (e.g., DSLAMs and BRAS) in eir’s network, and the fact that these assets may not be replaced as the market focuses on NGA services, a BU-LRAIC+ methodology would send inappropriate build / buy signals in a technology that is being surpassed by FTT[x] technologies, cable, wireless and mobile broadband.
74. eir notes that ComReg’s reasoning in support of a HCA approach for CGA services in ComReg Decision D11/14 remains appropriate. Regulation 16 2 (a) of the Framework Regulations provides that ComReg, in pursuit of its objectives, shall apply regulatory principles by, amongst other things, “promoting regulatory predictability by ensuring **a consistent regulatory approach over appropriate review periods**” [emphasis added]. It is not clear to eir, how ComReg’s proposal to implement a BU-LRAIC+ pricing approach for CGA services now is consistent with the reasons set out by ComReg in ComReg Decision D11/14 to justify a HCA costing methodology — a Decision which was only made by ComReg in July 2014.



75. Pursuant to ComReg Decision D11/14, wholesale CGA services offered by open eir have been subject to a price control by cost-orientation. ComReg Decision D11/14 implemented HCA as the appropriate costing methodology and specifically by means of a statement of compliance issued to ComReg after the publication of the FY 14/15 and FY 15/16 accounts. As part of eir’s compliance with its regulatory obligations, it reduced its wholesale prices for CGA as recently as January 2017. As such, eir submits that ComReg statement in ComReg Decision D11/14 that allows: *“Eircom to recover its actual incurred costs adjusted for efficiency plus a reasonable rate of return. The objective of the Bitstream cost model...is to ensure that Eircom does not materially over or under recover its actual costs adjusted for efficiency (including a reasonable rate of return) nationally.”*²³ still applies and that a HCA costing methodology, as reasoned by ComReg, then still applies now, i.e., *“This obligation is consistent with Regulation 13(2) of the Access Regulations”*²⁴.
76. In respect of FTTC based VUA (including EVDSL), eir does not agree that a cost-orientation price control is appropriate. However, if a price control by cost-orientation were appropriate, eir agrees with ComReg’s preliminary view that the BU-LRAIC+ methodology should be applied to determine the appropriate level of costs to be recovered from the FTTC and EVDSL VUA.
77. eir’s investment in FTTC and EVDSL electronics is recent. Therefore, a BU-LRAIC+ methodology provides the correct economic signal for further efficient investment in extending capacity. eir’s view regarding the appropriateness of a BU-LRAIC+ costing methodology is subject to ComReg adjusting the methodology to correctly include the BU-LRAIC+ of the average access path — so as to deliver consistency with the price control for SB-WLR determined in ComReg Decision D03/16. In this context it is worth clarifying that for EVDSL all access network assets used for PSTN are re-used for EVDSL so the BU-LRAIC+ of the access path will equal the HCA for the SB-WLR path. In the case of FTTC an adjustment is required where \approx % of the duct and trench assets are re-used so the adjustment is limited to applying the BU-LRAIC+ methodology to \approx % of duct and trench costs (for that element of the access path that conveys the fibre optic cable to the street cabinet housing the VDSL electronics). When implementing this adjustment, care is required to ensure no double counting of

²³ ComReg Decision D11/14, paragraph 2.12.

²⁴ ComReg Decision D11/14, paragraph 2.11.



the costs of the nationally average access path in that element that links the ODF (MDF) site to the street cabinet site.

78. The HCA methodology for CGA and the BU-LRAIC+ methodology for NGA cost levels is consistent with the 2013 EC Recommendation²⁵ on costing methodologies. In particular the adjusted methodology for FTTC and EVDSL described by eir in paragraph 77 is consistent with paragraph 31 of the 2013 EC Recommendation.

²⁵ European Commission Recommendation C(2013) 5761.



Question 3: Do you agree with ComReg’s preliminary views regarding the proposed costing methodology for Reusable Assets, Non-reusable Assets and active / other assets in the provision of FTTC based VUA (including EVDSL), FTTC based Bitstream and current generation Bitstream and BMB services? Please provide reasons for your response.

79. For reusable assets used in the delivery of FTTC/EVDSL VUA and Bitstream and for BMB services, eir agrees with the ComReg preliminary view that the RAB approach used in the Revised Copper Access Model (‘Revised CAM’ which is the model used by ComReg and eir to assess eir’s compliance with the obligations contained in ComReg Decision D03/16) should be applied to the relevant assets.
80. It is important to note that the Revised CAM did indeed take account of the requirement to re-invest in certain assets that are currently under-represented in the depreciation charge. For example, the history of pole deployment combined with the change of asset life from 15 to 30 years in 2009 has resulted in an unsustainable charge on the pole asset. The Revised CAM includes both the effects of accelerated pole replacement and of unwinding the asset life transition in the increasing charge on pole assets over the five years of the SB-WLR price ceiling set in ComReg Decision D03/16.
81. For non-reusable assets used in the delivery of FTTC/EVDSL VUA and Bitstream services, eir agrees with the ComReg preliminary view that the BU-LRAIC+ methodology should be used for the relevant assets. As set out in paragraphs 71-75, in the case of the BMB services eir believes that there is a sound economic case to retain the approach that has applied since ComReg Decision D11/14 for CGA prices by cost-orientation at historic cost.



Question 4: Do you agree with the proposed timeframe of the model and with the proposed approach and assumptions used in determining the service volumes / demand for FTTC based VUA (including EVDSL) and FTTC based Bitstream in the NGA Cost Model? Please provide reasons for your response.

82. eir disagrees with the proposed timeframe of 50 years.²⁶
83. A timeframe of 50 years is completely unjustified given the reasonable expectation regarding the life of the underlying investments. eir expects that well before the end of this period VDSL will cease being the technology of choice for the majority of customers (and much fewer than the two thirds of subscribers, as assumed by ComReg in the NGA Cost Model) in Ireland.
84. Industry developments clearly indicate that FTTH is regarded as the long-term technology for broadband provision. In effect, Virgin Media’s DOCSIS 3.1 expansion plans²⁷, Siro’s and eir’s own FTTH, and, not least, the NBP (where it is apparent that FTTH is now the preferred technology) suggest that VDSL is a first generation NGA technology with a limited reach and life — particularly in the context of population dispersion in Ireland. Moreover, over even a 20 year period there is the prospect of new fixed and mobile technologies emerging that may also make VDSL obsolete.
- ✂
85. Consequently, ComReg should be prudent and model a significantly shorter period, e.g., of 20 years. This would reduce the impact of future demand assumptions and allow a much faster recovery of VDSL-specific capital investments.
86. Similarly, the forecast volumes used by ComReg in modelling the unit costs of open eir NGA services over the period of the proposed price control fail to take sufficient account of competing investments in FTTH, DOCSIS and 5G FWA and the service volumes that those investors must achieve to make a return on their investment.
87. With regards to the approach by ComReg in the NGA Cost Model to determine service volumes, ComReg has assumed that by 2026 eir’s broadband base “*will be similar in size to the 2016 broadband base*”²⁸ by virtue of the growth in VDSL. In other

²⁶ Para. 6.40 – “The NGA Cost Model considers a timeframe of 50 years from 2013 to 2062 ... Consequently, we consider that a time-period of fifty years seems appropriate.”

²⁷ ✂

²⁸ ComReg, Consultation, paragraph 6.39.



words, ComReg is proposing that despite other commercial operators already becoming real alternatives to eir's platform there will be no impact at all on eir's overall subscriber base. As found in the CEG report, the draft model substantially underestimates likely loss of lines to the expansion of rival operator platforms. Furthermore, ComReg is proposing that eir — during that period — will be able to grow penetration with an offering (i.e., VDSL) which is not future proof (unlike FTTH). This is an unrealistic profession of faith in the future of VDSL. As a result, in its current form the model is not fit for purpose, as it significantly departs from any reasonable commercial/market outcomes.

88. The consequence of the assumed timeframe and the associated level of demand is that the NGA Cost Model used by ComReg overstates the usage of assets and hence decreases the underlying service prices and the price of FTTC standalone VUA in particular. Such poor underlying assumptions will not only affect eir's FTTC returns but, given anchoring across products, will also impact the ability of eir and other network operators to earn a premium for more advanced technology services (e.g., FTTH) and therefore willingness to invest in these technologies. This is contrary to ComReg's regulatory objectives and in particular Regulation 13 (3) of the Access Regulations which requires any price remedies imposed by ComReg to promote efficiency, sustainable competition and maximise consumer benefits.

The impacts of the proposed economic depreciation over the proposed timeframe of the model

89. There are two fundamental inherent assumptions behind the method of economic depreciation used by ComReg in the NGA Cost Model. Each of the assumptions is reliant on the positive outcome of the other and even on an individual basis they are inconsistent with both the behaviour of a competitive market and with the planned term of the price control remedy. The two graphs below look at the behaviour of unit costs over 50 years as this is the modelling period used to inform the proposed price control.
- **Assumption 1:** There needs to be a consistent price level sufficient to deliver cost recovery of FTTC network elements after 2020 from WLA VUA revenues.
 - **Assumption 2:** The same set of wholesale customers will use the open eir FTTC network in price control period from 2013-2020 and in the period after 2020 when no price control is proposed.



In the following example the inconsistency is illustrated using DSLAMs, as the DSLAM is one of the significant cost elements of WLA VUA service.

✂

90. The cumulative average of the economic depreciation (over the 50 year time period proposed by ComReg) converges over time to ✂ € /month — although the NGA Cost Model shows a higher level for the period 2017-2020 which is the proposed term of the price control.
91. Assuming Assumption 1 and Assumption 2 manifest then the competitive pricing level (as it is outside the price control period) will also converge to ✂ € /month. Note that the above calculations that other factors such as a risk premium on the regulated WACC on the cost modelled are excluded.
92. However, given the period of the price control is 2017-2020 then the higher cost/price of ✂€ /month can only be reasoned as not being relevant (which ComReg has effectively done without justification) if both assumptions actually occur outside the control period. If the first assumption doesn't hold true then the second assumption will lead inevitably to a subsidy between market players; in that “later players” will pay a premium on behalf of the early adopters or, in the more extreme case where the regulated investor attempts to re-balance between demand-side players.
93. The economic theory suggests that network owners are willing to provide their services today on the basis of cumulative average based pricing, as long as the length of the contract (resulting from loyalty programmes in retail propositions, or larger scale commitments in wholesale contracts) makes this reasonable. In a competitive market an efficient network operator will attempt to recover all costs of service provision. If it is impossible to forecast over a longer time period (e.g., in the absence of loyalty agreements or similar contracts), prices have to be set in line with short-medium term forecasts of demand and actual costs.
94. The date of the beginning of the investments (2013) and the end of the proposed price control (2020) comprises an 8-year period. The average economic depreciation of this 8 year period (✂ € /month) is given by the NGA Cost Model. The balance based results for following periods (8 years length has been kept for demonstration purposes) are indicated on the graph below, where “balanced based” expresses the



approach, where the actual balance of costs and revenues have to be collected on the basis of actual usage, therefore double counting of wholesale costs are avoided.

✂

95. The graph above illustrates the higher average cost of service provision in the first phase and a stable, lower level average cost of the later phases, as is normal with economic trends e.g., in maturity curves after pricing of new products. Both the initial assumptions implicitly used by ComReg then become unnecessary, which is useful, as they are unreasonable. In a competitive market users will pay the unit cost for the period of their own usage and there is no need for guaranteed wholesale usage of the network outside of the period of the price control — which is what effectively ComReg have proposed in the Consultation.
96. The analysis in paragraphs 89 – 95 should not be taken to mean that eir agrees with the economic depreciation formulae and methods of calculation that ComReg has applied in their NGA model, eir's observations are limited to considering the reasonable application of cost model's results to pricing.



Question 5: Do you agree with ComReg’s proposed modelling approach for determining the demand and costs inputs associated with the provision of FTTC based VUA, including Remote VUA, Local VUA and EVDSL services? Please provide reasons for your response.

97. For the reasons outlined in our response to Q.4, eir strongly disagrees with ComReg’s view of future demand. The future demand modelling error by ComReg also means that the modelling approach for amortising specific capex investment and fixed costs is flawed. As costs are amortised over volumes that are overstated it has the effect of artificially and wrongly reducing the level of unit prices.
98. The NGA Cost Model also incorrectly defers cost recovery through a time-series of fixed prices throughout the period — whereby full recovery of specific investment is completely and unreasonably delayed to a period where demand uncertainty is at its highest. This is illustrated graphically below.

✂

Source: NGA Cost Model

99. At the level of unit charges and asset lives proposed by ComReg in the NGA Cost Model, the recovery of the investment in VDSL electronics is pushed out to the last decade of the amortisation period (i.e., by 2050). Up to that time the operator is expected to continue to re-invest (to meet the assumed demand) and to do so continuously at a loss. This does not model in any way economically efficient behaviour nor is it a scenario one could reasonably expect to happen in practice. It is more likely than not that FTTH will continue to see growth and substitute for VDSL as the preferred choice of network providers and consumers. As a result, cabinet utilisation will reduce or be bypassed altogether by FTTH networks — with the result that costs will increase for the remaining customers and VDSL assets and the associated costs will become stranded. Quite clearly ComReg has placed an unwarranted uncertainty on how costs will reasonably be recovered and the investing operator remunerated.
100. eir has identified a number of modelling errors in the various models as presented to it as part of the consultation process. In addition, eir fundamentally disagrees with ComReg’s proposed modelling approach for determining the demand and costs inputs. These are discussed further in the separate Annex to this response which is entitled “Review of Cost Models [ComReg 17/26]”.



Question 6: Do you agree with the proposed inputs and assumptions in the NGA Cost Model for determining the costs associated with the provision of FTTC based Bitstream? Please provide reasons for your response.

101. eir does not agree with the proposed inputs and assumptions in the NGA Cost Model for determining the costs associated with the provision of FTTC based Bitstream. eir considers that ComReg has made a series of fundamental errors in the NGA Cost Model.

102. A full itemisation of the issues of concern with the NGA Cost Model is appended to this response as “Review of Cost Models (ComReg 17/26)”. In summary, eir submits that:

✂

103. One of the more fundamental assumptions in the NGA Cost Model is that the costs of operating the access network for FTTC and VDSL services will be the same as those included in the cost model (‘Revised CAM’) used to inform access prices set in ComReg Decision D03/16. Pursuant to ComReg Decision D03/16, operating costs for the access network in the Revised CAM were an average of the three financial years 12/13, 13/14, and 14/15 on the basis that these contained a representative mix of weather events. The service assurance assumed to be deliverable over those three years was ✂% of faults to be cleared within 2 working days. As ComReg is aware eir has recently agreed (with ComReg and members of Industry) a new SLA for ✂% of faults to be cleared within 2 working days. Clearly the operating costs modelled for the access network delivering FTTC and VDSL services must now be increased in the NGA Cost Model to reflect the additional resources required to enable eir’s compliance with the SLA.

104. ComReg has used what they have termed an ‘economic depreciation’ approach to treat the capital amortisation in the NGA Cost Model. This approach is wholly inadequate as it relies on fundamentally flawed assumptions regarding what the future VDSL demand will be. As noted in the CEG report, ComReg’s depreciation approach will prevent eir from recovering its costs given that it is implausible that ComReg will apply the same depreciation calculation over the full 50 year period modelled.



105. Furthermore, eir notes that ComReg has also inconsistently applied the economic depreciation approach in the NGA Cost Model. For instance, the category of “VDSL electronics” is amortised over a 50 year period, taking into account the replacement capital during this period while “aggregation equipment” is amortised over a period equal to the asset life of the ODF. The rationale for this disparity has not been justified by ComReg. Economic reasoning would require assets with expected shorter lives to be recovered quicker than those with longer expected lives. ComReg, in this instance, has effectively applied an approach which is the inverse to this reasoning. In reality, the cabinet plinth (and cabinet cross-connect plant, including duct) is an item solely dedicated to VDSL and has no alternative use once all subscribers connected to the cabinet have migrated to FTTH (including to alternative platforms). On the other hand, after the migration, FTTH will continue to use the same aggregation equipment — so it is logical that an amortisation period no shorter than that of VDSL electronics should be used.
106. ComReg needs to consider shortening significantly the associated lives for the plinth and cross connections and apply a cost recovery mechanism across the board that is consistent with declining VDSL demand.



Question 7: Do you agree with the proposed approach for determining the port rental costs for POTS based FTTC NGA services going forward and the proposed additional port rental price for POTS based FTTC services of €4.96? Please provide reasons for your response.

107. eir does not agree with the approach proposed by ComReg for determining the port rental price for POTS-based FTTC NGA services. The cost basis for pricing POTS-based FTTC NGA services must be consistent with previous ComReg decisions on price control by cost-orientation for access services. Specifically, ComReg Decision D03/16²⁹ which determined that:
- i. where broadband and PSTN services are delivered over a shared copper pair, all of the costs of the copper access network are recovered from the PSTN service³⁰; and
 - ii. the price for wholesale access to the PSTN service is set to recover exactly the national average cost of the copper loops in each year of the price control.
108. For consistency with ComReg Decision D03/16, and to ensure properly attributable recovery, the rental charge for the POTS based FTTC NGA service must not make a contribution to the copper access network costs already recovered from PSTN line rental.
109. The starting point for setting a price controlled by cost-orientation for a POTS-based service must be the cost-oriented price for wholesale access to the PSTN. In this Consultation, ComReg incorrectly starts by modelling only the access network costs specific to the FTTC and EVDSL implementations as stand-alone NGA services and then adding back only the costs of the specific network elements required to add a PSTN capability to the stand-alone VUA. This is inconsistent with the approach recently adopted in ComReg Decision D03/16. In the case of POTS-based EVDSL all of the costs of the VDSL electronics and the costs of the transport to, and use of, the Aggregation Node where the VUA service is handed-off must be recovered from the POTS-based VUA revenue. In the case of POTS-based FTTC there is a small correction required for the double recovery of access network costs between the PSTN rental and the fibre link from the PSTN exchange to the street cabinet — where the same duct carries both that fibre and the E-side pair delivering the PSTN service. The POTS-

²⁹ ComReg 16/39 – “Pricing of Eir’s Wholesale Fixed Access Services”

³⁰ This is also consistent with the previous ComReg Decision on Line Share in ComReg Decision D04/09.



based VUA service rentals must recover all the costs of the VDSL electronics and fibre connection from the DSLAM to the VUA hand-over point.

110. The lack of consistency between a ComReg Decision already in force (i.e., ComReg Decision D03/16) and the proposed Decision arising from this Consultation has the effect of reducing the revenues available to eir from the combinations of PSTN access, POTS-based VUA, and stand-alone VUA to levels below those sufficient to fund the FTTC and eVDSL investment assumed by ComReg in the NGA Cost Model and the investment required to sustain the access network as modelled in the Revised CAM (pursuant to ComReg Decision D03/16). Consequently, the modelling approach used by ComReg is totally inconsistent and contrary to any of the desired regulatory outcomes envisioned by Regulation 6 (1) of the Access Regulations or the requirement under Article 13(1) of the European Access Directive to allow operators a reasonable return on adequate capital employed.
111. Chapter 8 of our consultant CEG's paper sets out in more detail the fundamental errors in the use of access network costs to inform cost-oriented FTTC prices and modelling errors that have been identified to date.



Question 8: Do you agree with ComReg’s preliminary view that a consistent monthly or annual charge should apply for each year of the price control period in relation to the NGA Cost Model and NGN Core Model? Please provide reasons for your response.

112. If ComReg determines that FTTC prices should be cost-oriented (with which eir disagrees), the price control methodology must be consistent with the pricing approach used to determine costs/prices for other wholesale services that are delivered over the open eir access network (see paragraphs 107-108).
113. As these prices are controlled at different monthly or annual charge ceilings for each year of the relevant control period, and as annual movements in these charge ceilings represent movements in the modelled unit costs for access paths, the annual or monthly charge ceilings should be set separately for each year of the price control period. eir’s view of the superiority of annual prices should not be taken to imply agreement by eir that price control by cost-orientation is the appropriate form of price control for any open eir NGA service.



Question 9: Do you agree with ComReg’s preliminary view that the single monthly rental charge for FTTC based VUA (including EVDSL based VUA) should be based on the BU-LRAIC+ methodology generally and Eircom’s Indexed RAB for Reusable Assets in those exchanges where Eircom has deployed active FTTC and EVDSL lines? Please provide reasons for your response.

114. If ComReg determines that FTTC prices should be cost-oriented (with which eir disagrees), the price control methodology must be consistent as appropriate with the pricing approach used to determine costs/prices for other wholesale services that are delivered over the open eir access network (see paragraphs 107-108).
115. There are two distinct cost elements to the VUA services. First, the costs of the VDSL electronics and fibre backhaul to the VUA handover. Second, the costs of the access network path from the VDSL DSLAM to the end-user premises.
116. As the first element results from a recent investment — where the technology is still developing and where future demand is uncertain — if prices are to be controlled by cost-orientation then the BU-LRAIC+ methodology is consistent with the 2013 EC Recommendation. For the second element, where existing access network paths have already been used to deliver PSTN and ADSL Bitstream services and are to be re-used, the appropriate costing methodology is top-down using the historic open eir investment in access network facilities. Only if this approach is used for this element of the service can consistency be established between the price controls proposed here for VUA with the price control determined for PSTN SB-WLR in ComReg Decision D03/16³¹. In particular, this consistency is required to ensure compliance with the key principle of cost recovery stated in paragraph 26 of the 2013 EC Recommendation on costing methodologies.
117. The methodology used to set SB-WLR monthly rental charges in ComReg Decision D03/16 also included some variations from historic cost recovery that align with the same 2013 EC Recommendation for NGA costing methodology. For example, in the treatment of the pole access for rural Ireland ComReg recognised that an accelerated rate of pole replacement would be required in the immediate future and set SB-WLR prices to reflect a higher charge on pole assets as the estate is refreshed. This adjustment to historic costing should be carried forward into any price control

³¹ ComReg Decision D03/16, ComReg 16/39 – “Pricing of Eir’s Wholesale Fixed Access Services”.



by cost-orientation that applies to those open eir NGA services that will replace the SB-WLR service over the price control period.



Question 10: Do you agree that in the exceptional case where Eircom reduces the price for FTTC based VUA that any such reduction should also be reflected in the price for FTTC based Bitstream subject to the price floors requirements in Chapter 12 of this document and ComReg’s regulatory approval? Please provide reasons for your response.

118. There is no need for any price control for FTTC Bitstream once the FTTC VUA price is controlled at cost. See also paragraphs 44-52.
119. In particular, there is no requirement whatsoever for a reduction in open eir VUA prices to require an equivalent regulated reduction in Bitstream port prices.
120. In a scenario where open eir increased the margin or economic space between FTTC VUA and FTTC Bitstream service by reducing FTTC VUA prices those operators with extensive VUA reach would simply arbitrage that margin by offering FTTC Bitstream below open eir rates to other operators without the same reach. This behaviour is consistent with competitive market outcomes and should not create any regulatory concerns.
121. ComReg has not adequately identified the nature of the problem that this regulatory proposal is trying to address. The proposal, that the economic space between WLA services and WCA services should be maintained, is inconsistent with the theoretical “ladder of investment” concept. A lower price for VUA would create a margin that would encourage other operators to move to VUA-based access. This would facilitate the deepest level of competition in the market (and in doing so bring down bitstream prices through competition rather than regulation). ComReg should welcome such outcomes.

Question 11: Do you agree with ComReg’s preliminary view that at the time of the Decision the FTTC based VUA and EVDSL footprint should be locked-in for the purposes of setting the single FTTC based VUA (including EVDSL based VUA) monthly rental price for the entire price control period? Please provide reasons for your response.

122. There are arguments both for, and against, the locking-in of the FTTC and eVDSL footprints for the price control period of a VUA service price capped by cost-orientation. Indeed, the fact that either case can be argued is, in itself, an illustration that the ComReg proposal to regulate VUA prices by cost-orientation is premature, as it highlights the difficulty of applying static regulation to a still developing market.
123. The existing and committed (through the eir agreement with the DCCAE on the rural 300k properties³²) EVDSL and FTTC deployments are the most economic for open eir to reach, and so will give a lower unit cost than modelling a wider footprint arising from a decision to extend the footprint. Therefore, if ComReg set a price based on the unit cost of the locked in footprint it would effectively remove any incentive for open eir to deploy on a wider basis — such provincial areas are less economic than urban areas with higher unit costs. For example, higher unit costs would arise if open eir deployed VDSL at smaller cabinets or in circumstances where it chose to “cabinete” groups of direct fed lines serving premises too distant from their MDF for EVDSL — to deliver a faster service than ADSL.³³
124. Thus to avoid deterring investment, eir considers that there is justifiable reasoning to ensure that the modelled footprint is updated so as to allow eir to recover its efficiently incurred costs, including the cost of deploying to additional areas. However, in order to ensure that eir’s investment decisions are not undermined by lagging regulatory pricing models the underlying model should be updated in a timely manner based on the expected network reach.
125. The unintended consequences of dampening innovation and investment as a result of defining a modelled footprint to set cost-oriented prices highlights that the current proposed approach by ComReg requires re-appraisal. Chapter 3 of Brian Williamson’s supporting paper includes an assessment of the potential benefits of pricing flexibility which is foregone if ComReg imposes cost-orientation. In addition,

³² <http://www.dccae.gov.ie/en-ie/news-and-media/press-releases/Pages/Naughten-finalizes-the-Broadband-Intervention-Map.aspx>

³³ There is also no allowance in the current NGA Cost Model for any such solutions.

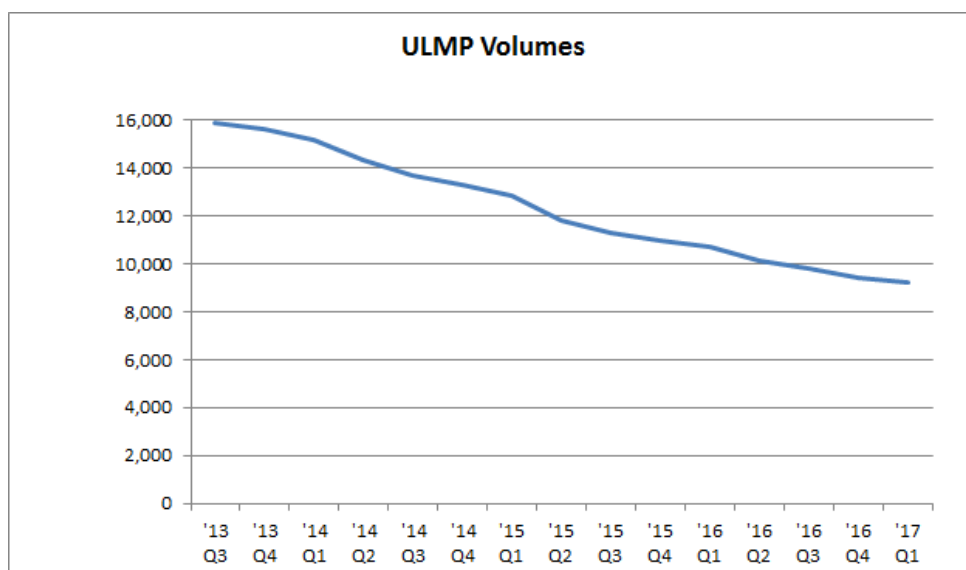


that there are a wider range of options that ComReg has simply not considered or appraised.

Question 12: Do you agree with ComReg’s preliminary views that it is appropriate to maintain a link between the price for FTTC based VUA (including EVDSL) and the price for LLU such that any changes to the underlying costs (e.g., SLU) should be applied consistently to the price of both services? Please provide reasons for your response.

- 126. The costs modelled for LLU (either ULMP or SLU) have no relevance to the setting of a price ceiling for FTTC VUA, where the service is price controlled by cost-orientation.
- 127. Since ComReg’s Decision D03/16 the price ceiling for the anchor wholesale service SB-WLR PSTN has been set to recover the national averaged cost of all the access paths in service in the relevant year of the price control period. As this service is either sold alongside POTS-based FTTC VUA, or replaced by stand-alone FTTC VUA, consistency with SB-WLR price control (pursuant to ComReg Decision D03/16) when imposing cost-orientation is necessary to ensure cost recovery sufficient for open eir to operate and re-invest in the national access network.
- 128. It appears from paragraph 7.58 of the Consultation that ComReg is attempting to encourage LLU investment and they believe that “investment in LLU should continue to be incentivised”. This approach is misguided and it is abundantly clear from ComReg’s own quarterly published data that LLU is a dying product in which investment has effectively ceased long ago. By way of illustration, Figure 7 shows ComReg’s published ULMP volumes since mid-2013. In that time the consistent pattern has been a steady decline, with the overall decrease in the period approaching 50%.

Figure 7: Declining ULMP volumes





129. The only possible role for a link between ULMP and EVDSL on the one hand, and between SLU and FTTC on the other, is to ensure that VUA prices are not set so low as to preclude an efficient unbundling operator being able to deploy its own VDSL electronics in open eir exchanges or at open eir street cabinets.
130. While it is technically relatively straightforward for an existing ULMP operator to provide its own eVDSL service using open eir ULMP, the reach of the technology, when compared with ADSL, is such as to have a seriously adverse effect on the economics of the investment.
131. The use of SLU and VDSL located adjacent to open eir street cabinets faces even more challenging economics due to the relatively small capacity of open eir cabinets (by lines served) together with the long average length of distribution loop lengths beyond these street cabinets.
132. Therefore, while there is a hypothetical requirement for the consideration of SLU and ULMP prices in setting floors for VUA services, it is clear that the high fixed cost per cabinet, or high fixed cost per exchange in relation to the limited reach of VDSL technology, cannot lead to an efficient investment by a new entrant in Ireland.



Question 13: Do you agree with ComReg’s preliminary view that the monthly rental charge for FTTC based Bitstream should be based on the BU-LRAIC+ methodology and Eircom’s Indexed RAB applied to Reusable Assets based on those Local VUA sites yet to be unbundled in the Regional WCA Market and with an adjustment to Bitstream specific costs to reflect the scale of a hypothetical SEO with a 25% retail broadband market share? Please provide reasons for your response.

133. Contrary to ComReg’s preliminary market analysis findings, eir does not believe there is any evidence of SMP in the market for FTTC based Bitstream (see paragraph 45). Consequently, discussion of the appropriate costing methodologies for modelling the costs of conveying Bitstream traffic from the VUA access path to the Bitstream interconnection point is not relevant to the current Consultation.
134. In paragraphs 7.79 to 7.84 of the Consultation, ComReg considers that Bitstream prices should be based on the higher costs of conveyance from the local VUA sites “yet to be unbundled”. In doing so, ComReg has implicitly recognised that in those VUA sites that have been already connected to OAO networks the demand for FTTC Bitstream has dropped to miniscule levels and the only significant remaining demand for FTTC Bitstream traffic is at the “yet to be unbundled” sites. Therefore, eir agrees that if price control by cost-orientation were appropriate, which it does not, that the remaining Bitstream demand on the open eir network is appropriate demand for use in calculating the unit cost. eir does not consider that it is appropriate for both the bitstream specific costs of backhaul and the WEILs costs to be adjusted for a hypothetical SEO with a 25% retail broadband share. That might be appropriate for a price floor to protect an operator building their own backhaul to take VUA and self-provide Bitstream but in this case (as eir does not consider there is any evidence of SMP in the market for FTTC Bitstream) such a methodology is unwarranted.
135. Finally, there is an error in the NGA Cost Model used to calculate the cost/price of NGA Bitstream port. ✕.



Question 14: Do you agree with ComReg’s preliminary view that the FTTC based Bitstream footprint should be locked-in at the date of the Decision for the purposes of setting the FTTC based Bitstream monthly rental price in the Regional WCA Market for the entire price control period? Please provide reasons for your response.

136. eir does not consider that there is any requirement for a price control for the FTTC-based Bitstream monthly rental price in any geographic part of the market.
137. As set out in paragraph 45, where NGA VUA prices are controlled nationally the limited requirements for VUA interconnects, together with competition in the market for MI WHQA, ensures competition in the market for NGA Bitstream in general, and for FTTC Bitstream in particular. On this basis there is no economic or competitive need to lock in the price of the FTTC based footprint.
138. See also paragraph 122.



Question 15: Do you agree that in exceptional cases only Eircom should be allowed to reduce the price for FTTC based Bitstream so long as any such reduction is reflected in the price for FTTC based VUA (in order to maintain a sufficient economic space between the two services) and subject to the price floor requirements in Chapter 12 of this document and ComReg’s regulatory approval? Please provide reasons for your response.

139. Contrary to ComReg’s preliminary market analysis findings, eir does not believe there is any evidence of SMP in the market for FTTC based Bitstream. As the market for FTTC based Bitstream is fully competitive there is no requirement for any form of ex ante price control. See also paragraph 137.
140. eir considers that ComReg’s reasoning for requiring a regulatory approval mechanism is, in itself, evidence that ComReg has prematurely moved to cost-orientation for FTTC-based NGA services. In particular, no sooner has ComReg imposed a cost-orientation obligation but it also needs to make provisions to allow a break in the price path due to unknown future market conditions and outcomes.
141. Moreover, a restriction on eir’s ability to price below the regulated bitstream price would undermine eir’s legitimate ability to compete. ComReg proposes to deliberately set the bitstream price at a level above eir’s costs including by reference to an SEO operator with a 25% share and based on the average costs of all sites yet to be unbundled. eir should be allowed to compete with other infrastructures and with VUA-based competitors by having the flexibility to price down to its costs. If eir sets bitstream prices which do not have the inflated bitstream elements that ComReg propose then there is no reason as to why FTTC based VUA prices should be reduced.
142. eir submits that there are other effective and sufficient options available to ComReg, including relying on ex-post competition law, to ensure appropriate wholesale prices are maintained between different platforms and technologies, which would better meet ComReg’s regulatory objectives.
143. See also paragraph 379-396.



Question 16: Do you agree with the proposed principles, inputs and assumptions in the NGN Core Model for determining the costs associated with the provision of broadband services? Please provide reasons for your response.

145. eir does not consider that the NGN Core Model is fit for purpose for the costing of active broadband services. There are two main errors in the current ComReg modelling approach:
- i. it is based on overstated total customer demand (see Annex “Review of Cost Models (ComReg 17/26)”), where ComReg has effectively downplayed the impact of emerging platform and other competition; and
 - ii. it is based on overstated use of eir’s core network, as ComReg has not considered migration to VUA broadband services. When wholesale customers move FTTC/eVDSL demand from Bitstream to VUA and provide their own backhaul the traffic disappears from the open eir’s Next Generation Network (‘NGN’). The cost model presented by ComReg has failed to make this adjustment and so generates lower unit costs (through excessive traffic volumes) than can be achieved with actual demand levels on the open eir NGN.
146. In respect of the second error, ComReg has also failed to calculate the effect that VUA will have in reducing the use of the higher layers of the core network (i.e., beyond the aggregation nodes). This fundamental omission is difficult to understand. VUA now represents \approx % of the total NGA broadband base and eir expects this trend to continue. As OAOs are able to self-supply backhaul or resort to alternative backhaul providers (as identified by ComReg market analysis consultation 16/96), the level of core network consumption implied is significantly overstated. In effect, ComReg has modelled unit costs for all network elements on the basis of peak bandwidth consumption. However, the use of VUA implies that demand for the higher layers of the core network will be far lower than peak capacity. This issue should be resolved once ComReg correct the modelling errors evident in the routing factors and service mixes — which currently generate unachievable component volumes.
147. Furthermore, in modelling the demand/use of eir’s core network ComReg has omitted two further important market developments. First, the regional handover product will reduce demand for the higher layers of the core network and therefore impacts on



the cost for national handover. Second, the forecast split of broadband traffic between retail and wholesale is set on the basis of 2014 figures.³⁴ However, the retail base has had a relative decline since then (↘). Therefore, the forecast split should be based on a continuing relative decline of the retail base and reduced use of the core network, as a result of VUA or regional handover.

148. Finally, eir categorically disagrees with a number of ComReg’s proposed principles, inputs and assumptions in the NGN Core Model. These are discussed in the Annex attached to this document as “Review of cost models (ComReg 17/26)”.

³⁴ ↘.

Question 17: Do you agree with ComReg’s preliminary view that traffic costs on the core network should be allocated based on revenue per user (option 3 above)? Please provide reasons for your response.

149. eir agrees with the ComReg preliminary view that an allocation of capital costs based on service revenues is a reasonable approach. When incremental costs associated with multi-use platforms are very low there is a risk of arbitrary allocation rules producing inefficient outcomes — particular for nascent services where demand for such services may be very sensitive to price. Of the options proposed by ComReg, eir considers that an allocation rule based on revenue is the one which is most likely to minimise this risk. However, eir has identified a number of concerns regarding ComReg’s approach which require further consideration. See paragraphs 150-152.
150. ComReg has implemented an allocation rule in the model, based on revenue per line calculated from eir’s Regulatory Accounts for FY 2015/16. ComReg has assumed that the customer ‘willingness to pay’ for broadband, voice or leased lines is unaffected thereafter. Changes in the allocation of fixed costs result then only from changes in the number of lines for each of these service groupings and not from changes in traffic³⁵.
151. A forward-looking view would suggest that the present trend, by which telecommunication service providers are becoming increasingly broadband-centric, will continue, such that:
- a. The ‘willingness to pay’ for voice services will decrease and therefore voice services’ ability to be the revenue anchor will reduce significantly.
 - b. As broadband and leased lines converge in terms of line speed business users will only pay the price premium for leased lines when their systems and processes require service availability and consistency of performance not available from mass market access products.
152. Applying a revenue-based rule risks embedding circularity in the structure of revenues which undermines eir’s pricing flexibility in the context of this trend. For example, all leased line pricing has not been reviewed in seven years while the

³⁵ ComReg, Consultation, section 8.1.2.1.



market has become competitive. Reductions in leased line prices by open eir to attain and retain market share means that a revenue-based approach will result in a higher share of the fixed costs of the NGN transferring to the Bitstream and call conveyance services and will raise the unit costs for both. As the Bitstream market is already competitive, open eir will be unable to raise prices without losing further share, leaving an increasing share to be recovered from declining call volumes. Call termination is already priced at pure LRIC (i.e., revenues make no contribution to fixed indirect or common costs). These combined effects will require compounded increases in the network costs that can only be recovered from call origination and call transit. As illustrated in **Error! Reference source not found.**, volumes of call origination and call transit continue to decline at about \approx % per annum, (with increasing use of over-the-top services), so requiring greater cost recovery from call conveyance will run a high risk of increasing well beyond the willingness of the market to pay. This simple realistic example highlights the need for ComReg to develop a correction mechanism to ensure that the allocation of fixed network costs in proportion to revenues ensures legitimate cost recovery while also avoiding excessive price instability. Such adjustments are better addressed by commercial operators making timely decisions as opposed to static regulatory reviews and decisions.

\approx



Question 18: Do you agree with ComReg’s preliminary view that the monthly price for current generation Bitstream and BMB services should be based on the average BU-LRAIC+ costs across the Regional WCA Market as set out in Figure 31 (for 2017/18) and in Figure 37 (of Chapter 14) for each year of the proposed price control period? Please provide reasons for your response.

153. eir does not agree that BU-LRAIC+ methodology is appropriate to inform the price control for CGA in the Regional WCA Market.
154. To the extent that price control is imposed in the Regional WCA market, eir believes that it is important to ensure that the prices are set so as to recover the costs of the services supplied. Should a single price be imposed in the Regional WCA market this should be based on the expected mix of take-up between Regional Areas 1 and 2, noting that ComReg itself expects less use of bitstream in Regional Area 1 as rival infrastructures and competition based on VUA-access develops. This competition will itself drive prices to actual costs in Regional Area 1.
155. See paragraphs 71-75.



Question 19: Do you consider that a price floor for CGA Bitstream services is no longer required for the proposed price control period given the declining demand in CGA investment? Please provide reasons for your response.

156. eir agrees that the price floor is no longer required. ComReg's quarterly data shows the demand for CGA service in the LLU footprint is rapidly declining due to migration to NGA.

✂

157. The purpose of the price floor was to provide a safeguard to encourage LLU investment. Investment in LLU has fully taken place more than ten years ago and the proportion of CGA services delivered is declining in the presence of open eir, Virgin Media and Siro's FTTH investment. Consequently, the CGA price floor no longer has a role in protecting efficient investments or preventing foreclosure in relevant markets.

158. As ComReg notes (paragraph 9.48 of the Consultation) the price floor could end up being above eir's costs. Furthermore, the imposition of a price floor for CGA Bitstream services would not be proportionate and therefore not consistent with Regulation 8 (6) of the Access Regulations. eir would be the only operator to which the CGA Bitstream floor would apply, against the backdrop of a competitive Urban WCA market, coupled with competing network operators in alternative technologies such as cable, FTTH and wireless. Consequently, it would be disproportionate to continue to apply such a price control on eir when other operators are only restricted by behavioural constraints imposed by the threat of ex-post competition law. A price floor could result in higher prices for end-customers and restrict eir's legitimate ability to compete with other infrastructure-based rivals.

159. Given the decline in demand for CGA investment it is unclear what the nature of the problem is that ComReg would be trying to remedy. Any residual risk of pricing falling below an efficient cost floor can be adequately addressed by ex-post competition law.

160. This is also considered in section 6.2 of the CEG's paper.

Question 20: If you consider that a price floor for CGA services is appropriate, do you agree with ComReg's preliminary view on the margin squeeze assumptions and the indicative price floors (for 2017/18) for current generation Bitstream services from the NGN Core Model? Please provide reasons for your response.

161. eir does not consider that a price floor is appropriate. If a price floor is retained, it should be based on the EEO costs calculated with reference to eir's actual historical costs, eir's market share and eir's relevant footprint. There is no basis to require eir to price above its actual costs. Requiring customers to pay more than this would only make sense if it were expected to generate additional competition that delivers substantially lower prices in the future. However, ComReg acknowledges that new competition based on CGA LLU and line share is unlikely.



Question 21: Do you consider that the price points for CGA Bitstream and BMB services should be set based on Eircom’s BU-LRAIC+ costs or the BU-LRAIC+ costs of a REO, i.e., the price floors? Please provide reasons for your response.

162. eir does not consider that a price point or price floor is appropriate.
163. In the presence of Virgin Media, eir, and Siro investments in NGA the demand for open eir CGA Bitstream and BMB services is in steady decline. See also eir’s response to Question 2.
164. As identified by ComReg there is a declining demand for CGA investment and “*that fixed line network operators in Ireland have been focused on investing in NGA infrastructure rather than CGA in recent years and this trend is expected to continue for the duration of the price control period*”.³⁶ Against that backdrop, the use of an REO cost base would not promote efficiency, would not lead to sustainable competition or maximise benefits to end-users. Consequently, an REO approach is inconsistent with ComReg’s objectives, see Regulation 6(1) of the Access Regulations, as well as Regulation 8 (6) (a) and (b) which require ComReg to impose proportionate and objectively justifiable remedies which are based on the nature of the problem identified.

³⁶ ComReg, Consultation, paragraph 9.47.

Question 22: Do you agree with ComReg's preliminary views regarding the principles of the wholesale margin squeeze test between FTTH based VUA and FTTH based Bitstream? Please provide reasons for your response.

165. eir disagrees that there is any justification for a MST between FTTH-based VUA and FTTH-based Bitstream. It is abundantly clear at this stage, given not least the uptake in VDSL VUA, that the core network is a competitive network. **Error! Reference source not found.** illustrates that in the past 2 years the proportion of NGA sold by open eir as VUA has risen from just over 30% to almost 40%. The shift from VDSL to FTTH will not change the competitive dynamic between local traffic handoff and national handoff. It will likely strengthen it as higher data traffic volumes become available to contribute to backhaul costs. Hence, eir considers that FTTH VUA uptake will show in the future a similar trend to VDSL in the declining relevance of Bitstream. The proposed MST is not needed to support competitors' bitstream offerings and imposing the test on eir will unduly restrict its legitimate ability to compete.

30

166. eir does not agree with a number of ComReg's preliminary views on the principles and assumptions used in both the wholesale MSTs proposed in Chapter 10 of the Consultation.

167. In particular, eir considers that ComReg has:

- a. proposed a wholesale remedy in the WLA market which it has not consulted on transparently or in sufficient detail;
- b. used the wrong values in the wholesale NGA MST model;
- c. proposed an operator cost base which is inconsistent with the competition issues identified;
- d. failed to fully justify the proposed portfolio approach including relying on flawed justification (although eir agrees that a portfolio approach is correct); and
- e. failed to consider the regulatory implications of proposing cost-orientation for the different profile speeds of FTTH-based VUA.



Failed to transparently consult on a wholesale remedy

168. ComReg is proposing to concurrently apply a further wholesale pricing obligation which will only exert influence on current generation standalone broadband (see paragraph 174) by providing that a “*price at which Eircom sells or offers a Downstream Wholesale Service [in this case Stand Alone Broadband (“SABB”)] must be greater than the sum of: (i) ULMP costs and (ii) the unavoidable costs of a reasonably efficient operator that must be incurred in order to provide a service equivalent to the relevant Downstream Wholesale Service*”³⁷.
169. As the proposed remedy is included by ComReg in Chapter 10 of the Consultation, eir assumes that this proposed test is to be set in the WLA Market. However, the proposed obligation is not specified in either the WLA or WCA Draft Decision Instruments.
170. The pricing obligation under which this was previously considered appropriate was pursuant to a 2010 WLA market analysis Decision and has not been appropriately justified in the context of the updated ComReg 16/96 market analysis Consultation.
171. Furthermore, ComReg has failed in the Consultation to consult transparently on the proposed parameters of such a test. eir considers that, while such a test has been used in past regulatory Decisions, it cannot simply be carried forward as part of a new market analysis Consultation without fully consulting on the how such a test will operate, or without considering in the market analysis if such a test remains appropriate. As the parameters of the proposed MST have not been transparently consulted on, eir reserves its future rights to submit further views on the appropriateness of and methodologies used in such a test.
172. Furthermore, while ComReg has proposed an ex-ante regulatory pricing obligation to address its concern of foreclosure of full LLU (also known as ULMP), it has not given any consideration to the effectiveness of ex-post competition law in addressing this risk. While ComReg’s market analysis consultation (ComReg 16/96) does briefly consider ex-post competition law vis-à-vis ex-ante regulation, it only does so in the context of preventing excessive increases in wholesale prices. This does not apply in the current context, as prices for LLU services are required to be cost-oriented by

³⁷ ComReg, Consultation, paragraph 10.16.



ComReg (i.e., by their definition cannot be excessive and are prices which can only be changed with supporting cost models).

173. Considering ComReg's concern of foreclosure is one of the central issues underpinning the justification for a price/margin squeeze test in competition law, ComReg has not fully consulted on and assessed the options based on the nature of the hypothetical problem identified. eir submits that ComReg should fully consult on all the regulatory options available.
174. Furthermore, it is important to highlight that while the proposed test may be anchored in the WLA market (see paragraph 169) it is only extending a pricing obligation into the WCA market as the price of LLU is fixed by cost-orientation. The WCA market includes both the Urban WCA market (which is now proposed to be deregulated) and the Regional WCA market. Given that the Urban WCA market is assessed in ComReg's consultation 16/96 to be competitive and therefore not subject to SMP regulation, and bearing in mind that LLU cost-oriented, it is surprising that ComReg has not undertaken a wider assessment of other options that might also meet its objectives, and in particular assessed whether ex-post competition law would be a sufficient safeguard.
175. More particularly, it is unclear to eir how the assumed REO cost base used in the Urban WCA market will protect operators that have invested in VUA from other operators in the competitive Bitstream market which do not face such an ex-ante MST, and therefore are only restricted by behavioural constraints imposed by the threat of ex-post competition law.
176. Consequently, in proposing such an ex-ante MST, ComReg is being unduly discriminatory against eir and therefore is acting inconsistently with Regulation 16(2) of the Framework Regulations — in that such a test will only apply to eir, despite there being no SMP in the Urban WCA market. The inappropriate application of the ex-ante MST is further compounded by ComReg's proposed use of an REO cost base.

Used incorrect values in the model

177. eir does not consider that there is any requirement for a price control for the FTTC-based Bitstream monthly rental price in any geographic part of the market.



178. The wholesale MST model, as presented to eir as part of the materials shared by ComReg on publication of the Consultation, does not calculate the FTTH-based VUA cost correctly. ✗.

Applied an incorrect assumed operator cost base

179. ComReg is of the preliminary view that an REO cost base should be used in the calculating the cost of backhauling the traffic. eir does not agree.
180. In this context, it is important to highlight that the proposed test, while anchored in ComReg’s Decision Instrument in the WLA market, is, in effect, influencing open eir prices in the WCA market. See paragraph 174.
181. Furthermore, as the relevant parts of the Leased Lines markets are now competitive the purchaser of VUA access to open eir FTTC/EVDSL and FTTH can self-provide and sell on NGA Bitstream. This means that there is a fully competitive market for NGA Bitstream and the nature of the MSTs directed must recognise this. An REO approach is not needed to ensure competitive bitstream services and imposing such an approach would simply harm eir’s ability to compete.
182. In designing an ex-ante regulatory remedy across different levels of the value chain in two horizontally related wholesale markets — one of which contains a geographic footprint which has been identified by ComReg as not having SMP — there is a real risk that the level of regulatory complexity in restricting eir’s pricing will create unintended and poor regulatory outcomes. By failing to complete a RIA of the proposed measure, ComReg has not identified the potential and very serious implications of such a proposal, in particular considering the potential consequences of such a remedy on eir in the WLA and WCA markets.

The portfolio approach, while correct, is incorrectly justified

183. ComReg is of the preliminary view that a single FTTH-based VUA price is assessed against a portfolio of FTTH-based Bitstream prices (which can have different profile speeds). ComReg justifies this approach, not on the basis of the pricing flexibility that such a methodology could allow, but because in their view there should only be one single wholesale FTTH-based VUA price (except where justifiable cost differences arise for different profile speeds). Furthermore, ComReg states that this “is consistent with the fact that the VUA product mandated in the WLA Market is an



*unlimited / unrestricted product in terms of speed*³⁸. While eir agrees that a portfolio approach is correct it does not agree with how ComReg has arrived at this preliminary view.

184. First, the fact that VUA is mandated in the WLA market at an unlimited / unrestricted speed is not the same as there being a requirement to price all speed profiles at the same level. This is similar in the Leased Lines market where there is no provision to provide an unlimited / unrestricted product. However, ComReg has not imposed such a collapsed pricing structure based on cost. Indeed, as there is a market appetite to pay different prices depending on the capacity of the leased line, eir applies a gradient approach to its pricing structure which trends towards a higher price for higher capacity circuits — but that does not necessarily strictly adhere to the difference in cost of supplying different capacity circuits. Such a form of demand-led pricing, where similar services are transacted at different prices by the same provider, increases customer demand overall and therefore allows for an allocation of costs to different groups of customers depending on their willingness to pay (i.e., a Ramsey-Boiteux pricing approach).
185. Similarly, in seeking to impose cost-oriented prices for bitstream, ComReg has in the past, and proposes to do so in this Consultation, set the price levels at which eir sells bitstream (CGA or NGA) but does not impose obligations upon eir on the absolute structure of price at which it sells bitstream. In other words, eir is free to construct its price as it sees commercially appropriate (e.g., in setting a separate port (fixed) and usage (variable) charges) provided that, in absolute terms, such a costing structure recovers eir's costs.³⁹ As such, it is unclear why ComReg has not applied a consistent approach between different markets — in particular as the question as how best to recover large fixed network investment costs is the same for all markets.
186. Second, a portfolio approach recognises that operators are competing in the market as a whole and not just based on margins for a single FTTH variant. As such, a MST at a level that is more disaggregated than the level at which exclusion could occur is not economically sound or justified in the context of ComReg's regulatory concern of foreclosure in the market (i.e., the market is at an aggregated level). The test should

³⁸ ComReg, Consultation, paragraph 10.16.

³⁹ It is important to note that FTTH-based services to which this proposal relates are proposed to be subject to a margin-squeeze and not cost-orientation.



be carried out at the levels at which entry and exit decisions are made (i.e., at the portfolio level). Competition in the market takes place across the full range of broadband speeds, irrespective of whether or not there are different wholesale input prices/costs, provided that there is a positive margin at the portfolio level it means that the firm's activities are making a contribution towards profits and are not in any danger of being foreclosed.

187. Third, a more disaggregated test is inappropriate as it requires eir to provide unwarranted headroom to firms that elect to compete in the market. This would be inconsistent with Regulation 8(6) of the Access Regulations, which requires ComReg to impose remedies based on the nature of the problem identified which in this case is the risk of foreclosure in the market generally and not at the individual service level. In addition, a more disaggregated test would not be proportionate or justified, as eir's competitors do not make investment decisions based on an inefficiently narrow range of services (see also Regulation 8(6)).
188. eir considers, that if there is to be a MST, which is not agreed, an overall portfolio approach (irrespective of different prices for different profile speeds) between FTTH-based VUA and FTTH-based Bitstream is appropriate. Such an approach is:
- i. consistent with the fact that entry and expansion decisions are made at the overall market level,
 - ii. more proportionate as the test more closely follows the commercial decisions and therefore competitive market outcomes;
 - iii. removes unwarranted windfall regulatory gains from other operators that would otherwise emerge if each profile speed is required to pass a MST; and
 - iv. ultimately maximising the benefits attained by end-users as the market will tend towards competitive market outcomes competing on price and quality.

Unjustified cost-orientation obligation of VUA profile speeds

189. ComReg is of the preliminary view that there should be a single wholesale FTTH-based VUA price except where justifiable cost differences arise. eir does not agree.
190. ComReg has failed entirely as part of its proposal to set out the purported problem it is seeking to remedy. By doing so, it has departed from its own regulatory framework



and, in particular, Regulation 8(6) of the Access Regulations which requires it to impose remedies only based on the nature of the problem identified.

191. Furthermore, as a result of failing to identify the underlying problem, ComReg has also failed to set out transparently what the proposed obligation is intended to achieve. By failing to complete a RIA of the proposed measure, ComReg has not identified the potential and very serious implications of such a proposal. Had ComReg done so it would have been apparent that such a proposal falls significantly short of promoting ComReg’s objectives as set out in Regulation 6(1) of the Access Regulations, in that it fails to promote efficiency, competition, efficient investment and innovation, or to maximise benefit to end-users. These failings are discussed in the following paragraphs 192-197.
192. First, throughout the Consultation ComReg re-iterates its desire to strike the right balance “*between ensuring Eircom’s recovery of costs while it should also send the appropriate investment signals to Eircom and other operators for efficient infrastructure investment*”⁴⁰. This proposed remedy does not achieve such outcomes — as it may not allow eir to recover its high-risk investment in FTTH deployment. ✕
193. Even by ComReg’s own admission, in paragraph 10.19 of the Consultation, there is “*uncertainty regarding the precise estimation of costs and the penetration levels for FTTH based VUA services*”. As such, appropriate pricing flexibility is required by eir to continue to test demand elasticity based on profile speeds — such that some form of pricing differentiation can be implemented which achieves the optimum balance of demand and cost recovery. This, of course is a feature of the current open eir, and eir retail, pricing of FTTH services. The 2013 EC Recommendation also proposes that non-linear wholesale pricing is appropriate to better reconcile investment and competition than linear wholesale pricing.
194. Restricting eir’s VUA price to a single price point (as there is little, if any, costs difference in providing higher profile speeds) limits such efficient optimum price recovery structures. In this case, where network roll-out costs are mainly fixed and vary very slightly when traffic/speed increases, the relevant question is how to allocate costs between the different customers — the possibility of which ComReg has, in effect, eliminated. While open eir’s pricing structure may also not guarantee

⁴⁰ ComReg, Consultation, paragraph 10.16.



cost recovery, in light of the demand uncertainties — open eir is best placed to manage that commercial risk and adjust the price/speed gradient accordingly.

195. Due to the failure of ComReg to undertake any economic analysis and assessment of pricing recovery methodologies — which is in stark contrast to the assessment ComReg undertook with TERA Consultants in considering the potential pricing methodologies for Bitstream Managed Backhaul pricing in 2014⁴¹ — the risk of regulatory intervention, leading to poor market outcomes, has been increased. Furthermore, the 2013 EC Recommendation states that “...pricing flexibility at wholesale level is necessary to allow both the access seeker and the SMP operator’s retail business to introduce price differentiation on the retail broadband market in order to better address consumer preferences and foster penetration of very high-speed broadband services”.⁴²
196. Second, the price of VUA will intrinsically affect the prices that can be charged for retail services. If there is a single VUA price for all profile speeds, a retail operator may try to gain market share by pricing very high bandwidth speeds at very low retail prices. This scenario may equally manifest in the wholesale market for NGA Bitstream, where an operator purchasing local and/or remote VUA acts as an aggregator and passes through the lower wholesale charges for higher profile speeds. This “de facto” market price (both at the retail and wholesale level) will then determine or restrict the demand and prices for alternative profile speeds, and therefore the ability to generate margins from services supplied using the new network by eir is reduced. This raises a significant question as to what incentives there are for eir to continue to invest in its network infrastructure if the ability to earn a fair return is truncated and restricted by regulatory Decisions.
197. Third, the cost of VUA affects the “build or buy” signal. The lower the cost of VUA the less attractive it is to build an alternative network. ComReg’s proposal explicitly makes it too easy for operators to rely on open eir’s network and therefore the investment incentives to build an alternative network are dampened. This point is also raised in Virgin Media’s response to the ComReg 16/96 market analysis consultation in response to ComReg’s proposal to move NGA FTTC pricing to cost-orientation. As

⁴¹ https://www.comreg.ie/media/dlm_uploads/2015/12/ComReg14116a.pdf

⁴² 2013 EC Recommendation, paragraph 49.



such, it is clear that ComReg’s proposal will not only impact eir’s, but also other operators’, investment decisions. Consequently, ComReg has also failed to take account of Regulation 13 (3) of the Access Regulations in forming its preliminary view.

198. eir considers pricing of FTTH VUA-based services for different profile speeds should be demand-led and that, by allowing eir pricing flexibility to undertake a pricing differentiation strategy, it will better meet ComReg’s regulatory objectives, as it:
- i. preserves the investment incentives faced by competitors to eir. In particular, it ensures that the appropriate “build or buy” signals are maintained.
 - ii. preserves the long-term network investment incentives faced by eir, by allowing eir the pricing flexibility to manage its own commercial risk.
 - iii. recognises that there is already countervailing buying power in the retail market (which is the litmus test as to how much consumers are willing to pay for different profile speeds) and in the wholesale market by Siro as an alternative FTTH network provider.
 - iv. maximises benefits to end-users, by not distorting investment decisions. The market will be allowed to be demand-led and should result in better innovation and lower consumer prices as pricing elasticities evolve as the market matures.
 - v. is consistent with the 2013 EC Recommendation.

Other considerations

199. ComReg is of the preliminary view that a LRAIC+ cost standard is appropriate to use in the test. eir agrees. A LRAIC+ methodology is based on current costs and values the operator’s assets at the current market value — allowing for changes in asset prices. By linking the value of the assets to today’s market value it maintains efficient investment incentives over time and ensures recovery of future costs. This sets an appropriate “build buy” signal for both eir and other operators. In addition, the use of a LRAIC+ cost standard is consistent with the 2013 EC Recommendation.
200. ComReg is of the preliminary view that assets relevant for the FTTH margin squeeze obligation are not a part of the access network and therefore should not be subject



to a risk premium. As FTTH is not proposed to be cost-oriented then a risk-premium is not necessary to include.

201. ComReg is of the preliminary view that a 25% market share is appropriate to use in the test. eir agrees. As identified by ComReg, a market share of 25% is more consistent with the objective of incentivising infrastructure-based competition with more than 2 operators. At this time, there are two operators with substantial backhaul requirements and their combined demand is such that \approx 25% of open eir NGA sales is VUA rather than Bitstream. So, in order to encourage any additional investment in VUA reach, the margin test should use 25% — representing the share that an efficient further entrant might target over the period of the control.

Question 23: Do you agree with ComReg’s preliminary views regarding the principles of the margin squeeze test between the price of WLA services in the footprint corresponding to the Urban WCA Market and retail services provided by way of WLA inputs in the footprint corresponding to the Urban WCA Market? Please provide reasons for your response.

202. When the underlying WLA input in either the CGA or NGA form of broadband access is subject to price control by cost-orientation all downstream ex-ante MSTs should be removed. There is no economic reason once there is cost-orientation to also have MSTs — given that it require loss-making retail prices below cost with no reasonable prospect of recoupment. Therefore, both the general principle relating to the national WCA market and the principle particular to the Urban element of that market are misapplied. As evident from CEG’s supporting paper to eir’s submission, ComReg’s proposal to concurrently impose both cost-orientation and MST at the retail level is in stark contrast to European regulatory precedents — which is even more severe considering eir’s relatively low retail market share compared to that of other European incumbents. The UK regulator, Ofcom, has also recently noted that a MST should be removed once there is cost-oriented wholesale prices.

203. eir does not agree with a number of ComReg’s preliminary views on the principles and assumptions in the retail MST between WLA services and retail services corresponding to the Urban WCA Market. In particular, eir considers that ComReg has:

- a. failed to consider all the regulatory options available, including not considering the effectiveness of ex-post competition law in addressing ComReg’s concerns regarding foreclosure;
- b. relied on an erroneous view that a retail MST is required as a preventative measure of foreclosure, notwithstanding that due to proposed concurrent SMP pricing remedies eir does not have the ability to successfully undertake such a strategy;
- c. not consulted transparently on the proposed wholesale services included in the proposed CGA retail MST and WLA services;
- d. failed to fully justify the proposed operator cost base, although eir agrees that the ComReg’s preliminary view to use the EEO cost base is correct;



- e. applied the MST at the incorrect portfolio level and applied too high a cost standard in each of the retail MSTs;
- f. failed to consult on the different operator types that could be used in the DCF model; and
- g. proposed a test without allowing for an effects-based analysis of whether eir's pricing could lead to actual foreclosure — for which the assessment period has not been specified or consulted on.

ComReg has not considered all the regulatory options available

204. In this Consultation, ComReg proposes to implement a retail MST between WLA services and retail services corresponding to the Urban WCA Market as “ComReg is concerned that Eircom could price its retail broadband services in those areas corresponding to the Urban WCA Market in such a way that it could foreclose other operators using WLA wholesale inputs (e.g., LLU or VUA) in similar geographic areas by way of a margin squeeze”.⁴³
205. However, while ComReg has presented this high-level theoretical economic concept and has proposed an ex-ante regulatory pricing obligation to address this concern, it has not given any consideration to the effectiveness of ex-post competition law in addressing this risk. While ComReg's market analysis Consultation (ComReg 16/96) does briefly consider ex-post competition law vis-à-vis ex-ante regulation it only does so in the context of preventing excessive increases in wholesale prices which in the context of this Consultation can only apply to FTTH-based VUA services — as this is the only WLA service which is not proposed to be cost-oriented by ComReg (i.e., by their definition cost-oriented wholesale prices cannot be excessive and are prices which can only be changed with supporting cost models).
206. Considering ComReg's concern of foreclosure is one of the central issues underpinning price/margin squeeze in ex-post competition law, ComReg has not fully consulted upon and assessed the options based on the nature of the problem identified. Particularly given that the Urban WCA market is assessed in ComReg 16/96 to be competitive and not subject to SMP regulation, and given that both LLU and FTTC VUA are proposed to be cost-oriented, and keeping in mind the fact that

⁴³ ComReg, Consultation, paragraph 10.53.



the relevant retail market shares indicate that it is highly unlikely that any operator will have SMP in the retail market, it is surprising to eir that ComReg has not undertaken an adequate assessment of other less intrusive options that might also meet its objectives.

207. eir submits that ComReg should fully consult on all the regulatory options available. ComReg has traditionally argued, although not in this Consultation, that competition law is inadequate “as it requires an ex-post assessment after any alleged anti-competitive practice has occurred and therefore such an assessment may be too late to prevent competition and efficient infrastructure investment being adversely affected beyond repair”⁴⁴. However, this reasoning equally applies to any de-regulated and competitive market.
208. Furthermore, it is unclear how this ex-ante retail regulation would be consistent with the EC Recommendation on the relevant products and services markets which states:
- “... A downstream market should only be subject to ex ante regulation if competition on that market still exhibits significant market power despite the presence of ex ante regulation on the related wholesale upstream market(s)” [emphasis added].
209. ComReg’s concern of foreclosure can only be valid where eir can sustainably prevent effective competition — in the first instance by setting very low retail prices, and in later periods by setting very high retail prices — the after-effects of which are unaffected by the independent actions of its competitors and customers. As demonstrated in paragraphs 213-and 221, this is not the case. Consequently, ComReg’s proposed continued retail margin squeeze proposal in the competitive Urban Market is merely retail regulation through the back door. This is not appropriate.
210. ComReg has failed to undertake even the first step to justify imposing such regulation, a Three Criteria Test analysis to assess the suitability of the retail market for ex ante intervention, including an assessment of its competitiveness and the sufficiency of ex post competition law to address any residual risk of market failure. Had ComReg undertaken such a test or applied a cogent economics effects-based theory of harm it would have identified that it’s proposed remedy is inconsistent with

⁴⁴ ComReg Decision D03/16.



its regulatory objectives and in particular Regulation 16 (f) of the Framework Regulations⁴⁵ which require ComReg to ensure that it is “*imposing ex-ante regulatory obligations only where there is no effective and sustainable competition and relaxing or lifting such obligations as soon as that condition is fulfilled*” [emphasis added]. ComReg does not have the power, accordingly, to impose this proposed retail regulation in this context.

211. eir submits that should ComReg maintain a view that due to timing concerns competition law alone is inadequate, it should not exacerbate this error by departing from competition law economic principles and methodologies in designing any additional remedy. That is not to say that eir agrees that ComReg can simply impose ex-ante remedies on a competitive retail market without an appropriate economic assessment in order to determine if the competition concerns identified by ComReg can actually manifest.
212. ComReg should also explain expressly on what basis it has determined that it is appropriate for it to intervene in the retail market, seemingly on the basis of a lower standard of economic justification when compared to the general requirement (as followed by ComReg in the wholesale market) to find SMP before any remedy can be imposed, and in so doing which powers it purports to be exercising, and how it considers that approach to still be aligned with the desired outcomes envisioned by the EC Recommendation:

“The application of the three criteria should limit the number of markets within the electronic communications sector where ex ante regulatory obligations are imposed and thereby contribute to the aim of the regulatory framework to reduce ex ante sector-specific rules progressively as competition in the markets develops”.

ComReg has over-relied on theoretical possibility to justify de facto retail regulation and failed to consider in how far other controls successfully address any foreclosure concerns

213. eir considers that ComReg has put too much weight on the potential theoretical economic abuse of foreclosure through retail pricing and has not adequately considered whether eir has actually sufficient market power at the retail level to follow such a pricing strategy. In addition, ComReg has failed to adequately

⁴⁵ European Communities [Electronic Communications Networks and Services] [Framework] Regulations 2011.



consider whether existing and proposed regulatory remedies already address its foreclosure concerns.

214. ComReg’s associated market analysis consultation, ComReg 16/96⁴⁶, proposes that there is sufficient competition on a “rung” on the theoretical ladder of investment (i.e., WCA in the Urban area). Therefore, eir considers it improbable under a coherent theory of harm that eir’s retail broadband pricing could be so low as to successfully foreclose competitors in the WLA market — to the extent that it could ever have the ability to profitably raise retail prices again at the same time as actively competing with operators relying on other competitive market wholesale inputs (including WCA). Putting it another way, eir does not have the ability or incentive to sell below cost in the retail market, especially given the regulatory context (i.e., there are access obligations to WLA services at regulated cost-oriented prices — which means that any exclusion would only be transient and therefore represent an unsuccessful predatory pricing strategy), competition law constraints and the competitive dynamics that eir faces not only in the retail broadband market but also in the WCA market. Also, as ComReg is aware, in the retail market pricing is national and not regional.
215. As the WCA market is already competitive in the Urban area, ComReg should consider what prevents other retail operators using WCA services from undertaking a margin squeeze against operators dependent on purchasing cost-oriented WLA inputs from eir. Using the same coherent theory of harm, how is it plausible that it is somehow different in eir’s case?
216. In paragraph 10.9 of the Consultation, ComReg states that an additional concern is that *“Any OAOs that had been forced out of the market(s) due to these price reductions would be inhibited from returning even when margins are restored if they feared that Eircom would respond by repeating the retail price reductions to squeeze margins again”*.
217. First, this rationale is flawed in that there are already a number of large well-resourced companies with differing commercial strategies operating in the Irish

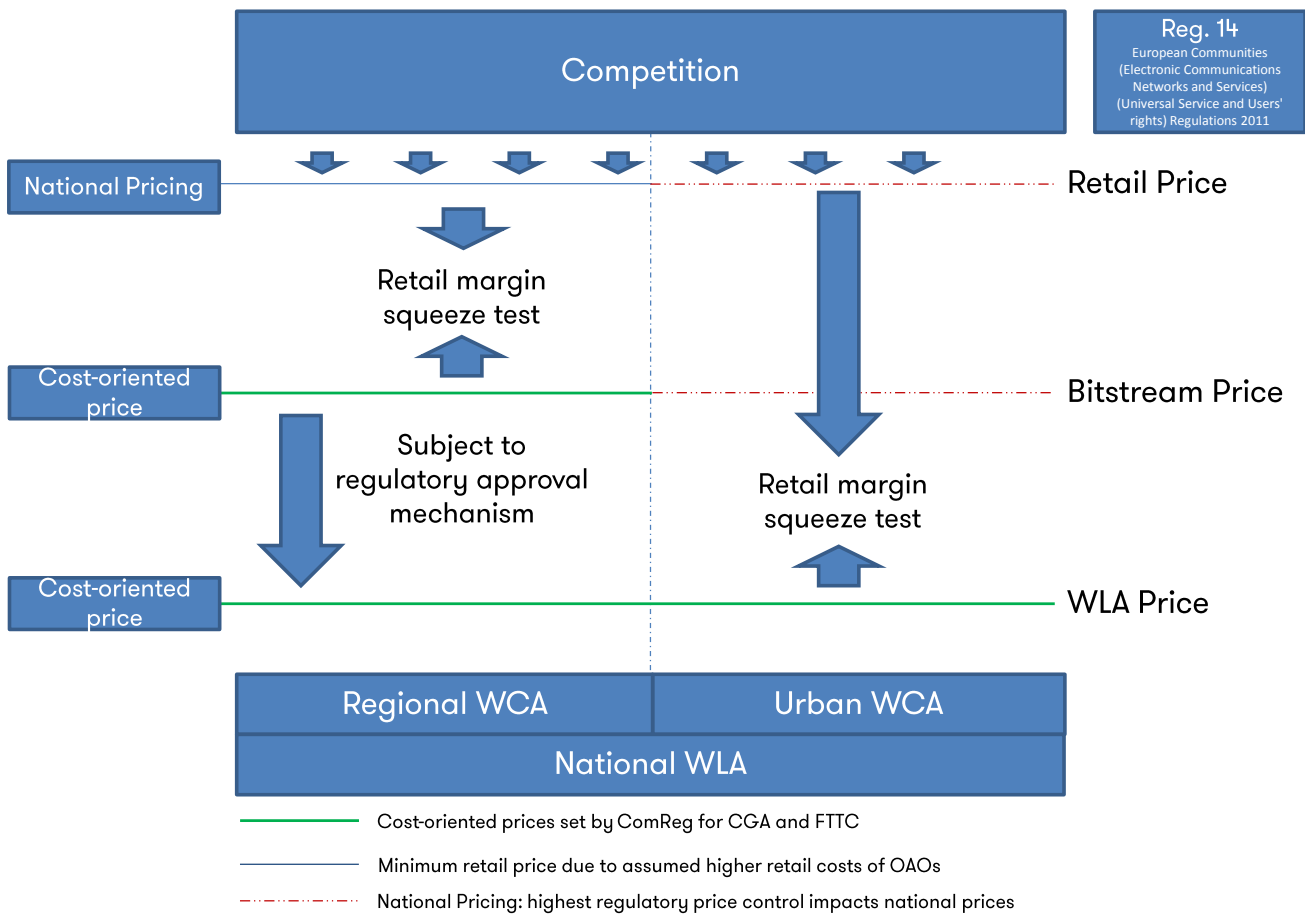
⁴⁶ ComReg, market analysis consultation, ComReg 16/96, Market Reviews: Wholesale Local Access and Wholesale Central Access.



market and therefore it is highly unlikely that any exclusionary predatory pricing strategy would be successful.

218. Second, the reality in such a predatory pricing strategy would be undermined because, as identified earlier in our response to this question, eir could not profitably raise prices again — due to competition from other operators using WCA inputs (which as ComReg has stated is a competitive market) and from operators using regulatory access and cost-oriented obligations in the WLA market.
219. Third, eir would face a financial penalty under competition law for the duration of the squeeze and by increasing its retail prices it would trigger Regulation 14 of the European Communities (Electronic Communications Networks and Services) (Universal Service and Users' rights) Regulations 2011 which provides the customer with the right to withdraw without penalty from a contract if they do not accept the modification.
220. In conclusion, eir submits that as its entire retail market share gained from the potential squeeze would be free to churn to another retail provider when prices rise, coupled with the fact that any financial gains would be more than off-set by competition law penalties and, in combination with regulatory access obligations to cost-oriented WLA services (and from retail competition using WCA market inputs — which is competitive in the Urban area), means that pursuit of such a pricing strategy would not be commercially sound and would be unsuccessful. Applying a cogent effects-based analysis to ComReg's regulatory concern demonstrates that such a regulatory fear is unfounded and illogical.
221. In this context it is also important to note that all of eir's main competitors e.g., Sky, BT, Vodafone and Virgin Media, operate as part of large international corporations who take advantage of substantial economies of scale in terms of network deployment, product development at both the wholesale and retail levels, and content purchasing power and therefore in addition to being well able to compete with eir would readily make a complaint in the event of an abuse of dominance.

Figure 8: Illustrative overview of multiple regulatory price controls on eir



Incomplete consultation on the wholesale services included in the proposed MST

222. This Consultation proposes two separate retail MSTs between WLA services and retail services corresponding to the Urban WCA Market. The first is between NGA retail prices and VUA. The second is between CGA retail prices and WLA “copper inputs”. It is the wholesale services included in the second test which eir considers are incorrect and these have not been fully and transparently consulted on by ComReg.

223. The discursive narrative and justification for the wholesale services included in the second test in the Consultation is vague and only alludes to the wholesale services to be included. For example, paragraph 10.55 of the Consultation states that “*This obligation should apply to all WLA services including CGA (e.g., LLU)*”. It is only in examining the proposed margin squeeze model⁴⁷, provided to eir, that the full parameters of the test are identified. ComReg’s stated objective in proposing this

⁴⁷ “Retail CGA Broadband Margin Squeeze Model.xlsx”



margin squeeze is to prevent foreclosure in the WLA market. However, in the proposed MST model, ComReg has included the wholesale price of WLR — which is not a wholesale service in either the WLA market or WCA market — as an input to the test.

224. While WLR can be purchased in conjunction with Line Share by OAOs to compete in the WCA market it is only efficient for an OAO to do so if it plans to also offer that customer line rental or call services. ComReg has stated that “...*this Draft Decision covers the retail MST appropriate for standalone services, a separate consultation on bundles will be published shortly and should address services sold in a bundle*”.
225. Therefore, it is inappropriate and simply wrong to include WLR in any retail MST for standalone retail broadband services — when this wholesale input allows an operator to provide a voice service. The inclusion of WLR in the proposed test would not set the appropriate efficient investment or purchasing signals to OAOs in the WCA or WLA market. A combination of WLR and Lines Share wholesale services included in a MST may only be appropriate when considering bundled retail services. On a standalone basis, WLR already has a retail margin squeeze obligation relative to Retail Line Rental as per ComReg Decision D03/16.
226. ✕
227. eir considers that the only appropriate WLA service to include in such a “copper-based” WCA retail MST is LLU.
228. In this context, eir submits that, as ComReg is also proposing to influence prices in the Urban WCA market by concurrently applying a further wholesale pricing obligation by imposing a “*price at which Eircom sells or offers a Downstream Wholesale Service must be greater than the sum of: (i) ULMP costs and (ii) the unavoidable costs of a reasonably efficient operator that must be incurred in order to provide a service equivalent to the relevant Downstream Wholesale Service*”, ComReg has failed to comply with Regulation 16 (f) of the Framework Regulations (i.e. “*imposing ex-ante regulatory obligations only where there is no effective and sustainable competition and relaxing or lifting such obligations as soon as that condition is fulfilled*”[emphasis added]) by continuing to impose both retail obligations and wholesale obligations (which only affect eir’s retail prices) in what

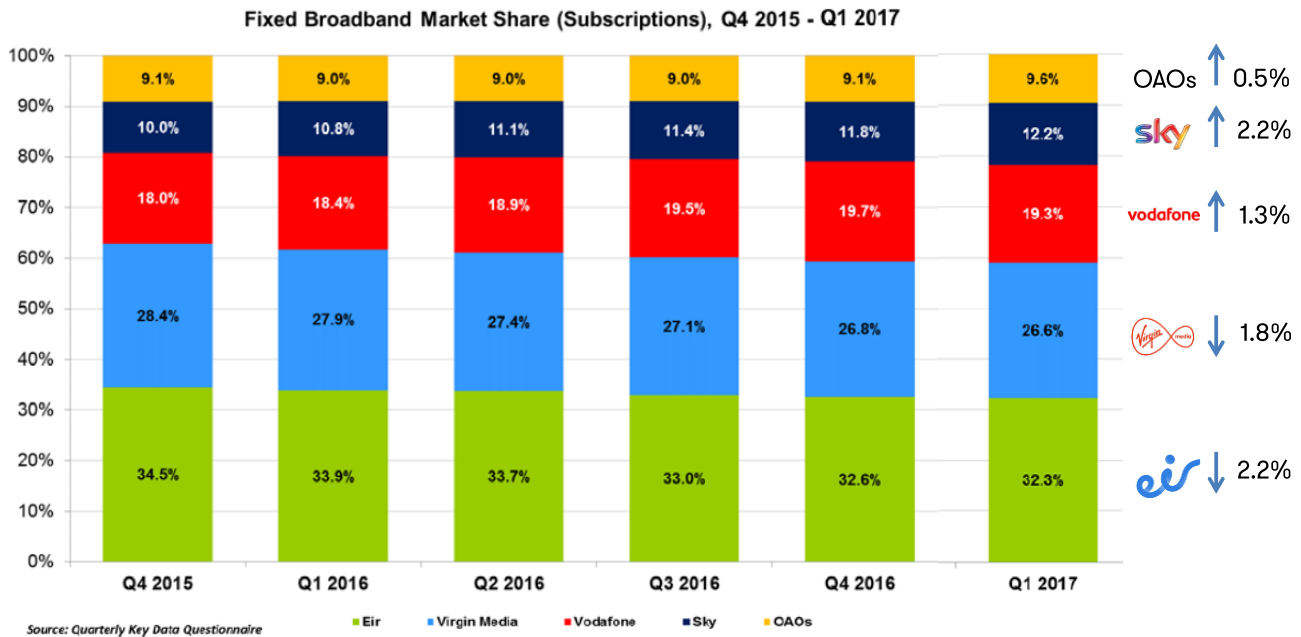


ComReg's market analysis has found to be a competitive market. See also paragraphs 168-176.

Incomplete justification of the assumed operator cost base

229. eir agrees with ComReg's proposed use of the EEO cost base in the test. However, eir does not agree as to how ComReg has arrived at this preliminary view.
230. ComReg's reasoning as to why the EEO is appropriate is because it corresponds to "exchanges in the footprint corresponding to the Urban WCA Market, which are competitive" and there "are other large broadband operators competing with Eircom in those exchanges" is presenting the competitive market dynamics in a simplified way. As noted in paragraph 206, both the Urban WCA market and the WCA retail market are competitive. As such, the use of an EEO cost base is consistent with competition law and aligns with the 2013 EC Recommendation.
231. Based on the national retail market shares of other operators a lower cost base would be inconsistent with ComReg's objectives pursuant to Section 12 of the Communications Regulation Act 2002 (as amended) — in particular, in promoting competition and encouraging efficient investment. An alternative cost base on the other hand would provide unnecessary margin and result in static and dynamic inefficiency in both the WCA and WLA markets. In that, a higher cost base would result in regulatory windfall gains to OAOs and lead to inefficient investment decisions over-time.

Figure 9: Fixed Broadband Market Share (source: ComReg)



232. Furthermore, due to the low barriers to geographic expansion in the retail market coupled with the fact that there are large multinational broadband providers already in the market means that an alternative cost base would be contrary to the desired regulatory outcomes (as recorded in Regulation 6(1) of the Access Regulations) and would be inconsistent with Regulation 8(6) of the Access Regulations which requires ComReg to impose only objectively justified and proportionate obligations. An alternative cost base is unwarranted given the existing competitive nature of the market and any additional margin would result in a direct transfer in benefits away from end-users to OAOs.

Appropriate cost standard and portfolio approach

233. ComReg is of the preliminary view that ATC is the appropriate cost standard to use in the test. eir does not agree for the reasons set out in the following.

234. The ATC cost standard is inconsistent with the 2013 EC Recommendation (which recommends LRIC+) and ex-post competition law (which favours LRAIC — note that the lack of a plus signals that a contribution to fixed and common costs is not considered).



235. An ATC cost standard does not provide eir with the pricing flexibility required in a dynamic competitive WCA retail market, and in particular as ComReg propose to implement this cost standard at the individual portfolio level (i.e., separately for CGA and NGA). This means that ComReg is proposing to impose a strict pricing constraint on eir which its competitors do not face (i.e., ComReg is requiring eir to recover the exact same average of fixed indirect and common costs across different portfolios and irrespective of whether the broadband is sold in a bundle or on a standalone basis). Such a poorly designed regulatory intervention increases the risks of regulatory failure. In this context, the most readily identifiable regulatory failure, by increasing the economic space that would naturally occur absent regulation, ComReg is directly transferring welfare from consumers to Industry.
236. In addition, ComReg’s proposed separate tests for CGA and NGA services to each recover their own ATC in this Consultation is in stark contrast to that proposed in ComReg’s recent Bundles consultation⁴⁸ where paragraph 5.112 states *“In the Urban Area ComReg is of the preliminary view that the MST be a one-stage portfolio test based on ATC for all regulated products covering both CGA and NGA based wholesale inputs. This takes into account the preliminary finding that the WCA Market is competitive in the Urban Area. It also takes into account the level of retail competition in the Urban Area. These items are discussed in further detail in the Oxera Report in section 5.3.2.”* It is unclear to eir why ComReg is proposing different tests in the competitive Urban area depending on whether eir Retail sells broadband in a bundle or on a standalone basis.
237. ComReg’s assertion in paragraph 10.68 of the Consultation that the recovery of ATC costs influences expansion and entry decisions in the market is misaligned to the actual retail test being imposed by ComReg which is for standalone broadband offers only — this is only a small subset of the overall retail market. The proposed test does not recognise that firms recover costs across a wider retail broadband market offering. Importantly, as fixed indirect and common costs already exist in all investment outcomes they do not enter into the exit or entry decisions of either existing competitors or potential entrants.

⁴⁸ ComReg, “Consultation on Price control obligations relating to Bundles: Further specification of the price control obligation not to cause a margin squeeze: FACO and WLA (Market 3a) and WCA (Market 3b)”, ComReg 17/51, “Bundles consultation”.



238. It is important to highlight that eir’s downstream costs (which are used to inform inputs to the MSTs) are incurred on the basis of promoting a broad portfolio of broadband retail offers as well as an allocation of fixed indirect and common costs (i.e., eir’s downstream costs taken from the HCA accounts are akin to ATC). By using these costs as an input to the DCF model they arrive at a close proxy for a LRAIC+ standard. In that sense the service increment considered is retail broadband (both CGA and NGA) including standalone and bundled offerings. \propto . This means that a large proportion of eir’s downstream costs are a fixed indirect and common cost for both individual retail broadband offers and even within individual broadband portfolios (e.g., if one considered all CGA offers and all NGA offers separately).
239. Therefore, ComReg should more fully consider the merits of a LRAIC cost standard (note that the lack of a plus signals that a contribution to fixed and common costs is not considered) at the individual portfolio level. The Consultation states that “ComReg believes that relying only on any other cost measure would exclude any assessment of common costs and would therefore ignore the market entry or expansion realities faced by OAOs and new entrants”⁴⁹. However, the LRAIC cost standard also recognises that an operator is better off selling a retail offer than not doing so if it is incrementally profitable. Subsequently, at the portfolio level an overall positive margin recognises that the firm’s activities are making a contribution to its fixed indirect and common costs. See also paragraph 237.
240. That is not to say that fixed indirect and common costs cannot be recovered through retail pricing within each portfolio but that any ex-ante allocation rule for distributing such costs between portfolios of CGA and NGA retail products is merely arbitrary. Provided that there is a positive margin at an overall portfolio level after LRAIC costs are deducted then the firm’s activities are making a contribution to the recovery of those other costs.
241. In competitive markets, the quantum of this recovery of fixed and common costs will naturally fluctuate year-on-year and recovery decisions between portfolios will be dependent on the competitive strategy decisions of individual operators. As noted in Compass Lexicon’s paper submitted as part of the Vodafone response to ComReg’s 16/96 market consultation “operators rely on WLA, WCA, combinations of WLA and

⁴⁹ ComReg, Consultation, paragraph 10.69.



WCA, cable, and FTTH to compete at retail level. It is therefore not clear that there is a uniform cost level to which competition will drive down prices or that operators failing to pass through wholesale cost increases for one of several upstream products would become loss-making”. Compass Lexicon further states that “Operators do not set localised prices depending on whether an exchange area is served based on WLA or WCA. An operator may rely predominantly on WLA and only use WCA in exchange areas in which volumes do not justify using WLA, as we understand is the case for Vodafone. Under national pricing, an increase in WCA prices should at most be passed on into retail prices in proportion to the share of the operator’s user base served using WCA. However, the incentive for an operator to do so will depend on any impact this will have on its competitiveness across its entire retail offering.” Putting it differently, retail pricing is not influenced by individual portfolio margins and therefore to apply an ATC test to each and every portfolio is placing undue regulatory burden on eir and provide competitors with unnecessary and unwarranted margin within individual WCA portfolios.

242. Applying a higher cost standard than LRAIC at the individual portfolio level raises the real prospect of chilling competition over the next regulatory pricing period. In the light of ComReg’s regulatory objectives of promoting competition it is important that consideration is given in choosing the correct cost standard at the individual portfolio level in order to distinguish between promoting competition and promoting competitors (i.e., the difference between applying a LRAIC cost standard or an ATC cost standard). As evident by the market shares and continued growth and expansion of OAOs sustainable competition is already present in the market and ComReg must ensure that it is not disproportionate in placing undue regulatory restrictions on eir Retail to protect “new entrants”.
243. While economic theory would suggest that a higher cost standard than required could lead to sub-optimal and inefficient entry to the market in reality given the current competitive dynamics of the market and the presence of large multinational operators it is unlikely that “new entrants” will emerge over the current market review period and have the ability to grow to an efficient scale. In this case, a higher cost standard leads to sub-optimal pricing flexibility in terms of how fixed and common costs are recovered between portfolios and puts eir at a significant pricing disadvantage compared to how pricing works in reality.



244. Furthermore, eir considers that applying a separate portfolio test in a fully competitive market puts undue and disproportionate constraints in the form of SMP remedies on eir and does not address the competition problems identified by ComReg (i.e., foreclosure of the market) or the commercial pricing decisions as identified by Compass Lexicon⁵⁰ in setting retail prices.
245. While ComReg presents the flexibility of a portfolio approach in the Consultation, the reality of a full ATC cost standard in piece-meal portfolios does not replicate as far as possible the commercial pricing decisions and outcomes of competitive markets — which in this case is the entire Retail Broadband Market (both standalone and bundles). As such, eir submits that ComReg should design a retail MST(s) which recognises dynamic pricing decisions (see paragraphs 239-241) and provided that the LRAIC+ costs are recovered at the overall Broadband portfolio level then ComReg’s concerns regarding market entry and expansion decisions in the retail broadband market are appropriately addressed.
246. eir considers that its proposal of applying a LRAIC cost standard (without the plus) at the individual portfolio level better meets ComReg’s regulatory objectives as it:
- i. considers the specific service increment and therefore mirrors efficient decision making by firms between individual portfolios;
 - ii. removes the regulatory windfall gains experienced by other operators through inappropriate economic space and leads to the lowest retail prices for end-users; and
 - iii. is consistent with ex-post competition law.
247. In addition, eir’s proposal to recover LRAIC+ costs at the overall Broadband portfolio level achieves good regulatory outcomes as it:
- i. ensures fixed indirect and common costs are recovered;
 - ii. replicates as far as possible the dynamic pricing decisions of competitive markets;
 - iii. is consistent with the 2013 EC Recommendation; and

⁵⁰ Submitted as part of the Vodafone response to ComReg’s 16/96 market consultation.



- iv. removes unnecessary implementation complexity, as it is easier to compare to eir's HCA costs through the DCF model.

Incorrect and incomplete consultation of the parameters in the DCF model

248. eir agrees with ComReg's preliminary view that a DCF model is appropriate to use in the retail MSTs. A dynamic model recognises that, in a competitive and dynamic retail broadband market, prices today are set based on a forward-looking view of costs and revenues. This is particularly important in the context of retail price changes and Regulation 14 of the European Communities (Electronic Communications Networks and Services) (Universal Service and Users' rights) Regulations 2011 — which provides customers with the right to withdraw without penalty from a contract if they do not accept a modification. As such, a firm would only pass through such costs in the form of higher retail prices if it considered those changes to be reflective of on-going future costs.
249. As ComReg proposes to use the DCF model structure and information from the WCA Regional markets and apply it to the Urban WCA Market, eir does not agree that the DCF model should include one-off start-up costs. However, as the operator cost base is EEO which compares to eir's actual costs (modelled at the start of the DCF period) the modelling assumption as to whether the operator is an existing operator or new entrant doesn't impact the level of downstream costs used in a MST. Where this assumption does impact the level of downstream costs is when an SEO/REO cost base is used and the assumed operator's market share grows slowly over a five year period. See also paragraphs 313-317.
250. eir considers that, for consistency, the underlying DCF model which supports all the relevant retail MSTs (including those specified in Chapter 11 of the Consultation) should be aligned to an existing operator which maintains an EEO's market share throughout the modelled timeframe in the DCF model.

Effects-based analysis of MST and incomplete consultation on the assessment

251. The Consultation does not specify the assessment period for the retail MST. The MST models provided to eir have monthly portfolio margins and therefore eir's submission is based on the assumption that compliance will be assessed on a monthly basis. Without an appropriate effects-based assessment or competitive assessment by



ComReg in the unlikely event that there is a margin squeeze, eir cannot agree to a one month assessment/compliance period.

252. A one month compliance period is too short to provide any meaningful information on whether any offer is capable of recovering their ATC (as proposed by ComReg) or LRAIC (as proposed by eir and LRAIC+ at the overall broadband portfolio) — even on a portfolio basis. As the claim that the results in any given month will lead to exclusion in the market is not plausible, it should not be necessary to analyse whether short run losses or profits are being incurred in any portfolio.
253. Furthermore, there may be reasonable explanations as to why an individual portfolio may not be positive in a single month. For example, there may be higher than average throughput/broadband usage during certain months such as December and January, which are not representative of general traffic profiles. A longer compliance period would provide eir with the required flexibility to develop better offerings to end-users in the long-term, including assessment of consumer trends and usage profiles, which would be to the benefit of end-users as well as allowing it to better compete with its competitors.
254. eir submits that a six month period is sufficient to undertake an assessment of compliance at an overall portfolio level. This would provide ComReg with sufficient oversight that eir is not causing a margin squeeze, and is in compliance with any regulatory obligations imposed as part of the market review. After a twelve month period (which should preferably coincide with eir's financial year) a full compliance statement can be submitted by eir to ComReg.
255. Such a period provides the optimum balance between ensuring eir is compliant with its regulatory obligations and providing appropriate pricing flexibility to eir.⁵¹

Other considerations

256. ComReg is of the preliminary view that a 42 month customer lifetime should be used in the margin squeeze model. ✕. eir considers that a longer customer lifetime would be more appropriate for NGA services to recognise the migration of customers switching to the new technology during the current market review period and that fibre broadband should lead to higher customer satisfaction — due to fibre being a

⁵¹ We note that this would be consistent with the VULA MST in the UK, which has been tested by litigation.



more compelling product than copper, with better speeds and ability to cross-sell additional value-added services over time, such as IPTV and high-definition on-demand content.

257. ComReg is of the preliminary view that additional revenue from excess usage should not be taken into the model. eir does not agree. While the market trend has moved towards unlimited usage, there are a number of operators (including eir) who offer limited data offers. As such, where income is derived from excess data usage it should be taken into account. As the sum of the individual accounts contribute to the 95th percentile wholesale usage charge it is proportionate to equally take the associated revenues with these accounts, be it the headline package price or excess usage charges.



Question 24: Do you agree with ComReg’s preliminary views regarding the margin squeeze principles for the wholesale End-to-end margin squeeze tests for both current generation and next generation? Please provide reasons for your response.

258. eir does not agree with a number of ComReg’s preliminary views on the principles and assumptions used in both the wholesale MSTs proposed in Chapter 11 of the Consultation.

259. In particular, eir considers that ComReg has:

- i. failed to consider all of the regulatory options available, including not considering the effectiveness of ex-post competition law;
- ii. proposed an operator cost base which is inconsistent with the competition issues identified;
- iii. not consulted on how compliance will be assessed; and
- iv. used wrong values and inappropriate assumptions in the wholesale MST models.

ComReg has not considered all of the regulatory options available

260. In this Consultation, ComReg proposes to implement a wholesale MST between the price of End-to-End Bitstream and the price for Bitstream in the Regional WCA Market, relating to both current generation and next generation End-to-End services. ComReg states that its regulatory concern is that eir could offer an End-to-End service below the price of the regulated WCA components — such that it could ultimately discourage LLU / VUA and lead to discriminatory pricing of WCA services. eir does not agree that this is a valid regulatory concern.

261. Before setting out the reasons why eir considers that the proposed test is unwarranted, it is important to highlight that an End-to-End Bitstream service essentially contains two elements. The first is the regulated WCA component which uses exactly those inputs and prices from the equivalent Bitstream service. The second can vary, but in its simplest form can contain, for example, the provision of onward access to the internet/world-wide-web or billing and account support. In all cases the second component of the End-to-End service is unregulated.

262. eir does not agree that ComReg’s regulatory concern is valid.



263. First, the WCA components used as an input to the End-to-End service are largely proposed to be regulated by cost-orientation (with the exception of FTTH). As ComReg is aware, it is not possible to obviate a cost-orientation obligation by bundling services at the wholesale level with other elements. Consequently, the total End-to-End price will always be more expensive than the WCA component prices in the Bitstream service. Hence, ComReg's concern simply cannot materialise. When ComReg justified this remedy in 2012 it reasoned that such a remedy was warranted for current generation Bitstream as the price for Bitstream was based on a retail-minus pricing obligation⁵² — this is no longer the case and has not been for some time.
264. Second, as the WCA components are based on published prices with concurrent non-discriminatory obligations, it is unclear how offering an End-to-End service could somehow lead to discriminatory WCA services as suggested by ComReg. ComReg has not provided sufficient detail on this issue to clearly understand the nature of the problem identified.
265. Third, where the regulated inputs used in an End-to-End service are cost-oriented, it is unclear how such prices (which are determined by ComReg) could ever undermine investment in LLU / VUA (in particular, where those WLA inputs are also subject to cost-orientation by ComReg). ComReg has not provided sufficient detail on this issue to clearly understand the nature of the problem identified.
266. Fourth, as the only difference between both services is the unregulated element it is unclear why competition law would not be sufficient to address what is fundamentally costing/pricing differences of those unregulated services only. ComReg has not undertaken an adequate assessment of all the options that might also address its regulatory concern — in particular, the sufficiency of ex-post competition law.
267. Fifth, such a test will only apply to eir, despite there being no SMP for the unregulated services which are offered in addition to the WCA components inputs in the End-to-End service. Consequently, ComReg is being unduly discriminatory against eir and its proposal is inconsistent with Regulation 16(2) of the Framework Regulations. The inappropriate application of the ex-ante MST is further compounded

⁵² ComReg, paragraph 3.83, ComReg decision D06/12.



by ComReg by its proposed use of an REO cost base with a 25% market share and by using a LRAIC+ cost standard.

Applied an incorrect assumed operator cost base

268. eir does not agree with ComReg’s preliminary view that an REO cost base (or the SEO cost base as a proxy for REO in the absence of REO cost data) is appropriate for both wholesale MSTs.
269. The REO cost base only applies in calculating the “cost” of the unregulated element of the service which is offered by eir as part of the End-to-End service. ComReg has failed to undertake a “Three Criteria Test” analysis to justify the proposed regulation of the unregulated service. This error is further compounded by ComReg proposing higher economic standards (i.e., in proposing REO) and principles (i.e., in proposing LRAIC+) than accepted under ex-post competition law (which would use EEO and LRAIC respectively).
270. Regulation 16 (f) of the Framework Regulations⁵³ authorises ComReg in “*imposing ex-ante regulatory obligations only where there is no effective and sustainable competition and relaxing or lifting such obligations as soon as that condition is fulfilled*”[emphasis added]. ComReg does not have the power, accordingly, to impose this proposed regulation, and to depart in its application of the test, from those accepted by ex-post competition law.
271. Similarly, it is unclear to eir how using an REO cost base would be consistent with the nature of the problem identified (due to it being anchored in the unregulated element of the service — as the regulated elements in both the End-to-End service and Bitstream services are the same in all offers), or which operator ComReg would choose to be the appropriate benchmark. Applying the incorrect benchmark could result in unnecessary and unwarranted margins and may have no correlation to eir’s own actual costs which could in fact be higher.
272. In the absence of REO data, ComReg is of the preliminary view that an SEO cost base would be appropriate. eir does not agree. The use of this cost standard to calculate the cost/price of unregulated services is inconsistent with ex-post competition law for unregulated services.

⁵³ European Communities [Electronic Communications Networks and Services] [Framework] Regulations 2011



273. ComReg has also misattributed⁵⁴ paragraph 65 of the 2013 EC Recommendation as being supportive of SEO. Paragraph 65 of the 2013 EC Recommendation states that:

“Where specific market circumstances apply, such as where market entry or expansion has been frustrated in the past, NRAs may make adjustments for scale to the SMP operator’s costs, in order to ensure that economic replicability is a realistic prospect”

First, it is clear from the preceding paragraph that the 2013 EC Recommendation is contemplating here a retail MST and not a wholesale test. Second, even in allowing this text to stretch beyond its scope so that it somehow also contemplates a wholesale WCA service, the actual services being considered by ComReg are not part of the WCA market and are — as previously stated — unregulated. Finally, even if the 2013 EC Recommendation was relevant for unregulated services, which it is not, it suggests that allowances can be made by NRAs where specific market circumstances apply *“such as where market entry or expansion has been frustrated in the past”*. ComReg has failed to identify those circumstances in this case.

274. Accordingly the proposal by ComReg to use REO data (and SEO in absence of that data) is inappropriate and creates legal uncertainty regarding the appropriate benchmark. The use of REO data is also inconsistent with ex-post competition law (which uses an EEO cost base) and is ultra-vires to ComReg’s power to impose any ex-ante obligations on unregulated services. ComReg has in the past allowed for unregulated services to be based on eir’s own costs (for example, ComReg Decision D04/13⁵⁵). Consequently, it is unclear to eir why ComReg has proposed different cost standards in pricing unregulated services in different regulatory decisions.

275. eir considers that where services are unregulated it should be able to compete on the merits of its own costs (i.e., EEO).

How compliance will be assessed is unclear

276. By imposing an ex-ante MST, it is fundamental for eir to know how the model will be used to assess compliance.

277. One of the main assumptions used in the “Wholesale CGA Broadband Margin Squeeze Model”, though not consulted on by ComReg, is the level of traffic which is split between Regional and National handover. In that regard, it is not apparent as to

⁵⁴ ComReg, Consultation, paragraph 11.25.

⁵⁵ ComReg 13/14 – “Price Regulation of Bundled Offers”



whether ComReg will assess compliance based on the level of handover at a particular point in time or whether a more appropriate medium-to-long term view of this traffic profile will be used in the test. ✗.

278. As ComReg has not consulted on how compliance will be assessed, eir reserves its future rights to submit further views on the appropriateness of such a test.

Used incorrect values in the model

279. In the “Wholesale NGA Broadband Margin Squeeze” model, ComReg has used the derived cost from the main NGA cost model as the “price” of FTTC and FTTH Bitstream as an input to the test. This is incorrect. The correct input to use in the model for FTTC and FTTH Bitstream is the price open eir charges per port (fixed) and usage (variable) for each service.

280. Similarly, for IP connectivity costs, the correct value to use is that of eir (i.e., an existing operator). Where a market is unregulated, ComReg cannot impose an ex-ante MST on eir, and in particular one which makes substantial allowances for diseconomies of scope to support new entry. ✗. Furthermore, the competitive MI WHQA market has been identified by ComReg as competitive and therefore any connectivity costs which assumes a less efficient operator cost base is simply wrong and contrary to both ex-post competition law and disproportionate in light of ComReg’s regulatory objectives.

Other Considerations

281. ComReg is of the preliminary view that a LRAIC+ cost standard is appropriate to use in the test. eir does not agree. A LRAIC+ methodology is based on the average long run cost as a result of the increment being used by multiple services and includes a contribution for fixed indirect and common costs. The LRAIC+ cost standard is incorrect in this circumstance as it imposes a higher cost standard to calculate the cost of the unregulated service element in the End-to-End Service than is accepted under ex-post competition law — which in this case is LRAIC (without the plus).

282. ComReg is of the preliminary view that a 25% market share is appropriate to use in the test. eir does not agree. Where a market is unregulated, ComReg cannot impose an ex-ante MST on eir. This error is further compounded by ComReg by making substantial allowances for diseconomies of scale to support new entry.



283. Finally, as identified by ComReg, there is a declining demand for CGA investment and “that fixed line network operators in Ireland have been focused on investing in NGA infrastructure rather than CGA in recent years and this trend is expected to continue for the duration of the price control period”.⁵⁶ Consequently, it is not apparent to eir why it is necessary to maintain a price obligation in the first instance on CGA in general and in the second instance where CGA bundled with unregulated services.

⁵⁶ ComReg, Consultation, paragraph 9.47.



Question 25: Do you agree with ComReg’s preliminary view regarding the margin squeeze principles for the retail margin squeeze test for NGA services in the Regional WCA Market? Please provide reasons for your response.

284. eir does not agree with a number of ComReg’s preliminary views on the principles and assumptions in the separate retail MST between NGA services and FTTH and FTTC retail services.

285. In particular, eir considers that ComReg has:

- a. failed to properly assess the investment incentives by moving to cost-oriented FTTC pricing prematurely,
- b. not considering the effectiveness of ex-post competition law in addressing ComReg’s concerns regarding foreclosure;
- c. relied on an erroneous view that a retail MST is required as a preventative measure of foreclosure, notwithstanding that, due to the proposed concurrent SMP pricing remedies, eir does not have the ability to successfully undertake such a strategy;
- d. incorrectly proposed an operator cost base which is inconsistent with the competition issues identified;
- e. applied too high a cost standard in each of the retail MSTs;
- f. failed to consult on different operator types that can be used in the DCF model — including transparently consulting on the market share the operator attains over the duration of the DCF time period;
- g. proposed a test without an effects-based analysis on whether eir’s pricing could lead to actual foreclosure — for which the assessment period has not been specified or consulted on.

ComReg has failed to assess the investment incentives

286. ComReg proposes to impose a FTTH margin squeeze between retail FTTH pricing and FTTH WCA services. Similarly, ComReg proposes a FTTC margin squeeze between retail FTTC pricing and FTTC WCA services while also proposing concurrent cost-orientation for FTTC WCA services.



287. ComReg has failed to undertake any analysis of whether moving to cost-orientation now would interfere with eir’s ability to realise a ‘fair bet’ on its FTTC investment by distorting retrospectively the returns available. As identified in Brian Williamson’s paper, there are sound economic and policy reasons for assessing a ‘fair bet’ relative to the investment risk as it presented itself to eir when it made its decision to invest in 2011, or, at the appropriate point, to other operators that have invested since. Failure to do so will impact future investment cases and is likely to have a chilling effect on investment by both eir and by other operators considering or already investing in alternative infrastructures.
288. Chapter 5 of Brian Williamson’s paper also sets out why there are sound reasons for concluding that pricing freedom rather than a regulated price provide appropriate investment signals. This issue is also addressed in Chapter 5 of CEG’s paper.

ComReg has not considered all the regulatory options available

289. ComReg considers that a retail margin squeeze obligation for NGA Bitstream services (both FTTC and FTTH) is appropriate in the Regional WCA Market “*in order to ensure that there is no foreclosure of operators at a retail level, in the context of FTTH and/or FTTC services*”⁵⁷.
290. However, ComReg has presented this high-level theoretical economic concept and has not given any consideration to the effectiveness of ex-post competition law in addressing this risk, as well as the effect on investment incentives. See also paragraphs 207 and 211.
291. eir considers that where wholesale prices are set based on an appropriate economic space between prevailing retail prices, then a MST may be the correct pricing methodology to determine the corresponding wholesale price(s). As such, eir agrees that a MST or retail-minus test may be appropriate in that context. Equally, such an economic space is also ensured by ex-post competition law — meaning that wholesale prices can be set based on ex-post competition law which ensures that the wholesale and retail prices are appropriate. However, eir does not agree that where wholesale prices are cost-oriented that a concurrent ex-ante MST is appropriate. eir is

⁵⁷ ComReg, Consultation, paragraph 11.41



concerned that the imposition of retail MSTs in combination with a fixed wholesale reference point amounts to *de facto* regulation of retail tariffs.

292. Similarly, in the context of FTTC WCA services which are proposed to be cost-oriented, while ComReg has presented a high-level theoretical economic concept of foreclosure it has not given any consideration to the effectiveness of competition law in addressing this risk. See also paragraphs 205, 207 and 211.

ComReg has over-relied on a theoretical possibility to justify *de facto* retail regulation and failed to consider how far other controls successfully address any foreclosure concerns

293. As noted in paragraph 291, where wholesale prices are set based on a margin squeeze / retail-minus price control, then the economic theory of foreclosure could, in theory, emerge.⁵⁸ In this context, this part of eir’s submission relates to the proposed retail MST for FTTC services — as these wholesale prices are proposed to be cost-oriented.

294. eir considers that ComReg has put too much weight on the theoretical economic abuse of foreclosure through retail pricing and has not adequately considered whether eir actually has sufficient market power at the retail level to follow such a pricing strategy, and ComReg has failed to adequately consider whether existing and proposed regulatory remedies already prevent such foreclosure concerns.

295. In order for a foreclosure strategy to be “commercial” the firm imposing the margin squeeze must somehow be able to recoup their profit sacrifice. This profit sacrifice must include the wholesale revenue foregone (i.e., the revenues lost as a result of operators leaving the market due to the margin squeeze) and the recoupment of downstream margins as a result of pricing below cost. As the wholesale prices are cost-oriented, they are fixed and therefore cannot increase to off-set any profit sacrifice (i.e. neither the wholesale revenues lost nor the additional downstream costs which are no longer recovered from retail prices can be recouped by having higher wholesale prices in later periods). In that sense, when previously exited operators re-enter the market based on the access and cost-oriented regulatory obligations, the firm is no better off than before the foreclosure took place — indeed

⁵⁸ However, further assessment would need to be undertaken using a cogent theory of harm to determine whether those theoretical outcomes are actually likely.



it has lost margin relative to the sales it could have generated had no exit occurred. Similarly, at the retail level any price increases to attempt to recoup the profit sacrifice will trigger Regulation 14⁵⁹ — which gives customers the right to withdraw without penalty from a contract if they do not accept the proposed modification. As such, any customer market share gains during the squeeze are free to churn to another operator. Similarly, any financial gains during the period of abuse would be subject to financial penalty under competition law. As such, the firm has also failed to recoup any profit sacrifice at the retail level.

296. Consequently, the pursuit of such a foreclosure/margin squeeze pricing strategy would not be commercially sound and would be unsuccessful. In applying a cogent effects-based analysis to ComReg's regulatory concern, eir can demonstrate that such a regulatory fear is unfounded and illogical.
297. In this context it is also important to note that all of eir's main competitors, e.g., Sky, BT, Vodafone and Virgin Media, operate as part of large international corporations who take advantage of substantial economies of scale and scope in terms of network deployment, product development at both the wholesale and retail levels, and content purchasing power and therefore would readily make a complaint in the event of an abuse of dominance. As such, the high probability of detection creates a high deterrence effect from adopting such an abuse.
298. eir submits that should ComReg maintain a view that, contrary to this submission, a MST is required, it should not exacerbate this error by departing from competition law economic principles and methodologies when deciding, inter alia: the type of operator it is trying to protect (which in ComReg's view focuses solely on standalone retail broadband offers), the appropriate cost standard, the level of aggregation and time period of assessment. These factors are well-established and accepted in an ex-post competition law assessment of margin squeeze and foreclosure. See also paragraphs 211-212.

⁵⁹ Regulation 14 of the European Communities (Electronic Communications Networks and Services) (Universal Service and Users' rights) Regulations 2011



Applied an incorrect assumed operator cost base

299. eir does not agree with ComReg’s preliminary view that a combined REO cost base (or the SEO cost base as a proxy for REO in the absence of REO cost data) and EEO cost base is appropriate for the retail MSTs associated with FTTC and FTTH NGA Bitstream services in the Regional WCA Market.
300. First, ComReg’s proposal to use REO data in the proposed retail MST is inconsistent with ComReg’s objectives, see Regulation 6(1) of the Access Regulations, as well as Regulation 8 (6) (a) and (b) which requires ComReg to impose proportionate and objectively justifiable remedies which are based on the nature of the problem identified. As is evident from eir Retail market shares the Irish market has a number of well-established large multinational players (see Figure 9). Consequently, the use of an REO cost base would not promote efficiency, would not lead to sustainable competition, or would not maximise benefits to end-users. Similarly, it is unclear to eir how using an REO cost base would be consistent with the nature of the problem identified or which operator ComReg would choose to be the appropriate benchmark. Applying the incorrect benchmark could result in unnecessary and unwarranted margins and might have no correlation to eir’s own actual costs which could in fact be higher. Accordingly the proposal by ComReg to use REO data is inappropriate and creates legal uncertainty regarding the appropriate benchmark. The use of REO data is also inconsistent with both competition law (which uses an EEO cost base) and the 2013 EC Recommendation (which recommends the use of an EEO cost base).
301. Secondly, it is important to highlight that ComReg has suggested that it may keep the future use of EEO under review, and that this is also somehow consistent with 2013 EC Recommendation. It is unclear what ComReg means by keeping the future use of EEO under review (see paragraph 11.52 of the Consultation). Does ComReg intend to allow itself to revisit this within the current pricing review period, and if so, will it be sufficiently timely to ensure that eir is not priced out of the retail market over the current pricing review period? The trigger for such a review appears to be predicated on “... currently no entrants in the Regional WCA Market that exhibits equal, or almost equal, economies of scale to Eircom. However, the EEO may be an option at some point in the future where OAOs have reached a greater scale on the



relevant platforms.”⁶⁰ In this context, it is important to note that larger operators such as Sky and Vodafone have varying degrees of reliance on open eir inputs, and, as Virgin Media is fully independent, it is unclear what “relevant platforms” ComReg is referring to. Furthermore, as the 2013 EC Recommendation proposes an EEO cost base, it is unclear how the imposition today of REO/SEO but the potential in the future to impose EEO is consistent with the Recommendation, as suggested by ComReg in paragraph 11.53 of the Consultation.

302. Third, ComReg’s proposed use of SEO for the majority of downstream retail costs is based on wholly insufficient reasoning and little evidence other than ComReg’s assertion that “the Regional WCA Market is not fully developed and other operators have not yet gained sufficient scale or scope”⁶¹. ComReg has incorrectly assumed that platform-based competition in the WCA market is a close proxy for retail competition.⁶² In addition, it is worth noting that any concerns ComReg has identified from indicative market shares absent wholesale regulation is addressed by it in imposing wholesale regulation. ComReg is now over-reaching its regulatory powers to further intervene in the retail market.

303. It is unclear to eir what assessment, if any, ComReg has done to assess that eir has lower downstream unit costs due to economies of scale or scope. Similarly, ComReg has not provided any justification as to why large multinational operators require additional retail margin or headroom in different geographic footprints which are determined by wholesale market analysis. At the retail level, barriers to geographic expansion are low and firms face little incremental downstream costs in offering their retail services in “new” geographic locations. This would have been apparent to ComReg had it undertaken, as required, the Three Criteria Test in order to impose regulation on the retail market. ComReg has not provided any evidence-based justification as to why certain costs should be adjusted for SEO costs, or why certain costs would be higher depending on the particular exchange — noting in particular that due to the contiguous nature of open eir’s network deployment there may be multiple exchange footprints in a single residential area or within a county boundary.




⁶⁰ ComReg, Consultation, paragraph 11.108

⁶¹ ComReg, Consultation, paragraph 11.103

⁶² While in paragraph 10.96 of the Consultation ComReg sets out a broad range of potential retail market shares this is in the context of its market analysis absent wholesale regulation which ComReg is not proposing to be removed in the Regional WCA Market.

304. ✂

Table 1: Competitor Pricing Snapshot of NGA services⁶³

	Simply Broadband		Gigabit Broadband	Gigabit Broadband
	Up to 100 mb		350 Mb	1,000 Mb
	€25 for 6 months		€25 for 6 months	€25 for 6 months
	€45 thereafter		€55 thereafter	€90 thereafter
<hr/>				
	Superfast			
	Up to 100 mb			
	No promotion			
	€44			
<hr/>				
	eir Fibre	eir Fibre Extreme	eir Fibre Extreme	eir Fibre Extreme
	Up to 100 mb	150 Mb	300 Mb	1,000 Mb
	€45 for 6 months	€50 for 6 months	€58 for 6 months	€70 for 6 months
	€50 thereafter	€55 thereafter	€63 thereafter	€75 thereafter

✂

305. Fourth, ComReg has not provided any evidence that the commercial strategies of existing competitors require additional headroom such that “firms might reach efficient scale in the future by means of VUA, in the Regional WCA Market”⁶⁴. ComReg has given no consideration to the impact Regional Handover will have on the commercial investment decisions of firms in respect of any further requirement to expand their VUA footprint, and the inter-relationship such outcomes may have on competition — including consumer choice and pricing, or whether the retail pricing remedies proposed on eir take account of such outcomes. In the current competitive market, priority should be focused on facilitating competition and not protecting competitors or providing a theoretical economic space for market entry at the expense of transferring possible benefits and efficiencies to end-users, in accordance with ComReg’s primary duties.

306. Fifth, ComReg has not acknowledged the fact that an SEO cost base artificially raises prices above the competitive level which leads to reductions in static

⁶³ All prices inc. VAT and correct as at 19/05/2017.

⁶⁴ ComReg, Consultation, paragraph 11.49



efficiency. Due to the maturity of the retail market a higher cost base than required also impacts long-term dynamic efficiencies.

307. Sixth, in proposing a different operator cost base, depending on the open eir exchange that the customer is served from, ComReg has not taken into account the regulatory implications of its own market analysis findings in its consultation ComReg 16/96, and the stated views of a number of interested parties in their submissions. Virgin Media and Vodafone (and Compass Lexicon) all supported a view that the market is subject to national retail pricing. Consequently, an inconsistent retail MST in respect of the downstream retail costs used between exchange areas will result in higher prices in the Urban WCA market — due to the requirement of eir to pass a more severe retail MST for the exact same retail products in the Regional WCA market. This will create a pricing umbrella below which other operators are free to charge, safe in the knowledge that eir cannot compete — not only in the Urban WCA Market but also in the Regional WCA market. As such, the strict regulatory approach in the Regional WCA Market will have a negative impact on consumers through inefficient pricing over and above the competitive level. See also paragraph 303.
308. Finally, ComReg has provided no evidence to support its preliminary view that it is appropriate to depart from the 2013 EC Recommendation which recommends to NRAs “*Downstream costs are estimated on the basis of the costs of the SMP operator’s own downstream businesses (EEO test)*”. eir has demonstrated that departing from the 2013 EC Recommendation leads to higher than required retail prices and therefore ComReg’s regulatory intervention by using the proposed margin squeeze methodology in the retail market will result in excessive prices for consumers.
309. eir should be allowed to compete on the merits of its own downstream costs (i.e., an EEO cost standard). This would also be consistent with the 2013 EC Recommendation which states “*The use of the EEO standard enables NRAs to support the SMP operators’ investments in NGA networks and provides incentives for innovation in NGA-based services*”. In addition, it better meets ComReg’s regulatory objectives as it:



- i. does not need to rely on complex assessments of the economies of scale and scope of an efficient operator or subjective calculations on the adjustments to be applied to EEO;
- ii. is proportionate and takes account of the sustainable level of retail competition evident in the market;
- iii. removes the pricing umbrella and current regulatory windfall gains experienced by other operators through inappropriate economic space and leads to the lowest retail prices for end-users;
- iv. is consistent with the 2013 EC Recommendation;
- v. provides regulatory and legal certainty; and
- vi. eliminates the risk of inefficient entry⁶⁵, which could be very harmful for investment;

The incorrect cost standard has been applied in the tests

310. ComReg is of the preliminary view that ATC is the appropriate cost standard to use in the retail MSTs. eir does not agree. See paragraphs 233-241.
311. eir considers that its proposal of applying a LRAIC cost standard (without the plus) at the individual portfolio level better meets ComReg's regulatory objectives as it:
- i. considers the specific service increment and therefore mirrors efficient decision making by firms between individual portfolios;
 - ii. removes the regulatory windfall gains experienced by other operators through inappropriate economic space and leads to the lowest retail prices for end-users; and
 - iii. is consistent with ex-post competition law.
312. In addition, eir's proposal to recover LRAIC+ costs at the overall broadband portfolio level achieves good regulatory outcomes as it:

⁶⁵ Although given the market conditions over the current market review period further market entry is unlikely. See paragraph 242.



- i. ensures fixed indirect and common costs are recovered — which is the calculus used by operators to enter or expand in the market;
- ii. replicates as far as possible the dynamic pricing decisions of competitive markets;
- iii. is consistent with the 2013 EC Recommendation; and
- iv. removes unnecessary implementation complexity, as it is easier to compare to eir's HCA costs.

Incorrect and incomplete consultation of the parameters in the DCF model

313. eir agrees with ComReg's preliminary view that a DCF model is appropriate to use if there are retail MSTs. See also paragraph 248.

314. However, ComReg has not fully consulted on the different types of operators that can be considered in a DCF model. In addition, ComReg has also failed to consult on the market share that the operator attains over the life of the model. eir considers that, while a DCF model has been used in past regulatory decisions it cannot simply be carried forward as part of a new market analysis consultation without fully consulting on the parameters of such a model. particularly given the extent of changes in the market including⁶⁶:

- Virgin Media's expansion and upgrade plans;
- The Liberty Global and Netflix partnership;
- The provision of television services by eir and Vodafone;
- The entry of Sky into the retail broadband market;
- The network agreements between BT and eNet and Siro; and
- Imagine's aggressive plans to roll-out a national wireless network to support 'fibre-speed' broadband.

315. The DCF assumes that the type of operator considered in the model is a new market entrant which only offers standalone broadband. eir considers that, given the stage

⁶⁶ eir's submission to ComReg 16/96 market analysis consultation provides a more in-depth submission on these market developments.



of market development and assessing the relevant market shares in the Irish market, it is now appropriate to assume an existing “equally efficient operator” in the DCF model. It is highly unlikely that a new entrant will enter the market to offer exclusively standalone broadband retail products, and this approach is inconsistent with the use of eir’s HCA accounts which are based on offering a portfolio of NGA and CGA services.⁶⁷

316. Similarly, a new market entrant capable of achieving sufficient scale is more likely to acquire an existing operator and assume their market share rather than to try and build their base solely from churn between operators. Given the market entry and successful expansion of a number of operators including Sky and Vodafone (which respectively have varying degrees of reliance on open eir inputs), and the continued market position of the fully independent operator Virgin Media, ComReg has successfully achieved its regulatory objective of promoting competition in previous regulatory decisions (evident both in terms of market entry and expansion of sustainable competition). Therefore, now that competition has eventuated, ComReg must ensure that it is not disproportionate in placing undue regulatory restrictions on eir retail.
317. While the Consultation states that the DCF model assumes a 25% market share, it is only evident in examining the DCF model supplied to eir that the “new entrant” slowly gains a market share of 25% at the end of the DCF time period. eir considers that, given the stage of market development and assessing retail market shares, it is more appropriate that the assumed operator is an existing “equally efficient operator” which maintains its market share over the DCF period.

Effects-based analysis of MST and incomplete consultation on the assessment

318. The Consultation does not specify the assessment period for the retail MST. The MST models provided to eir have monthly portfolio margins. Consequently eir’s submission is based on the assumption that compliance will be assessed on a monthly basis.
319. Without an appropriate effects-based assessment or competitive assessment by ComReg, in the unlikely event that there is a margin squeeze, eir cannot agree that a

⁶⁷ ✂



one month assessment/compliance period is appropriate. See also paragraphs 251-254.

Other considerations

320. ComReg is of the preliminary view that a separate portfolio approach is appropriate for FTTH and FTTC services. eir considers that where a wholesale price(s) is determined based on a margin squeeze/retail-minus price control, a separate portfolio for FTTC and FTTH may be appropriate. See also paragraphs 310-312. A portfolio approach provides an operator, in theory, with the pricing flexibility to determine how best to recover fixed indirect and common costs from individual retail offers. Furthermore, to implement a retail margin squeeze obligation(s) within an individual portfolio, at an individual service offer level, suggests that retail competition in its entirety would be harmed if individual offers did not pass a MST.⁶⁸
321. ComReg is of the preliminary view that a 42 month customer lifetime is appropriate in the margin squeeze model. ✕. eir considers that a higher customer lifetime would be more appropriate for NGA services to recognise the migration of customers switching to the new technology during the current market review period and that fibre broadband should lead to higher customer satisfaction — due to fibre being a more compelling product than copper, with better speeds and ability to cross-sell additional value-added services over time, such as IPTV and high-definition on-demand content.
322. ComReg is of the preliminary view that additional revenue from excess usage should not be taken into the model. eir does not agree. See paragraph 256.
323. ComReg is of the preliminary view that a 25% market share is appropriate to model in the DCF. eir agrees with ComReg's preliminary view. As noted in paragraph 317, eir considers that the type of operator that should be considered in the DCF model is that of an existing operator in the market. Assessing current retail market shares and in the interest of reflecting the current market reality, eir considers that a 25% market share is appropriate on the proviso that when the DCF model is set to EEO operator that it compares to eir's actual and forecast costs (at the implementation date) at the start of the DCF period.

⁶⁸ In circumstances where at the portfolio level there is a positive margin.



324. No consideration is given in the MST that an increasing proportion of eir’s retail competitors are not using Bitstream as the underlying wholesale input, but rather is purchasing VUA (or alternative network technologies such as cable or wireless).⁶⁹ Therefore, it is disproportionate to continue to require eir to pass a MST based on an underlying wholesale input that is decreasing. A well designed MST would recognise an appropriate weighting of the various wholesale inputs that are being used by eir’s retail competitors. Such an approach is recognised in ComReg Decision D04/13 for bundles (through the use of the Wholesale Network Input or WNI) and eir does not see why there should be such regulatory inconsistency applied by ComReg, and a different methodology depending on whether a service is sold on a standalone or bundle basis. ComReg has maintained that view in the recent Bundles consultation.⁷⁰
325. As noted in the Consultation, there is still a level of uncertainty regarding the demand for NGA services. This was recognised in ComReg’s Decision D03/13, where ComReg states that:
- “ComReg considers that the 5,000 threshold will allow Eircom some flexibility to test the demand for the NGA broadband retail products but Eircom must continue to monitor retail subscriber numbers for NGA broadband services on a monthly basis. Once any standalone NGA broadband retail offering reaches the 5,000 retail subscribers, then ComReg must be notified and a statement of compliance must be provided.”*
326. ✕. ComReg’s reasoning regarding flexibility to allow testing for demand is still relevant over the current market review period given the early consumer migration to NGA services. eir considers that a 5,000 retail subscriber threshold should be applied for NGA FTTH services before a statement of compliance is required. It is not until subscriber levels are at a sufficient level that such a statement can provide any meaningful assessment of forward-looking margins and compliance.

⁶⁹ See paragraph 45.

⁷⁰ However, as the Urban exchanges are considered by ComReg in a different MST portfolio compared to Regional Area 1 the WNI will likely increase and reduce the flexibility available that would have been available to eir otherwise. Again this highlights the dangers of regulating national markets through small piecemeal portfolios.



Question 26: Do you agree with ComReg’s preliminary view on the margin squeeze principles that should apply to the retail margin squeeze test for current generation services in Regional Area 1 and Regional Area 2 of the Regional WCA Market? Please provide reasons for your response.

327. eir does not agree with a number of ComReg’s preliminary views on the principles and assumptions in the separate retail MST between CGA services and retail services in Regional Area 1 and Regional Area 2 of the Regional WCA Market. In particular, eir considers that ComReg has:

- a. proposed ex-ante pricing obligations which are inconsistent with the nature of the competition problems identified;
- b. not considering the effectiveness of ex-post competition law in addressing ComReg’s concerns regarding foreclosure;
- c. relied on an erroneous view that a retail MST is required as a preventative measure of foreclosure, notwithstanding that, due to proposed concurrent SMP pricing remedies, eir does not have the ability to successfully undertake such a strategy;
- d. incorrectly proposed an operator cost base which is inconsistent with the competition issues identified;
- e. incorrectly proposed a separate MST in each area;
- f. applied too high a cost standard in each of the retail MSTs;
- g. failed to consult on different operator types that can be used in the DCF model — including transparently consulting on the market share the operator is likely to attain over the duration of the DCF time period; and
- h. proposed a test without an effects-based analysis on whether eir’s pricing could lead to actual foreclosure — for which the assessment period has not been specified or consulted on.



Price controls obligations which are inconsistent with competition problem identified

328. ComReg proposes to impose a retail MST in order to “protect operators that rely on LLU and Line Share wholesale inputs. This is particularly important in Regional Area 1 where unbundling activity may take place”⁷¹. However, this regulatory concern is already addressed through the regulatory obligation of cost-oriented wholesale prices for LLU and Line Share. Therefore, it is unclear how a margin squeeze obligation between retail prices and cost-oriented Bitstream prices will further protect operators relying on cost-oriented LLU or Line Share.
329. The Consultation also states that a retail MST is appropriate in Regional Area 2 as “There are little or no alternative wholesale providers in Regional Area 2. In this case Eircom may attempt to foreclose competition in the retail broadband market as, given its dominant position in the Regional WCA Market, it is likely to have the incentive and ability to do so. In addition, there are a number of smaller operators in Regional Area 2. Given their lack of scale these are vulnerable to exclusionary behaviour given that they do not share Eircom’s economies of scale and that they have no realistic alternative means of provision”⁷². It is unclear to eir what assessment ComReg has done, if any, to assess that eir has lower downstream unit costs due to economies of scale or scope. Similarly, ComReg’s assertion that “they have no realistic alternative means of provision” is unclear as there are access, transparency and cost-orientation wholesale obligations in place to address this concern and it is not apparent to eir how a retail MST further addresses this.
330. Finally, as set out in eir’s response to ComReg’s market analysis consultation 16/96, one of the issues as to how ComReg has identified the market and resulting Regional Area 1 and Regional Area 2 is that ComReg considers that retail mobile broadband and broadband products provided over Fixed Wireless Access networks and Satellite networks are not effective substitutes for retail fixed broadband provided over copper, FTTC, FTTH and CATV networks. This result is primarily due to ComReg’s claims about the functional differences, customer usage and difference in pricing of this technology. However, eir is of the view that ComReg has taken an overly narrow

⁷¹ ComReg, Consultation, paragraph 11.96

⁷² ComReg, Consultation, paragraph 11.97



view of the market and that the interplay between products in the retail market is more complex than ComReg concludes.

ComReg has not considered all the regulatory options available

331. ComReg proposes to implement a MST between retail current generation broadband and the price for wholesale Bitstream services in Regional Area 1 and a separate test for such services in Regional Area 2. As noted in paragraph 328-329, it is unclear what regulatory concerns these MSTs are proposing to address.
332. More broadly, in Chapter 3 of the Consultation, ComReg has identified the risk of foreclosure. However, while ComReg has presented this high-level theoretical economic concept of foreclosure it has not given any consideration to the effectiveness of ex-post competition law in addressing this risk.
333. Considering ComReg's concern of foreclosure is one of the central issues underpinning price/MST in ex-post competition law, ComReg has not fully consulted on and assessed the options based on the nature of the problem identified.

ComReg has over-relied on a theoretical possibility to justify “de facto” retail regulation and failed to consider how far other controls successfully address any foreclosure concerns

334. eir considers that ComReg has put too much weight on the theoretical economic abuse of foreclosure through retail pricing, and has not adequately considered whether eir actually has sufficient market power at the retail level to follow such a pricing strategy. ComReg has also failed to adequately consider whether existing and proposed regulatory remedies already prevent such foreclosure concerns.
335. Furthermore, as identified in paragraphs 293-298, eir does not have the ability or incentive to margin squeeze. Therefore, an ex-ante MST is not consistent with the nature of the problem identified and is already addressed through existing legal remedies which provide appropriate behavioural constraints.
336. eir submits that, should ComReg maintain a view that a MST is required, it should not exacerbate this error by departing from competition law economic principles and methodologies when deciding, inter alia: the type of operator it is trying to protect, the appropriate cost standard, the level of aggregation and time period of



assessment, that are well-established and accepted in an ex-post competition law assessment of margin squeeze and foreclosure.

Applied an incorrect assumed operator cost base

337. eir does not agree with ComReg’s preliminary view that a combined REO cost base (or the SEO cost base as a proxy for REO in the absence of REO cost data) and EEO cost base is appropriate for the retail MSTs associated in Regional Area 1 and that a full REO cost (or SEO) is appropriate for Regional Area 2.
338. First, ComReg’s consideration to use REO data in the proposed retail MST is inconsistent with ComReg’s objectives, see Regulation 6(1) of the Access Regulations, as well as Regulation 8 (6) (a) and (b) which requires ComReg to impose proportionate and objectively justifiable remedies which are based on the nature of the problem identified. See also paragraph 300.
339. Second, ComReg’s proposed use of SEO for certain downstream retail costs in Regional Area 1, and for all downstream retail costs in Regional Area 2, is based on wholly insufficient reasoning and little evidence other than ComReg’s assertion that *“there are currently no entrants in the Regional WCA Market that exhibits equal, or almost equal, economies of scale to Eircom”*⁷³. It is unclear to eir what assessment ComReg has done, if any, to assess that eir has lower downstream unit costs due to economies of scale or scope.
340. Third, ComReg’s stated objective that SEO costs *“should promote competition and allow entrants to gain scale given that it recognises that other operators do not have the same economies of scale / scope as Eircom”*⁷⁴ is not based on any assessment of clear evidence. ComReg has not provided any justification as to why existing retail operators currently in these areas, or large multinationals which could easily enter these areas, require additional retail margin or headroom in different geographic footprints which are determined by wholesale market analysis. At the retail level barriers to geographic expansion are low and firms face little incremental downstream costs in order to offer their retail services in “new” geographic locations. ComReg has not provided any evidence-based justification as to why specific costs

⁷³ ComReg, Consultation, paragraph 11.108

⁷⁴ ComReg, Consultation, paragraph 11.48



in Regional Area 1 and all costs in Regional Area 2 should be adjusted for SEO costs in respect of eir's national downstream costs.

341. Fourth, ComReg has not acknowledged in this Consultation, the fact that an SEO cost base artificially raises prices above the competitive level which leads to reductions in static efficiency. Similarly, ComReg has given no consideration to its own market analysis findings that the market is subject to national retail pricing. Consequently, an inconsistent retail MST in respect of the downstream retail costs used between areas will result in higher prices in the Regional Area 1 — due to the requirement that eir pass a more severe retail MST for the exact same retail products in the Regional Area 2 market. This will create a pricing umbrella below which other operators are free to charge in the knowledge that eir cannot compete. As such, the strict regulatory approach in the Regional WCA Market is having a negative impact on consumers through inefficient pricing over and above the competitive level. Consequently, this approach is inconsistent with ComReg's regulatory duties to ensure that prices are not excessive, and with its duty to provide the maximum benefit to end-users.
342. As set out in paragraph 309, eir should be allowed compete on the merits of its own downstream costs (i.e., an EEO cost standard) in these areas. In addition, it better meets ComReg's regulatory objectives as it:
- i. does not need to rely on complex assessments of the economies of scale and scope of an efficient operator or subjective calculations on the adjustments to be applied to EEO;
 - ii. is proportionate and takes account of the sustainable level of retail competition evident in the market;
 - iii. leads to the lowest retail prices for end-users;
 - iv. provides regulatory and legal certainty; and
 - v. eliminates the risk of inefficient entry, which could be very harmful for investment and detrimental for end-users.



The product-by-product approach is unnecessary

343. eir welcomes the proposed use of portfolio approach in Regional Area 1. However, in eir’s view, it does not go far enough to provide the pricing flexibility required and that a single portfolio test in the Regional WCA Market is more appropriate.
344. eir considers that the product-by-product approach in Regional Area 2 is inappropriate. To implement a retail MST obligation(s) at an individual service offer level provides too much weight by ComReg to the theory that retail competition in its entirety would be harmed if individual offers did not pass a MST.⁷⁵
345. For example, typically retail operators advertise a single retail headline price for “as fast as your line will go” or an “up to” X offer. The nature of the speed provided is determined in part by the available service from the relevant wholesale operators (e.g., open eir or Siro). Virgin Media’s campaigns are also based on an “up to” single price retail offer. Therefore, depending on the wholesale variant cost the relative retail margin may fluctuate based on the single retail price offer (as recognised by Compass Lexicon’s paper included in Vodafone’s submission to ComReg Consultation 16/96 — see paragraph 241). In Regional Area 1 and Regional Area 2, the retail competitive dynamics are no different to the Urban WCA Market and a firm using this pricing approach may be willing to generate different margins for different products and/or incur short-run losses on certain individual offers. This is because from an incremental perspective attaining that customer is attractive for potential speed upgrades or cross-selling opportunities. Therefore, the fact that an operator is “carrying” losses or decides not to compete on a particular narrow subset of the market does not exclude that operator from the entire market. Even if there are players who choose to supply just a small subset of products, regulatory remedies should not be concerned about their exclusion if competition is driven by firms that compete across a fuller range of products.
346. In addition, a single national price reduces marketing spend and avoids customer confusion (compared to the alternative scenario where there are bespoke retail prices and offers depending on for example the distance from the exchange — for which the line speed is unknown until a line test is performed).

⁷⁵ In circumstances where at the portfolio level there is a positive margin.



347. The proposed product-by-product approach unduly restricts eir’s flexibility in how it allocates its fixed indirect and common costs between its offers, and focusing on individual retail offers is not beneficial to end-users. Putting it another way, if there is no prospect of an efficient firm being excluded from the market as a whole, then the product-by-product approach has no rationale and is in fact preventing the market moving towards competitive market outcomes.
348. Similarly, as noted in paragraph 341, an inconsistent retail MST between areas will result in higher prices in the Regional Area 1 — due to the requirement of eir to pass a more severe retail MST for the exact same retail products in the Regional Area 2 market.
349. eir should not be in the position of having to provide competitive headroom for firms that elect to compete across an inefficiently narrow range of products. If ComReg wishes to replicate, as far as possible, the dynamic outcomes of a competitive market, which are in the long-term interests of consumers, then a single test at a portfolio level must be used for CGA services. See also paragraph 354.

The incorrect cost standard has been applied in the tests

350. ComReg is of the preliminary view that ATC is the appropriate cost standard to use in the separate tests for Regional Area 1 and Regional Area 2. eir does not agree. See paragraphs 233-240.
351. In addition, ComReg has used conflicting reasons to support its proposed pricing remedies for Regional Area 1 and Regional Area 2 and its proposed approach is also inconsistent with other recent pricing decisions.
352. In this Consultation, ComReg has proposed to set average wholesale prices based on cost modelling for the Regional WCA Market (i.e., the combined Regional Area 1 and Regional Area 2). ComReg reasons that this “*minimises the risk of a digital divide by setting the same price across Regional Area 1 and Regional Area 2. There is no material difference between the average BU-LRAIC+ costs for current generation services in Regional Area 1 and the average BU-LRAIC+ costs in Regional Area 2*”⁷⁶ and “*allow Eircom some flexibility to cross subsidise from Regional Area 1 to Regional*

⁷⁶ ComReg, Consultation, paragraph 9.27



Area 2 while ensuring overall cost recovery”⁷⁷. This justification equally applies at the retail level as it does to the wholesale market. Therefore, it is unclear to eir why ComReg is inconsistent in its reasoning between retail and wholesale pricing methodologies. Similarly, eir notes that in ComReg Decision D03/16, ComReg implemented a national retail MST between Retail Line Rental and WLR as “... the national approach is appropriate given that retail line rental is a national product and Eircom may face different competitive constraints in the LEA and Outside the LEA meaning that there are sound economic reasons in this case to allow some efficient price differentiation and hence cost recovery on a national basis”.⁷⁸ eir submits that there is no reason why ComReg’s retail pricing regulation should be inconsistent across markets.

353. eir considers that if ComReg considers it appropriate that end-users in Regional Area 1 and Regional Area 2 are required to pay higher retail prices as a result of regulation it should fully set out why it is appropriate to require eir to adhere to such regulatory constraints, to the clear disadvantage of end-users.

354. eir considers that its proposal of applying a LRAIC cost standard (without the plus) at the individual portfolio level better meets ComReg’s regulatory objectives as it:

- i. considers the specific service increment and therefore mirrors efficient decision making by firms between individual portfolios;
- ii. removes the regulatory windfall gains experienced by other operators through inappropriate economic space and leads to the lowest retail prices for end-users; and
- iii. is consistent with ex-post competition law.

355. In addition, eir’s proposal to recover LRAIC+ costs at the overall broadband portfolio level achieves good regulatory outcomes as it:

- i. ensures fixed indirect and common costs are recovered — which is the calculus used by operators planning to enter or expand in the market;

⁷⁷ ComReg, Consultation, paragraph 9.28

⁷⁸ ComReg 15/67, paragraph 10.36.



- ii. replicates as far as possible the dynamic pricing decisions of competitive markets;
- iii. is consistent with the 2013 EC Recommendation; and
- iv. removes unnecessary implementation complexity, as it is easier to reconcile to eir's HCA costs.

Incorrect and incomplete consultation of the parameters in the DCF model

356. eir agrees with ComReg's preliminary view that a DCF model is appropriate to use in the retail MSTs. See also paragraph 248.

357. However, ComReg has not fully consulted on the different types of operators that can be considered in a DCF model. In addition, ComReg has also failed to consult on the market share that the operator attains over the life of the model. eir considers that while a DCF model has been used in a past regulatory decision it cannot simply be carried forward as part of a new market analysis consultation without fully consulting on the parameters of such a model.

358. See also paragraphs 315-317. eir considers that, given the stage of market development and assessing retail market shares, it is more appropriate that the assumed operator is an existing "equally efficient operator" which maintains its market share over the DCF period.

Effects-based analysis of MST and incomplete consultation on the assessment

359. The Consultation does not specify the assessment period for the retail MST. The MST models provided to eir have monthly margins and therefore eir's submission is based on the assumption that compliance will be assessed on a monthly basis. Without an appropriate effects-based assessment or competitive assessment by ComReg in the unlikely event that there is a margin squeeze, eir cannot agree to a one month assessment/compliance period. See also paragraphs 251-252.

360. eir submits that a six month period is sufficient to undertake an assessment of compliance at an overall portfolio level. This would provide ComReg with sufficient oversight that eir is not causing a margin squeeze and is in compliance with any regulatory obligations imposed as part of the market review. After a twelve month



period (which should preferably coincide with eir's financial year) a full compliance statement can be submitted by eir to ComReg.

361. Such a period provides the optimum balance between ensuring eir is compliant with its regulatory obligations and providing appropriate pricing flexibility to eir.

Other considerations

362. Section 11.5 of the Consultation does not specify the assumed customer lifetime in the model. Elsewhere, ComReg is of the preliminary view that a 42 month customer lifetime in the MST models is appropriate. Consequently, eir assumes that ComReg's position for this proposed test is the same. ✕. eir considers that a 42 month customer lifetime for CGA services is appropriate.
363. ComReg is of the preliminary view that additional revenue from excess usage should not be taken into the model. eir does not agree. See paragraph 257.
364. ComReg is of the preliminary view that a 25% market share is appropriate to model in the DCF model. eir agrees with ComReg's preliminary view. As noted in paragraph 317, eir considers that the type of operator that should be considered in the DCF model is that of an existing operator in the market. Assessing current market shares and in the interest of reflecting the current market reality, eir considers that a 25% market share is appropriate on the proviso that when the DCF model is set to an EEO operator that it compares to eir's actual and forecast costs (at the implementation date) at the start of the DCF period.
365. No consideration is given in the MST that a proportion of eir's retail competitors are not using Bitstream as the underlying wholesale input but rather is purchasing LLU. A well designed MST would recognise an appropriate weighting of the various wholesale inputs that are being used by eir's retail competitors including Regional Handover. Such an approach is recognised in ComReg Decision D04/13 for bundles (through the use of the WNI) and eir does not see why there should be a different methodology depending on whether a service is sold on a standalone or bundle basis.⁷⁹

⁷⁹ However, as the Urban exchanges are considered by ComReg in a different MST portfolio compared to Regional Area 1 the WNI will likely increase and reduce the flexibility available that would have been available to eir otherwise. Again this highlights the dangers of regulating national markets through small piecemeal portfolios.



Question 27: Do you agree with ComReg’s preliminary view that the price control period should be for three years but should remain in place any further notice by ComReg and that Eircom should review the models annually for material / exceptional changes? Please provide reasons for your response.

366. eir does not agree that the price control period should remain in force beyond a three year price control period. Such a proposal would go even beyond the time recommended by the European Commission for NRAs to reassess markets let alone to carry forward aged pricing remedies.
367. Absent a ComReg review within that timeframe all pricing remedies should revert immediately at the end of the control period to a default ex-post competition law assessment. The reason that eir finds it necessary to insist on this immediate action, where ComReg fails to deliver a prompt review, is due to the continued and substantial negative impact on eir’s leased line business in a competitive market as a result of the inexcusable and on-going delay in review of the price control by cost-orientation implemented as far back as 2008.
368. eir also notes that ComReg's approach to depreciation generally results in under-recovery of costs in early years with price rises necessary over time to eventually reach cost recovery (albeit that cost recovery is highly uncertain given the potential for substantial technology and market changes over the medium-to-long term). Accordingly, a failure to provide for ongoing price increases would violate ComReg’s duty (under Article 13 of the Access Directive) to ensure that eir receives a reasonable return on its capital.



Question 28: Do you agree with ComReg’s preliminary views regarding the pre-notification procedures that should apply to all proposed wholesale price changes or for new wholesale prices associated with the price control obligation for all WLA and WCA services mandated in the WLA / WCA Market Review? Please provide reasons for your response.

369. eir agrees with ComReg’s preliminary views regarding pre-notification to ComReg of proposed wholesale price changes associated with products and services subject to price control in the market for WLA services.

370. However, eir considers that there is no SMP in the market for WCA services and therefore no price control remedy is required.

Question 29: Do you agree that there should be no wholesale promotions and discounts going forward for WLA or WCA services? Please provide reasons for your response.

371. eir disagrees. Well-constructed, reasonable promotions and discounts should be part of wholesale supply.

372. Even in markets where SMP is present, and price control is by cost-orientation, it is possible to encourage efficient consumption and to deliver value to efficient wholesale customers by developing promotions and discounts that are consistent with eir’s cost-orientation obligation (for example, such promotions and discounts could help eir achieve forecast demand which may otherwise not be achievable). While the effort to develop such offers is onerous, the advantages and rewards to both the regulated provider of NGA and the access seekers will be lower unit costs through higher volumes. The 2013 EC Recommendation recognises that to promote efficient investment and innovation operators should be allowed a degree of “pricing flexibility to test price points and conduct appropriate penetration pricing” including differentiating wholesale access prices. Furthermore, where discounts and promotions are well signalled in advance to all Industry, including their duration, it is unclear to eir how there could be “*considerable uncertainty for access seekers*”⁸⁰ as suggested by ComReg.

⁸⁰ ComReg, Consultation, paragraph 12.19.



Question 30: Do you agree with ComReg’s preliminary views that pre-notification and pre-clearance is appropriate for retail price changes in the WLA Market and the Regional WCA Market? Please provide reasons for your response.

373. eir does not agree with ComReg’s preliminary view that a pre-clearance and approval requirement is appropriate for retail price changes in the WLA Market and the Regional WCA Market. eir considers that it would only be proportionate for it to pre-notify and obtain pre-clearance from ComReg of retail offerings in the case where there was an underlying change in the wholesale inputs to the test.
374. The competitive market dynamics in the retail market mean that eir has to be quicker and more responsive in respect to its retail offerings and promotional activity. Going forward eir must be able to respond more effectively to market outcomes including consumer demand. The retail market is recognised by ComReg as being competitive.
375. In the context of the product-by-product test proposed by ComReg in Regional Area 2 (which eir considers inappropriate) it is important to consider that when a new or revised offer is launched it requires some level of forecasting regarding take-up and relevant qualification for promotional/discounts. Given that offers can be launched part way through months, take-up rates are step-functions over time (rather than all customers purchasing the bundle on “day 1”) and early usage patterns may not be representative (due to small subscriber numbers) of the profile of a more stable base — it means that a longer time period to assess compliance is more appropriate (see also paragraphs 251-254). Furthermore, some flexibility needs to be given to eir to test market demand — which would not necessarily be apparent from one or two month out-turns. Finally, as noted in paragraph 347, whether a single non-compliant offer could harm competition is also strongly debatable.
376. Similarly, for a new offer to make a portfolio test non-compliant, it would have to represent a significant up-take to affect the overall portfolio weighting. As the obligation to remain compliant with eir’s regulatory obligations lies with eir post launch, actual uptake and portfolio margins will continue to be monitored by eir to ensure compliance and as a matter of commercial common sense. Therefore, it is unclear to eir how a pre-clearance and approval requirement at the portfolio level addresses ComReg’s regulatory concern “that products launched by Eircom can be effectively replicated by other operators, where appropriate, and are beneficial to

end users and the marketplace”⁸¹. See also paragraph 322. ComReg in this regard should have confidence that competition will deliver benefits to end users.

377. In respect of ComReg’s proposed alternative requirement (where pre-approval would not be required by eir pre-launch, but that compliance will be assessed for a retail amendment every quarter) eir considers that while this methodology is preferable to ComReg’s preliminary view, the compliance/assessment period is not adequate without an effects-based approach / competitive assessment (see paragraphs 251-254) and/or the number of consumers may not have reached an appropriate retail subscriber threshold — where such a compliance statement could provide any meaningful assessment of forward-looking margins (see paragraph 324). Consequently, eir submits that a six month period is sufficient to undertake an assessment of compliance at an overall portfolio level⁸². This would provide ComReg with sufficient oversight that eir is not causing a margin squeeze and is in compliance with any regulatory obligations imposed as part of the market review. After a twelve month period (which should preferably coincide with eir’s financial year) a full compliance statement can be submitted by eir to ComReg. Such a period provides the optimum balance between ensuring eir is compliant with its regulatory obligations and providing appropriate pricing flexibility to eir.⁸³
378. eir is aware of its regulatory obligations, and a pre-clearance and approval process places too much weight to a misjudged concern on the part of ComReg that eir may somehow launch a non-compliant offer. eir considers that an alternative ex-post assessment by ComReg of launched offers is more appropriate and, given eir’s proposal on the compliance period (see paragraph 253), will provide adequate oversight to ComReg of the impact of eir’s offers and promotional activity. This will provide ComReg with comfort that offers are consistent with eir’s regulatory obligation(s) and address the nature of the problem identified, and ensure ComReg’s objective are achieved (i.e., that the offer is replicable and is not causing a margin squeeze).

⁸¹ ComReg, Consultation, paragraph 12.27

⁸² eir considers that a 5,000 retail subscriber threshold should be applied for NGA FTTH services before a statement of compliance is required. It is not until subscriber levels are at a sufficient level that such a statement can provide any meaningful assessment of forward-looking margins and compliance.

⁸³ eir notes that this would be consistent with the VULA MST in the UK, which has been tested by litigation.



Question 31: Do you agree with ComReg’s preliminary view regarding the regulatory approval mechanism and that in exceptional circumstances only Eircom may be allowed to reduce wholesale prices for FTTC based NGA services (VUA and Bitstream) below the regulated price so long as it does not breach the price floor requirements at paragraphs 12.54-12.55 and subject to ComReg’s approval? Please provide reasons for your response.

379. eir agrees that it is appropriate to have a regulatory approval mechanism to ensure that eir’s cost-oriented wholesale prices are not priced out of the market. If the volumes and forecasts used to determine cost-oriented prices do not manifest themselves as a result of competition from rival platforms or technologies, there must be a mechanism to allow eir the pricing flexibility to facilitate some recovery of what is predominantly a large fixed and sunk cost.

380. However, eir considers that ComReg has:

- a. proposed a regulatory remedy which is only required as a result of moving prematurely to cost-orientation for FTTC-based NGA services;
- b. failed to fully consult on how eir can apply to reduce its prices below the regulated price;
- c. failed to identify how eir’s cost-orientation obligation will be assessed by ComReg in the event that wholesale prices are reduced below cost; and
- d. failed to consult on how eir’s national non-discrimination obligation would apply if there are regional price reductions.

A regulatory approval mechanism is only required as a result of imposing cost-orientation

381. eir considers that ComReg’s reasoning for requiring a regulatory approval mechanism is, in itself, evidence that ComReg has prematurely moved to cost-orientation for FTTC-based NGA services. ComReg states that a lower FTTC-based price may be warranted in certain circumstance because:

“We are aware that it is not currently possible to foresee how the market for various services will develop over time and in all areas of the country.”⁸⁴

ComReg considers that applying cost-orientation is proportionate and justified for two reasons. The first is that eir has increased its prices and the second is that NGA

⁸⁴ ComReg, Consultation 17/26, paragraph 12.44.



services and costs are now easier to forecast.⁸⁵ It is unclear how ComReg’s justification for requiring a regulatory approval mechanism is consistent with the second reason put forward by ComReg in support of cost-orientation.

382. In paragraph 12.49 of the Consultation, ComReg states that a regulatory approval mechanism “*is pro-competitive since it provides Eircom with pricing flexibility in exceptional circumstances while encouraging competition between operators and creating more certainty for OAOs in developing their business plans*” and further in paragraph 12.52 that “*Lower prices should also benefit the interests of end-users*”. Using the same reasoning it is unclear how maintaining the previously imposed retail MST (pursuant to ComReg decision D03/13⁸⁶) to set FTTC-based NGA services is somehow now inadequate, as it achieves the same regulatory outcomes identified here — which this further layer of regulation is trying to address as a result of moving to cost-orientation. In particular, no sooner has ComReg imposed a cost-orientation obligation but it also needs to make provisions to allow a break in the price path due to unknown future market conditions and outcomes.
383. FTTC-based services continue to be a risky network investment whose pay-back period, if any, remains uncertain in the face of increasing convergence of rival technologies and platforms. eir submits that there are other options available to ComReg, including relying on ex-post competition law, or the previously imposed standalone MST, to ensure that appropriate wholesale prices are maintained between different platforms and technologies, which better meet ComReg’s regulatory objectives.

Failed to consult on how eir can apply to reduce its prices

384. The Consultation does not provide sufficient detail to adequately allow eir to understand under what circumstances it can apply to ComReg to reduce prices.
385. The Consultation states that the regulatory approval mechanism would only arise in exceptional or unique circumstances. However, it does not provide sufficient detail, and is completely opaque, as to the type of assessment eir could undertake to determine if it can make such an application and what information ComReg requires to assess same.
386. In ComReg Decision D03/16 it is clear that eir is required to demonstrate, using an MST, that eir retail or OAOs are unable to compete (using the cost-oriented wholesale prices of WLR or CGA SABB) against those retail offers by OAOs relying on other platforms or technologies. This Consultation only notes that this “*proposal is similar*”

⁸⁵ ComReg, Consultation, paragraphs 5.4 - 5.6.

⁸⁶ ComReg 13/11 – “Remedies for Next Generation Access Markets”.



to the Regulatory Approval mechanism set out in Chapter 12 of the 2016 Access Pricing Decision”⁸⁷ [emphasis added]. Stating that a mechanism is “similar” is not sufficient for proposing a methodology as important as a regulatory approval mechanism.

387. In the Consultation, paragraph 12.53, ComReg states that “While an ex post investigation could be used to determine if such a price reduction was uncompetitive ComReg considers that such a process could prove to be time consuming and could lead to a level of uncertainty that would reduce competition and dis-incentivise investment. Therefore, ComReg considers that an ex-ante remedy would provide industry with a level of assurance as to when and how such an exceptional price reduction below the regulated price would be acceptable for FTTC based VUA”. Given the clear weight of importance ComReg places on such a mechanism, it is not apparent to eir why ComReg has not clearly consulted on and established a number of fundamental principles for such a methodology. As currently drafted ComReg’s proposal cannot be said to amount to effective consultation as required by Regulation 8 (6) (c) of the Access Regulations.
388. ComReg must clearly set out and consult on a number of fundamental issues including:
- i. confirming whether a margin squeeze model is the correct approach to demonstrate that eir retail and OAOs are unable to compete using cost-oriented FTTC-based NGA services;
 - ii. whether such a margin squeeze model would need to include both retail standalone broadband and bundle offers, and, if so, whether one or both retail service offerings must demonstrate a squeeze;
 - iii. the time period (i.e., the duration of the squeeze) that must have elapsed before a request can be made;
 - iv. the proposed ex-ante retail MSTs use of a combination of REO and EEO as the assumed operator cost base, ComReg must confirm what the assumed operator cost base would be in making such a submission;
 - v. the time period in which ComReg will make its final determination;
 - vi. whether an application would be subject to consultation with industry and further notification to the European Commission;

⁸⁷ ComReg, Consultation, paragraph 12.50.



- vii. how, as per paragraph 12.55 of the Consultation, “An alternative operator’s wholesale FTTC based VUA price” will be determined? ✕. In the event of an application by eir, ComReg could use its statutory information gathering powers to determine whether the alternative operator’s price is lower than the modelled cost; and
- viii. what paragraph 12.55 b) of the Consultation means by “...or alternative operator’s retail price minus retail costs and relevant network costs”. Does this apply to all platform technologies including wireless and cable? What does ComReg mean by “relevant network costs”?

Failed to consult on how eir’s cost-orientation obligation will be assessed

389. Paragraph 12.54 of the Consultation sets out a number of pre-conditions which ComReg will consider in its assessment of whether it is appropriate to allow eir to lower its wholesale price including that: “The reduction to the price for FTTC based VUA should apply to a substantial geographic region and not just to a very select number of exchanges chosen by Eircom” [emphasis added]. eir considers this to mean that it could reduce the wholesale price of FTTC-based NGA services in certain geographic areas and not nationally. A further pre-condition is that such a reduction could not go below the price floor. In simple terms, the price floor is the lower of a modelled rate relative to the geographic area concerned or the alternative operator’s actual or assumed wholesale price.
390. In the event that eir lowered its prices in certain geographic areas, it is not evident in the Consultation how ComReg would assess eir’s compliance with its national cost-orientation obligation. This is even more relevant in circumstances where eir is allowed price to below its modelled cost but still be consistent with the price floor (i.e., it could match an alternative operator’s actual or assumed wholesale price, which may have no correlation to eir’s own costs).
391. Under ex-post competition law, even dominant firms are permitted to set prices below some measures of costs, provided that (i) prices are not set below average variable costs; or (ii) if prices are below average total costs, they must not form part of a plan for eliminating a competitor. A dominant firm that only lowers its price to meet the competition would not be in breach of competition law (provided that the price is above average variable costs).
392. As currently drafted the Consultation is not sufficient to enable eir to understand the regulatory obligations being proposed by ComReg — such that it would be in a position to decide whether to devote resources to an application under the proposed



mechanism or could ensure that it was compliant with any subsequent ComReg Decision.

393. Any list of conditions needs to be clear and, contrary to the list in paragraph 12.54 of the Consultation, which is prefaced “including the following”, exhaustive. In the context of a regulatory decision mechanism, it is entirely inappropriate, and would give rise to an arbitrary and unpredictable regime, for ComReg to leave open the introduction of further ad hoc criteria, or to suggest that ComReg’s application of that mechanism should not give rise to any legitimate expectation, or create any precedent. Even where ComReg intends that mechanism to be wholly exceptional in nature, a determination of what constitutes such an exceptional situation, in the interest of regulatory predictability and certainty, ultimately needs some framing in the form of clear criteria and precedents.

Failed to consult on how eir’s national non-discrimination obligation would apply if there are regional price reductions

394. As set out in paragraph 389, the regulatory approval mechanism is proposed to allow eir to reduce its wholesale prices in identified geographic areas (subject to relevant pre-conditions) under certain “exceptional” circumstances. Such a price reduction would not be required to apply nationally.

395. One of the regulatory remedies proposed by ComReg’s market analysis consultation 16/96 is that eir would be subject to a non-discriminatory obligation. Neither the Consultation, nor the associated Draft Decision Instruments, clarify or make allowances for different geographic prices for the provision of the same service. Therefore, it is unclear how ComReg would assess eir’s non-discriminatory obligation in the event of regional price differences for the same underlying service.

396. As currently drafted the Consultation is not sufficient to enable eir to understand the regulatory obligations being proposed by ComReg — such that it could ensure that it was compliant with any subsequent ComReg Decision.



Question 32: Do you agree with ComReg’s preliminary view regarding the regulatory approval mechanism (and pre-conditions at paragraph 12.54) that the price for FTTH based VUA should not go below the price floor at paragraph 12.72 and that Eircom’s full deployment costs for FTTH based VUA should be calculated with reference to Eircom’s own business case / plan? Please provide reasons for your response.

397. eir does not agree with ComReg’s proposal for a regulatory approval mechanism for FTTH-based VUA.
398. FTTH-based VUA is proposed to be subject only to price control by a MST. A MST (if appropriately designed) provides eir with the pricing flexibility to balance making a return on a high-risk substantial investment with uncertain demand elasticities and market outcomes. The 2013 EC Recommendation also recognises that pricing flexibility is important to support NGA investment. This additional regulatory approval proposal by ComReg appears to be counter-intuitive in that eir must on the one hand be free to set wholesale prices to stimulate demand (while still being subject to a retail MST) but on the other hand not be free to set wholesale prices so low such that it stimulates too much demand and foreclose another operator (which is also making the same risky investment as eir).
399. Section 12.4 of the Consultation describes the regulatory approval mechanism as an ex-ante approach. However, what appears to be described by ComReg in Section 12.4.2 is an ex-post assessment. It is unclear why ComReg believes an additional ex-post assessment is required when such a provision is already available to all operators including eir (and for all geographic areas including NBP areas) through ex-post competition law.
400. If ComReg is indeed proposing this as an ex-ante approach then it would appear that eir would first need to identify and agree its network roll-out plan in advance with ComReg, including applicable prices for that area. Indeed, it would only be prudent for a commercial operator, in the face of such regulatory uncertainty, to refrain from any further network roll-out investment absent obtaining regulatory approval of its pricing — because any deviations once the investment has been made could have serious negative implications on the returns of the original business plan, even to the extent that eir would have been better off not making such an investment. Consequently, eir considers that in making such a proposal ComReg has failed to take account of Regulation 13 (2) of the Access Regulations, which require ComReg to encourage investment in imposing pricing regulatory obligations.
401. It is also not clear how any of the outcomes described in paragraph 400, would be consistent with ComReg’s objectives as set out in Regulation 6(1) of the Access



Regulations, in that the proposed obligation fails to promote efficiency, competition, efficient investment and innovation, or to maximise benefit to end-users. Such a layer of complex and uncertain regulatory ex-ante intervention, or assessment post network investment, is clearly not what the Regulatory Framework or 2013 EC Recommendation envisions.

402. Finally, as per ex-post competition law where it can be demonstrated, using eir's own business case, that a particular wholesale price is appropriate and would not exclude any efficient operators, then any undue regulatory intervention is unwarranted and not leading to efficient market outcomes.



Question 33: Do you agree with ComReg’s preliminary view that in the context of the price floor for SABB in Regional Area 2 (as per Section 4.2 of the Decision Instrument in Annex 2 of 2016 Access Pricing Decision) that the footprint of the “Modified LEA” should be replaced by those exchanges in Regional Area 1 excluding those exchanges in Criterion 5 of the 2013 Bundles Decision? Please provide reasons for your response.

403. eir agrees that it is appropriate to have a regulatory approval mechanism to ensure that eir’s cost-oriented wholesale prices do not result in eir being priced out of the market. If volumes and forecasts used to determine cost-oriented prices do not manifest as a result of competition from rival platforms or technologies — there must be a mechanism to allow eir the pricing flexibility to facilitate some recovery of what is predominantly a large fixed and sunk cost.
404. However, ComReg has failed in the Consultation to transparently set out the proposed parameters of such a mechanism. eir considers that, while such a regulatory approval mechanism has been used in past regulatory decisions it cannot simply be carried forward without fully consulting and re-establishing how such a test will operate.
405. ComReg must clearly set out and consult on a number of fundamental issues including:
- i. confirming whether a margin squeeze model is the correct approach to demonstrate that eir retail and OAOs are unable to compete using cost-oriented SABB in Regional Area 2;
 - ii. whether such a margin squeeze model would need to include both retail standalone broadband and bundle offers, and if so whether one or both retail service offerings must demonstrate a squeeze;
 - iii. the time period (i.e., the duration of the squeeze) that must have elapsed before a request can be made;
 - iv. whether the proposed ex-ante retail MSTs uses REO as the assumed operator cost base in Regional Area 2, ComReg must confirm what the assumed operator cost base would be in making such a submission;
 - v. the time period in which ComReg will make its final determination; and
 - vi. whether an application would be subject to consultation with Industry and further notification to the European Commission.



406. In addition, ComReg must clarify how the regulatory obligations of non-discrimination and cost-orientation will be assessed in the event of a reduction of eir's wholesale prices in Regional Area 2.
407. eir agrees that it is appropriate that the price floor for SABB should be based on a cost-model for "Regional Area 1" excluding those exchanges included under Criterion 5 (based on the 2013 Bundles Decision or as amended in the upcoming Bundles consultation document). Criterion 5 would clearly not be economic for such an investment and so should not be included in the price floor calculation.
408. eir agrees that it is appropriate to fix the exchange footprint (of Regional Area 1 excluding Criterion 5 exchanges) at the time of a decision in order to provide price stability and certainty to industry regarding the price floor for current generation SABB.



Question 34: Do you agree with ComReg’s preliminary view that the connection costs associated with CGA and NGA services should be recovered through a combination of an upfront connection charge and a monthly rental charge as set out at paragraph 13.43? Please provide reasons for your response.

410. ComReg states that it “is of the preliminary view that the connection costs for CGA and NGA services should be recovered through a combination of an upfront connection charge and a monthly rental charge”⁸⁸ and that only “those costs that are incurred each time an end user migrates from one RSP to another should be recovered on the basis of an upfront connection charge”⁸⁹. ComReg is of the view that all other costs including the costs of the service lead, the optical network terminal (ONT) and the costs of all poles, ducts and boxes on public roads should be recovered as part of the on-going rental charge.
411. While eir may agree that a combination of an upfront connection charge and a monthly rental charge (i.e., a two-part tariff) is an appropriate mechanism for the recovery of connection costs, eir does not agree that only those costs that are incurred each time an end-user migrates from one RSP to another should be recovered from an upfront connection charge. eir should retain the flexibility to determine the components relevant to both the up-front connection charge and the monthly charge.
412. Although the Consultation has identified ComReg’s regulatory objectives as set out in Section 12 of the Communications Regulations Act 2002 (as amended) in the pre-ambles to discussing the various cost recovery options (see Consultation section 13.2.2) ComReg has failed to identify the nature of the problem to which these cost recovery options are attempting to somehow address. Consequently, in proposing any remedy ComReg is inconsistent with Regulation 8 (6) of the Access Regulations and has not been justified any of these remedies in light of those regulatory objectives set out in Section 12 of the Communications Regulations Act 2002 (as amended).
413. eir assumes that ComReg’s approach seeks to reconcile the trade-offs that exist between downstream competition and market entry, and upstream investment incentives and risk sharing. In a general sense, two-part tariffs or non-linear pricing allow NRAs to solve dynamic consistency and allocative efficiency issues because the regulator obtains an additional instrument, i.e., the fixed fee by which to encourage investment and allow sharing of risk. The 2013 EC Recommendation

⁸⁸ ComReg 17/26 Para 13.42.

⁸⁹ ComReg 17/26 Para 13.43.



proposes that non-linear wholesale pricing is appropriate to better reconcile investment and competition than linear wholesale pricing.

414. This type of price structure reflects the underlying investment cost structure for an operator that invests in fibre to replace its copper access network, since a large part of its investment cost is fixed, sunk and long-term. In this case, economic analysis shows that optimal wholesale prices should include a fixed or upfront component in order to effectively allocate risk. This issue exists in particular for next generation telecommunications access networks such as FTTH where linear access charges can involve a substantial allocative distortion. If, in contrast, a material proportion of the investment costs are distributed via the upfront component of a two-part tariff the risk is borne by both the network operator and the access seeker. This allocative efficiency effect is one of the advantages of such a two-part tariff.
415. Any connection charging system has an important impact on the investment needed for that connection. ComReg's duties include ensuring that eir is not put at a disadvantage vis-à-vis access seekers regarding the sharing of the investment risk. Non-linear wholesale prices, which diversify the investment risk between the investor and the access seeker, are an appropriate mechanism to fairly divide investment risks. However such non-linear prices need to be structured in a manner that reflects the particular market scenario. Wholesale prices that are only slightly non-linear, as proposed by ComReg, are inappropriate in an NGA context.
416. ComReg states in paragraph 13.38 of the Consultation that *"There is also no evidence of RSPs [Retail Service Providers] passing on the connection charge to end-users which suggests that a high connection charge is considered a barrier to attracting end-users. Consequently having a lower wholesale connection charge appears to be more consistent with retail behaviour."* To the extent that ComReg is worried that a material or higher connection charge could discourage RSPs from connecting new end users in favour of a policy of seeking to migrate existing end users, eir notes that any retail operator will consider first-mover and second-mover advantages. eir's past experience with regard to both CGA and FTTC is that some retailers prefer to win new customers whereas others prefer to win customers already connected by a first-mover retailer. Adopting either a first-mover or second-mover approach is a valid commercial decision. Furthermore, given the nascent availability of FTTH services it is not valid for ComReg to posit any current market behaviours based on current take-up.
417. It is extremely questionable as to whether direct regulatory oversight of non-linear wholesale prices, and the share of up-front versus monthly prices paid by the access seeker, is appropriate, especially in the context of NGA. Optimal non-linear prices are



critically dependent on the individual market situation and require an in-depth assessment of the wholesale price overall.

418. In addition, ComReg has failed to consider that eir has recently committed to an investment in passing 300k homes in rural Ireland with FTTH. There is a substantial level of risk associated with this investment, as the level of demand for high speed NGA services in the rural market is still uncertain. As ComReg has identified in paragraphs 13.5 to 13.11 of the Consultation, there are two stages in investment required to serve rural premises with FTTH NGA — the investment in passing a premises, and the investment in connecting a premises. The current form of pricing for open eir FTTH is to recover the former investment from VUA rental revenues. The latter investment is primarily recovered from the connection fee — but with a substantial share of the premises connected cost also recovered from VUA rental revenue. The result of this form of VUA pricing is that open eir takes on 100% of the risk of the “premises passed” investment and a share of the risk associated with the “homes connected” investment. The bulk of the risk of the home connected investment is taken by the RSP. eir considers that this is appropriate as the cost to the RSP of that investment only occurs at the time that the end-user starts to consume the RSP service. Indeed this investment by the RSP gives them a strong incentive to provide excellent retail service and retain the end-user. This incentive can only enhance consumer welfare.
419. For these reasons, eir finds that it is inappropriate and unjustified for ComReg to attempt to specify any ex-ante pricing remedy in regard to connection costs. Furthermore, eir considers that the proposed intervention in connection fee pricing for FTTH by ComReg is inappropriate as it is a matter for open eir to set FTTH VUA charges so as to maximise the opportunities to achieve the revenues in the FTTH business plan. Where the level of FTTH VUA connection charge has the effect of dampening demand below the take-up projections in that business case, it is a matter for open eir to look for other price structures that will deliver the target return. This type of pricing flexibility is central to the reasoning behind the 2013 EC Recommendation that price control by MST is most appropriate to encourage continued investment in NGA.
420. In summary, eir finds that price control by MST for FTTH should be just that and that any artificial differentiation of price control between service rental and connection fee is unwarranted intervention. The implication that ComReg has better information on the most efficient wholesale pricing structure than the investor in the new rural FTTH investment is presented without any supporting evidence, and will be assessed in that light.



Question 35: Do you agree with ComReg’s preliminary view that the WEIL charges, including BECS and BECS over WEIL, in the WLA Market and the Regional WCA Market should be based on a BU-LRAIC+ methodology? Please provide reasons for your response.

421. eir agrees that prices for BECS over WEIL services should be cost-oriented at BU-LRAIC+. This is the form of price control that currently applies to WEIL services offered under the access remedy. Even when that market is found to be competitive WEIL services will be required for access and interconnection obligations in the WLA market and eir considers that consistency between the forms of price control is desirable.



Question 36: Do you have any comments on the Regulatory Impact Assessment and in your opinion are there other factors which ComReg should consider in completing its Regulatory Impact Assessment? Please provide reasons for your response, clearly indicating the relevant paragraph numbers to which your comments refer, along with relevant factual evidence supporting your views.

422. eir considers that the RIA undertaken by ComReg is inadequate, incomplete and does not comply with the Policy Direction of February 2003.⁹⁰ In particular, eir considers that:

- i. ComReg has used flawed reasoning to justify not undertaking a RIA for a number of price controls;
- ii. ComReg has failed to identify, by its own reasoning (for not requiring a RIA), that a number of price controls are not in fact pre-existing;
- iii. ComReg has assessed the regulatory options and impacts on stakeholders using a menu-based approach. This fails to consider the fundamental regulatory inconsistency of existing price controls;
- iv. ComReg has not undertaken a Financial Impact Assessment to assess the financial impact of changing price controls between adjoining price control periods.

Flawed reasoning for not undertaking a RIA

423. ComReg's main justification for not undertaking a RIA for certain obligations is that the obligations in question are continuations of existing remedies. eir does not agree. There is a good reason that markets need to be assessed every 3 years, which applies equally to obligations based on market reviews. A decision by ComReg for the continuation of a remedy is, in itself, a decision which has regulatory implications.

424. In addition, these past regulatory decisions were made pursuant to market analyses from 2010 and 2011 (WLA and WCA respectively). These are markets which have changed significantly, as is evident from ComReg's own market analysis consultation 16/96. To highlight one such significant change, is the fact that a

⁹⁰ Ministerial Policy Direction made by the Minister for Communications, Marine and Natural Resources on 21 February 2003, as referenced in paragraph 15.2 of the Consultation.



geographic footprint within the WCA Market is no longer considered susceptible to SMP.

425. As such, it is not justifiable that pricing obligations originally imposed, for example in the WCA market, on NGA and CGA in 2013 and 2014 respectively (which are now aged even beyond the time recommended by the European Commission for NRAs to reassess markets), can merely be transposed without some assessment of whether or not they are still fit-for-purpose, and how those decisions impact the wider market as a whole.
426. Furthermore, since ComReg’s Decision on NGA pricing was made in January 2013, the European Commission has published a further recommendation on non-discrimination obligations and costing methodologies to promote competition and enhance the broadband investment environment (i.e., the 2013 EC Recommendation). As demonstrated in eir’s submission, ComReg’s proposals are far from consistent with the 2013 EC Recommendation — which it is required to take the outmost account of.
427. As national and sub-geographic markets are slowly being recognised by ComReg as not being susceptible to SMP, a significant concern to eir is ComReg’s reluctance to rely on ex-post competition law. As ComReg is required to apply objective, transparent, non-discriminatory and proportionate regulatory principles, the regulatory decision that ex-post competition law is somehow not sufficient must be addressed by ComReg. In this Consultation, ComReg proposes to impose pricing obligations which only impact eir’s pricing in competitive non-SMP markets: For example:
- i. The imposition of numerous retail MSTs on eir, which, in combination with cost orientation obligations (or wholesale prices that are anchored to cost-oriented prices), amount to “de facto” retail regulation (Consultation Chapters 10 and 11);
 - ii. The imposition of wholesale MSTs on eir which will impact prices in the competitive Urban WCA market (Consultation Chapters 10 and 11); and
 - iii. The impositions of a MST on End-to-End Bitstream (both CGA and NGA) - a service which is not in a regulated market (Consultation Chapter 11).
428. ComReg has failed to assess what the implications are on markets which are national and not regional when there are multiple MSTs with different methodologies based on exchange footprints, both in the retail and wholesale markets. (e.g., see paragraphs 174, 307 and 341).



429. ComReg has failed to consider the static and dynamic efficiency impacts on all stakeholders by continuing to use a DCF model which assumes a start-up operator entering the broadband market. This is particularly pertinent as there has been significant market entry and expansion since the 2011 WCA market analysis. This error is further compounded by failing to consider the impact of making un-informed adjustments to eir’s own downstream costs to make allowances for operators with “less scale and scope”. For example, see paragraphs 299-308.
430. Finally, in the publication “ComReg’s Approach to Regulatory Impact Assessment”⁹¹ ComReg states that “ComReg will continue to conduct RIAs in respect of any proposed statutory instruments which would impose regulatory obligations, or in respect of any market analyses which propose to impose, amend or withdraw obligations, through the finding of SMP or effective competition”. As these proposals are arising from new market analyses they must, by ComReg’s own reasoning, require a RIA.

Material new obligations

431. In Chapter 10 of the Consultation, ComReg proposes to implement a retail MST between WLA services and retail services corresponding to the Urban WCA market. Using ComReg’s own reasoning for not requiring a RIA, which eir does not agree is correct, the fact that the Urban WCA market did not exist previously means that this is a price control where there has been a material change. In addition, the inclusion of WLR in a retail MST between retail and WLA prices in the Urban WCA market is a fundamental error which should have been apparent to ComReg had it undertaken the required RIA.
432. In Chapter 10 and Chapter 11 of the Consultation, ComReg proposes to implement various retail MSTs using an REO cost base but SEO where such information is not available. Existing retail market squeeze tests are based on either a blended EEO/SEO cost base or SEO cost base and not on an REO cost base. This is a material change and one which creates significant and legal uncertainty regarding appropriate benchmarking.
433. In Chapter 10 of the Consultation, ComReg proposes that there should be one single wholesale FTTH-based VUA price (except where justifiable cost differences arise). ComReg has not set out the nature of the problem identified in order to propose such a remedy, and has failed to set out transparently what this obligation is intended to

⁹¹ ComReg Document No. 07/56 (Paragraph 3.5)



achieve. By failing to complete a RIA of the proposed measure, ComReg has not identified the potential and very serious implications of such a proposal.

Menu-based approach

434. ComReg considers that a RIA is only necessary for two wholesale access services:

- i. The further specification of cost-orientation obligation of FTTC-based NGA services; and
- ii. The change of current generation Bitstream and BMB service from HCA to BU-LRAIC+.

435. The menu-based approach to the RIA means that the regulatory options and impacts on stakeholders for each of the wholesale access services are presented absent acknowledgement of existing regulation. This approach fails to address the fundamental regulatory inconsistency between adjoining price control periods.

436. In fact, no acknowledgment at all is given in the Consultation or RIA to Regulation 16 (2) (a) of the Framework Regulations which provides that ComReg, in pursuit of its objectives shall apply good regulatory principles by, amongst other things, “promoting regulatory predictability by ensuring a consistent regulatory approach over appropriate review periods” [emphasis added].

437. ComReg has failed to undertake any analysis of whether moving to cost-orientation now would interfere with eir’s ability to realise a ‘fair bet’ on its FTTC investment by distorting retrospectively the returns available.

✂

Financial Impact Assessment

438. ComReg has not undertaken any numerical analysis to estimate the consumer welfare benefit or investment incentives on stakeholders and does not appear to have used any financial analysis to allow consideration of the proportionality (or otherwise) of its proposed measure.

439. Given the very serious impact of ComReg changing to a cost-orientation price control for FTTC, eir believes that a financial impact assessment must be undertaken by ComReg to allow for comparability of the regulatory options available.



Other Considerations

440. The “analysis” in paragraphs 15.33 to 15.40 of the Consultation regarding providing appropriate signals to encourage efficient investment is superficial and flawed. In paragraph 15.35 of the Consultation, ComReg states that “*outside the densely populated areas investment is unlikely absent state funding*”. ✕. These investments, with no state funding, are in areas where LLU has not proved economic for two main reasons that ComReg has not considered in either the WLA/WCA market analysis⁹² or in the RIA. The first reason is that both Siro and Virgin Media have interests in or provide anchor services other than broadband. Siro’s 50% joint venture partner Vodafone’s main anchor service is mobile, and Virgin Media’s anchor service is television. The second reason is that VUA offers the opportunity to build a substantial market position before investing in building an access network and therefore significantly reduces the risk (and barrier to entry) associated with deploying a network before take-up can be assessed with confidence.

⁹² ComReg market analysis consultation, ComReg 16/96 – “Market Reviews: Wholesale Local Access and Wholesale Central Access”.



Question 37: Do you believe that the draft text of the proposed Decision Instrument for the Wholesale Local Access market at a fixed location (WLA Market or Market 3a) is from a legal, technical and practical perspective, sufficiently detailed, clear and precise with regards to the specifics proposed? Please explain your response and provide details of any specific amendments you believe are required.

441. As a general observation, eir is concerned that the draft decision instruments lack sufficient detail to appropriately record ComReg’s decisions. The instruments in their current form rely heavily for detail on cross-references to the main decision document or a number of models. In the interest of legal certainty, eir urges ComReg to amend the decision instruments in each case to reflect at the least detail of the decisions made in relation to the regulatory options expressly identified by ComReg.
442. For example, in the case of the “NGA WCA Retail Margin Squeeze Test – FTTC based Bitstream”, the draft decision instrument (the WCA instrument at 6.1) currently only states in relation to the cost base that it shall be “calculated based primarily on a REO cost base with some costs based on an EEO cost base”. This is unhelpfully vague. It also appears to be wrong. Instead, it appears from Chapter 11.4.2 that the relevant cost base is calculated on an EEO/SEO basis in which eir’s costs other than those relating to advertising, billing or product management are adjusted to account for the smaller scale of a hypothetical competitor. That scale is not further specified in the decision instrument or the relevant part of the Consultation, but eir gathers from the relevant model that it is supposed to be based, as for the wholesale MST described at 11.36, on an operator with a 25% market share, or rather a start-up operator acquiring 25% of the contestable market every year of the control period. In eir’s view, at least this level of detail should be recorded in the decision instrument. Alternatively, such clarity could be achieved by defining and detailing the Discounted Cash-Flow Model to be used in the various MSTs and the adjustments made therein.
443. In the alternative, where ComReg is proposing to rely for detail on a model to complement the decision instrument, it should be made clear in the decision instrument that the model attached to it is binding in nature as to the way the MST is to be calculated. A reference to a model “as amended from time to time” does not provide sufficient certainty to eir or the market, as it in effect allows ComReg to adjust the relevant test at will.
444. ✂.
445. Apart from this overriding concern, eir makes the following specific comments.



Section 1: Statutory powers

446. Section 1.2(vi) “utmost” should be added before “account” at the beginning of final line to reflect correctly the statutory requirement.

Section 2: Definitions

447. EEO costs base. This should be defined more precisely by reference to the source of eir’s costs to be used. In addition, that as the DCF Model forward projects costs and demand which means that eir’s HCA costs and the results from DCF Model can diverge over time (i.e., it is a dynamic approach used).

448. Portfolio-based-approach. This definition is overly complex. The definition could simply state “means the method by which a MST is calculated in relation to a basket of retail products...”.

449. REO cost base. This definition should be deleted. As no REO cost base is in fact used in the context of this decision instrument, the relevant provisions of the decision instrument should refer consistently to the SEO cost base. It is appropriate for the wider decision document to explain that the SEO cost base is used a proxy for an REO cost base but it is unhelpful for the provisions of the decision instrument itself to state that certain costs are calculated on an REO basis when in fact they are not.

450. SEO cost base. This should be defined more precisely by detailing in the decision instrument itself which adjustments are made to eir’s cost base (the EEO standard) to arrive at the cost base used by ComReg to calculate the regulated price, either here in the definition or whenever it is used in the decision instrument.

Section 4: Cost orientation obligations

451. eir notes that the corresponding section headings in the WCA decision instrument are prefaced “SMP Obligations:”, while the headings in this instrument are not.

VUA

452. Section 4.1, the details of the proposed obligation should be specified fully — including for example the applicable cost base standard that is to represent the “efficient operator”.

453. More precise wording should be used here and across the section to specify which combination of BU-LRAIC+ and Top-Down HCA the relevant costs should be based on. For example, instead of Top-Down HCA the decision instrument could specify that it is “Eircom’s Indexed RAB applied to Reusable Assets”.



454. Section 4.2, lacks the necessary detail and clarity to allow eir as the regulated entity to understand what is expected of it. Detail of the envisaged “Regulatory Approval mechanism” as it is referred to in Chapter 12.4 should be set out clearly in the decision instrument. This should include a description of the nature and content of the actual application required, the time frame within which ComReg would expect to approve or reject an application (so as to make it an effective remedy) and, most importantly, the conditions under which eir can apply to lower its FTTC based VUA wholesale price, and the standards by which ComReg intends to judge whether these conditions are met. A broad reference to Chapter 12 of the Consultation is not sufficient in this context. In any event, as explained above in response to question 31, even the “pre-conditions” purportedly set out there (at 12.54) lack the necessary clarity.
455. Furthermore, as also explained in response to question 31, the alternative price floor in sub-paragraph (ii) needs to be specified further in Section 4.2. It is insufficient for the decision instrument simply to refer to the “FTTC based VUA price of an alternative operator”, which would exclude reference to any alternative operator not in fact offering a VUA product. This sub-paragraph instead should include a properly specified reference to what is currently referred to in paragraph 12.55 of the Consultation as “retail price minus retail costs and relevant network costs”.
456. Finally, there is a third option required to be inserted in Section 4.2, as a result of Section 4.3 in draft decision instrument in the WCA market. The third option could specify the following “(iii) The FTTC based VUA price as a result of any reduction required arising from the provisions of Section 4.3 in the Wholesale Central Access Decision Instrument”. However, it is unclear under what powers ComReg would require such a reduction to be implemented as VUA is in the WLA market and is subject to its own cost-orientation obligations.



POTS

457. Section 4.4, the details of the proposed obligation should be specified fully — including for example the applicable cost base standard that is to represent the “efficient operator”.

Section 5: Wholesale Margin Squeeze obligation

VUA

458. Section 5.1, as explained above, detail of the proposed MST should be specified as far as possible in the decision instrument, and in particular the reference to an REO cost base should be replaced with an appropriate description of the intended SEO standard.
459. Section 5.2, as above, the price floor element referring to an alternative operator’s VUA price should be amended to match paragraph 12.60(b) of the Consultation.
460. Furthermore, while no reference to an approval mechanism is made in this paragraph, paragraph 12.64 of the Consultation appears to suggest in general terms that a similar form of approval mechanism to the one proposed for FTTC based VUA should apply here as well. As above, that mechanism should be specified in some detail.
461. Section, 5.3, if maintained, the obligation described in this paragraph should be specified in more detail.

Section 6: Retail Margin Squeeze obligation

462. Section 6.1, while this paragraph sets out the proposed test in more detail than the previous paragraphs, ComReg should consider to record the full set of decisions it has made in relation to the design of the test (including for example the choice of a DCF model).
463. The decision instrument does not contain any detail on how ComReg will assess eir’s compliance with its obligation post-launch. There are a number of important variables which ComReg needs to allow itself to consider including any robust evidence of retail efficiencies or increased customer lifetimes, the impact of the eir’s offer on competition in the WLA Market or in other relevant markets, including by reference to the promotion of sustainable competition in the medium to long term and the ability of efficient operators to remain in the market(s) in question.
464. Section 6.4, suggests that ComReg may agree to provide approval within a shorter time period than the specified 5 working days as “otherwise agreed with ComReg”. It



is unclear under what circumstances ComReg would consider such a request from eir. If ComReg do not require 5 working days to make its determination it should not unreasonably delay providing its written view regarding eir's compliance or otherwise. This could be addressed by simply stating: "...retail price amendments to existing Retail Products within five (5) working days...".

Section 7: Transparency

465. As drafted, this section appears to only require eir to notify wholesale price changes. There is no requirement to wait with their implementation until receipt of ComReg's written view. eir requests ComReg to confirm that the wording of the decision instrument is accurate to its intended meaning.



Question 38: Do you believe that the draft text of the proposed Decision Instrument for the Wholesale Central Access market for mass market products at a fixed location is from a legal, technical and practical perspective, sufficiently detailed, clear and precise with regards to the specifics proposed? Please explain your response and provide details of any specific amendments you believe are required.

466. See paragraph 441.

467. ✕.

Section 1: Statutory powers

468. Section 1.2(vi) “utmost” should be added before “account” at the beginning of final line to reflect correctly the statutory requirement.

Section 2: Definitions

469. Section 4.1, 4.4, 4.5, 4.6 and 4.7: The details of the proposed obligations should be specified fully — including, for example, the applicable cost base standard that is to represent the “efficient operator”.

470. More precise wording should be used here and across the section to specify which combination of BU-LRAIC+ and Top-Down HCA the relevant costs should be based on. For example, instead of Top-Down HCA the decision instrument could specify that it is “Eircom’s Indexed RAB applied to Reusable Assets”.

471. Section 4.2. The same comments as made above in relation to paragraph 4.2. of the WLA decision instrument apply here *mutatis mutandis*.

472. Section 4.3. This should be specific as to what is meant by a consistent application of the price change to FTTC based Bitstream and FTTC based VUA.

Section 5: SMP Obligations: Wholesale Margin Squeeze obligation

473. As explained above, in relation to the WLA decision instrument, detail of the proposed MSTs should be specified as far as possible in the decision instrument, and in particular the reference to an REO cost base should be replaced with an appropriate description of the intended SEO standard.



Section 6: SMP Obligations: Retail Margin Squeeze obligation

474. As explained above, detail of the proposed MSTs should be specified as far as possible in the decision instrument, and in particular the reference to an REO cost base should be replaced with an appropriate description of the intended SEO standard.
475. The decision instrument does not contain any detail on how ComReg will assess eir's compliance with its obligation post-launch. There are a number of important variables which ComReg needs to allow itself to consider including any robust evidence of retail efficiencies or increased customer lifetimes, the impact of the eir's offer on competition in the WCA Market or in other relevant markets, including by reference to the promotion of sustainable competition in the medium to long term and the ability of efficient operators to remain in the market(s) in question. In addition, a 5,000 retail subscriber threshold should be applied for NGA FTTH services before a statement of compliance is required.
476. Section 6.7, suggests that ComReg may agree to provide approval within a shorter time period than the specified 5 working days as "otherwise agreed with ComReg". It is unclear under what circumstances ComReg would consider such a request from eir. If ComReg do not require 5 working days to make its determination it should not unreasonably delay providing its written view regarding eir's compliance or otherwise. This could be addressed by simply stating: "...retail price amendments to existing Retail Products within five (5) working days...".

Section 7: Transparency

477. As drafted, this section appears to only require eir to notify wholesale price changes. There is no requirement to wait with their implementation until receipt of ComReg's written view. eir requests ComReg to confirm that the wording of the decision instrument is accurate to its intended meaning.



Annex – Review of Cost Models (ComReg 17/26)

This document is part of eir’s detailed response to ComReg’s Consultation and Draft Decision on price control in the WLA and WCA Markets (ComReg 17/26).

1. Summary

1. The purpose of this document is to set out the issues found in the NGA and the NGN cost models. These models underpin ComReg’s specification of the price controls for CGA Bitstream, NGA VUA and Bitstream (including margin squeeze tests) and were submitted to eir by ComReg as part of the consultation process.
2. We provide a few opening observations in relation to the structure of the models and documentation. We then provide a list of the material issues found by eir in both cost models and the models specifying the wholesale margin squeeze tests. This, however, should not be taken as definitive review and therefore our findings are presented without prejudice of eir at subsequent stages bringing forward to ComReg additional issues.
3. Overall, our review shows that there are a number of material issues with the models. These stem from an ill-judged view of the broadband market, inappropriate and incorrect modelling of eir’s costs and material formulae error. Adding to this, the lack of documentation hinders eir’s ability to make a complete judgment of the modelling approaches taken. For these reasons, both the NGA model and the NGN model are not fit for the purpose that ComReg has set out.

2. General observations

4. We have found that the models have a number of issues, which make the review unnecessarily time-consuming, unclear as to some of the modelling approaches taken and ultimately not reassuring in relation to the outputs that the models produce. We are also concerned that ComReg could propose that these models be used for future compliance. The main issues are described below.
5. The models are not supported by proper **methodology documentation**, with a clear outline of the model, discussion of assumptions used, flow and stages of calculations and outputs. ComReg has provided ‘specification’ documents. However, these documents are limited to a deck of slides, describing areas of the models with no logical flow.¹

¹ In this respect, and by way of example, we refer ComReg to Ofcom NGA model documentation included in its consultation “Wholesale Local Access Market Review - Consultation on possible approaches to fibre cost modelling”.



6. The models are not organised in a **logical structure** of inputs, calculations and outputs. For instance, in the NGA model wholesale billing and administration cost inputs appear in sheet "Access FTTC & FTTH" (cells F19-F21); Also in NGA model the costs related to interconnect (WEIL) are calculated in a sheet labelled "Backhaul without Multicast"; In the NGN model, the sheet "Customers", not only contains – as it would be expected – information on number of lines but also contains the workings for the cost of equipment (cells AO8933-AS10193). The poor structure is also reflected in the inconsistent or lack of proper colour-coding of cells or cell areas such as the opex workings in the NGN model or cases where there are breaks in formulae, which are not properly highlighted - for example in the NGA model, in sheet "DSLAM", in the DSLAM rack calculation the break in the formulae between the years 2016 and 2017 (cells F80-G1283) is not obvious unless you check individually each of the columns.
7. A lack of **transparency** in the way some of the inputs and calculations are presented. For instance, this includes references to internal communications between ComReg and its advisers as support for some of the hard-coded figures presented (for example, in the NGN model in the sheet "Control" cells G61-G67); In the NGN model, in the sheet "201516 Detailed", the values keyed in the column labelled as "Assess Inclusion in NGN Model" have no suggestion as to how they were derived or on what basis; In the NGA model, in sheet "Access FTTC & FTTH", where the percentage of repair costs relating to the "Part of cost included in SLU cost" is vaguely documented as "CAM model" (cell G20).
8. A lack of **consistency** between the excel models and decisions proposed in the consultation. For instance, on the NGN in sheet "Control", the inclusion or not of Leased Lines in the model is noted as "NB: Option 0 should be selected for the OAO scenario" (cell F16), when in fact the option that ComReg proposes is the inclusion of Leased Lines (and in fact the VB macro forces this inclusion); Or in the NGA model, in sheet "Footprint Summary", under the "Scenarios for FTTC VUA Footprint", the option of VUA Sites with Working FTTC/EVDSL Lines is presented as "Scenario 3" (cell L13) when in fact it is Scenario 2 that ComReg is proposing (and is so labelled in sheet "Results", cell G12).

3. Review of models

In the section we list the material issues identified in the cost models. We have organised this section by cost model and within model by topic.

See https://www.ofcom.org.uk/_data/assets/pdf_file/0036/99639/Annex-20.pdf



3.1. NGA model

Model timeframe of analysis

9. ComReg has proposed a timeframe for cost analysis of 50 years. A timeframe of 50 years may be justified in cases where demand and technology are stable and predictable. This is not the case with future broadband services where demand and technology uncertainty continues to be a major factor for all operators faced with the decision of committing significant amounts of capital.
10. We expect that over such a long period VDSL will not be the technology of choice for the majority of customers (two thirds of subscribers, as it is modelled by ComReg) in Ireland. In this context the OECD states that “While OECD countries are at different stages of development, depending on inherited infrastructure, population density and so forth, they are all witnessing deeper deployment of fibre networks to the premises or in the “last mile”, in part because the technology is widely regarded as being “future proof”.² ComReg’s view of the future of broadband technology appears to be out of sync with the wider view but also out of sync with the domestic market developments.
11. Market developments clearly indicate that FTTH is regarded as the long-term technology for broadband provision. In effect, VM’s DOCSIS expansion³ plans and Siro’s and eir’s own FTTH, and not least the NBP - where it is apparent that FTTH is the preferred technology - suggest now that VDSL is more plausibly an intermediate NGA technology for the short to medium term.
12. An unjustifiably long timeframe of analysis combined with the economic depreciation approach places an unwarranted uncertainty on how efficiently incurred costs can be recovered. This reduces the level at which the prices are set (as costs are amortised over volumes that are overstated) and sets a path of recovery using a time-series of fixed prices, whereby full cost recovery is unreasonably pushed out to when uncertainty is the highest.

✕

² See

[http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DSTI/ICCP/CISP\(2015\)1/FINAL&docLanguage=En](http://www.oecd.org/officialdocuments/publicdisplaydocumentpdf/?cote=DSTI/ICCP/CISP(2015)1/FINAL&docLanguage=En)

³ We also understand VM is using FTTH when rolling out in new areas under Project Lightning.



13. Figure 1. shows that at the level of unit charges and asset lives proposed by ComReg in the NGA model, the recovery of the investment in VDSL electronics is pushed out to the last decade of the amortisation period - that is by 2050.
14. Hence, up to the year 2050 the operator is expected to continue to reinvest (to meet the assumed demand) and to do so continuously at a loss. We do not think this represents in any way an economically efficient behaviour. It is more likely than not that FTTH will continue to see growth and substitute VDSL as the preferred choice of network providers and consumers. As a result, cabinet utilisation will reduce or be bypassed altogether by FTTH networks, with the end result of costs increasing for remaining customers and VDSL assets being stranded.
15. Ofcom's March 2017 Wholesale Local Access (WLA) Consultation⁴ considers a 20-year period on fibre cost modelling of FTTC. This changed from a 40-year period, considered in their previous May 2016 WLA Consultation. Responses from operators to the May 2016 Consultation were very clear in stating that "FTTC was unlikely to remain the prevalent fibre access technology for such a long period of time".⁵ In Ireland it is apparent, at least at this moment in time, that FTTH is a more credible development than it is in UK (Figure 2.) so that Ofcom's concerns regarding the emergence of alternative technologies (BT's G.fast in particular) are not equally valid for ComReg.

✂

Demand

16. ComReg have assumed that by 2026 eir's broadband base "will be similar in size to the 2016 broadband base"⁶ by virtue of the growth in VDSL. In particular, ComReg noted (paragraph 6.42) the overall broadband markets on eir's network reduce by less than 5%.⁷ In fact, the volumes in the model show a slight increase by ✂ from ✂ subscriber lines in 2016 subscriber lines to ✂ lines in 2026. In any case, a similar level of demand implicitly assumes that any loss to alternative platforms is offset by growth in eir's penetration (including churn from mobile/wireless). That is: in the period where other commercial operators are lining up to becoming real alternatives to eir's platform there is no impact for eir whatsoever and that eir - in this market - will be able to offset the net losses to alternative platforms with growth in its penetration and therefore maintain the level of demand for its network for the next 4 decades⁸ using FTTC, a technology offering that is

⁴ Ofcom Wholesale Local Access Market Review.

See <https://www.ofcom.org.uk/consultations-and-statements/category-3/wholesale-local-access-market-review-fibre-cost-modelling>

⁵ Ofcom Wholesale Local Access Market Review - Annexes.

See para A12.121. https://www.ofcom.org.uk/_data/assets/pdf_file/0035/99638/Annexes1-19.pdf

⁶ Para. 6.39 of 17/26.

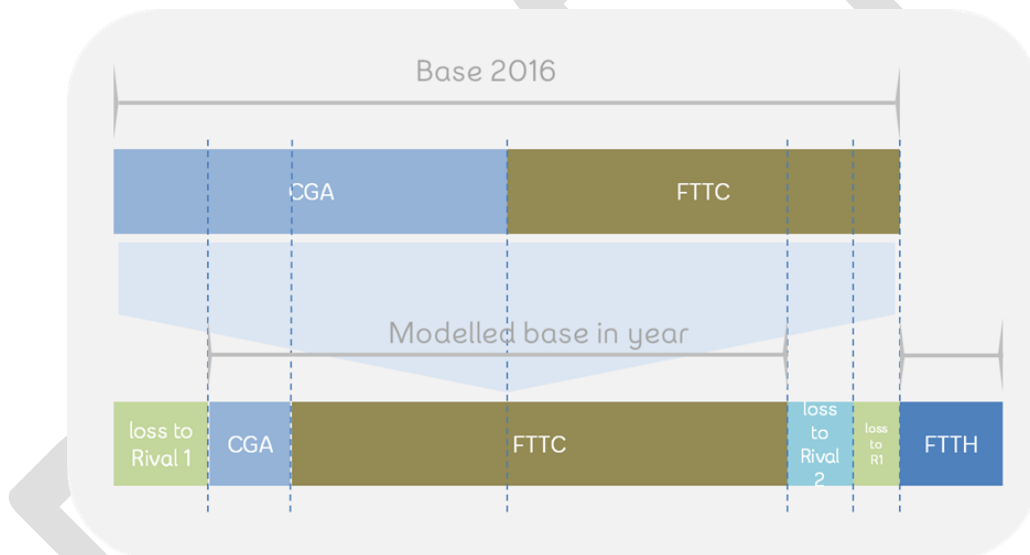
⁷ Para. 6.42 of 17/26.

⁸ Para. 6.41 of 17/26.

not as future proof as FTTH. This view is an extraordinary profession of faith in the future of VDSL and one unaccompanied in the context of the telecommunication landscape across Europe.

17. The calculations underpinning this view show that the level of future FTTC demand for any given exchange is calculated in the model as the difference between the current broadband base, on one hand, and the sum of demands for CGA, eVDSL and the accumulated line losses to rival platforms, on the other. ✂ This calculation is illustrated in the diagram below (for simplicity, we have assumed zero eVDSL demand). It is clear that the modelling of FTTC lines are overstated in the calculations given that a significant share of the FTTH demand will be in the form of migrations from our current CGA broadband base – a fact that has been recognised by ComReg.⁹ Instead, the calculations imply that all CGA migrations will be to FTTC, and as consequence all FTTH will be from increased penetration.

Figure 3. Modelled demand migration from CGA to NGA (source: NGA model)



18. It is also apparent from the diagram above how volume loss to the NBP has not been considered. CGA volumes lost to the NBP are not deducted from the total base and therefore are treated in the model as migrating to FTTC, with the result of further overstating total FTTC demand.
19. In the case of eVDSL, the volumes are also incorrectly overstated. The target eVDSL demand is calculated as a percentage of the current broadband base net of the accumulated loss to rival platforms. However, line losses to NBP have not been considered in this calculation. Therefore, of the set of lines which migrate to the NBP, an equivalent percentage is incorrectly included in the model as eVDSL base demand.
20. The model calculates incorrectly the demand for CGA. This is because the minimum of CGA lines does not consider the level of CGA demand which is lost to the NBP. In addition to this, in the

⁹ Para. 6.37 of 17/26.



case where there is FTTC in the exchange, the minimum of CGA lines should reference the percentage of CGA lines which do not migrate to NGA and not the total broadband base (i.e. including those which have already migrated by 2016).

21. ComReg assumed that 15% of volumes are lost to rival platforms including the NBP.¹⁰ ComReg has calculated that, between 2016 and 2026, eir is assumed to lose to rivals only a further 3< lines, which equates to 3< of its 2016 broadband base. However, the remaining 3<, or 3< lines, is inconsistent with what ComReg has assumed as losses to the NBP (15% of CGA lines, or 3< lines).
22. With regards to the historical migration calculation we note the four following issues.
 - (i) Firstly, ComReg have incorrectly applied a simple arithmetic average across all exchanges, i.e., without regard to the size of exchange.¹¹
 - (ii) Secondly, ComReg has taken the first three years' historical¹² data and added unwarranted increments to the following years, while the weighted average of half year-based data provides a better shape of curve to economic standards, therefore better estimation of increments.
 - (iii) Thirdly, ComReg has set 100% as the target value of the take-up curve, while the set of weighted average of half year data itself provides values for the whole 8 year period.
 - (iv) Finally, ComReg has applied FTTC based data as estimation to FTTH migration without any adjustment to be derived from the market condition differences. It is worth noting, that weir has had to use an assumptions on the meaning 'Year' data (i.e. that it represents the end of the calendar year), due to the lack of specification for the ComReg analysis.

We have applied the next formula for the estimation of the increment:

$$\frac{\text{Increment } (t)}{\text{Increment } (t - 1)} = \frac{\text{Increment } (t - 1)}{\text{Increment } (t - 2)}$$

$$8 \leq t \leq 16$$

3<

¹⁰ Para. 6.39.

¹¹ This calculated in sheet "Historical Migration" of the NGA model.

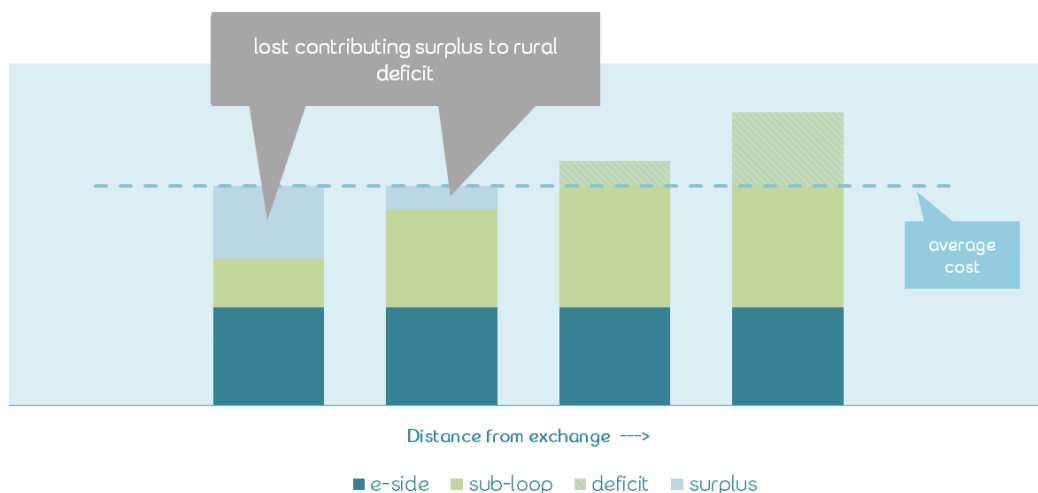
¹² Historical Migration worksheet K6:K8 cells



The use of sub-loop and ULMP prices as NGA access network costs

23. We find that ComReg has taken an unacceptably narrow approach to the recovery of access network costs by setting the recovery of these costs based on the rental price of SLU and ULMP services. This approach to cost recovery is incompatible with the WLR Decision,¹³ and will lead to significant stranded access costs if the lower cost of this sub-set of paths is used to set the price ceiling for FTTC services that currently recover similar levels of access network costs as does the PSTN SB-WLR service revenues. In the absence of clearly articulated mechanism to correct for unrecovered access network costs the modelling proposed represents an unwarranted regulatory uncertainty around pricing for future voice access services.
24. In the WLR Decision, ComReg mandated a contribution to eir's access network costs equal to the average cost across its entire base. As ComReg is well aware this means that this average recovers more than the cost of urban short loops and compensates by recovering less than the cost of rural long loops.
25. The CAM has calculated the average cost of the full copper loop at € per month and the sub-loop cost at € per month. ComReg's approach has been to set the sub-loop allowed cost at a level which is below this average. In practice, the modelled cost is based on lines with distances below 2.5km, which correspond to a cost € per month lower than the average. Disallowing this contribution to the access network costs effectively cancels eir's ability to cover the costs of the more expensive lines, putting the strain on voice services, or on customers where VUA services are not available, and therefore leading to significant regulatory uncertainty. This inconsistency between price controls is illustrated schematically in Figure 4.

Figure 4. Access Network costs (stylised view)



¹³ ComReg, Wholesale Access Price consultation (15/67), para. 6.151.



Migration costs

26. ComReg have modelled a base value cost of migration/connection for first time customers which move from CGA to NGA of £ per connection (sheet "inputs", cell F50, of the NGA model), corresponding to the charge of the sub-contractor to eir. ComReg have modelled the amortisation of this cost using a tilted annuity approach assuming a positive price trend of £ sheet "inputs", cell I50) and an amortisation period of £ years (sheet "inputs", cell G50). This connection cost is significantly understated.
27. The figure of £ per connection appears to have been based on estimates carried forward from previous modelling exercises and not updated for this consultation.¹⁴ Our updated costs indicate that FTTC connections are running at £ per connection¹⁵ which is more than £ than the figure considered in the NGA model.
28. Given our view of future FTTC demand, a £ year amortisation period is unreasonable to recover connection costs and a shorter period should be considered. ComReg has not justified this period and in the model it is presented as an assumption by its advisers (sheet "Equipment annualisation at cell C196), which would also suggest that the economic life of FTTC investments is closer to £ years than to 50 years.
29. ComReg have used a tilted annuity to amortise connection costs, assuming a positive price trend of £. A tilted annuity introduces an unacceptable level of risk regarding the future cost recovery of connection costs given that the charges are back loaded and future FTTC demand is uncertain.
30. ComReg have reduced the annualised charge by applying a factor equal to $(1+WACC)^{-1/2}$ (sheet "Equipment annualisation", cell F196). This would imply that the costs are incurred six months after the work is rendered. A significant proportion of the costs relates to externally contracted services which are on 30 days net payment terms. Therefore, applying this factor is incorrect.

Line Fault Repair

31. ComReg has set the cost of fault repair for standalone VUA based on eir's ARO fault repair cost for the full copper loop of £. ComReg has determined from the CAM that £ of this cost is already included in the sub-loop cost base. We are unable to validate this assumption given that this percentage is simply hard-coded into the NGA model. However, what appears obvious is that ComReg seems to imply that the future costs of fault repair will remain in line with historic trends. This is clearly not the case. In particular, ComReg have assumed the costs will be the

¹⁴ Para 6.123 of 17/26.

¹⁵ April 2017 to date average.



same as in cost model ('Revised CAM') used to inform access prices set in ComReg Decision D03/16. Pursuant to ComReg Decision D03/16, operating costs for the access network in the Revised CAM were an average of the three financial years 2012/13, 2013/14, and 2014/15 on the basis that these contained a representative mix of weather events. The service assurance assumed to be deliverable over those three years was 98% of faults cleared within 2 working days. However, stricter service levels for services provided over the copper network (including standalone FTTC VUA) have recently been subject to a settlement agreement between eir and ComReg,¹⁶ whereby SLA requires that 84% of faults be cleared within 2 working days. ComReg should follow suit on a consistent basis and allow a higher level of repair costs required to meet forward-looking service levels.

Capex (electronics)

32. ComReg has used what they have termed an 'economic depreciation' approach to treat the capital amortisation in the NGA model. For the reasons noted above we find this approach wholly inadequate. It is also inconsistently applied. For instance, the category of "VDSL electronics" is amortised over a 50 year period, taking into account the replacement capital during this period while "aggregation equipment" is amortised over a period equal to the asset life of the ODF. The rationale for this disparity appears to be the result of setting the units costs with reference to the asset with maximum economic life within a given cluster of assets (i.e. the plinth in the case of VDSL cluster of assets and the ODF in the case of the aggregation cluster).
33. Sound economic rationale would suggest that assets with expected shorter asset lives should be recovered more quickly than those with longer expected lives. In fact, according to the 2013 EC Recommendation says "When setting the economic life time of the assets in a modelled FTTC network NRAs should take into account the expected technological and network developments of the different network components".¹⁷
34. ComReg effectively applied an approach which is the inverse of the economic rationale. The cabinet plinth (and cabinet cross-connect plant, including duct) is an item solely dedicated to VDSL and has no use whatsoever once all subscribers connected to the cabinet have migrated to FTTH (including to alternative platforms). Therefore, the cabinet plinth (and cabinet cross-connect plant, including duct and power) should have a much shorter economic life, not be set at 98 years.
35. Power costs are recorded together with electronics where an asset life of 98 years applies. The provision of a power feed from the electricity supplier is no longer required when FTTC is

¹⁶ Settlement Agreement, dated 27 April 2017. Revised SLAs are effective from 1 July 2017.

See <https://www.comreg.ie/publication/case-850-service-level-agreement-dispute/>

¹⁷ 2013 EC Recommendation, para. 41.



replaced by FTTH so this investment should be recovered over the shorter economic life of the FTTC service – our concerns over the long amortisation period are equally valid here.

36. The annual power requirement costs per equipment is applied an inappropriate calculation; the cost is derived from eir's regulatory accounts for FY15/16 as a hard coded value, while the demand is modelled by the NGA model. As a consequence, the total cost remains unchanged, and the unit cost depends only on the number of modelled equipment units. This is clearly incorrect as the cost and number of equipment units must be linked data, which should be given by the same source, in this case by the external model. There are several similar cost element cases in the "Inputs" worksheet.
37. ComReg have applied a zero price trend for the plinth (and cabinet cross-connect plant, including duct and power). We do not think that for this item the assumption that price inflation will be offset by technology and productivity improvements by vendors is a valid one and therefore the price trend applied should reflect a positive trend as result of the increased cost of labour.¹⁸
38. We noticed that the calculation of economic depreciation for DSLAMs does not take into account the full 50 years but only 30 years. This appears to be a formula error.¹⁹
39. The calculation of DSLAM assets at each street cabinet (FTTC) or exchange (EVDSL) in the model needs to be developed to recognise the combined effects of migration from FTTC to eir FTTH and the migration of demand to other NGA infrastructures as these are extended into the DSLAM area. This effect cannot be modelled by using a single efficient fill per DSLAM. In sites where migration away from FTTC occurs the achievable efficient fill is well below that that can be achieved in areas where eir FTTC is the only form of NGA. This fill will fall for a number of reasons. Where migration starts before the maximum fill is achieved the average efficient fill can never be reached; after migration starts it is rarely feasible, or economic, to re-utilise VDSL ports thrown spare as general demand is rising more slowly than the rate of migration.
40. When the NGA model includes projected declines in demand due either to migration to services provided by other infrastructure (e.g. SIRO), or by upgrading to open eir FTTH, there must be an adjustment to DSLAM unit costs. Either the fill factor will fall (from the maximum efficient assumption) as these migrations take place across individual DSLAM cards, or an additional cost is incurred as the remaining demand is re-distributed across a smaller number of cards. It is the open eir experience that it is rarely economic to implement the second as re-arrangement projects are costly to plan and implement to the level that the savings generated by the spare card availability are insufficient to justify the planning and implementation costs of the re-arrangement

¹⁸ As it has done for reusable assets in the Revised CAM (pursuant to ComReg Decision D03/16).

¹⁹ Sheet "DSLAM", cell E60



41. However there is a reference in the TERA attachment of the consultation to the " the existing margin squeeze test model ...", still, there are questionable parts of calculation to be discussed. Opex, Power and Floors should not be capitalised, 100% of these cost shall be paid in their actual year. The return on capital is missing for the first year's investment. Considering the magnitude of it the difference is relevant. This leads back to the timing issues, since the processing of time data is not precise enough in the model to the appropriate management of the date-based and period-based formulas. The cost modelling period should be identical with the price regulation period. In this case the average rate of the discounted costs and 'discounted usage' is equal to the average across years 2013-2020. The difference is material
42. It is worth noting that the engineering rules in the NGA model do not reflect eir's FTTH engineering deployment. This results differences in asset requirement modelling. The NGA model applies a single-layer splitter model²⁰, while eir's FTTH deployment consists of separate single-stage splitting for urban areas and two-stage splitting for rural areas. Even though ComReg has communicated that the model refers to a hypothetical operator (and in this case it doesn't necessarily reflect the eir deployment), the clear distinction between eir's asset requirement and the hypothetical efficient operator's data is missing.

20 E.g. Inputs worksheet, cell B82.



E-side fibre (NGA link) capex

43. There are several complex modelling issues that have timing and other effects, such as inconsistency between the chosen parameters and the applied values. The best example of this is the NGA link. 2013 is the base year of the economic depreciation table, while the input cost data²¹ is derived from 2016/17 financial year data in the Revised CAM which has been applied to Year 2017/18 in NGA²². All this has been done without timing adjustment, despite the availability of such adjustment e.g. in the 'Equipment annualisation' worksheet of the model. We have also noticed that there is an inconsistency in that costs which are sourced from the Revised CAM for model year 2016 are applied retrospectively to 2013.
44. It is also worth noting that the timing issue goes through the whole NGA model. Lack of the specification of the date/time properties of input data (as calendar years, financial years, dates inside a year, e.g. end of the year) makes it difficult to evaluate the entire model²³.
45. ComReg has applied a sort of discounting procedure in order to concentrate usage over the modelling period into one figure for the economic depreciation calculation. ComReg has applied '12' as the conversation rate between number of years and month²⁴, while it is clear that number of customers of the mid date in a year is not treated as the average number of customers over 12 months of that year. The absence of a detailed specification document makes it difficult to recommend an approach to correct this treatment.
46. Beyond the timing issues, the model does not correctly implement the parameters chosen e.g. even though the line length limit is a variable parameter in the NGA model, the price trend does not depend on the parameter chosen.²⁵
47. The price trend of β is hard-coded with no information (sheet "Access FTTC & FTTH", cell D27), on what the source of the figure is.²⁶
48. In another case: WACC is a clearly specified parameter for the model, but its usage as a price trend for D-side assets of FTTH network²⁷ is not justified without appropriate cost studies (and

21 Access FTTC & FTTH worksheet, cell E27.

22 Results worksheet, cell S185, through several steps

23 E.g. Access FTTC & FTTH worksheet, cell H35 seems to be a calendar year data from its ancestor worksheets and cells, e.g. Broadband forecast worksheet, cell AR 34. It is compared against financial year data, e.g. Access FTTC & FTTH, cell H33, in worksheet Access FTTC & FTTH, cell E40.

24 E.g. Access FTTC & FTTH worksheet, cell E39.

25 E.g. on the Access FTTC & FTTH worksheet, cell D27 takes its value-always from the '1.5 Km version' of the Revised CAM, according to our tests conducted to replicate the hard coded figure, while the chosen sub-loop length version is a parameter of the NGA model in Results worksheet, cell G9.

26 We have however replicated a similar price trend between years 2016 and 2020, in the "SLU, ENG 1.5km" version of Revised CAM.

27 E.g. Access FTTC & FTTH worksheet, cell F53.



also its application seems to have a formula error²⁸). It is another indication that price trend application²⁹ is a weak point of the NGA model, either in their input side or in their application in the model.

49. The costs associated billing and carrier administration are multiplied by a factor of 3x, which is hard-coded (sheet "Inputs", cell E190) with no details on how the figure is produced (from the Revised CAM).
50. We consider the inconsistency of 2015 unit cost data, 2016 unit cost data, price trend data and their application in the NGA model as a significant fault. The first main issue with it is the application of 2015-based price trend data together with 2016-based unit costs, while the structure of the unit cost input has changed from 2015 to 2016. We understand that there is a re-grouping of cost elements in the background, but the result of lack of re-arrangement of source data is that there are assets, which have non-zero price trend value with zero unit cost data to be applied with³⁰ in a later phase of the model³¹. It means also that the given price trend will be missed from another cost element³². The other main issue is that the two consecutive years' unit cost data do not confirm price trend data at all. We understand that a part of it may come from a simple administrative reasons (e.g. 2015 is not the main modelling scenario year, therefore sometimes a copy of the 2016 data have been used instead of real 2015 input data), but it does not explain all assets' cases.³³
51. The common cost³⁴ is increased each year by CPI. The results of the external model were set up before 2017, when CPI was close to 0%. Since CPI will change (as it has been explained in other parts of our submission) it should be indexed with a general price increase factor. Only then will CPI express the expected change of the common costs in this case.
52. Fill rate values have to reflect the high quality of the service provision of the efficient service provider. In the case of backhaul fill rate, eir's policy is to upgrade links when busy hour traffic reaches 3x of link capacity, which means that the link occupancy will drop down to 3x immediately (in with a typical case where a second link is added doubling capacity). The fill

28 The reference is to cell D71 in the Access FTTC & FTTH worksheet, range F79:BB79 (in the case when ComReg would like to use WACC as the price trend). Now it is 3x after 2014, as a consequence of the applied formula.

29 Inputs worksheet, range I12:I58 and its application in the model, mainly e.g. in Equipment annualisation worksheet, range C10:C55.

³⁰ E.g. Inputs worksheet, cell C14.

³¹ E.g. in Equipment annualisation worksheet, cells C11 and C59.

³² E.g. in this case it is probably the Inputs worksheet, cell C13.

³³ E.g. in Inputs worksheet, range C19:K19. Here model provides two unit cost data with +18% trend difference while the price trend data provides +2% as an input.

³⁴ Inputs worksheet, cell D123.



increases again as traffic grows. The value, applied as a parameter to the NGA model³⁵, should therefore be between 30% and 40%.

Broadband fault repair

53. The costs associated with broadband repair are based on an analysis of eir's regulated accounts for the financial year of 2015/16. The analysis suggest that 30% of costs are, in fact, made up of indirect (e.g. customer care) and common costs which are allocated to this activity in the eir's accounting model. However, ComReg has taken the approach that indirect and common costs are variable with volumes by calculating a cost per line, which includes these costs.
54. Given that CGA volumes are currently absorbing 30% of indirect and common costs, as these customers migrate to NGA (or choose services provided by alternative platforms), the modelled approach is bound to generate an under-recovery of indirect and common costs, which is unreasonable.

Maintenance costs

55. The cost of cabinet maintenance is calculated on the basis of the total number of cabinet VDSL equipment units (30%) and exchange VDSL equipment units (30%).
56. ComReg's analysis indicates that 30% of the costs of maintenance are indirect and common. Therefore, ComReg should have modelled these costs as a fixed cost and not as a cost that varies with the number of DSLAMs.

Accommodation costs

57. ComReg have calculated accommodation costs per unit of VDSL equipment on the basis of eir's regulatory costs. Accommodation costs are fixed and not variable with the number of equipment units located in any given exchange. In fact, setting accommodation costs at the level of the FY2015/16 accounts will result in an under-recovery of costs in the future as customers move away from traditional services to new services (e.g. from fixed voice to standalone broadband services).³⁶
58. ComReg have assumed that, over the timeframe of its analysis, opex costs and in particular those related to maintenance, repair and power (but also common costs), are to remain flat. This

³⁵ Inputs worksheet, cell D148.

³⁶ This was point was noted in a paper sent to ComReg. "Operating Costs For NGN and NGA Costs Models updated.docx". email from G.Delaney to C.Jordan sent on 03 February 2017.



requires eir to generate operating efficiencies that cancel out nominal pay increases or any upward adjustments to contractor arrangements. The justification provided appears to be highly arbitrary: “(pay) increases can be offset by general year on year efficiency gains”.³⁷ ComReg have not substantiated in anyway this assumption. We find that this is not a reasonable assumption. What would be reasonable to assume is that, at least over the growth period considered by ComReg (i.e. up to 2026), and while eir migrates between technologies, such level of efficiency gains will fall short of inflationary increases, as maintenance and repair are mostly driven by pay costs.³⁸ In the case of power costs efficiency gains tend to be locked in at the time of renewal of the equipment and there is no reason to believe costs will not rise with general inflation.³⁹

Design, management and common costs

59. Common costs associated with NGA have been calculated based on an analysis of eir’s costs. The costs are assumed to remain constant over the modelled period and amortised over the forecast NGA volumes (including FTTH). We have identified the following issues with the approach making it an inappropriate share of fixed and common costs to be recovered from NGA services and hence potentially inconsistent with a forward-looking LRIC plus approach.
60. ComReg have modelled the level of costs based on the regulated accounts for the financial year of 2015/16. This effectively puts a cap on common costs that can be recovered through NGA charges at the level incurred in FY1516, where a significant share of eir’s revenues are still derived from fixed telephony. However, with the decline in legacy services and eir becoming increasingly broadband-centric, a greater share of common costs will need to be recovered from broadband revenues - and NGA broadband revenues in particular. Therefore, capping the costs at the current level will lead to an under-recovery in the future.
61. The ‘economic depreciation’ approach, based on a unit cost per broadband service, sets a path of recovery which is unreasonable. As can be clearly seen from the chart below (Figure 5.) almost 80% of the recovery is modelled to occur after 2026, when ComReg has ceased to explicitly model cash-flows as the level of uncertainty of demand is higher. This means that changes to demand in this period will significantly affect eir’s ability to recover the outflows in the earlier years, contrary to what ComReg appears to suggest.⁴⁰ It is also clear than an economic

³⁷ Para. 6.82 of 17/26.

³⁸ In the paper sent to ComReg 03 February 2017 we presented a number of operating factors as to why considering complete offsetting gains is not reasonable.

³⁹ We note that in Ofcom’s WLA Consultation a 3% year-on-year increase was considered for “Labour” categories and 3.1% year-on-year increase for capital costs categories associated with “Power works and services”. Para 4.29 of NGA model documentation.

https://www.ofcom.org.uk/data/assets/pdf_file/0036/99639/Annex-20.pdf

⁴⁰ Para. 6.41 of 17/26.

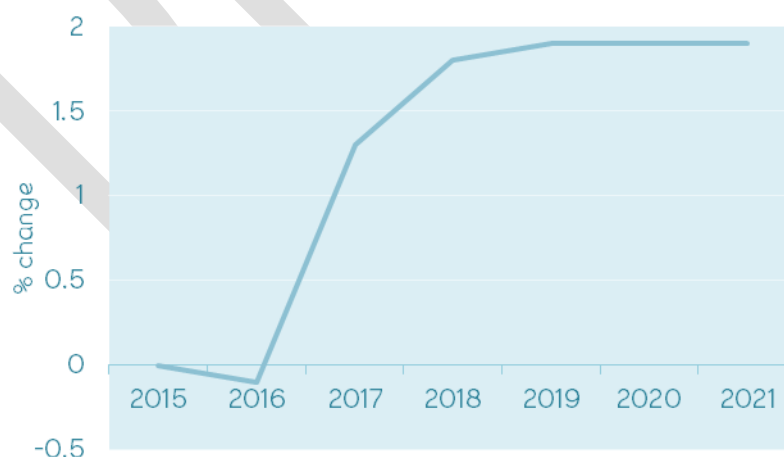


depreciation approach can result in significantly higher charges when a more appropriate timeframe of analysis is considered.



62. ComReg has opted for including the common costs associated with DSLAM equipment in the NGN model. This appears to be because these costs are currently allocated to CGA broadband in eir's cost model. There is no logic to this approach. All common costs relating customer-facing equipment should be modelled in the NGA model. Moreover, as CGA broadband customers migrate to NGA, therefore these costs are will be required to be recovered from NGA broadband services.
63. ComReg has modelled a level of costs without considering any nominal increases. Similar to the assumptions regarding network opex discussed above, this requires complete offsetting gains in efficiency. However where ComReg has set the efficiency gain equal to the inflation this has been done in an inconsistent way; opex still may increase or even decrease in cases of some assets, depending on the capex price trend of the given asset.⁴¹ ComReg has not expressed the reason of the different treatment of these opex items, nor its efficiency gain calculations on the remaining part of the opex pool. Common costs are made up of pay elements and non-pay elements, including depreciation of BSS/OSS. eir's costs (used by ComReg) demonstrate that a significant share is related to staff pay and will be subject to nominal increases, if pay is to be linked to general level of prices. For instance, Ireland's Government outlook HCIP forecasts a year-average of 1.8% between 2017 and 2021.⁴²

Figure 6. Change in consumer prices (HCIP)



⁴¹ Para 8.82 and 'Operating costs as % of capital charges or direct cost' data and Inputs worksheet, cell H25.

⁴² Budget 2017 Economic and Fiscal Outlook. Harmonised index of consumer prices (HCIP).

See <http://www.budget.gov.ie/Budgets/2017/Documents/Economic%20and%20Fiscal%20Outlook%202017.pdf>



64. Equally, eir BSS/OSS systems face capital refreshes and are expected to require increases in annual charges over the coming years to support new services coming on board.⁴³
65. To illustrate the impact of flat nominal costs, a shortfall in efficiency, however minimal, over a 50 year amortisation period can produce a very significant under-recovery of common costs. For example, if future changes in the level of prices are to remain similar to price changes in March 2017, when the CPI was 0.7%,⁴⁴ it will require eir to generate an average level of efficiency between pay and non-pay costs of 40% by the end of the amortisation period.
66. Therefore, there is no economic justification to expect that this level of costs in the future. This is the case now when eir is making the transition from current generation to next generation access technologies, and less so in the future when all telecommunication businesses – not just eir – will become broadband-centric.

Interconnection (WEIL)

67. It is worth noting that the general open eir approach to pricing WEIL services is to not seek to recover common costs from service rentals as the WEIL service facilitates, or enables, Operators to consume active services such as call origination, WSEA logical, or Bitstream that are priced to contribute to those common costs where the Operator connects a new customer. While the modelling appears to recognise this pricing policy, consideration needs to be given to the future adequacy of this approach. Traffic handoff takes place increasingly at a deeper level in eir's network, requiring an increase in interconnection facilities and therefore a contribution to common costs from interconnection services may be warranted.
68. The modelled number of WEIL in sheet "Backhaul without Multicast", row 27, are calculated on the basis of bandwidth at an aggregate level. However, regional handover would require an interconnect link at every region, so the number of links should be calculated on the basis at a regional basis, with a minimum of one link per region.
69. Also at cell D72 in the "Inputs" worksheet the calculation for the cost of a 1.5 km CSH WEIL is overstated when the incremental charge per 100 metres of € per annum is applied 15 times. The basic CSH rental includes the first 500 metres so the incremental charge should only be applied ten times.

⁴³ In the paper sent to ComReg 03 February 2017 we stated that eir is "seeing significant levels of system development time being incurred as we rollout NGA and NGN core platforms deeper into the network".

⁴⁴ Central Statistics Office (CSO). Change in consumer prices between March 2016 and March 2017. See <http://www.cso.ie/en/releasesandpublications/er/cpi/consumerpriceindexmarch2017/>



3.2. NGN model

Demand

70. ComReg have modelled the primary service demand in the NGA model and this is then used in the NGN model. Our concerns detailed in the review of the NGA model are therefore equally valid for the NGN model. However, ComReg has over-stated the level of usage of the core network in three other important ways.
71. ComReg have not calculated the effect that VUA will have in reducing the use of the higher layers of the core network (i.e. beyond the aggregation nodes). We find this fundamental omission incomprehensible. VUA represents now \approx of the total NGA broadband and we expect this trend to continue. If OAOs are able to self-supply backhaul or resort to alternative backhaul providers, the level of core network consumption implied is then significantly over-stated. In effect, ComReg have modelled unit costs for all network elements on the basis of peak bandwidth consumption but use of VUA implies that demand for the higher layers of the core network will be far lower than peak capacity.
72. ComReg have also not considered the effect that regional handover product will have in reducing demand for the higher layers of the core network, which similarly to the omission of VUA, will impact on the cost of national handover.
73. The forecast split of broadband traffic between retail and wholesale is set on the basis of 2014 figures.⁴⁵ However, the retail base has had a relative decline since then (in 2017 the retail share of broadband traffic originating on open DSLAMs and OLTs is below \approx of the total – as compared to \approx in the NGN model for 2014). Therefore, the forecast split should be based on a continuing relative decline of the retail base and therefore reduced use of the core network, as a result of VUA or regional handover.

Capex

74. We note that the capital costs associated with DWDM have been excluded in sheet “xWDM-APT” as a result of selecting the option ‘no’ in the control sheet (“CWDM & DWDM (excl. ROADM)?”). It is unclear as to why these costs have been excluded. DWDM equipment is used to augment the capacity of the fibre infrastructure. It is used between the aggregation and PE and between the PE to Core high density routes.

⁴⁵ This is calculated in sheet ‘Forecasts’ in the NGN model.



75. It is also unclear why the capital costs associated with CWDM have been set to zero in sheet “xWDM-APT” as a result of selecting the option ‘no’ in the control sheet (“CWDM & DWDM (excl. ROADM)?”). A comment in the model⁴⁶ states that “Cost for the CDWM for Agg nodes is counted in the unit cost (unit cost per link)”. CWDM is usually deployed in the access (APT)/aggregation network for short range and low capacity applications
76. The exclusion of DWDM and CWDM costs is inconsistent with the model documentation, where it obvious these costs are included in the NGN model.⁴⁷
77. ComReg have calculated the annualised capex costs associated with core nodes (APT, aggregation, edge, and core nodes) based on a tilted annuity formula set at calendar year 2014 and assuming in most cases a negative price trend of 3%. It’s unreasonable to assume that the prices for these assets will be reduced by 3% (or implicitly this level of obsolescence) by end of life given that equipment vendors replace old technology with new with added capacity and functionality with no significant price erosion.
78. ComReg have reduced the value of the tilted annuity value by a factor equal to 3%. We do not see any reasonable reason for using this factor. Using this factor would imply that the actual payment for the asset is made six months after it starts generating an income. This reasoning is clearly incorrect given that equipment is ordered well in advance of the start date of its effective use on payment terms are substantially less than 6 months - being largely between 30 and 45 days.

Allocation of fixed costs

79. A revenue-based rule - and given ComReg’s current proposals, in particular the treatment of recovery of the access costs against NGA (standalone) broadband services - risks imposing a circularity in the structure of prices. This is because by reducing prices (through disallowing a full recovery of access costs against broadband), in turn reduces the share of fixed costs allocated to broadband, creating an artificial ‘headroom’ for further price reductions (given the impending cost orientation obligations).
80. ComReg have assumed that the customer ‘willingness to pay’ for broadband, voice, or leased lines is unaffected by changes resulting from price controls. While this may not been an issue in the control period, taking a longer view would suggest that a degree of flexibility needs to be considered. This is because telecommunication service providers will become more broadband-centric as a result of:

⁴⁶ Cell F78.

⁴⁷ Draft NGN specification document April 2017.pptx, pages 47 and 48.



- i. The 'willingness to pay' for voice services will decrease⁴⁸ and therefore voice services' ability to be revenue anchor will reduce significantly (Figure 6).
- ii. Broadband and leased lines will converge at least in the lower end of the leased line markets, where capacity and service levels are attributes of less value to customers.

✂

81. The proposed allocation of fixed traffic costs based on revenues is based on analysis by network element of the share of NGN costs attributable to each service category: voice, broadband and leased lines at FY2015/16. The inclusion of the following network elements in the share of the NGN costs is however inconsistent with ComReg's proposed approach:

- i. Subscriber unit (line-card sensitive). These costs are attributed to the access network and are recovered through access tariffs (WLR).
- ii. Interconnect facilities are not – strictly speaking – within the scope of NGN network. In particular, interconnect facilities supplied to OAO are recovered through the RIO interconnect tariffs.

Core costs per kbps

82. The calculation of the per port costs by zone for FTTC/eVDSL is calculated using the peak consumption for CGA broadband as opposed to NGA FTTC peak consumption. This is the case for both national and regional handover. In the sheet 'input for NGA model Nat Dynamic', section "3. Costs per zone", the port costs reference column with title 'Cost of other part of the network per customer and per month - CGA BB', which is calculated based on the CGA peak consumption in the column with title 'Cost of other part of the network per customer and per month - CGA BB'. However, this appears to be inconsistent with the purpose of the modelling where "the cost of backhaul traffic for FTTC based Bitstream has been derived in the core network model (in Chapter 8) and used as an input to the proposed NGA Cost Model".⁴⁹ In other words, the cost of backhaul traffic should refer to NGA traffic.

⁴⁸ As a result of mobile substitution and OTT applications (e.g. Whatsapp, Messenger).

⁴⁹ Para. 6.4 of 17/26.

83. ComReg have calculated the opex costs based on eir's regulatory accounts. This was done by reviewing in detail eir's cost model where costs are attributed in a top-down fashion to the underlying activities. We identified the following issues with ComReg's approach.
84. A number of activities in eir's cost model have been excluded or reduced from the NGN model in the sheet "Code & Multiplier Review". These activities relate to legacy leased lines, including maintenance and management of SDH transmission equipment. As ComReg is aware,⁵⁰ these costs - while presently supporting legacy infrastructure - will be reallocated (as is the nature of a top-down cost model) to support an NGN network which we anticipate will expand, so that eir does not anticipate the kind of step reductions in staff, which have been modelled by ComReg.
85. As noted, a number of activities have been reduced by a factor of \times (for example, sheet "Code & Multiplier Review", cell E6). The level of reduction is unwarranted for the reasons explained above and arbitrary, as there is no basis of such a factor.

4. Margin squeeze tests

86. This section reviews the margin squeeze tests proposed for wholesale services. For the sections which review the tests for the FTTH Bitstream to VUA and NGA (FTTC and FTTH) End-to-end Bitstream, the cell references are for workbook "Wholesale NGA Broadband Margin Squeeze Model.xlsx". For the CGA End-to-end Bitstream the cells references relate to workbook "Wholesale CGA Broadband Margin Squeeze Model.xlsx".

4.1. FTTH Bitstream to FTTH VUA

87. The following comments refer to the sheet "Test VUA FTTH to Bitstream FTTH".
88. We identified the following formulae errors:
 - i. Cell C51 references the incorrect cell area G27:G32
 - ii. Cell C52 references the incorrect cell area F27:F32 as the product mix.
 - iii. Cells I5 to I10 should be calculated as described in the reference offer, where usage is rounded up to the nearest 25kbps increment.⁵¹

⁵⁰ See our paper sent to ComReg 03 February 2017.

⁵¹ WBARO 7.36, section 4.1.5. http://www.openeir.ie/Reference_Offers/



89. The bitstream revenues in cells I5 to I10 are based on a usage price schedule (cells B59-C147), which refers to Bitstream Managed backhaul (BMB) charges. The correct usage charges applied to FTTH are set out in the reference offer in the section for NGA usage charges.⁵² Also, the maximum discount applicable to regional handover set in cell E22 refers incorrectly to BMB.
90. The test is performed inconsistently when the handover scenario in cell E20 is set at a scenario other than “3. Weighted”. This is because the cost of data traffic (including interconnection) included in sheet “End-to-End NG calculation” (cell E31) is hardcoded and is based on \approx of the traffic being handed off at regional level.

4.2. Wholesale End-to-end Bitstream (NGA)

91. In sheet “Results Summary”, we note that the Bitstream input for the test is not based on the price (or revenues) for bitstream but is incorrectly based on the costs as calculated in the NGA and NGN models (set at \approx regional handover).
92. The test should make the distinction in terms of data usage between FTTH and FTTC and not apply an average of FTTC and FTTH as it appears to be the case in sheet “End-to-End NG calculation”, cells F29 to M29 (we were unable to trace back the values in the NGN model).
93. Our understanding is that the cost line “National Backhaul” (cells E23 and F23 in sheet “Results Summary”) relates to the cost that the white label OAO incurs for backhauling the traffic to the internet gateway. We have two concerns:
- i. The costs have been modelled as being linear with bandwidth, assuming CSH WEIL prices and total distance of 1,500 meters.⁵³ This implies that the white label operator receives all traffic in one location. However, this is inconsistent with the modelled costs, where \approx of the traffic is handed over at a regional level, hence requiring that the traffic is carried from each region to the internet gateway.
 - ii. We also do not think that the WEIL CSH is the appropriate input into this test. The majority of WEILs actually used by Operators to take Bitstream or VUA traffic are of the IBH variety and this price is the more correct input into the test.
94. There are a number of specific costs which arise in the context of white label broadband, such as systems development, wholesale billing and product management activities, including a

⁵² WBARO 7.36, section 4.1.5 http://www.openeir.ie/Reference_Offers/

⁵³ We again note that the distance-based cost for the first 500 meters are included in the base rental price for the WEIL,



contribution to common costs, that should be considered in a margin squeeze test and which are currently not contemplated in the proposed test.

4.3. Wholesale End-to-end Bitstream (CGA)

95. Cells Q7 to Q25 should be calculated as described in the reference offer, where usage is rounded up to the nearest 25kbps increment.
96. Cell X11 and X14 should contain the values of \times and \times respectively.
97. The cost of backhaul is hard-coded into cell S30 with a reference that is sourced from "2016-28-DB-ComReg Retail CGA model 'CALCS - Retail Costs SEO'" tab. We could not locate this file, therefore we are unable to review this input. It suggests though the calculation for backhaul costs is done in distinct way as it is for NGA.
98. The cost of internet connectivity is hard-coded into cell S31, we are unable to review this input.
99. As with NGA, there are a number of specific costs which arise in the context of white label broadband that should be considered in a margin squeeze test, and are currently not contemplated in the proposed test.



COMPETITION
DISPUTES
REGULATION

Asia-Pacific | Europe | North America

Assessment of ComReg's Wholesale Local and Central Access proposals (Draft Decision 17/26)

A report for eir

NON-CONFIDENTIAL VERSION

23 June 2017



1	Executive Summary	3
2	ComReg's proposals are much more severe than regulation elsewhere in the EU	8
3	ComReg's draft decision does not reflect the strength of competition in the Irish market	14
3.1	<i>What is required by EU rules and recommendations</i>	14
3.2	<i>Current and forecast market share for broadband services</i>	16
3.3	<i>National pricing extends competitive constraints nationally</i>	21
4	ComReg's reasons for cost-based price regulation of FTTC are flawed	22
4.1	<i>Regulated copper LLU prices and the growing presence of rival networks effectively constrain eir's pricing for FTTC and FTTH</i>	22
4.2	<i>Fibre services warrant a different regulatory approach</i>	38
4.3	<i>Demand for fibre broadband services remain uncertain</i>	38
4.4	<i>ComReg's reasoning for imposing cost based pricing for FTTC based WCA in regional areas is flawed</i>	40
4.5	<i>Regulating FTTC Bitstream is disproportionate</i>	41
4.6	<i>ComReg's overall reasons for not imposing cost-based regulation in 2013 remain valid today</i>	42
4.7	<i>Implications for ComReg's proposals</i>	43
5	The impacts of ComReg's proposals on investment in the Irish Communications sector	45
5.1	<i>ComReg has not allowed eir to earn a fair return on its investment in FTTC/FTTH (the 'fair bet')</i>	45
5.2	<i>What is a 'fair bet'?</i>	46
5.3	<i>Analysis of 'fair-bet' for eir</i>	47
5.4	<i>Cost orientation will chill investment incentives by reducing potential returns for all players</i>	51
6	The proposed approach to CGA regulation	56
6.1	<i>Basing the regulation of CGA bitstream and BMB on BU costs</i>	56
6.2	<i>The regulated price floor on CGA Bitstream should be removed</i>	57
7	The proposed margin squeeze tests carry greater costs than benefits	58
7.1	<i>The rationale for the margin squeeze obligations</i>	58
7.2	<i>Comments on the technical design of the margin squeeze tests</i>	62
8	The draft NGA cost models substantially underestimate FTTC access costs	66
8.1	<i>Issues with the NGA demand forecasts</i>	66
8.2	<i>Concerns regarding parameter assumptions in the NGN model</i>	75
8.3	<i>Concerns regarding economic elements of the draft models</i>	79

1 Executive Summary

1. eir has requested that CEG undertake an independent assessment of the proposals set out in ComReg's *Pricing of wholesale services in the Wholesale Local Access (WLA) market and in the Wholesale Central Access (WCA) markets* ("the Draft Decision") of 7 April 2017.
2. ComReg's determination of the nature and scope of future price regulation of current and next generation access services comes at a critical time for the development of the industry. Multiple operators in Ireland are currently expanding the rollout of their superfast and ultrafast broadband networks with substantial investment still to take place. The business case for these investments remains challenging. In this context, it is critical that regulation is limited to areas where there is a clear competition problem and the regulation is applied in a way that minimises risks to ongoing investment.
3. ComReg's proposals instead carry serious risks of undermining investment and the competitive provision of infrastructure. ComReg is proposing to extend highly intrusive price regulation from copper to fibre-to-the-cabinet (FTTC) services without a proper assessment of the proportionality of imposing such regulation on fibre in the presence of competing network operators and continuing cost-based access to copper services.
 - eir's moderate and declining share of national retail broadband connections (of 32.3%) demonstrates the vigorous competition that has developed and shows that there is no competition problem warranting a shift to heavy-handed regulation of fibre services.
 - ComReg has recognised to some extent the competition, specifically in urban areas where Virgin Media has potentially double the market share of eir in relation to Wholesale Central Access and a higher or similar share of the Wholesale Local Access market.¹ The extensive regulation proposed for eir's services is disproportionate and discriminatory compared with the absence of ex ante regulation on Virgin Media.
 - ComReg has not assessed how the growing presence of alternative networks in combination with cost-based access to copper would effectively constrain eir's fibre pricing. The network expansions of Virgin Media, SIRO and Imagine already underway will bring the benefits of infrastructure competition to the vast majority of Irish consumers within the forthcoming regulatory period. In areas of network coverage, the incremental costs of connecting additional customers are relatively low creating the incentive for operators to price aggressively in seeking to attract and retain customers on their networks. Thus,

¹ Footnotes 49 and 50 of the Draft Decision report eir's WCA market share as between 25% and 35% and Virgin's Media's market share between 45% and 55%. Virgin Media will have the same share of the WLA market (including Virgin Media's self supply), SIRO a small but growing share and eir the remainder.

the market circumstances that can be expected to prevail are likely to result in intense competitive pressure on eir's pricing.

- eir and other operators already engage in national pricing reflecting brand benefits and marketing efficiencies. As infrastructure competition extends to an even larger share of customers nationally the economics of national pricing will become even stronger as there would be less benefit from differentiated pricing for smaller regional areas. Accordingly, the infrastructure competition in large parts of the country will effectively constrain prices nationally. It should also be noted that infrastructure competition in rural areas is developing with the rapid rollout of Imagine's services and the National Broadband Plan for an open wholesale access infrastructure.
 - ComReg's proposals to regulate FTTC Bitstream in regional areas is particularly disproportionate. For customers able to be supplied by superfast FTTC, access seekers can compete with eir's bitstream services by accessing a regulated FTTC VUA service (which ComReg is proposing to price regulate at cost nationally) and self-supplying or purchasing backhaul from competing suppliers. To avoid regulation deterring the shift to VUA and investment in rival infrastructure such as Imagine's, the WCA market nationally should be allowed to develop free from regulatory intervention.
4. ComReg's proposals would result in much more severe regulation of FTTC access services in Ireland than in any other similarly competitive EU market. No other EU regulator has imposed cost based regulation of FTTC VUA when the incumbent operator has as low a share of the national broadband market as eir. No other EU regulator imposes both cost orientation and a margin squeeze test on FTTC bitstream. Further, ComReg is proposing to regulate FTTC services at cost in Ireland much sooner after the launch of the network than has occurred in the other European countries which apply cost-based regulation to these services.
 5. Our analysis shows that capping returns at the Weighted Average Cost of Capital during the forthcoming regulatory period (2017/18 to 2019/20) would deny eir a fair bet on its FTTC investment. [Confidential] Effectively, ComReg proposals would prevent eir from earning a return commensurate with the specific risks of the FTTC investment. As Ofcom in the UK has recognised, to impose regulation opportunistically that does not respect the fair bet principle will deter future investment. Further, providing competitors with the ability to obtain cost-based access to eir's fibre services would remove their incentive to undertake further investment in expanding their networks. Rivals have little incentive to undertake risky investments in new networks when they can avoid those risks through regulated access to eir's FTTC network. Lower prices for FTTC also undermine the migration path by which customers transition to FTTH. Investments in ultrafast broadband networks will be harmed as fewer customers will be prepared to pay the greater price difference created to upgrade from FTTC to FTTH services.
 6. ComReg's reasons for imposing cost based regulation of FTTC services are flawed.

proportionate, and non-discriminatory. In this regard, it should be noted that rules to prevent a margin squeeze will ensure that rival providers that rely on access to eir's network are able to compete. Cost based price regulation would only be justified were there evidence that a lack of competition is allowing eir to generate excess profits from its FTTC services. However, ComReg has presented no evidence that eir's FTTC investment is excessively profitable. Indeed, fibre services are priced at only a small premium to copper. Further, our analysis of the period required to provide eir with a fair bet (i.e. until [Confidential]) indicates that there would not be a robust basis to make a finding of excess profitability in this period when actual returns will reflect whether market conditions have turned out favourably or unfavourably.

8. Not only is there no sound basis to regulate FTTC access at cost, but the proposal to impose both cost-based regulation and margin squeeze rules has a further key flaw. A margin squeeze would require either (i) wholesale prices being set above costs; or (ii) retail prices set below cost. Cost based regulation of wholesale FTTC access rules out the possibility of excessive wholesale prices. Thus, for eir to engage in a margin squeeze would require eir to set retail prices below cost. Such loss-making pricing would only be rational if eir would have a reasonable expectation of forcing the exit of eir's significant competitors and then being able to set retail prices at excessive levels in the future for a sufficient period to recover the losses. However, there is no basis for such an expectation given that eir's significant competitors have networks which are largely sunk costs (and hence very unlikely to exit) and any attempt to raise prices in the future would be constrained by both the continuing existence of the rival network assets and the ability of competitors to enter using regulated access.
9. For these reasons, we recommend that ComReg's proposals should be revised on the following basis.
 - There is no case for regulation of VUA nationally beyond the current margin squeeze obligations as these obligations are sufficient to protect competition downstream. There is no evidence of excessive profitability of fibre to warrant cost-based regulation.
 - There is no case for regulation of FTTC bitstream even in rural areas given the competitive rival infrastructure deployments underway and the constraint from competitors able to access VUA and copper services.
 - The price of CGA services should be set to ensure recovery of eir's actual costs and price reductions avoided as they would deter the migration of customers to the NGA services of eir and its competitors and risk undermining further NGA investment.
10. We have also identified a number of issues with the draft NGA and NGN models that have been used to estimate the costs of FTTC services. Both our concerns and our proposed adjustments are set out in Table 1 below.



Table 1 - Summary of concerns with the modelling approach

[Confidential]

- 11.
12. Adopting CEG's suggested model adjustments would increase the cost-based price for FTTC bitstream by €[Confidential], from €18.99 to €[Confidential]. We note this price increase does not reflect the full set of model changes that we believe are warranted, particularly an adjustment for the recovery of nationally averaged access costs and a 20-year modelling period. Such updates would imply a higher efficient cost.

Figure 1 - Cumulative impact of proposed model adjustments

[Confidential]

2 ComReg's proposals are much more severe than regulation elsewhere in the EU

13. Before turning to the details of the analysis put forward in support of ComReg's proposals, we note that ComReg's proposed set of regulation for FTTC based access services are much more extensive and intrusive than those applied in similarly competitive markets elsewhere in Europe.
14. The analysis of the regulatory approaches to FTTC based WCA and WLA services across the EU set out in the tables below highlight the following.
 - eir has a relatively low retail broadband market share (of 32.3%) suggesting it has one of the most competitive broadband markets in Europe. The extent of competition from rival providers has resulted without cost based regulation of FTTC access - together with other market evidence (which we present in the next section) this suggests that there is not a competition problem warranting the proposed extension of regulation.
 - The imposition of cost based regulation together with retention of current margin squeeze obligations would lead to the regulation on eir being much more severe than in other similarly competitive FTTC bitstream or FTTC VUA markets in Europe.
 - Poland would be the only other bitstream market subject to cost orientation in which the incumbent has less than 40% of retail broadband connections – however, FTTC bitstream in Poland is not also subject to margin squeeze rules.
 - In relation to FTTC VUA, the proposed dual application of margin squeeze rules and cost orientation occurs in no other market where the incumbent has less than 44% of retail broadband connection (in Ireland, eir has only 33% of retail broadband connections).
 - Cost orientation is not applied to FTTC VUA in any other market where the incumbent has less than 37% of retail broadband connections. Cost orientation was applied to FTTC VUA in Sweden where Telia currently has 37% market share, however the regulation was applied when Telia's share was 39% and when its share was almost double that of the network with the next highest share (Telenor at 20%).
 - Looking forward, the expansion of Virgin Media's and SIRO's networks is likely to further erode eir's market share (see section 3.2 for a further discussion) making ComReg's regulatory proposals even further removed from what occurs elsewhere in Europe where competition is similarly advanced.

Table 2 - Regulation of FTTC bitstream (WCA) services

Country	No regulation	Margin squeeze (or retail minus)	Cost oriented (some with a mark-up over costs)	Margin squeeze and cost oriented	Incumbent's national broadband market share
Luxemburg		✓			67%
Croatia			✓		59%
Austria		✓			59%
Estonia			✓		58%
Denmark			✓		53%
Macedonia	✓				53%
Switzerland	✓				52%
Malta	✓				50%
Latvia	✓				50%
Lithuania	✓				50%
Belgium		✓			50%
Italy			✓		46%
Cyprus			✓		46%
Greece			✓		45%
Spain			✓		44%
Netherlands	✓				42%
Norway		✓			41%
Germany		✓ ¹			41%
France			✓		40%
Slovakia	✓				39%
Hungary		✓			38%
UK	✓				37%
Sweden	✓				37%
Slovenia		✓			35%
Portugal	✓				33%
Poland			✓ ²		32%
Ireland		✓		✓	32%
Finland	✓				29%
Czech Republic	✓				28%
Romania	✓				27%
Bulgaria	✓				26%

Source and notes: Pricing regulation from national regulators websites and Incumbent's broadband market share from Telegeography, GlobalComms Database. ¹ Price squeeze test, IP-BSA: Ex post price control for abusive prices, L2-BSA: Ex ante price control based on LRIC+15% and PST, ² Cost regulation only in areas considered not competitive, UKE New Regulations concerning wholesale broadband internet access services in Poland, 7 October 2014

Table 3 - European regulatory approach to VULA (WLA) services

Country	No regulation	Margin squeeze (or retail minus)	Cost oriented (some with mark-up over costs)	Margin squeeze and cost oriented	Incumbent's national broadband market share
Luxembourg	✓				67%
Croatia	✓				59%
Austria				✓	59%
Denmark			✓		53%
Estonia	✓				58%
Macedonia		✓			53%
Switzerland	✓				52%
Malta		✓			50%
Latvia			✓		50%
Lithuania			✓		50%
Belgium			✓		50%
Italy				✓	46%
Cyprus	✓				46%
Greece				✓	45%
Spain				✓ ¹	44%
Netherlands	✓ ²				42%
Norway		✓			41%
Germany			✓		41%
France			✓		40%
Slovakia			✓		39%
Hungary	✓				38%
UK		✓ ³			37%
Sweden			✓ ⁴		37%
Slovenia	✓				35%
Portugal	✓				33%
Poland	✓				32%
Ireland		✓		✓	32%
Finland	✓				29%
Czech Republic		✓			28%
Romania	✓				27%
Bulgaria	✓				26%

Source and notes: Pricing regulation from national regulators websites and Incumbent's broadband market share from Telegeography, GlobalComms Database, ¹No VULA obligation in the more competitive 66 municipalities, ²ACM said it would only adopt a price control decision if the market does not reach an agreement. In that case, a combination of a price cap and a price squeeze test would apply. ³UK proposed to move to price regulation for speeds up to 40 Mbps, ⁴At the time of last market review in Sweden, TeliaSonera has 39% of the retail market, almost double the next largest operator (Telenor with a share of 20%) and much higher than the cable operator Com Hem with a share of 18%.

2.1.1 Other countries which impose no regulation or apply margin squeeze tests only have similar broadband markets to Ireland

15. As we discussed later in the report, in assessing the constraints on eir's FTTC prices, it is important to recognise that high FTTC prices may lead customers to choose to stay on copper services particularly given continuing cost-based regulation of copper access. In this regard, the overall constraints on incumbent operators' FTTC prices will be higher, the smaller the share of a market's total fixed broadband connections that are comprised of the incumbent's FTTC services. Table 4 shows that eir's fibre connections account for [Confidential] of total fixed broadband subscriptions in Ireland. Other countries where the incumbent's fibre connections account for similar shares of overall fixed broadband connections have decided not to regulate FTTC services or to only impose margin squeeze obligations.

Table 4 - European incumbents' fibre share of national broadband

Country	Incumbent	Incumbents' fixed broadband market share	Incumbents' share of fibre	Incumbents' fibre share of national broadband
Romania	Telecom Romania	27%	94%*	25.4%
Sweden**	TeliaSonera	39%	55%*	21.5%
United Kingdom	BT	37%	53%	19.6%
Ireland	Eir	32%	[Confidential]	[Confidential]
Finland	TeliaSonera			18.0%
Slovenia	Telecom Slovenije	35%	44%*	15.3%
Bulgaria	Vivacom	26%	52%	13.5%
Norway	Telenor	41%		>7.7%***
Poland	Orange	30%	20%	6.1%
Czech Republic	O2	28%	17%*	4.7%

Source: CEG analysis. Romania: Budde, Romania – Telecoms, Mobile, Broadband and Digital Media – Statistics and Analyses, December 2016; Sweden: PTS, Svensk telekommarknad 2016, 22 May 2017; Ireland: data from eir; Finland: Viestintävirasto, Availability of high speed broadband connections, 1 June 2016; Slovenia: Telekom Slovenije, Annual Report 2016; Bulgaria: Orange Polska, Integrated Report 2016; Poland: Orange Polska, Integrated Report 2016; Norway: NKOM, Det norske ekomarkedet 1. Høst 2016, 31 October 2016; UK: BT Group plc Annual Report & Form 20-F 2017; Czech Republic: Calculated based on data from Telegeography – Czech Republic Regulation section. Notes: *Numbers are a conservative proxy which is based on national share of fibre and not the incumbents' share. ** Sweden has no regulation of FTTC bitstream but regulation of FTTC VUA (market share shown as at date of market review). ***7.7% for Norway is an underestimate as it does not include VDSL. Portugal excluded as relying on FTTP rather than FTTC.

16. In all of the countries listed in Table 4, wholesale broadband access is not regulated based on costs with the partial exception of Sweden which have cost-orientation on VUA but no regulation of bitstream and Poland which regulates bitstream in parts of the country considered non-competitive. In the UK, Ofcom is proposing to cost

regulate VUA up to certain speeds but not to regulate bitstream and to remove the current margin squeeze obligations.

17. The other European regulators have reached their decisions not to regulate FTTC access at cost taking into account the extent of developing competition as well as the risks to investment that would be created by cost-based price regulation.
18. In Norway, the regulator (NPT) conducted a review of the VULA market and applied non-discrimination obligations and a margin squeeze test on Telenor. NPT considered that price regulation of fibre was not warranted due to increasing competition between different technologies, between fibre developers and between existing providers and so-called OTT players (Over the Top) service offerings.

NPT's view is that access based on transparent and non-discriminatory terms in Market 4 [Wholesale Local Access] will support the goal of the widest possible expansion of high-capacity broadband networks in Norway in the next few years than if price regulation for fibre is introduced in this relevant market. NPT wants the regulation of wholesale broadband access markets to provide incentives for fibre development in the future, and believes the approach will appropriately balance the considerations of access-based competition and investment incentives for infrastructure-based competition.²

19. In Sweden, PTS's analysis of the High-Level Access Market at a wholesale point through a fixed point of connection noted that:

High and permanent barriers to entry exist on the market for high-quality wholesale access via a fixed point of connection. Despite these barriers, the market is characterized by dynamics, and develops according to PTS's assessment in the direction of effective competition. The general competition law is therefore considered to be sufficient to address the competition problems that may arise in the market.³

20. In Romania, all wholesale access regulations previously imposed on Telekom Romania have been removed. In November 2015, ANCOM concluded that no operator holds individual SMP on the market for wholesale local access provided at a fixed location. Taking into account that the market analysis did not reveal competition concerns at retail level that could have justified maintaining or imposing additional regulation at wholesale or retail levels, ANCOM withdrew all the remedies that have been imposed on the market for wholesale local access provided at a fixed location. The wholesale market for central access provided at a

² NPT (2014) *Decree on the designation of providers with significant market power and orders for separate obligations in the wholesale market for full and shared access to fixed access networks (Market 4)*, p. 3. [CEG Unofficial Translation]

³ Analys enligt 8 kap. 5 och 6 §§, lagen (2003:389) om elektronisk kommunikation, av marknaden för högkvalitativt tillträde i grossistledet via en fast anslutningspunkt, page 58

fixed location for mass-market products was never regulated in Romania and the retail market for broadband internet access was considered to be competitive absent wholesale regulation.

21. In Slovenia, AKOS decided not to regulate VUA and to only apply a retail-minus approach to regulate bitstream services. AKOS noted that a cost oriented approach would not be appropriate as cable operators and unbundled local loop operators constrain retail prices of fibre connections. AKOS further stated that the preferred method for the calculation of wholesale broadband access prices is retail minus.⁴ The retail minus approach was preferred to facilitate effective competition in the retail market and allow operators an appropriate rate of return encouraging investment in alternative networks.
22. In Bulgaria, CRC, concluded in a decision from 22 February 2011 that there was no effective competition in markets on wholesale broadband access (including bitstream access) and physical access to network infrastructure (including full and shared unbundled access). CRC imposed cost-oriented ex-ante regulation.⁵ However, in 2016, CRC found that the market was effectively competitive and revoked all obligations it had previously imposed on Vivacom.
23. In Poland, UKE decided in 2014 to ease regulation of wholesale broadband internet access in parts of the country that were found to be competitive. UKE stated that this should promote investment incentives for all operators, including Orange. The President of UKE noted that:

Creating real competition on several local markets, where different operators act and compete with each other, will allow not only for the increase of competition in terms of service, but also infrastructure, between all players, based primarily on the new generation infrastructure. That is why I have conducted intensive works towards the liberalization of this market, as this will encourage entrepreneurs - including Orange – to make further investments.⁶
24. The severity of ComReg's proposals compared with the approach taken in other markets where competition is as advanced as in Ireland should caution ComReg to revisit its proposals. Where competition is advanced (including the constraints of ongoing cost-based copper access), such heavy-handed regulation is not required and imposing such regulation on one player risks deterring investment and distorting the future development of competition to the long-term cost of consumers.

⁴ AKOS (2010), Analiza Upoštevnega trga 5 Širokopasovnia dostop (medoperaterski trg), p. 93. [CEG unofficial translation].

⁵ Telegeography.

⁶ UKE decision Oct 2014, New regulations concerning wholesale broadband internet access services in Poland.

3 ComReg's draft decision does not reflect the strength of competition in the Irish market

25. ComReg has recognised the competitiveness of the WCA market in urban areas and proposes to withdraw regulatory obligations in that market. However, the proposed set of regulatory obligations, including the new cost orientation obligations for FTTC national VUA and regional WCA, cannot be justified by the increasingly competitive state of market in Ireland.
26. ComReg has not properly taken into account a number of developments affecting both the WLA and WCA markets including the competitive impact of the expansion of Virgin Media, SIRO and Imagine. These networks will bring direct infrastructure competition to the vast majority of Irish business and residential customers. The existence of national pricing implies that the remaining customers will also benefit from the pricing constraints created. The strength of competition suggests that regulatory intervention should be relatively light and not extend beyond regulation of copper access and a margin squeeze obligation for VUA. As we discuss further in the following sections, the evidence shows that there is no serious competition problem in relation to FTTC services that would warrant cost-based regulation particularly given its inherent risks to further investment in rival NGA infrastructures.

3.1 What is required by EU rules and recommendations

27. ComReg is required to take utmost account of relevant European Commission Recommendations.
28. The European Commission Recommendation on Relevant Markets requires that markets that are susceptible to ex ante regulation be those that meet all three criteria: there are high and non-transitory barriers to entry; the market structure is such that it does not tend towards effective competition; and where competition law alone would not be adequate to address the market failure concerned.
29. The European Commission's SMP Guidelines set out the framework for ComReg to assess whether eir has SMP in the supply of broadband internet services over fibre.⁷
30. The SMP Guidelines state that a dominant position is found by reference to several criteria and its assessment is based on a forward-looking market analysis. One of the key criteria used to assess market power is market share. The Guidelines state:

In the Commission's decision making practice, single dominance concerns normally arise in the case of undertakings with market shares of over 40 %,

⁷ European Commission (2002) Commission guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services, (2002/C 165/03)

although the Commission may in some cases have concerns about dominance even with lower market shares, as dominance may occur without the existence of a large market share.

31. The SMP guidelines provide several additional criteria that the EC recommend should be reviewed when conducting an SMP assessment. These include such factors as whether the operator has control of infrastructure not easily duplicated, technological advances or superiority, economies of scale or scope, is vertically integrated, faces barriers to expansion and an absence of competition. As we discuss, the widespread roll-out of competing network infrastructure in the Irish market (often delivering higher speeds) suggest that current market shares are likely to understate the competitive constraints on eir. ComReg has not conducted a proper assessment of its SMP determination taking into account the competitive developments against these criteria.

32. The Access Directive outlines the criteria to be followed by NRAs in conducting market review procedures. Of particular relevance to ComReg's review of the WLA and WCA markets relate to Article 8 and Article 10 of the Directive:

Article 8(4): Obligations imposed in accordance with this Article shall be based on the nature of the problem identified, proportionate and justified ...

Article 10 (2). Obligations of non-discrimination shall ensure, in particular, that the operator applies equivalent conditions in equivalent circumstances to other undertakings providing equivalent services, and provides services and information to others under the same conditions and of the same quality as it provides for its own services, or those of its [sic] subsidiaries or partners.

33. Proportionality embodies two elements: that the intervention is limited to what is necessary to achieve the objective and that it brings benefits greater than its costs. Regulating prices at the regulator's view of costs is a highly intrusive form of regulation with significant risks of distorting competition and deterring investment. As we discuss in this and the following sections, ComReg's proposal to regulate fibre services at cost is not proportionate with the evidence of any competition problem and carries significant risks of deterring investment by eir and rival operators. In addition, we consider that ComReg's proposals are inconsistent with Article 10 of the Access Directive as there are two strong infrastructure players in the Irish market (especially in urban areas) but only eir is subject to a SMP designation and price regulated while Virgin Media faces no ex ante regulation on its services.

34. The Commission's 2013 NGA Recommendation sets out several reasons why regulators should be cautious in applying cost based regulation of NGA. The Recommendation recognises the importance of reviewing whether regulated copper access provides a sufficient pricing constraint on NGA along with the existence of competing alternative infrastructure (such as cable networks). The Recommendation (recital 56) also notes that that "*However, it is not envisaged that*

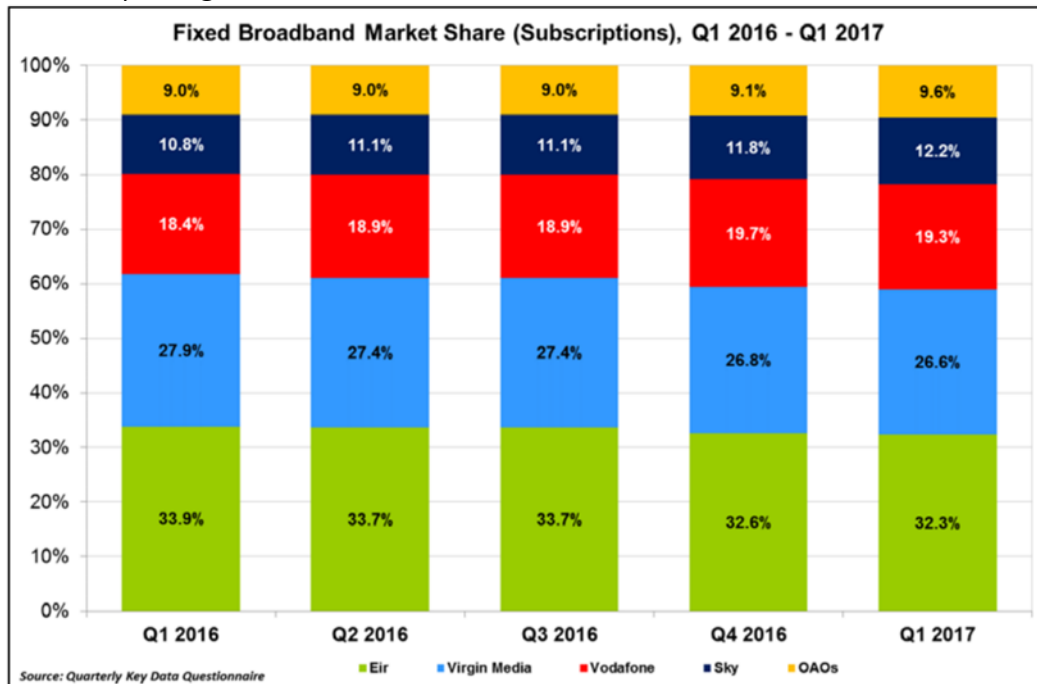
such an NGA-based anchor will be required in the immediate future or before 2020”. The NGA Recommendation also stresses the need to ensure that investment incentives for ongoing fibre investments are protected for both the incumbent and competing operators.

- 35. We now assess how ComReg has assessed whether regulation is appropriate including by reference to the European Commission’s guidance.

3.2 Current and forecast market share for broadband services

- 36. Customers choose between services at the retail level. As such, it is useful to first assess the nature of competition in the retail market before considering the extent of competitive constraints in the related wholesale markets.
- 37. As of the 1st quarter of 2017, eir had 32.3% of total fixed broadband subscriptions, only somewhat above the share of Virgin Media with 26.6% of subscriptions. Vodafone had 19.3% and Sky Ireland had an 12.2% market share. Other operators, including Imagine, accounted in aggregate for the remaining 9.6% share of fixed broadband subscriptions, as shown in Figure 2.

Figure 2 - Subscription market share of the fixed broadband market, 2015-2016



Source: ComReg

38. ComReg estimates that eir's national wholesale market share, when "*its self-supply of retail broadband services and its supply of wholesale Bitstream services to SPs who do not have own network or WLA inputs available in the exchange area*" are included, is between 50-60%.⁸ However, it would be wrong to infer that this market share provides a sound basis for heavy-handed regulation of both eir's copper and FTTC services. Three key problems are:
- The current market share ignores the development of rival networks that can be expected to price aggressively to seek to gain customers from eir;
 - National market shares ignore the substantial competition in urban areas; and
 - To the extent that cost-based regulation is retained on eir's copper network it will provide a further constraint on eir's fibre pricing.
39. We discuss the first two problems in the remainder of this section and then the competitive constraints specifically on FTTC pricing in the next section.

3.2.1 Planned roll-outs of alternative networks over the regulatory period will substantially constrain eir's pricing

40. ComReg states "*we believe that competition must be firmly entrenched by investment in competing infrastructure to the greatest extent possible in order to maximise regulatory flexibility, or indeed, de-regulation*".⁹ This appears to suggest that de-regulation should only take place once competition is entrenched. However, the European framework is intended to be applied on a forward-looking basis with regulation being removed or not imposed in markets that are tending towards effectively competitive over the relevant timeframe.¹⁰ The danger of keeping regulation in place until competitors are established is that regulation can remove the incentive for competitive entry, particularly by reducing margins and raising risk of regulated price changes also affecting the returns to rival investment. Regulation can thus become self-perpetuating and deprive customers of the benefits of full infrastructure competition including greater product variety and innovation and the incentive for each provider to develop new ways of reducing costs so as to steal a march on their competitors. ComReg's market analysis underling its proposals has not properly assesses competition on a forward-looking basis taking into account the extensive plans of rival competitors.
41. Alternative infrastructure players have announced substantial investment in network infrastructure and services including:

⁸ ComReg Consultation 16/96, footnote 730.

⁹ ComReg letter to eir, "Draft decisions on FTTC Pricing", 8 June 2017.

¹⁰ The importance of regulation being removed in markets tending towards effective competition also calls for timely market analysis and regular market reviews so that regulation can be adjusted as competitive conditions are expected to change prospectively.

- Virgin Media's expansion and network upgrade;
 - SIRO's network expansion and recent access agreement with BT;
 - Vodafone's growing position supported by its television offering;
 - Sky has also become a significant competitor with control over premium content; and
 - Imagine's plans to roll-out a national wireless network to support 'fibre-speed' broadband.
42. In urban areas covered by Virgin Media's network, its retail market share is 45-55% compared with eir's share across all technologies of only 25-35%.¹¹ Virgin Media's network passed 856,300 homes as of 31 March 2017. This is an increase of 4,000 homes passed and 900 internet subscribers since 31 December 2016.¹² According to the head of Virgin Media Ireland, the company covered 50% of the country as of January 2017 and is hoping to increase its coverage to 60-70% by expanding "to almost a million homes in the next two years".¹³ Virgin Media's expansion will reach an additional 200,000 businesses and homes.
43. Virgin Media will face strong incentives to price aggressively to build utilisation of its expanded network. Aggressive pricing is supported by the fact that incremental costs of adding subscribers within its coverage area is relatively low. Virgin Media's pricing currently constrains and will continue to constrain the prices that eir is able to charge for its FTTC services. Virgin Media has launched DOCSIS 3.0 which offers considerably faster speeds than eir's equivalent FTTC product (see discussion in section 4.1.1.1). Given high fixed costs and relatively low incremental costs, eir also faces strong incentives to price to seek to retain customers on its network. Given the slower speed of FTTC, eir will not be able to price at a premium to Virgin Media.
44. Virgin Media is also expanding its coverage area in the UK and Ofcom expects as a medium case forecast that Virgin Media will achieve a 40% share of customers in its expanded UK coverage area. There is no obvious reason for Virgin Media to achieve a smaller share of the newly covered customers in Ireland than in the UK given that Virgin Media has achieved similar market shares to date.
45. ComReg argues in the Draft Decision (para. 5.5) that "*Cable alone cannot create a full retail constraint on Eircom's NGA products at the national level but only in geographically limited areas*". However, this ignores that Virgin Media has started its expansion to cover around 65% of homes by 2019 and that eir's national prices are already constrained by Virgin Media's pricing. eir cannot charge a premium for a slower service. Further, the relevant question is not whether cable alone can create

¹¹ Draft Decision, footnotes 49 and 50.

¹² Liberty Global (2017), Press Release - Liberty Global Reports First Quarter 2017 Results, page 32. Accessed on 17 May 2017.

¹³ The Independent, *Virgin Media digs in for fibre battle as major network expansion beckons*, 19 January 2017.

a full retail constraint, but whether the range of substitutes in aggregate effectively constrain eir's pricing.

46. SIRO has passed approximately 64,000 homes by December 2016. According to SIRO's CEO, the network was "*passing 10,000 premises per month and working in 17 towns*", as of September 2016.¹⁴ Its network is expected to cover 200,000 premises by the end of 2017 and 500,000 homes by the end of 2018, with this roll-out concentrated in areas not covered by Virgin Media. The second phase of the rollout aims to cover 300 smaller towns across Ireland.¹⁵ SIRO has contracted with five service providers¹⁶, as well as having a partnership agreement in place with telecom wholesaler enet¹⁷ which acts as a SIRO aggregator. As SIRO rolls out its network, it will also face the incentive to price aggressively (potentially down to the incremental cost of connecting additional customers) to build utilisation on its network. As a competitive constraint, SIRO complements Virgin Media in areas it is not present.
47. Vodafone has been growing its market share and now supplies almost one fifth of broadband subscribers. Vodafone can be expected to use access to SIRO's network to further expand its subscriber base.
48. Sky entered the retail broadband market as a national player in February 2013 and has grown its share of the retail market to 12.2% in Q1 2017. Sky has been a wholesale customer of BT since October 2015 when "*BT Ireland signed a deal with Sky Ireland to transport all of its IP core internet traffic*"¹⁸. Sky will likely take advantage of the network interconnect agreement between BT and SIRO to make use to the FTTH infrastructure with the goal of expanding their retail market share.
49. Imagine, a fixed wireless provider, is in the process of upgrading its network nationally to exploit the TD-LTE technology which offers superior FWA broadband services relative to WiMAX. As stated in the Imagine statutory accounts for the year ended 31 December 2015 "*The company also invested in the Group's TD-LTE project which gives the company a strong strategic position for the future. The group has agreed €50m funding for the roll out with an international infrastructure fund.*" *Imagine have committed to providing a wholesale TD-LTE service.*"¹⁹

¹⁴ Irish Times, *Siro claims to have leapfrogged Eir in fibre broadband race*, 4 November 2016

¹⁵ FORA, *Six Irish towns get broadband connectivity on a par with Tokyo*, 21 September 2016. Accessed on 17 May 2017.

¹⁶ Vodafone Digiweb, Westnet, Rocket Broadband and Carnsore Broadband; SIRO website, *Ireland's Moment*, Accessed 12 June 2017.

¹⁷ SIRO website, *Enet Partnership Agreement*, 31 May 2017. Accessed 12 June 2017.

¹⁸ Independent; *Sky deal helps boots BT Ireland's revenues by 14pc*, 29 October 2015.

¹⁹ eir response to consultation 16/96 in Commission for Communications Regulation (8 March 2017), Market Reviews - Wholesale Local Access (WLA) provided at a Fixed Location - Wholesale Central Access (WCA) provided at a Fixed Location for Mass Market Products - Submissions to Consultation 16/96, pdf page 54.

50. Imagine is providing competition to eir's broadband services to rural communities (particularly areas which are not reached by competing cable and fibre networks and which are not the sparsely populated non-commercial rural areas being targeted by the NBP roll-out). Imagine has quoted survey data that it achieves average data speeds of 77 Mbps.

A recent survey of Irish broadband speeds by technology monitoring group Ookla, ranked Imagine second ahead of fibre rivals Eir, Vodafone and Sky, with an average speed of 77Mbps.²⁰

51. Imagine was recently successful in gaining additional spectrum suitable for fixed wireless services in ComReg radio spectrum auction of 3.6Ghz.
52. Imagine has publicly stated that it plans to expand its existing coverage considerably.

Currently it has 50 live sites across the State and about 11,500 customers, with approximately 2,500 joining each month. It plans to grow this to 400 sites and 160,000 customers within three years, courtesy of a €300 million war chest stumped up by existing shareholders and new investors, plus cashflow from the business.²¹

53. The expansion of rival infrastructures underway implies that the vast majority of Irish consumers will benefit from a choice of infrastructure within the period of the next regulatory review. Ireland has only 1.7m homes and around 2m premises in total.²² Virgin Media is planning to reach almost a million homes by 2019, SIRO an additional 500,000 premises by end 2018 and Imagine 160,000 customers. Together with the NBP, this suggests reasonably complete coverage by rival infrastructures in the period of the next regulatory review. Further, national pricing operates in any event to ensure that competitive constraints on pricing extend nationally.
54. In surveying the new commercial deployments in Ireland's *Broadband Intervention Strategy*, the Irish Government noted that: *"This commercial activity far exceeds what was envisaged in 2012 and represents a significant step-change in the quality of broadband connectivity now available to many business and residential customers."*

²⁰ Irish Times (2017), *Wireless pioneer battling the State on national broadband plan*, February 3.

²¹ Irish Times (2017), *Wireless pioneer battling the State on national broadband plan*, February 3.

²² ComReg Q4 2016 Key Data Report (p.42) and Draft Decision, Figure 7.

3.3 National pricing extends competitive constraints nationally

55. The wide extent of prospective infrastructure competition also supports the conclusion that the competitive constraints that ComReg recognises as applying where Virgin Media, LLU and VUA-based competitors are present can also be expected to constrain eir's prices nationally. eir already sets national prices. With the expansion of competing networks to the vast majority of Irish homes, the rationale for national pricing will become even stronger. In particular, national pricing brings savings in setting and marketing tariffs and protects operators' brands (which might be damaged if the firm is seen to be exploiting customers in areas with less competition). If fewer customers are located in areas without infrastructure competition then the benefits of setting differentiated pricing for these customers will be smaller and even less likely to outweigh the benefits of national pricing.
56. Finally, any proposed regulation is required to be proportionate with the competition problem that it is trying to address. ComReg has proposed a raft of regulation including cost-based pricing and margin squeeze obligations applying to both CGA and NGA unbundled services and bitstream services. As we discuss in the following sections, there is no sound economic case for all the proposed obligations to be imposed. Ongoing copper access regulation, in combination with growing infrastructure competition, obviate the need for heavy handed fibre regulation. Access to VUA ensures a competitive national WCA market on a forward-looking basis.

4 ComReg's reasons for cost-based price regulation of FTTC are flawed

57. ComReg presents three main arguments for cost-based price regulation of FTTC:²³
1. That there are insufficient competition constraints on FTTC including that cable is limited to some areas, copper is a less significant constraint, pricing for copper, FTTC and FTTH are differentiated and that eir has recently increased prices for standalone broadband and POTS based NGA services;
 2. Demand is now easier to forecast for FTTC and hence costs can be better estimated; and
 3. Regulating FTTC at costs would ensure a consistent approach with SLU and LLU.
58. These arguments are inconsistent with an overall assessment of the market evidence and they do not provide a sound basis for imposing cost-based regulation. ComReg's approach does not properly examine whether there exists a competition problem specifically in the supply of FTTC based access services, given the combination of growing infrastructure competition and the fact that ComReg proposes that copper access services continue to be subject to cost based price regulation.
59. Even were there a need for a competitive safeguard, this would be achieved by margin squeeze obligations on their own. There is no evidence of excess profitability in relation to eir's FTTC services to warrant cost-based regulation.
60. We discuss these points in more detail below.

4.1 Regulated copper LLU prices and the growing presence of rival networks effectively constrain eir's pricing for FTTC and FTTH

61. ComReg argues that eir's FTTC services (particularly WLA nationally and WCA in rural areas) are not effectively constrained by the existing set of direct and indirect supply-side and demand-side constraints. For example, ComReg argues:

*... the constraint posed by copper based broadband is likely to have diminished as evidenced by the reduction in LLU volumes and the switch from copper to fibre based services in the NGA footprint.*²⁴

²³ Draft Decision, para. 5.5-5.8.

²⁴ ComReg (2016) 16/96, para 13.306, p. 562.

...the coverage of alternative fibre (FTTH) networks is very limited and the slow rollout of SIRO to date ... means that alternative FTTC networks are limited. Furthermore, it has been noted ... that FWA, as a platform, is in decline.²⁵

62. ComReg does find that the WCA market in urban areas is competitive.

In the Urban WCA Market, it is ComReg's preliminary view that because Eircom faces greater competition from alternative network operators (including in the presence of upstream regulation of the WLA Market), that it would not likely be in a position to profitably raise prices above the competitive level, thereby limiting its ability to behave to an appreciable extent, independently of competitors, customers or consumers. For example, Eircom faces direct competition in the Urban WCA Market from BT Ireland (and could from SIRO). It also faces indirect constraints from both Virgin Media and Vodafone.²⁶

63. We agree with ComReg's assessment of the competitiveness of the WCA market in urban areas. But we consider that effective competitive constraints extend wider to cover the WLA market in urban areas. We also consider that there are sufficient competitive constraints in rural areas (including the use of national pricing) so that there is no justification for a heavy-handed cost orientated regulatory approach being applied to FTTC in these areas. Competition has developed strongly with regulation of fibre limited to margin squeeze obligations. The absence of cost-based price regulation of fibre has provided the environment to support substantial new investment in rival infrastructures while the current access regulation applied to VUA services has seen rapid take-up of VUA. This refutes ComReg's provisional conclusion that the national WCA market is not tending towards effective competition.
64. ComReg's decision to switch to impose cost-based regulation of FTTC services suggests that competition is becoming weaker over time. However, as set out in Section 3 since ComReg's previous review in 2013:
- Virgin Media has commenced the expansion of its coverage from 50% to around 65% of Irish homes by 2019;
 - SIRO has commenced its roll-out of its wholesale fibre network to 500,000 premises by the end of 2018 in areas not served by Virgin Media;
 - Imagine is investing in its FWA networks in rural areas supported by its recent acquisition of 3.6 GHz spectrum and with FWA subscriptions up 12.8% in the year to Q1 2017 (this contradicts ComReg's assumption in the market review that FWA is in decline);

²⁵ ComReg (2016), 16/96, para 6.27, p. 215.

²⁶ ComReg (2016) 16/96, para. 11.40, p. 466.

- the NBP strategy has been further developed which will bring affordable wholesale and retail access to superfast broadband to areas not served by commercial deployments.

65. ComReg's 2013 Decision which decided not to impose cost-based regulation on FTTC was made when eir's share of the national broadband market was over 40%. It is now under 33%.
66. ComReg seems to give no weight to the evidence of increasing competition. Instead, the main basis for ComReg's view that FTTC pricing is now less competitively constrained is that a smaller share of customers remain on copper.
67. Over [Confidential] of eir's wholesale and retail broadband customers are still on eir's CGA network. Further, take up of eir's fibre services is only at 38% of fibre premises passed nationally.²⁷ As NGA services can be supplied at a premium to CGA²⁸, eir faces strong incentives to continue to price FTTC at a level to support substantial ongoing migration to FTTC. This is in the context where consumers have a low willingness to pay a large premium for fibre over copper based broadband. ComReg's market research found that consumers acquiring broadband that is not part of a bundle spend on average €40 for fibre connections and €35 for copper connections.²⁹
68. European research has also found:

Most of this evidence suggests that customers are likely to have high incremental willingness to pay for a high speed service, but a low incremental willingness to pay for a very high speed.

The representative household is willing to pay \$20 per month for more reliable service, \$45 for an improvement in speed from 'slow' to 'fast', and \$48 for an improvement in speed from 'slow' to 'very fast'. This indicates only a \$3 WTP for an improvement in speed from fast to very fast.

This premium for fibre is considered to be relatively modest – at least in the EU scenario - with respect to what is needed to spur consumers' migration from copper to fibre infrastructure.³⁰

69. eir has an incentive to price its FTTC services to support migration from its own CGA services as well as from copper-access based competitors such as Vodafone and Sky and to ensure its retail and wholesale services are competitive with those of rival infrastructures.

²⁷ Eircom Holdings (Ireland) Limited, *third quarter and nine months unaudited results*, 31 March 2017.

²⁸ ComReg's data (ComReg 1696, para. 4.21, 4.76, 4.124) suggests there is a €5 premium for retail broadband over NGA compared with CGA broadband.

²⁹ ComReg 1696, A2.25.

³⁰ Carlo Cambini (2015), *Economics aspects of migration to fibre and potential welfare gains and losses from an uplift to copper prices*, page 16.

70. To assess the extent that cost-based copper access effectively creates a competitive constraint to eir's fibre pricing, there is a need to assess the overall competitive constraint on fibre pricing.
71. We have reviewed data from both ComReg and eir to estimate current and forecast market shares by technology for broadband services at the infrastructure level in urban, rural and at a national level (see Table 5).
72. eir's NGA services have a current national network market share of 37% (including retail and wholesale customers). This is below the 40% market share threshold over which significant market power is normally found. In urban areas, we estimate a market share for eir's NGA services of [Confidential] compared to Virgin Media's market share of [Confidential].

Table 5 - Current market shares for broadband, by technology, rural, urban and national

	National	Urban ³¹	Rural
DSL	32%	[Confidential]	[Confidential]
VDSL	37%	[Confidential]	[Confidential]
Cable	27%	[Confidential]	[Confidential]
FTTP/H	1%	N/A	N/A
Satellite	0%	N/A	N/A
Fixed Wireless Access (FWA)	3%	0%	6%

Notes: Data interpolated from October 16 and April 17 data. We assume all FWA is in rural areas. Sources: 1. ComReg, Quarterly reports Q4 2016, 2. ComReg (16/96), Figure 5, 3. eir analysis of copper/fibre wholesale % splits based on the 88 urban exchanges identified in ComReg's market definition analysis.

73. eir's fibre services are taken by 38% of customers in fibre areas.³² This indicates that a large proportion of customers in eir's NGA network coverage area are not taking up eir's FTTC service. This will comprise three customer types:
- residential broadband customers on eir's CGA network;
 - customers who purchase broadband services from an alternative infrastructure provider (i.e. Virgin, SIRO); and
 - some residential customers who do not currently purchase any broadband services at home.
74. Thus, there is a substantial number of additional customers that eir can compete for in NGA coverage areas. As a large share of the FTTC network costs are fixed and common, eir will have strong commercial incentives to price its NGA services to try

³¹ Coverage area based on ComReg's definition of 88 specific exchanges.

³² ComReg, Quarterly reports Q4 2016, 2. eir 3rd quarter 2016/17 results.

to bring additional customers on to the network (including migrating customers from lower priced copper services).

75. eir’s pricing can also be expected to be heavily constrained by the need to prevent customers migrating to the faster services of the expanding networks of Virgin Media and Siro. Our analysis shows that even with continuing migration from copper to fibre, eir’s fibre share of national broadband even at the wholesale level will remain below 40%.
76. We have taken the technology forecasts in the draft NGA model and made adjustments to reflect a more reasonable loss of customers as a result of the network expansion of Virgin Media and SIRO as well as more accurately reflecting migration to FTTH by existing eir customers (discussed further in Section 8). We assume that Virgin Media gradually acquires a 50% market share in its new coverage areas by 2026 based on its current share of its existing coverage area.³³ We assume that SIRO expands its roll-out to additional 150 sites in addition to those assumed in the NGA model (a conservative assumption given SIRO plans to roll out to 300 sites in Phase 2). Compared with the NGA model, we assume that in 2020:
 - Virgin Media’s customer base is 30,000s higher;
 - SIRO’s customer base is 30,000 higher; and
 - Eir’s FTTC customer base is 88,000 lower (including the model correction for migration to FTTH).
77. As a result of these adjustments, we estimate that eir’s FTTC market share will be 39% nationally and [Confidential] in Virgin Media coverage areas in 2020.

Table 6 – Forecast market shares (CEG adjustments to ComReg NGA model), by technology, nationally and in Virgin Media coverage areas, 2020.

	National	Virgin Media Coverage areas
DSL	10%	[Confidential]
VDSL	39%	[Confidential]
Cable	29%	[Confidential]
FTTP/H	11%	N/A
Satellite	0%	N/A
Fixed Wireless Access (FWA)	3%	N/A
SIRO	7%	N/A

Sources: ComReg (2016), Quarterly reports Q4 2016, ComReg (2017) NGA model. Public media releases/articles on Virgin roll-out plans plans (Independent.ie, Virgin Media digs in for fibre battle as major network expansion beckons, 19 January 2017) and SIRO roll-out plans (SIRO), CEG analysis.

33

Draft Decision, footnote 50.

78. Considering the forecast wholesale market position of FTTC does not indicate any serious competition problem and certainly not one to warrant a move to heavy-handed cost based price regulation with its inherent risks of deterring investment by eir and other operators. It should also be noted that the forecast market shares are based on continuing significant migration from copper to fibre – eir's fibre must be priced competitively for this migration to take place.
79. In Virgin Media's coverage area, eir's market share for fibre services is forecast to be around [Confidential] in 2020. At this level and noting the constraint imposed by Virgin Media's network offering faster speeds, there is no basis for a shift to heavy-handed ex ante regulation for eir's FTTC services.
80. ComReg has argued that substitution between copper-based broadband and FTTC based broadband is likely to be asymmetric due to high download/upload speeds available on broadband products offered over FTTC networks.

Generally, a subscriber to a FTTC based 100Mb broadband product is unlikely to find a lower speed broadband product offered on a copper network to be an effective substitute. However, a subscriber to a copper-based broadband product may, subject to the valuation attached to download/upload speed and price, find an FTTC-based retail broadband product to be an effective substitute.³⁴

81. This ignores the commercial incentives for eir to price services so as to achieve continued migration to its fibre services. In any event, consumers frequently weigh up whether quality differences are sufficient to justify paying more for a product and may trade down or up in response to changes in the relative price of products of different quality. As the European Commission states:

A low-quality product or service sold at a low price could well be an effective substitute to a higher quality product sold at higher prices. What matters in this case is the likely responses of consumers following a relative price increase.³⁵

82. Moreover, ComReg's own market research as part of this review shows that customers are open to switching from FTTC to copper.

...25% of residential respondents on an FTTC network said that they would definitely or maybe change their behaviour in response to a hypothetical price increase [of €2]. 47% of these respondents indicated that they would cancel their subscription and switch to an alternative network...Of those residential respondents who indicated that they would cancel and switch in

³⁴ ComReg (2016), 16/96, para. 4.93, p. 100.

³⁵ EC (2002) Commission guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic communications networks and services, 2002/C 165/03, para. 46

response to the hypothetical price increase and were likely or fairly likely to do so, 49% indicated they would switch to a broadband service provided over a copper network.³⁶

83. In addition to the 47% of fibre subscribers who would switch to an alternative network in response to a €2 price increase, an additional 27% of subscribers stated that while they would stay with their current provider they would downgrade the type of broadband service they acquired.³⁷
84. Focusing on the VUA service, we have conducted a high-level indicative analysis of the impact on eir's profit from a €2 increase in the wholesale price of a FTTC (VUA) using the impact on customer demand outlined by ComReg above. A price rise will lead to a proportion of the customer base switching away from FTTC meaning less revenues but higher revenues per customer for the customers that remain. At the same time, eir will save on the costs of serving the customers that have switched away from the FTTC services (the avoidable costs). We have identified the following avoidable costs relevant for the analysis and used the estimated unit costs of these as outlined in ComReg NGA model:
- Broadband fault repair; and
 - Migration costs.
85. Our analysis, set out in Table 7, finds that a €2 wholesale price increase for FTTC VUA, fully passed-through to the retail product, would lead to a reduction in overall profits for eir. Our analysis is conservative as it does not include the reduction in profits from subscribers who are yet to migrate from an eir CGA product to fibre and may delay their migration as a result of this price increase. This suggests that on the basis of ComReg's survey evidence there are strong competitive constraints on eir to not increase current NGA wholesale prices. As we discuss in the next subsection, the earlier price rises referred to by ComReg do not reflect a lack of competitive constraints but the need to achieve long-run overall cost recovery in an environment when other providers have been raising prices.

³⁶ ComReg (2016) *WLA/WCA Market Review Consultation and Draft Decision (16/96)*, para 4.79, p. 96.

³⁷ ComReg (2016) *WLA/WCA Market Review Consultation and Draft Decision (16/96)*, Annex 2, Figure 50.

Table 7 - Indicative impact on eir's profits of a €2 increase in Wholesale VUA assuming full pass-through to retail prices

A	Indicative FTTC customer base	100
B	VUA price in Period 1 (P1)	€23
C	FTTC retail price in Period 1 (P1)	€40.09
D	CGA retail price	€35
E	Total revenues in P1 (A×C)	€4,009
F	VUA price in Period 2 (P2) (a €2 increase)	€25
G	FTTC retail price in Period 2 (P2) (a €2 increase)	€42.09
H	Number of customers that would definitely or maybe change behaviour from P1 to P2 (25%) – from ComReg commissioned research	25
I	Of these customers (H), number of customers that would cancel FTTC subscription from P1 to P2 (47%)	11.75
J	Of these customers (H), number of customers that would downgrade broadband service from P1 to P2 (27%)	6.75
K	New FTTC customer base in P2 (A-I-J)	81.5
L	New FTTC revenues in P2 (G×K)	€3,430
M	Additional CGA revenues from downgrading subscribers (D×J)	€236
N	Total revenues in P2 (L+M)	€3,667
O	Reduction in revenues from price increase from P1 to P2 (E-N)	€342
P	Total Costs avoided in P2: {includes: BB Fault repair (€0.44) and Migration costs (€0.31)}	[Confidential]
Q	Total reduction in costs from fewer eir customers in P2 (P×I)	[Confidential]
R	Net profit/(loss) from the price increase (Q-O)	[Confidential]

Notes: Assumes full pass of wholesale price changes to retail prices. Avoided costs are taken from ComReg's NGA model.

Sources: ComReg (16/96), para 4.79, p. 96; ComReg (17/26), p. 26, ComReg NGA model.

4.1.1 eir's pricing for broadband services does not show evidence of excessive pricing

86. ComReg identified in its consultation that eir has raised wholesale NGA prices twice since the launch of the network.

Eircom has increased its NGA wholesale prices twice since the launch of NGA services in 2013. In July 2015 Eircom increased the NGA Bitstream and VUA monthly rental price by €2, from €17.50 to €19.50. From 1 September 2016, Eircom increased the rental price for FTTC based services by €3.50, from €19.50 to €23, and the monthly rental price for FTTH based services by €3. In addition, from 1 September 2016 Eircom increased the rental charge for its voice or plain old telephony service ('POTS') based NGA Bitstream / VUA service by €2.11. At a retail level Eircom increased its retail broadband prices for standalone NGA products by circa €5 (incl. VAT)³⁸

87. ComReg has argued that these price changes are evidence that eir does not face an effective competitive constraint from regulated copper broadband service and competition from other payers in the market.

These pricing developments demonstrate that Eircom's prices do not appear to be effectively constrained at a retail or wholesale level, in the presence of the existing form of price regulation.³⁹

88. However, ComReg's analysis has failed to take into account the following important factors:

- eir's retail pricing is comparable with equivalent offers in the market;
- penetration testing is a common feature in the early phases of a product cycle and has been identified by the European Commission as an expected feature of NGA pricing strategies;
- the 2016 wholesale prices changes reflect the need to 're-balance' wholesale prices to recover fixed and common costs following a reduction in the regulated wholesale prices for SB-WLR;
- the price changes occurred in the context of price rises by other players in the market;
- only two wholesale NGA price increases since product launch in 2013 shows that pricing has been relatively stable; and
- eir's FTTC prices are in line with costs once the draft cost models have been corrected including using more reasonable parameter assumptions.

³⁸ ComReg (17/26), para 4.9, p.36.

³⁹ ComReg (17/26), para 15.14, p. 250.

4.1.1.1 eir's retail pricing is comparable with equivalent offers in the market

89. If, as ComReg argues, that eir faces insufficient competitive constraints in setting prices for NGA, eir's FTTC retail prices would be expected to be set at a significant premium to the market. However, CEG analysis of retail prices suggests that eir's prices are comparable to equivalent broadband services offered by competitors. It needs to also be recognised that eir is restricted in competing aggressively by the raft of margin squeeze tests it remains subject to.
90. The pricing analysis presented in ComReg first WLA/WCA consultation suggests that FTTC based retail services are being effectively constrained by copper and cable. Based on market research conducted in June 2016, the Consultation reports
- residential respondents with a bundle that includes broadband provided over a copper network paid an average of €54 per month while those who purchase broadband as a standalone product spend on average €35 per month;
 - residential respondents on an FTTC network whose broadband is part of a bundle paid an average of €50 per month while those who purchase broadband as a standalone product spend on average €40.09 per month; and
 - residential respondents on a CATV network whose broadband is purchased as part of a bundle paid an average of €72 per month for their bundle while those who purchase CATV broadband as a standalone product spend on average €42.21 per month⁴⁰.
91. There are significant differences in the speed of broadband depending on the technology used. Broadband over copper provides speeds of up to 24 Mbps, broadband over FTTC speeds of up to 100 Mbps and broadband over cable speeds of up to 360 Mbps. Given the relative speeds provided by the technologies, the June 2016 pricing analysis suggests that FTTC was cheap relative to CGA broadband and being constrained by Virgin Media's pricing.
92. CEG has carried out an analysis of prices of different bundles including fibre broadband.⁴¹ Once equivalent bundles are compared, eir's retail prices appear comparable to those offered by other players in the market. Pricing of broadband bundles by eir do not appear excessive compared to the prices offered by other competitors in the market.
93. We have found that eir offers more premium bundles than most competitors. Figure 3 shows the average monthly prices⁴² of basic fibre broadband and landline

⁴⁰ ComReg (16/96), para. 4.21, 4.76 and 4.124.

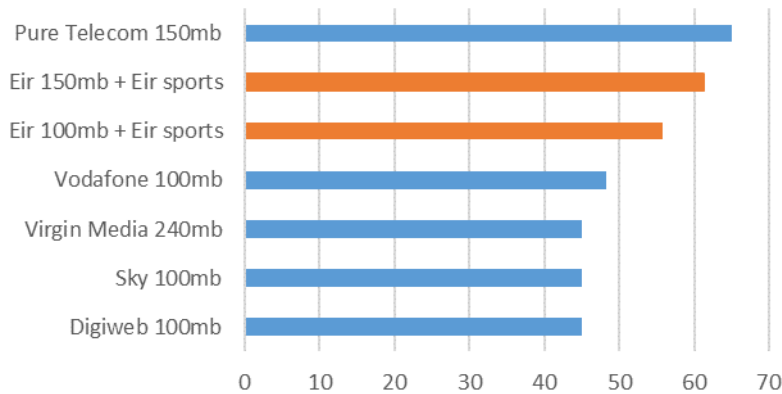
⁴¹ All prices were taken from operator's websites on the 18th of May 2017.

⁴² Average monthly prices take into account the promotional price as well as the price after the promotion period. Additionally, monetary rewards and activation costs are considered. The monthly average is calculated by assuming that the customer quits the contract immediately after the minimum contract length.

bundles.⁴³ eir’s prices are slightly higher than those of most competitors, but eir’s bundles include access to eir sport and BT sport. Other competitor bundles do not include any sports service as part of the equivalent bundle.

94. We have also reviewed the costs of bundles including a sports package (either a part of the bundle or as a ‘add-on’ to a basic package)- see Figure 4⁴⁴. Comparing bundles that include sport services shows that eir’s prices are over €10 per month cheaper than comparable offers by other competitors, although customers may perceive differences in the value of the sports packages.⁴⁵

Figure 3 - Price comparison of bundles including fibre broadband and landline



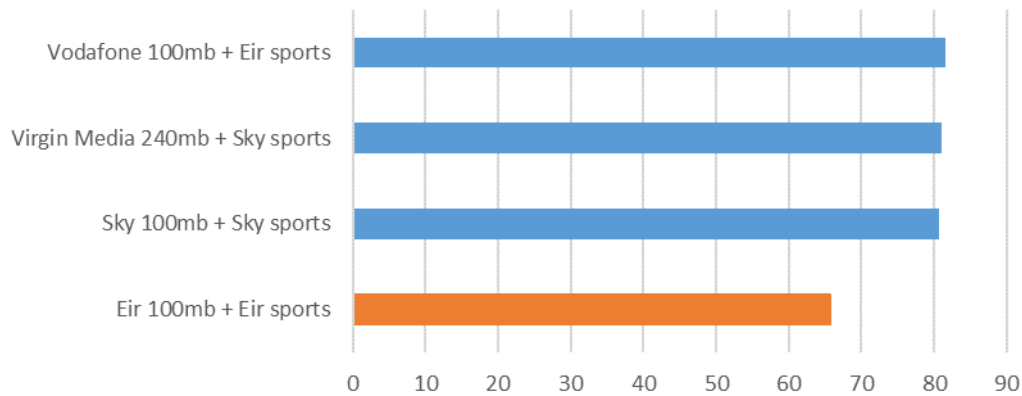
Source: CEG analysis.

⁴³ All bundles include unlimited minutes to mobiles and landlines in Ireland and the UK. Sky bundle is only available to Sky TV customers.

⁴⁴ Bundles for each operator include fibre broadband, unlimited minutes to mobile and landline and TV. The bundle from Sky includes Sky Q which offers 240+ channels while all other operators offer a basic TV package with roughly 50 channels.

⁴⁵ There are some differences in the make-up of the bundles. For example, Sky Sports appears to include more channels than Eir sports. At Vodafone, Sky Sports is about 10-15 euros more expensive than Eir sports.

Figure 4 - Price comparison of bundles including fibre broadband, landline and TV (incl. sports channels)



Source: CEG analysis.

95. Considering non-promotional retail prices for the Irish operator's stand-alone FTTC and FTTH services indicates that eir prices comparable services are above the level of its competitors Pure and Vodafone⁴⁶, as shown in Table 8.

Table 8 - Retail (non-promotional) prices charged by Irish operators for comparable broadband services

	eir	Pure Telecom	Vodafone
Up to 100 Mb services (FTTC)	€50	€44	€45
Up to 350 Mb services (FTTH)	€63	-	€55

96. This is not at a level significantly above their cost stack, comprised of:
- the open eir price list cost for a port;
 - the open eir price list cost for bitstream traffic, or throughput;
 - the eir connection cost adjusted to reflect cost recovery over an average customer lifetime;
 - the blended CGA/NGA EEO costs taken from eir's accounts;
 - the additional costs beyond those in eir's accounts that result from the adoption of pricing from the DCF models.

⁴⁶ These operators have been considered for comparison as the offer stand-alone services, while Virgin Media's broadband offers come with a fixed voice line

97. The difference between eir's costs and the retail price charged appears to be a small margin such that their promotional costs are absorbed.
98. This suggests that eir's current retail pricing is not excessive.

4.1.1.2 *Penetration testing is a common feature in the early stages of a product lifecycle and can be indicative of a competitive market*

99. While ComReg seeks to infer market power from two price increases since launch, such increases for NGA services are consistent with a commercial strategy of penetration pricing and testing pricing points in the early stages of a product lifecycle.
100. As noted by the European Commission in its 2013 Recommendation, NGA pricing may need to be particularly dynamic to “*to test price points and conduct appropriate penetration pricing*”. Penetration pricing often involves initial pricing below long run costs to encourage customers to experience the service and support more rapid take-up before prices are moved to more sustainable levels as demand matures. Penetration testing is commonly used across a number of diverse markets to test price points and build customer loyalty for newly launched products or new subscriptions. Both Netscape and later Microsoft made their web browser software free online and more recently Netflix priced its DVD mail-order business in the US to attract customers from Blockbuster.
101. Spann, Fischer and Tellis note:

...the pricing of new products is a difficult and important task affecting the financial success of a company... A penetration strategy involves charging a low price to rapidly penetrate the market (Dean 1976; Nagle and Hogan 2006). Penetration pricing aims at exploiting economies of scale or experience (Tellis 1986). Further, if word-of-mouth is important in the market, then achieving large early sales increases word-of-mouth and enables rapid penetration (e.g., Clarke, Darrough, and Heineke 1982; Robinson and Lakhani 1975).⁴⁷

102. When it comes to new products or services, prices in the early stage of a product cycle may also need to be tested and changed to ensure that they are set efficiently. For new products, service providers would typically not know consumers' willingness to pay. In this situation, a service provider faces two principal risks when setting the price: the risk of losing revenue from setting the price too low, and the risk of losing sales from setting the price too high. If the price was initially set too low, it will be set at a higher level in the following period. An observed increase in price may therefore simply be due to an ongoing learning process for the service

⁴⁷ Spann, M., M. Fischer and G. Tellis, Skimming or penetration: Strategic dynamic pricing for new products, 2009.

provider, where testing price points may be necessary to find out how costs can be efficiently recovered across multiple products and over the life of the network.

4.1.1.3 eir's price changes also reflect a need to rebalance wholesale prices to recover fixed and common costs following regulated cuts in SB-WLR prices

103. eir's network is used to supply a number of eir's services. The prices for these services must ensure the overall recovery of the costs of the network including fixed and common costs. Some of these products are price regulated by ComReg as a result of a finding of SMP (e.g. WLR and LLU) while other products are regulated in a different way (e.g. margin squeeze test for VUA using FTTC).

104. Regulators accept that operators should be allowed to set prices that allows for the full recovery of fixed and common costs to supply relevant services. BEREC notes "*In a regulatory environment it is accepted that all services should bear, in addition to their incremental cost, a reasonable proportion of the common costs*".⁴⁸ The European Commission's 2013 NGA Recommendation (para. 29) notes that BU LRIC+ "*adds a mark-up for strict recovery of common costs...Therefore, the BU LRIC+ methodology allows for recovery of the total efficiently incurred costs*".

105. In the Draft Decision (para. 5.29), ComReg states:

However, the deployment of local loops in the access network usually represents the most significant network platform in terms of the fixed network operator's costs and features a large element of joint and common costs that must be shared by the various services it supports.

106. In previous market reviews, ComReg has also acknowledged that one of the impacts of imposing cost orientated price regulation on one network service is that the SMP operator will potentially need to recover relevant common costs from increasing the retail and/or wholesale prices of related services. For example, in ComReg review of the fixed and mobile termination market it stated:

ComReg acknowledged that moving to pure LRIC Termination Rates will potentially require FSPs and MSPs to recover unavoidable common costs through other products and services.

... MSPs and FSPs should be free to allocate common costs across other wholesale or retail services as appropriate, insofar as those products are not subject to a regulated price (Eircom will also be free to allocate common

⁴⁸ BEREC, Guidelines for implementing the Commission Recommendation C(2005)3480 on Accounting Separation & Cost Accounting Systems under the regulatory framework for electronic communications p.23.

costs as it pleases across unregulated retail and wholesale products and services).⁴⁹

107. ComReg's 2016 decision to reduce the regulated prices for WLR meant that the price for WLR fell from €18.02 to €15.91. eir's decision to increase FTTC and FTTH prices can be explained by a need to ensure overall cost recovery particularly by increasing the contribution to fixed and common costs from fibre services to compensate for the lower contribute from WLR.
108. In Table 9 below we have calculated the revenues that would be earned by eir across services relevant to the recovery of the common access network costs using prices as of August and September 2016.⁵⁰
109. Using October 2016 customer numbers, the increase in eir's prices for NGA wholesale prices in September 2016 led to higher total revenues of [Confidential]. The regulated reduction in SB-WLR prices led to lower total revenues for the associated services (external CGA and retail CGA) equal to [Confidential]. Thus, two price changes largely offset each other in their impact on revenues, with potentially a small net impact on revenues depending on the precise service volumes.⁵¹

Table 9 - Illustration of the tariff rebalancing carried out by eir

	October 16 Volumes	eir prices August 2016	eir prices September 2016	Revenues at August 2016 prices	Revenues at September 2016 prices	Revenue change
External CGA	[Confidential]	€18.02	€15.91		[Confidential]	
Stand-alone VUA		€19.50	€23.00			
POTS-based VUA		€5.98	€8.09			
Retail CGA		€18.02	€15.91			
Stand-alone retail FTTC		€19.50	€23.00			
POTS-based retail FTTC		€5.98	€8.09			
Total						

Source: CEG analysis based on eir supplied data

⁴⁹ ComReg (2012) Mobile and Fixed Voice Call Termination Rates in Ireland, (12/125), paragraph 8.71-8.72, p. 229.

⁵⁰ We note that September 2016 was the date at which both the regulated SB-WLR prices came into force and the VUA and FTTC prices were raised by eir.

⁵¹ We do not have access to network volumes for September 2016, the date of the price changes. If considering the eir network volumes for October 2016, eir marginally increases their revenue. However, if we instead use April 2016 volume data provided to us by Eir we find a net revenue loss of [Confidential].

4.1.1.4 *eir’s wholesale price changes were also in the context of price increases by other players in the market*

110. eir’s price increase for VUA should be seen in the context of a range of parallel price changes imposed by Virgin Media over the same period including a €5 increase in February 2016 and a €4 increase in January 2017. Virgin Media attributed these price changes to “increased operating costs and ‘a near trebling of rates’ payable across its network.”⁵² The firm also increased its prices in 2015, see Table 10.

Table 10 - Retail price changes, broadband services, Virgin and eir, 2015-2017

Date	Service Provider	Details
February 2015	Virgin Media	Price increase of €1-4 per month. Small increase of upload and download speeds.
April 2015	Eir	Eir residential price increase of €2-8 per month.
November 2015	Virgin Media	Price increase on broadband-only packages.
February 2016	Virgin Media	Price increase on other bundles including broadband of €5 (5.4% on average).
April 2016	Eir	Price increase for customers on bundles of €3 per month on average.
August/September 2016	Eir	Price increase for customers on bundles of €5-8 per month (combined with additional features such as call minutes, international calls and TV channels including eir sport).
January 2017	Virgin Media	Broadband prices rose by €2.50 and customers with a bundle including broadband and television saw an increase of €4 per month.

Source: *Irish Times* (3 January 2015, 14 January 2015, 11 November 2016), *TERA report* (ComReg 17/26A), section 3.2.2, *The Inquirer* (11 November 2015), *the Irish Independent* (6 June 2017)

111. Table 10 summarises retail price changes by eir and Virgin Media since the beginning of 2015. As can be seen, both operators changed prices throughout the period. The broader pricing evidence suggests that ComReg is wrong to infer market power from eir’s price increases. Rather the operators in the market are responding competitively to each other in the context where early penetration pricing is moving to more sustainable levels and where costs and demand are changing.
112. Finally, we note that in section 8, we identify a number of modelling errors that if corrected show that eir’s existing FTTC prices are consistent with cost recovery and are not set at excessive levels.

⁵² Irish Independent (2016) Virgin Media customers told their bills will increase from January, November 23

4.2 Fibre services warrant a different regulatory approach

113. ComReg argue that one of the benefits of regulating fibre is that it will provide access seekers with a consistent regulatory treatment of access prices for copper and fibre. ComReg argues:

A cost orientation obligation for FTTC based VUA would ensure a consistent regulatory approach with the pricing of current generation SLU and LLU, which is cost oriented pursuant to the 2010 WPNIA Decision and further specified in the 2016 Access Pricing Decision. Since NGA networks are in competition with copper networks, the consistency of pricing approaches between FTTC based wholesale products and current generation wholesale products helps operators to make an efficient choice as to the most optimal wholesale product.⁵³

114. Applying cost based regulation to both fibre and copper to create 'a consistent regulatory approach' is not a robust economic rationale for intervention. A decision to intervene in a market should be based on an identification of a market problem along with careful analysis to show that the market problem can be addressed through a specific remedy.
115. Applying this logic would suggest that the same regulatory approach should be applied to all wholesale products purchased by an access seeker on the basis that one of these products is cost regulated. However, whether regulation is required and what regulatory response is proportionate needs to be determined taking into account the impact of other regulation that will be in place. For example, ongoing cost-based regulation of copper should actually reduce, rather than increase, the case for regulation of fibre services given that copper acts to constrain fibre prices.
116. In addition, the specific benefits and costs of each proposed regulatory obligation should be assessed. As the European Commission's 2013 NGA Recommendation recognises, a lighter regulatory approach to NGA is warranted given the greater risks of regulation impacting NGA investment relative to the long-established copper networks.

4.3 Demand for fibre broadband services remain uncertain

117. ComReg argues that the demand for FTTC based VUA services is now easier to forecast and hence it is now easier to forecast costs.

Demand for FTTC based VUA services is now easier to forecast given the historic penetration data that is available since Eircom began deploying its

⁵³ ComReg (2016), 16/96, paragraph 8.626.

fibre network in 2013. Therefore, it would be easier to determine forecasted costs and volumes associated with the provision of FTTC based VUA.⁵⁴

118. We believe eir's FTTC based VUA is subject to high uncertainty including as a result of the host of competitive NGA deployments underway. For example:
- the draft NGA model assumes that Virgin Media will gain only 10% of eir's existing subscriber base in new areas despite Virgin Media achieving a 50% share in its existing coverage area;
 - While the draft NGA model assumes that only phase 1 SIRO will occur, SIRO has announced that they plan in Phase 2 to connect a further 300 towns: "*We have plans for a second phase which covers over 300 smaller towns and we are shortlisted for the Government's National Broadband Plan, which aims to deliver high-speed access to all citizens by 2020*";⁵⁵ and
 - ComReg assumes that there is no migration onto eir's FTTH network from existing NGA customers This is an unreasonable assumption given that FTTH is likely to deliver higher speeds when compared to FTTC and is likely to represent an 'upgrade' for customers who wish to purchase broadband services at faster speeds. Our revisions to the ComReg model assume almost 20% of the FTTH customer base in 2020 have migrated from FTTC with the migration trend to continue in future years.
 - ComReg ignores other competitive risks. Imagine's Fixed Wireless internet service has been measured as offering average speeds of 77Mbps.⁵⁶ These speeds are likely to be competitive with eir's equivalent broadband service in these areas.
119. These investments show both the substantial demand uncertainty still impacting eir's FTTC network and the vulnerability of demand to further new announcements.
120. There also exists considerable uncertainties about the precise nature of future supply (costs and technology) and future demand, including the timing and pace of growth and willingness to pay. This creates significant commercial risks for investors. It is still early days in the investment cycle for NGA; commercial services were first offered to Irish consumers only 4 years ago (in May 2013).
121. The substantial uncertainty in relation to future demand not only affects the ability to determine efficient cost recovery, but also affects the business case for new NGA investment by both eir and rivals. Intrusive regulation at this time would add regulatory risks to commercial risks with the potential to undermine the case for new investments. We discuss the risk to investment further in Section 5.

⁵⁴ ComReg (2016), 16/96, paragraph 8.626.

⁵⁵ Siro chief executive, Seán Atkinson, reported in the Irish Times, 21 September 2016.

⁵⁶ Quote on 77 Mbps average speeds for Imagine from : Irish Times (2017), *Wireless pioneer battling the State on national broadband plan*, February 3.

4.4 ComReg's reasoning for imposing cost based pricing for FTTC based WCA in regional areas is flawed

122. ComReg's reasons for proposing cost based pricing for FTTC based WCA in regional areas are generally the same as those put forward for cost based pricing of FTTC based VUA. As such, they suffer from the flaws identified earlier in this section. ComReg also puts forward one additional reason specific to FTTC based WCA, i.e. that regulation would prevent cross subsidies from regional to urban areas (i.e. Horizontal leveraging):

An operator with SMP in the Regional WCA Market could leverage its dominant position in that market into the Urban WCA Market where it competes with many of the same retail operators. Absent regulation in the Regional WCA Market, Eircom could be incentivised to cross-subsidise retail and/or wholesale services offered in the Urban WCA Market (e.g. lower prices for broadband bundles) to gain market share the Urban WCA Market and recover any financial losses incurred in the Regional WCA Market where it has a large customer base and high market share and faces less competition from network based SPs and those SPs using WLA inputs.

In the absence of regulation, Eircom could be incentivised to engage in this type of leveraging if the WLA Market is more profitable than the Regional WCA Market. Similarly, if WCA inputs are priced too low relative to WLA inputs, this could discourage investment in infrastructure by Access Seekers specifically tailored to WLA products.⁵⁷

123. This additional reason is also flawed for a number of reasons. Firstly, eir is subject to competition law that prevents it from pricing below cost for anti-competitive reasons. Secondly, such a pricing strategy would make no economic sense. eir faces substantial competitors in urban areas with significant sunk assets including Virgin Media and BT. eir would need to incur substantial losses if it were to engage in behaviour to foreclose these competitors from urban areas. Further, eir would have no ability recoup these losses. If it sought to raise prices above costs to recoup earlier losses, it would be constrained by the presence of Virgin Media's cable network assets and the ability of other players to obtain regulated access to WLA inputs (i.e. cost based copper access and VUA subject to a margin squeeze obligation) and to price their services at competitive levels. Hence, such behaviour by eir would be inconsistent with a profit maximising objective.⁵⁸ If eir could earn excess profits in rural areas, it would be better for eir to retain those profits than to use them to subsidise the supply of services to urban customers.

⁵⁷ ComReg (2016), 16/96, paragraph 12.42-43, p. 493.

⁵⁸ For a summary of the main criticisms of predatory pricing theory, see Motta (2004) *Competition Policy: Theory and Practice*, p. 412-416

124. Further, in rural areas, eir’s pricing is constrained by regulated copper access as well as LTE and FWA services (such as those provided by Imagine).

4.5 Regulating FTTC Bitstream is disproportionate

125. We have argued that cost based regulation of FTTC is inconsistent with the evidence of the strength of competitive constraints on eir’s FTTC services and that ComReg’s stated reasons for its proposed regulation are flawed. In the case of FTTC bitstream, there is even less basis for ComReg’s proposal to apply cost-based regulation of FTTC bitstream in rural areas given access to VUA.
126. The European regulatory framework requires that ex ante regulation is not imposed in markets that are effectively competitive on a forward-looking basis. Markets susceptible to regulation are required to have (i) high and non-transitory barriers to entry; (ii) not tending towards effective competition within the relevant timeframe; and (iii) where the application of competition law alone would not address the market failure concerned.⁵⁹
127. Operators can and are successfully competing with eir’s bitstream services through the use of rival infrastructures (e.g. in the case of Virgin Media) or by obtaining eir’s wholesale VUA FTTC and then self-providing backhaul services or purchasing backhaul from a number of competing suppliers. ComReg is already proposing cost orientation price regulation of FTTC VUA nationally and there is already a nationally competitive market for the supply of backhaul/leased line services.⁶⁰
128. In exchanges that have already been unbundled, providers rapidly take-up VUA showing that there is little impediment to providers supplying their own bitstream services.

Table 11 – share of VUA in eir’s wholesale NGA services

	Feb-2015	Apr-2016	Apr-2017
VUA NGA		[Confidential]	

129. There would not appear to be significant barriers to the unbundling of the remaining exchanges such that WCA nationally can be considered as a market tending towards effective competition in the relevant timeframe. ComReg itself states “*Our objective is to provide the right investment signals in those exchanges in the Regional WCA market where new investment is likely to occur, which is equivalent to those exchanges that have not been unbundled to date.*”⁶¹

⁵⁹ European Commission Recommendation on Relevant Markets.

⁶⁰ We note that ComReg reviewed the leased line market in Ireland in August last year and found that the Modern-Interface Wholesale Quality Access at a fixed location (MI WHQA) market to be competitive with a range of providers offering retail and wholesale services (including a number of suppliers offering services at a national level). See ComReg 16/69.

⁶¹ The Draft Decision, para. 7.76.

Independent forecasts for Europe show that superfast broadband is expected to be extended to around 90% of premises by 2020.⁶² It is likely that remaining areas are those to be covered by the NBP. In any event, what matters for WCA regulation are the competitive constraint on eir's bitstream products where they are available – access to eir's VUA enables competitors to supply bitstream in these areas.

130. It is incumbent upon ComReg to only consider ex-ante regulation in markets whose structure does not tend towards effective competition within the relevant time horizon. Given ComReg's own expectation that remaining exchanges will be unbundled and the ability of competitors to rapidly shift to VUA, the WCA market should be found to be effectively competitive on a forward-looking basis.

4.6 ComReg's overall reasons for not imposing cost-based regulation in 2013 remain valid today

131. In reviewing the remedies to address SMP concerns, ComReg decided in 2013 to impose a margin squeeze obligation on eir's fibre wholesale services (rejecting cost orientation as a remedy).

ComReg's view is that the margin squeeze approach ensures that wholesale operators are not squeezed out of the market over the period of transition to fibre based services. As a wider LLU footprint develops, users of VUA services will be able to compete at the retail level, using a combination of VUA inputs and their own backhaul investments. At this point of market development, this approach is required to safeguard competition, until further infrastructure investment has taken place by alternative market players and it is evident from Eircom's performance that it is committed to developing a wholesale business on a non-discriminatory basis. For this to happen, operators will require greater certainty around the delivery of a higher standard of non-discrimination, EoI or equivalence of output ('EoO') from Eircom, where appropriate. Where these conditions are met over the medium term, ComReg may then be in a position to relax some of the margin tests currently proposed at the wholesale level.

The flexible pricing regime requires that sufficient economic space is provided when pricing wholesale inputs, to ensure replicability of retail products by alternative operators. This measure, coupled with strict notification and compliance obligations along with adequate transparency and non-discrimination, will offer protection to competition and will facilitate market led investment of NGA.⁶³

⁶² Analysys, *International benchmarking* report, 21 September 2015, Figure 3.1

⁶³ ComReg (2013) *Remedies for Next Generation Access*, (13/11), para 2.23 and 2.27

132. ComReg's decision in 2013 was thus based on the facts that: (i) a margin squeeze obligation would safeguard competition; (ii) flexible pricing would facilitate NGA investment; and (iii) investment in alternative infrastructures could enable regulation to be relaxed in time.
133. The market outcomes including eir's falling retail broadband share show that the margin squeeze obligation has been sufficient to promote competition. ComReg has presented no evidence of a competition problem to warrant the shift to cost based regulation.
134. The need for flexible pricing to promote NGA investment continues to be important particularly with the substantial commercial deployments planned by rival operators. As we discuss further in the next section, cost-based regulation would put this investment at risk.
135. As recognised by ComReg in 2013, new deployments of rival infrastructure should warrant a move towards less regulation. The 2013 Decision also states "*This should allow the market to evolve, whereby certain interventions could be scaled back in the future.*"⁶⁴ ComReg's new proposals are at odds with what would normally be expected including ComReg's own expectations in 2013.
136. While ComReg seems to place weight on the decline in the use of CGA (and LLU), other developments indicate that overall competition has become stronger since 2013 (as evidence in eir's much lower retail broadband share). Virgin Media has invested in upgrading its network (to DOCIEXX 3.0) which delivers superior speeds to those that can be offered by eir on its FTTC network.⁶⁵ As noted already, Virgin Media, SIRO and Imagine are investing heavily to expand their network coverage and can be expected to price to achieve significant take-up on these networks. ComReg's data also shows that between Q4 2013 and Q4 2016, Vodafone has grown its share from 16.6% to 19.7% and Sky from 4.8% to 11.8%. Using the Herfindahl Hirschman Index (HHI) as an objective measure of concentration, the market has become much less concentrated since 2013 with the HHI falling from 2802 to 2391.⁶⁶

4.7 Implications for ComReg's proposals

137. In 2013 ComReg decided that imposing only a margin squeeze obligation on FTTC services would both safeguard competition and support NGA investment. As noted by the Irish Government in its Broadband Intervention Strategy, the infrastructure

⁶⁴ ComReg (2013) *Remedies for Next Generation Access*, (13/11), para 2.16, p. 14.

⁶⁵ Eir FTTC's retail services offer download speeds of 100Mbps compared to up to 360 Mbps for Virgin. See ComReg16/96 Table 39 and Table 56 for a comparison of retail offers by eir and Virgin.

⁶⁶ HHI is measured as the sum of the square of the market share of each firm (as ComReg's data reports OAOs apart from the four larger operators as a single number, we have calculated HHI on this basis although this will overstate the actual HHI in the market).

competition that has developed “*far exceeds what was envisaged in 2012 and represents a significant step-change in the quality of broadband connectivity now available to many business and residential customers.*” While ComReg is concerned that copper represents a declining constraint, taking into account the development of rival infrastructure suggests that the overall constraint on eir’s fibre pricing will remain strong over the forthcoming regulatory period. eir has strong incentives to grow the use of its FTTC network and rival operators will price aggressively to achieve take-up of their expanding networks.

138. A forward-looking assessment of overall competition warrants:

- In relation to FTTC VUA, at most the current margin squeeze obligations should be retained although there is a case for the removal of all regulation in urban areas where eir’s wholesale market share will be well below the threshold over which dominance is normally found; and
- In relation to FTTC bitstream, the strong competition already evident in unbundled areas can be expected to extend nationally such that the WCA market can be considered effectively competitive on a forward-looking basis.

139. Given the competition in the market, any possible benefits from cost based price regulation would be outweighed by the significant risks of distorting competition and deterring investment.

5 The impacts of ComReg's proposals on investment in the Irish Communications sector

140. ComReg's proposals carry serious risks of deterring further investment by both eir and rival infrastructure providers. As we discuss in this section, the proposals:
- Do not allow eir a fair bet on the fibre investments that it has already made and thereby will raise the perceived regulatory risk to new investments; and
 - Reduce eir's FTTC prices which will reduce the returns to new investments in substitute services including eir's FTTH as well as the investments in superfast broadband networks by other operators.

5.1 ComReg has not allowed eir to earn a fair return on its investment in FTTC/FTTH (the 'fair bet')

141. Future investment will be deterred if the regulator is perceived as not allowing the opportunity for investors to earn a reasonable return on past risky investments. The protection of investment incentives for both eir and rival operators is critical at the current time when operators are carrying out significant investment programmes with further significant investment planned. Empirical evidence shows that applying cost orientation to fibre services early in the investment cycle chills investment incentives
142. ComReg has failed to undertake an analysis of whether regulation now would provide eir a 'fair bet' on FTTC investment. Such an analysis shows that ComReg's proposals would violate this key principle required to maintain investment incentives. Effectively, the proposed regulation would deny eir a reasonable return for the specific risks of investing in FTTC.

5.1.1 The extent of eir's investment in FTTC/FTTH

143. In July 2011, eir announced plans for its NGA rollout to invest €400 million to build Ireland's largest high-speed fibre broadband network, connecting approximately 1.6 million homes and businesses to high speed fibre broadband by the end of 2016. In June 2015, eir extended its rollout commitment to include an additional 300,000 homes and businesses, which means by the end of 2020, 1.9 million homes and business across Ireland will have access to a high-speed broadband network.

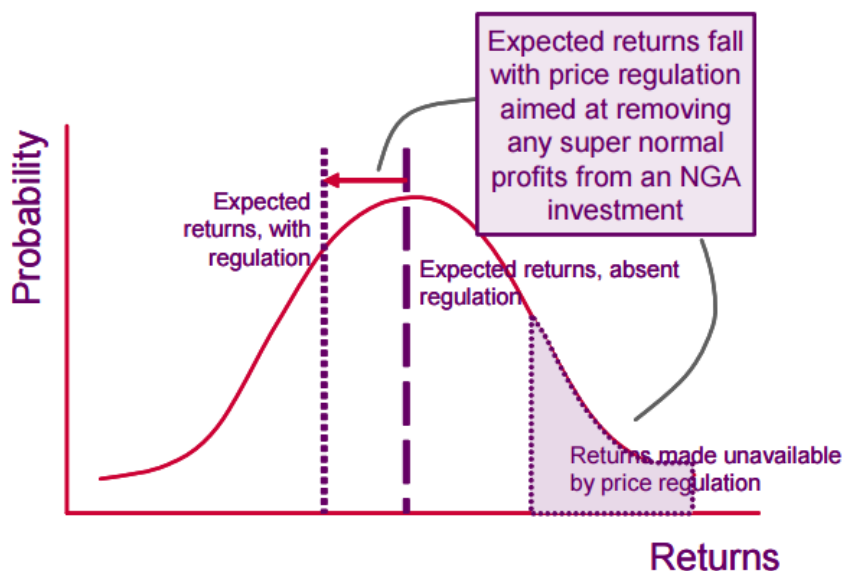
5.2 What is a ‘fair bet’?

144. Ofcom in the UK has recognised the importance of allowing a ‘fair bet’, as have reports for the European Commission.⁶⁷ Ofcom characterises the ‘fair bet’ problem as follows:

An investment is a “fair bet” if, at the time of investment, expected return is equal to the cost of capital. This means that, in order to ensure that an investment is a fair bet, the firm should be allowed to enjoy some of the upside risk when demand turns out to be high (i.e. allow returns higher than the cost of capital) to balance the fact that the firm will earn returns below the cost of capital if demand turns out to be low. This issue is particularly important where there is significant uncertainty around demand (or other factors that affect returns), and so is particularly relevant to NGA.⁶⁸

145. Applying this approach allows the possibility of ‘excess’ future returns due to successful outcomes to offset the possibility of ‘excess’ future losses because of unfavourable outcomes. In Figure 5, Ofcom illustrates how regulation that caps returns (when conditions turn out favourably) acts to reduce the expected (i.e. probability-weighted) return - potentially below investors’ cost of capital - if no allowance for a ‘fair bet’ is made by the regulator.

Figure 5 - Risk of regulation may skew investment returns



Source: Ofcom (2007), *Future broadband – Policy approach to next generation access*, Figure 7: Risk of regulation may skew expected investment returns

⁶⁷ Similar considerations have been taken into account by other regulators, particularly in deciding not to cap returns to fibre investments and in allowing mark-up’s over the WACC in price regulation.

⁶⁸ Ofcom, Wholesale broadband access charge control consultation, January 2011, paragraph A8.27.

146. In a study prepared for the European Commission in 2016, the Brattle Group notes that:

To earn a fair return on its investment, the regulated firm may have to earn more than a fair return in 'good' times – so when regulatory risk does not materialise – to compensate for negative regulatory events in 'bad' times.⁶⁹

147. Where regulation is applied in the period which, on an ex ante basis, was expected to be required for the operator to earn back its cost of capital, the operator is effectively being denied a return commensurate with the specific risks of investing in NGA.

5.3 Analysis of 'fair-bet' for eir

148. To assess whether the proposed approach by ComReg is consistent with the fair bet principle to protect investment incentives, it is necessary to analyse eir's expected return at the time of investment. The actual outcome in the period that was expected to be required for the operator to earn back its cost of capital, no matter if better or worse than expected at the time, should not impact regulation. Investments with uncertain returns proceed precisely because they offer the chance to earn higher returns if conditions turn out favourably which compensates for the risk of low returns or losses if conditions prove unfavourable.
149. CEG has access to a detailed analysis of expected returns at the time of eir's investment decision, in 2011. Results of these internal calculations are shown below. Further, we have carried out an additional analysis based on eir's expectations at the time.
150. The analysis considers at what time regulation capping returns to the WACC could be introduced while still providing investors with a fair bet. Had investors known that ComReg would regulate FTTC at this point, they likely would not have decided to invest in the first place. In order for future investments not to be deterred, regulation needs to be applied in a fair way, i.e. that does not take advantage of an operator having already made an investment. A fair way would be to apply regulation after a long enough period, so that investors would have made the investment had they known that the regulation would start at that particular date.

5.3.1 Internal eir calculations

151. An internal eir presentation from April 2011 discusses two future scenarios: a proposed new management plan and a fall-back plan. The proposed management plan mainly differs from the fall-back plan in that it includes a large amount of NGA investments and a few minor other investments.

⁶⁹ Brattle Group (2016), *Review of approaches to estimate a reasonable rate of return for investments in telecoms networks in regulatory proceedings and options for EU harmonization.*

152. eir analyses the variance in total cash flow (EBITDA – cash flow - VL) between the two plans to calculate the expected return on NGA investments. The WACC set by ComReg for eir for the period when the decision to invest was being made was 10.21%.⁷⁰ The WACC is the highest expected return available on alternative investments. The expected (i.e. probability-weighted) return for an investment would therefore need to be at least 10.21% for an investor to have been willing to invest.
153. eir's analysis shows that over a period of 10 years (2012 until 2021), the internal rate of return (IRR) would be [Confidential] if no terminal value of investment is considered. This means eir would not get any return and incur an opportunity costs (i.e. the foregone return on alternative uses for the capital) of 10.21%. eir also calculated that including terminal value, the investment would yield an IRR of [Confidential] (over 10 years).⁷¹
154. However, eir's calculation of the terminal value does not consider the impact of any future regulation that might cap future returns. Cash flow is instead assumed to remain constant until perpetuity from 2021 onwards.

5.3.2 CEG analysis of eir calculations

155. We have assessed the period required to ensure a fair bet by assuming that the terminal value once cost based regulation is applied is equal to the sum of total investments to that date. In other words, cost based regulation provides a return on the investment equal to the WACC – and this return is discounted by the WACC.
156. The value of the NGA investment is equal to the difference in cash capex between the management plan and the fall-back plan. In eir's calculations in 2011, eir expected to invest in total [Confidential] million in NGA infrastructure in the years 2011 until 2021, with the vast majority of investments occurring before 2017. Assuming that the terminal value is equal to the total sum of investments is likely to be an overstatement of the terminal value as some degree of depreciation is likely. Therefore, the following numbers represent a conservative upper bound for the rate of return.
157. Assuming a terminal value equal to the value of investment to that date implies an IRR for the fibre investment of [Confidential] over 10 years (at the end of 2021). This is below eir's cost of capital at the time and investors would not have undertaken that investment. It would take at least [Confidential] until the IRR on the fibre investment exceeds the cost of capital. As such, if it were known that cost based regulation was to be imposed before [Confidential], the fibre investment

⁷⁰ ComReg (2008), *ComReg sets new eircom cost of capital at 10.21%*

⁷¹ The calculation of the terminal value assumes cash flow to perpetuity and no incremental FTTx reinvestment Capex. Capex is assumed to remain at same % of EBITDA in both the management and fall back plan. The growth rate is 0%.

would not have been made. The imposition of cost based regulation in 2018 would lead to an IRR of just [Confidential] (including the terminal value) for the period 2011 until 2017.

158. Table 12 shows the IRR for a different number of years before regulated capping future returns to the WACC is assumed to be introduced. Table 13 shows the underlying cash flow expectations in 2011 used for the calculation of the IRR.

Table 12 - Expected IRR of eir's fibre investment in 2011

	IRR/WACC
WACC in 2011	10.21%
eir IRR calculations	
IRR over 10 years with no terminal value	[Confidential]
IRR over 10 years including terminal value*	[Confidential]
CEG IRR calculations**	
IRR over 6 years (equivalent to regulation starting in 2018)	[Confidential]
IRR over 10 years	[Confidential]
IRR over 11 years	[Confidential]
IRR over 12 years	[Confidential]

Source: CEG analysis.

Note: *Terminal value, as calculated by eir, does not include any future price regulation.

**All CEG calculations include terminal value.

Table 13 - Incremental cash flow projections for NGA investment in 2011

[Confidential]

5.3.3 ComReg is applying cost-orientation early in the investment life-cycle of NGA compared to other markets

159. Imposition of cost-based regulation in Ireland in 2018 would come at a much earlier stage of the investment than elsewhere in the EU. As shown in Table 14, on average FTTC regulation was introduced 6.8 years (or 7.6 years excluding Austria) after initial roll-out. It appears that while some form of regulation was introduced in Austria in 2010, it was not intended to be general regulation of FTTC services (but only if ULL no longer was available in the particular area) and the regulator's decision document at the time does not specify if the regulation of FTTC access even in those circumstances was to be cost-based. In 2010, the European Commission noted in relation to the Austrian regulation:

“RTR confirmed that vULL is a service usually provided at the exchange with similar characteristics to physical unbundling and only to be deployed in areas where traditional physical unbundling of the copper line as a result of the increased roll-out of fibre in the access network (FTTx roll-out) is no longer technically possible (due to replacement of copper in parts of the access network) or economically viable. RTR makes the distinction that vULL is not a remedy designed to grant access to the fibre line but merely to facilitate access to the copper line with continued interconnection at the exchange...[moreover]...access to a fully (physically) unbundled hybrid line currently does not appear to be technically feasible”.⁷²

Table 14 - Time of regulation in other European countries

Country with cost-based regulation	Launch Year	Year of regulation	Difference
Austria	2009	2010	1*
Belgium	2004	2011	7
Croatia	2009	2016	7
Denmark	2006	2015	9
Estonia	2005	2013	8
Greece	2010	2017	7
Netherlands	2008	2015	7
United Kingdom	2010	2018	8
Average			6.8
Average (excl. Austria)			7.6

Source and notes: CEG analysis. *The Austrian regulation appears to be intended for limited circumstances and may not have been cost-based.

160. The regulatory decisions in some of these countries also do not appear to be based on a rigorous analysis of the approach required to protect investment incentives. Ofcom has recognised the importance of allowing a ‘fair bet’ on NGA investments and assessed this as requiring 10 years since BT’s FTTC investment commenced.
161. FTTC in Ireland was first launched by eir in May 2013. If eir were to be allowed a similar period of unregulated returns as that provided by Ofcom then eir’s FTTC investments should not be subject to cost based regulation before 2020/21. With specific reference to the circumstances of eir’s investment, our analysis found that no cost-based regulation should be implemented before [Confidential] if eir is to be provided with a fair bet.

⁷² European Commission, *Commission decision concerning case AT/2010/1084: Market for wholesale (physical) network infrastructure access at a fixed location in Austria*, 17 June 2010 (footnote 15)

5.4 Cost orientation will chill investment incentives by reducing potential returns for all players

162. The Irish market is remarkable for the extent of competitive investment in NGA networks currently taking place. eir continues to invest in deploying FTTC and in FTTH to extend the footprint of high speed broadband to a further 300,000 homes and businesses to reach a total of 1.9 million premises by the end of 2018. SIRO is rolling out its FTTH network to 500,000 homes and Virgin Media announced in December the extension of its network to an additional 200,000 homes.
163. ComReg's proposals to provide cost-based access to eir's FTTC network puts this level of investment at risk. By depressing the prices of access services, cost-based access renders investments in competing networks less attractive. Why would a provider incur the substantial demand, competition and technology risks of undertaking new network investment when they can obtain cost-based access to eir's fibre network?
164. The European Commission has an ambitious Digital Agenda strategy that aims that, by 2020, all Europeans will have access to internet speeds above 30 Mbps and 50 percent or more of European households to subscribe to internet connections above 100 Mbps.⁷³
165. ComReg's proposed regulation of eir's fibre network to cost so early in the investment cycle risks damaging the ability of Ireland to meet the EC's ambitious Digital Agenda plans. This is because applying access regulation of the kind proposed by ComReg now will risk damaging investment incentives not just for eir but for all network infrastructure investors across the country.
166. The regulation of copper networks may provide useful lessons on the impact of investment of cost-based access regulation. Empirical evidence suggests that mandatory local loop unbundling has not led entrants to increase access network infrastructure (as was to be expected under the 'ladder of investment' theory). Unbundling may have even reduced total industry investment, meaning that investment by entrants has not been sufficient to offset the investments that would have been made by incumbents in the absence of cost based regulation.⁷⁴ Other studies have found that mandatory access may delay – and reduce the size - of entrants' infrastructure investments if the access price is set too favourably for the entrants.⁷⁵ Evidence from empirical research also suggests that tight access

⁷³ European Commission, *Digital Single Market Pillar IV: Fast and ultra-fast Internet access*.

⁷⁴ Grajek and Röller (2012) *Regulation and Investment in Network Industries: Evidence from European Telecoms*, *Journal of Law and Economics*, 2012, vol. 55, issue 1, 189 – 216.

⁷⁵ For examples in telecoms, see Avenali, A., Matteucci, G. and Reverberi, P. (2010) *Dynamic access pricing and investment in alternative infrastructures*. *International Journal of Industrial Organization*, Vol. 28(2), pp. 167- 175., Bourreau and Dogoan (2006), "Build-or-Buy" *Strategies in the Local Loop*, *American Economic Review*, Vol. 96, pp. 72-76. and Valetti (2003) *The theory of access pricing and its linkage with investment incentives*, *Telecommunications Policy*, Vol. 27, pp. 659-675.

regulation of both legacy and the NGA network (as ComReg is proposing) will likely harm investment incentives for NGA by incumbent telecoms operators but does not affect cable operators.⁷⁶

167. For new NGA investments, the application of price and non-price access regulation (or the threat of such regulation) can potentially chill investment incentives:

...access regulations can significantly hold-up investment. We expect this problem to be less acute in the case of passive remedies, especially in areas where the ducts have already been built. Active remedies, however, especially when coupled with incremental cost-based access pricing, can substantially impede fibre deployment, because of the hold-up problem.⁷⁷

168. The imposition of cost based access prices for fibre broadband services can be expected to reduce the prices of retail broadband services across the board. This will reduce expected returns to investments in competing infrastructure including that of Virgin Media and SIRO. Indeed, Virgin Media has raised this concern with ComReg's proposals:

For example, Virgin Media is planning to expand its broadband network to 200,000 households in a number of towns over the next 4 years. Yet the business case for deciding whether to deploy new network to a given town/location is sensitive to a number of factors related to the expected return on investment.

The introduction of a cost-orientated price cap for wholesale access to Eir's FTTC VUA and dark fibre will effectively cap the prevailing market price of NGA, and therefore limit the Return on Equity ('ROE') associated with investment in NGA.

Imposing a cost-oriented price cap could therefore jeopardise the profitability of NGA network deployments. In some cases this could directly influence a decision on whether to build new network, potentially leading to reduced commercial investment in NGA infrastructure by Eir, Virgin Media, and other operators.⁷⁸

169. If investment in competing networks falls as a result of ComReg's proposals, competition will be more limited to service-based competition, which cannot be expected to lead to the dynamic benefits to consumers of competing infrastructures including new services and innovative cost savings.

⁷⁶ Briglauer, Cambini and Grajek (2017) *Regulation and Investment in European High-Speed Broadband Infrastructure*, Preliminary Draft, January, p.26.

⁷⁷ Briglauer, Cambini and Grajek (2015) *Why is Europe lagging on next generation access networks?* Bruegel Policy Contribution, Issue 14, September.

⁷⁸ Virgin Media (2017) *Response to consultation and draft decision: Wholesale Local Access (WLA) and Wholesale Central Access (WCA) market reviews, ComReg 16/96*, p.5.

170. There are a number of reasons why regulating wholesale access to FTTC VUA at cost orientated levels undermines investment incentives for both eir and other players in the market; including:
- the cost of buying FTTC VUA affects the build or buy decision; the lower the cost, the less attractive it is to build an alternative network;
 - the price of FTTC VUA will affect the retail prices that can be charged for services, and therefore the ability to generate reasonable returns from services supplied using the new network;
 - a benefit of investing in a network is that telecoms providers take far greater control of the services that can be offered and of a large part of the cost stack. Tighter regulation of FTTC VUA can reduce the potential for competitors to gain from this; and
 - adversely impacts 'first mover' advantages; if rivals have less incentive to invest first in a market where access seekers can obtain regulated access to eir's network at cost-based prices.
171. Infrastructure based competition provides much greater scope for product differentiation and is a more effective environment for innovation. By investing in their own networks, providers benefit from having full control over the quality of service they offer to their customers. Competing telecoms providers can strive to win customers and generate higher margins not only by offering cheaper prices but also by differentiating their service in terms of both speed and reliability. As a result, infrastructure based competition is a powerful driver long term benefits to consumers from innovative services.
172. By exposing more elements of the value chain to competition, infrastructure based competition also provides strong incentives for firms to innovate to become more efficient and reduce costs. Without competing network infrastructure, even vigorous competition between service providers will not prevent customers being disadvantaged by inefficient and/or poor quality services caused by the underlying network.
173. Regulation cannot match competition in delivering these dynamic benefits of new services and innovative ways to deliver existing services at lower cost.
174. There is some evidence to suggest that putting in place a workable passive access regime for ducts and poles combined with 'light touch' remedies on wholesale access can be successful in promoting alternative infrastructure investment. In particular, Analysys Mason in a report for BT as part of an Ofcom consultation highlighted case studies of Spain, Portugal and France. In Spain and Portugal there are no regulatory requirements to provide an active wholesale product to access seekers (in Spain there is regulation only where there is not competing infrastructure). In these

markets NGA-based competitors either use regulated duct and pole access (DPA) or they do not enter. The report states that

... we expect to see three competing ultrafast networks of significant scale: around 30% premises coverage in France, around 40% in Portugal and around 50% in Spain, if operators' plans are realised. These three countries are good examples of where DPA has been used successfully by competitors to deploy fibre.⁷⁹

175. Investment in fibre networks is modular in nature, with the need to update, maintain and extend the existing network over time to cater for demand. For example, eir have applied several investment tranches to build out its network since the eir board decision to proceed with the initial network build. Future investments are still required. The following points are relevant in this regard.

- Ofcom in the UK has recently indicated that it expects the demand for super-fast broadband to increase which will drive the need for further investment in the market.⁸⁰ Indeed, building out of FTTC networks by eir may represent the start of the journey to a 'full-fibre' network in Ireland rather than the end state. We note the recent announcements by BT/Openreach in the UK that it intends to consult in the summer of 2017 with its wholesale customers (such as Vodafone, TalkTalk and Sky) on the roll-out of a large-scale Fibre-to-the-premises deployment.⁸¹
- Cost-based regulation of FTTC critically undermines the migration path for customers from current generation to FTTC and eventually to FTTH. Rather than a ladder of technologies offering incrementally greater speeds for incrementally higher prices, the proposed regulation would bring down the price of FTTC and increase the price difference between FTTC and FTTH. This is likely to significantly undermine customer demand for and the economics of investment in FTTH.
- Applying cost orientation to the fibre network will reduce the wholesale and retail prices for fibre services - the premium broadband product in the market. This will reduce the prices at the 'top end' of the market. It is likely to have flow-on impacts on the prices of equivalent broadband services offered by alternative suppliers (such as Virgin Media, SIRO as well as LTE services offered by mobile operators).
- Reduced retail pricing caused by the regulation of fibre is likely to depress margins for equivalent services and reduce the profitability of services. This will reduce the attractiveness of the business case for building capacity in existing coverage areas and extending fibre into new areas.

⁷⁹ Analysys Mason (2016) *Comparative analysis of outcomes in the UK broadband market: coverage, connections and competition*, Final report for BT, p. 5

⁸⁰ Ofcom (2017), *Wholesale Local Access Market Review : Volume 1*, p. 27-31.

⁸¹ BT Plc (2017), *Q4 and full year 2016/17 - investor meeting slide pack May and June 2017*, p.74.



- The 'buy-build' decision will be tilted towards a 'buy' decision – as regulated access will become relatively more attractive than building alternative infrastructure.
 - As a result, the total amount of fibre network investment in Ireland may be lower (with ultrafast services covering a lower proportion of the population) than would have occurred without the imposition of cost orientation price regulation.
176. Cost-based regulation of FTTC critically undermines the migration path for customers from current generation to FTTC and eventually to FTTH. Rather than a ladder of technologies offering incrementally greater speeds for incrementally higher prices, the proposed regulation would bring down the price of FTTC and increase the price difference between FTTC and FTTH. This is likely to significantly undermine customer demand for, and the economics of, investment in FTTH.

6 The proposed approach to CGA regulation

177. In this section, we examine ComReg proposals to make two significant changes to the regulation of CGA bitstream and BMB services:
- To regulate these services based on the bottom-up (BU) costs of a hypothetical entrant rather than eir's historical costs; and
 - to remove the current price floors for CGA bitstream.

6.1 Basing the regulation of CGA bitstream and BMB on BU costs

178. In 2014, ComReg decided to regulate CGA bitstream in rural areas based on historical cost (HCA) stating:

This should allow Eircom to recover any money invested in maintaining or upgrading its network on the basis that Eircom will have the assurance that what it spends can be recouped over the price control period – particularly Outside the LEA (e.g., operating expenditure adjusted for efficiencies associated with maintenance expenditure and any relevant depreciation charges associated with capital expenditure).

In Chapter 6 (subsection 6.2.2) of the Consultation Document ComReg considered that historic costs should be used as opposed to current costs on the basis that historic costs may be more pragmatic and practical especially where there are limited prospects of investment by alternative infrastructure i.e., especially with regard to the area Outside the LEA.

179. ComReg proposes that CGA bitstream should now be regulated on the basis of BU costs rather than historical costs. However, the Draft Decision presents no clear rationale for the change apart from ensuring “consistency across similar services on the same (core) network and between CGA bitstream and FTTC based Bitstream services” (para. 5.54). However, consistency is not appropriate where there are relevant differences in the circumstances under which the services are delivered.

180. ComReg notes that:

The economic rationale for the current cost approach applied by means of a BU model is that by linking the value of assets to newly deployed network it promotes efficient investment incentives. The current cost approach also ensures that the Incumbent recovers its future costs thereby encouraging efficient infrastructure investment by it. The current cost approach is particularly relevant in the more competitive areas of the country i.e. Regional Area 1. In this area, ComReg considers that the BU-LRAIC+ approach should promote efficient infrastructure investment in the market

place and encourage innovation in new and enhanced infrastructures by Eircom and other operators.

The HCA approach on the other hand uses the Incumbent's costs, which reduces the chance of over or under recovery of costs as the value is linked to the actual investment made as opposed to the MEA.

181. ComReg's own reasoning strongly supports the retention of HCA for CGA bitstream costs. Retaining HCA would ensure that there is no over or under recovery of eir's costs. Further, there is no reason to shift to BU to encourage efficient new investment as new investment in CGA-based services is highly unlikely with LLU volumes declining rapidly. In fact, lower prices for CGA bitstream is more likely to undermine, than promote, new investment because it is likely to delay customer migration from CGA to NGA and reduce the expected return to NGA investment by eir and rival operators.

6.2 The regulated price floor on CGA Bitstream should be removed

182. ComReg suggests in its consultation that there are good reasons to remove the existing regulated price floor on CGA bitstream services.
183. We agree that this proposal makes economic sense, for two main reasons:
- Firstly, the original rationale for the regulation no longer applies. The objective of a regulated price floor for NGA bitstream was to encourage investment in LLU. However, the market is moving to NGA with LLU service volumes declining.
 - Secondly, the imposition of a price floor regulation is inconsistent with ComReg's findings of a competitive market for WCA in urban areas. ComReg has proposed that the WCA market is deregulated. This is due to the emergence of several competing technology platforms including cable, FTTH, wireless. Retaining a regulated price floor on eir's CGA Bitstream service when equivalent services offered on other platforms remain unregulated is disproportionate and inconsistent with Article 8 of the EC Access Directive which, among other things, states that ex ante regulations should only be applied where there is no effective and sustainable competition.⁸² A price floor instead risks chilling competition particularly by reducing eir's flexibility in responding to offers by rival networks.

⁸² European Commission, EC DIRECTIVE 2009/140/EC, 25 November 2009

7 The proposed margin squeeze tests carry greater costs than benefits

184. ComReg proposes that eir's pricing for both CGA and NGA services continue to be subject to an extensive set of margin squeeze tests including:
- A wholesale margin squeeze test between FTTH based WLA services and FTTH based WCA services;
 - A retail margin squeeze test between WLA services and retail services in the Urban WCA market;
 - A wholesale margin squeeze test between end-to-end bitstream and bitstream in the Regional WCA market;
 - A retail margin squeeze test between FTTC/FTTH based bitstream provided in the regional WCA market and retail FTTC/FTTH based bitstream offers; and
 - A retail margin squeeze tests between retail current generation broadband products and the price for current generation bitstream services in the Regional WCA markets.

7.1 The rationale for the margin squeeze obligations

185. The set of margin squeeze tests go well beyond what can be justified given the competition particularly in urban areas. The proposals do not reflect a realistic assessment of the likelihood of such margin squeezes absent the obligations and nor is there evidence in the Draft Decision that ComReg has weighed the risks of the obligations against any benefit.
186. Whether an ex ante margin squeeze test is warranted requires a careful assessment of the likely risks of imposing such a test compared with not imposing such a test. Compared with relying on competition law, ex ante tests carry a significant risk of preventing or hindering pro-competitive price offers. This is because an ex ante margin squeeze test represents a blanket prohibition on particular pricing without an assessment of evidence on whether specific pricing would be likely to harm competition and whether such pricing would promote efficiency. Pricing flexibility is particularly important for broadband services in Ireland so that eir can respond competitively to the offers of an increasingly diverse range of network and service provider rivals as well as to adjust prices dynamically to support continuing migration to NGA services. This latter point was recognised in the European Commission's 2013 NGA Recommendation:

Due to current demand uncertainty regarding the provision of very-high speed broadband services it is important in order to promote efficient investment and innovation, in accordance with Article 8(5)(d) of Directive 2002/21/EC, to allow those operators investing in NGA networks a certain

degree of pricing flexibility to test price points and conduct appropriate penetration pricing.

187. A further consideration is that competition law applies regardless of what regulation there is, so that the case for an ex ante margin squeeze test requires that it provides sufficient incremental benefits particularly in further protecting competition that outweigh the potential for harm from the margin requirement. Of relevance to this, the European Commission has stated:

Ex ante regulation would be considered to constitute an appropriate complement to competition law in circumstances where the application of competition law would not adequately address the market failures concerned. Such circumstances would for example include situations where the regulatory obligation necessary to remedy a market failure could not be imposed under competition law (e.g. access obligations under certain circumstances or specific cost accounting requirements), where the compliance requirements of an intervention to redress a market failure are extensive (e.g. the need for detailed accounting for regulatory purposes, assessment of costs, monitoring of terms and conditions including technical parameters and so on) or where frequent and/or timely intervention is indispensable, or where creating legal certainty is of paramount concern (e.g. multi-period price control obligations).⁸³

188. The Commission identifies that an ex ante test could be warranted where the remedy is not able to be imposed under competition law. This is clearly not the case generally with margin squeeze tests. It would be the case were the objective and design of the test targeted at assisting competitors establish themselves in a market where competition is nascent and there are reasonable grounds to believe that entry assistance would deliver longer term competitive benefits that outweigh the direct harm from such assistance such as higher retail prices. A market where competition is nascent might also warrant more timely intervention than to await a fact-based competition law investigation. However, competition in Ireland's retail broadband market is well established. eir's market share has been falling over time and at 32.6% is well below the 40% threshold over which dominance is more likely to be found. Virgin Media, Vodafone and Sky are substantial competitors with particular competitive strengths and can expect to grow further with the expansion of the cable and SIRO's networks.

189. To require that higher margins are maintained on an ongoing basis prevents competition-on-the-merits and comes at the cost of Irish consumers. As Advocate General Fennelly noted in *Compagnie Maritime Belge*:

Price competition is the essence of the free and open competition which it is the objective of the Community policy to establish on the internal market. It

⁸³ Commission staff working document, *Explanatory note accompanying Recommendation on Relevant Product and Service Markets*, 2007.

favours more efficient firms and it is for the benefit of consumers both in the short and long run. Dominant firms not only have the right but should be encouraged to compete on price...Community competition law...should not offer less efficient undertakings a safe haven against vigorous competition even from dominant undertakings.

190. Where competition is inadequate, an ex-ante margin squeeze test could also be used as an alternative to wholesale price regulation to protect competition while seeking to avoid undermining investment incentives by the access provider. For example, BEREC notes that *“the ex-ante economic replicability test aims at deterring the SMP operator from using market foreclosure strategies in order to foster retail demand for NGA-based retail services when NGA-wholesale inputs are not subject to regulated access prices.”*⁸⁴
191. There is no sound economic justification for margin squeeze obligations to be imposed where the wholesale price is regulated at cost. A margin squeeze requires either: (i) wholesale prices being set above costs; or (ii) retail prices being set below cost. Cost based regulation of wholesale access rules out the possibility of excessive wholesale prices. As such, for eir to engage in a margin squeeze would require it to set retail prices below cost. Such loss-making pricing would only be rational if eir had a reasonable expectation of being able to:
- force the exit of competitors; and then
 - be able to set much higher prices in the future to recover the losses without losing significant sales to competitors or entrants.
192. However, eir faces significant infrastructure-based competitors including Virgin Media, SIRO and the LLU-based operators. The infrastructure of these operators is sunk. eir would have no ability to force the exit of these competitors unless it dramatically cut its own prices to below the variable costs of these competitors. That would imply substantial losses compared with current revenues. Even then the assets would likely remain in place and could be acquired by a new owner, potentially at a fraction of the cost of the original investment. Moreover, eir would have little basis for being able to recover such losses in the future. The owners of the existing rival assets would be able to undercut eir if it sought to set excessive prices in the future. In addition, eir would also be constrained by the ability for other service providers to enter using regulated access. ComReg has not explained how it could possibly be in eir's interest to pursue such a margin squeeze strategy with the likely consequence of a substantial loss in eir's revenues.
193. eir has also already discussed why simultaneous margin squeeze rules and wholesale cost based regulation is generally unfounded in the Compass Lexecon

⁸⁴ BEREC, *Guidance on the replicability accounting approach to the economic replicability test (i.e. ex-ante/sector specific margin squeeze test)*, p.49.

report “*Concurrent upstream cost and downstream margin regulation for current generation broadband and voice in Ireland*” dated 28 May 2015.

194. It should also be noted that the economics literature concludes that such predatory pricing is likely to occur rarely. The economics literature recognises that “*predatory pricing should not be mechanically assessed on the basis of price/cost tests but requires an appreciation of the strategic context in which the pricing behaviour takes place.*”⁸⁵ Such a case-specific analysis occurs under competition law but is precluded by the blanket prohibition created by ex-ante margin squeeze tests.
195. We also note that Ofcom in the UK recognises that a margin squeeze obligation is not required where there is cost-based wholesale price regulation and that cost-based wholesale price regulation of a 40 Mbps service would also warrant the removal of the margin squeeze obligation in relation to higher bandwidth services. In particular, Ofcom states:

Our proposed control on Openreach’s 40/10 service means that telecoms providers will have access to a cost-based wholesale SFBB service, and in respect of these services the risks of margin squeeze are likely to be low. Moreover, the protection provided by the charge control of the important 40/10 service reduces competition concerns in respect of SFBB services overall... we believe the 40/10 service to be a fairly strong substitute for other fibre-based services, and, as noted above, BT’s downstream competitors primarily rely on the 40/10 and lower bandwidth products. This significantly mitigates concerns about margin squeeze.

In our judgement, given the importance of the 40/10 VULA service and the substitutability of SFBB services, the imposition of a charge control on the 40/10 service for the period starting in 2018/19 would provide considerable protection against the distortion of competition and would be sufficient to protect retail competition.

We therefore consider that the detailed compliance arrangements that we introduced in the 2014 FAMR to guard against a margin squeeze on VULA services are no longer appropriate and we propose to discontinue these arrangements. ⁸⁶

196. Given that ComReg is proposing retaining cost-based regulation of copper access services and now extending cost-based regulation to FTTC-based access services, we believe that margin squeeze obligations should not also be imposed on these services. There is little risk of an anti-competitive margin squeeze given the cap on wholesale prices while the obligations risk distorting and restricting efficient price competition. Further, as noted by Ofcom, if cost-based regulation is applied to FTTC

⁸⁵ O’Donoghue, R. and J. Padilla, The Law and Economics of Article 102 TFEU, p.203.

⁸⁶ Ofcom (2017) *Wholesale Local Access Market Review – Volume 1*, para 8.46-8.48, p. 140.

services then there would also be a case to remove the margin squeeze obligation on FTTH services.

7.2 Comments on the technical design of the margin squeeze tests

197. As noted in the previous section, there is no compelling economic justification for the set of margin squeeze tests proposed. However, if the tests are implemented, we believe that the proposed design of the tests would bring additional problems.
198. ComReg proposes to apply margin squeeze tests which require assumptions regarding the parameters for the operator cost base, appropriate cost standard, operator market share and portfolio basis or product-by-product analysis.
199. For the wholesale margin squeeze between FTTH based VUA in the WLA market and FTTH based bitstream in the WLA market, the wholesale margin squeeze end-to-end bitstream and bitstream in the WCA market as well as the retail margin squeeze for NGA and CGA bitstream services, ComReg proposes that the test should be (partly) based on:
 - The cost base of a 'Reasonably Efficient Operator' (REO), using a Similarly Efficient Operator (SEO) cost base as a proxy and an assumed 25% market share;
 - A 'LRAIC plus' cost standard (for wholesale markets) or ATC cost standard (for retail markets); and
 - A portfolio approach rather than a product-by-product approach.
200. Using the proposed parameters would lead to significant productive inefficiencies and/or higher prices for downstream customers as well as reduced investment incentives, all of which are inconsistent with ComReg's regulatory objectives.

7.2.1 A REO cost base leads to inefficiencies and has a negative impact on downstream customers

201. Requiring eir to set its prices so that they provide a margin to cover the costs of an REO with an assumed 25% market share requires that eir price higher than its own costs. REO standards can cause higher prices to consumers. It would only make sense for ComReg to impose such a requirement where it can be expected to lead to greater competition which results in significantly lower prices over time. However, competition is already well-established in the Irish broadband market with a number of large international players with distinct competitive advantages. For example, Virgin Media offers faster speeds than eir's FTTC network, Vodafone offers quad-play offers to its large mobile customer base and Sky has premium content. ComReg seems to believe that whichever market share assumption it

adopts will determine the future market structure. This ignores the multiple dimensions over which other operators compete with eir. With established competitors, an REO standard aimed at supporting inefficient entry does not make sense. Restricting eir's ability to compete with the other large players is unlikely to benefit consumers in the short or long run, while it risks distorting competition and investment.

202. Restricting eir's ability to compete so as to foster inefficient entry is also inconsistent with the European Commission's 2013 NGA Recommendation which is focused on "the need to maintain effective competition" particularly by ensuring "a level playing field".

7.2.2 The 'LRAIC plus' and ATC cost standards harm investment incentives

203. The LRAIC plus cost standard includes average variable and fixed costs that are directly attributable to the activity concerned over the long-run. On top of that it also includes a mark-up for joint and common costs. The ATC cost standard also includes variable, fixed, joint and common costs. It is based on historical cost data and does not include adjustments for efficiencies.
204. Given the existence of well-established competitors, we believe that any margin squeeze test should instead use of average avoidable costs. The use of average avoidable costs is sufficient to protect the existing competitors which have well-known brands and existing billing systems (including Virgin Media, Vodafone, BT and Sky). This would also recognise that competitive pricing can lead to prices that do not recover sunk costs such as in relation to brand, IT and billing systems and provide flexibility as to how common costs are recovered across services. It is also the case that with innovative bundles firms may misjudge demand leaving them to write-down some of their initial investments (i.e. sunk costs are not always recoverable in competitive markets). Average total costs would force eir (and eir alone) to seek to recover past investments even where they have proven unsuccessful. We note that European competition law establishes average avoidable costs as the standard cost measure to test for predatory pricing.⁸⁷ Pricing below average total cost is recognized as often being undertaken for legitimate commercial reasons and is only found to be anticompetitive when there is direct evidence that the pricing has been adopted with the intention of harming competitors.
205. Average avoidable costs would also provide greater pricing flexibility for eir and thereby engender greater price competition to the benefit of end customers. To instead require eir's pricing to recover a set proportion of its sunk costs and common costs in particular prices would put eir at a disadvantage relative to its established rivals.

⁸⁷ See Case T-340/03, France Telecom SA v Commission [2007] ECR II-107, para. 224.

- 206. The design of the MS tests seems to be aimed at promoting new competition in the market rather than safeguarding existing competition (see paragraph 10.38). However, this ignores the strong competitors already present in the markets. Moreover, ATC will be ineffective at supporting new entrants as they would still have to compete with other existing (and unregulated) competitors of eir. Using average total costs would not promote new entry but only limit eir's pricing flexibility causing inefficiencies and potential harm to retail customers.
- 207. One further key issue with the ATC cost standard is that it uses *historical* cost data. If ComReg aims to promote *future* entry into the market it does not seem useful to use historic costs which might differ from those incurred by a potential new entrant.
- 208. CEG recommends using average avoidable costs for all relevant margin squeeze tests. If ComReg decides to use incremental costs rather than avoidable costs, the LRAIC cost standard should be used, with a mark-up for common costs if applied only at the overall broadband portfolio level for which the common costs relate.

7.2.3 Any MS test should be applied to a portfolio of products in line with the nature of competition

- 209. There are a number of options regarding the level of aggregation for the margin squeeze tests. Margin squeeze tests can be conducted including all broadband products (CGA and NGA), the whole NGA portfolio, individual portfolios of NGA products or only single products offered by the SMP.
- 210. ComReg discussed the options of individual portfolios for each NGA/CGA market and single products. ComReg proposes to use the individual portfolio for all margin squeeze tests, leaving eir some pricing flexibility.
- 211. Applying the tests at a more aggregated level provides eir with greater pricing flexibility to meet competition by rivals and to efficiently recover common costs. As eir's rivals also offer a range of services rather than a single product, whether or not a narrower margin squeeze test is passed is irrelevant to protecting overall competition.
- 212. If ComReg keeps the LRAIC+ cost standard then the appropriate level of aggregation is the overall broadband portfolio as fixed indirect and common costs are recovered over the whole broadband portfolio.

7.2.4 Conclusion

- 213. For the reasons outlined above, CEG suggests the use of an equally efficient operator (EEO) cost base based on eir's actual market share and using an avoidable instead of incremental cost standard for all relevant margin squeeze tests.



7.2.5 Model errors

214. [Confidential].

215. [Confidential].

216. [Confidential].

8 The draft NGA cost models substantially underestimate FTTC access costs

217. As discussed in Section 4, we believe that cost-based regulation of FTTC is unwarranted. In this section, we discuss another serious issue with ComReg's proposals in that the costs of NGA services have been substantially underestimated. In particular, CEG has reviewed the draft NGA and NGN models developed for ComReg and identified a number of areas where we believe changes to be warranted in the modelling approach to remedy either apparent spreadsheet errors or to adopt more reasonable input parameters. Figure 6 shows that the aggregate impact of adopting a number of the model adjustments indicates that the draft models are likely to be substantially underestimating the costs of the FTTC access services. Correcting only for the changes shown would imply that the efficient costs of FTTC bitstream would be €[Confidential], i.e. €[Confidential] higher than the cost of €18.99 estimated by the model. In addition to the changes shown, we also have concerns over the treatment of bitstream and VUA traffic in the NGN model, the recovery of nationally averaged access costs and the economic depreciation approach that, if addressed, would further increase the estimated costs. Quantifying their precise impact would require more information or more extensive changes to the model.

Figure 6 - Cumulative impact of proposed model adjustments

[Confidential]

8.1 Issues with the NGA demand forecasts

218. Within the NGA model, eir's future broadband subscribers and the existing eir subscribers expected to be lost as a result of migration to rival operators are forecast on the *Broadband forecast* tab. These are forecast for each node in the network, and subscribers for CGA, FTTC, EVDSL and the rival platforms are capped at the level of eir's 2016 CGA plus NGA subscriptions. Thus, the only growth in subscribers in the model comes from new FTTH customers. These forecasts are then adopted as the NGN model's forecast of the number of Broadband lines per MDF on the *BB Forecasts* tab.
219. In this section, we set out a number of issues with the demand forecasts including:
- greater migration of subscribers to FTTH is likely, both from FTTC and EVDSL technologies to FTTH and that some of the CGA customers will migrate to FTTH rather than EVDSL and FTTC;

- we use the *Part of FTTH lines migrating from eir EVDSL and FTTC* parameters and set it to 30% to reflect this;
 - SIRO have stated that they plan to extend their network beyond the Phase 1 roll-out, with new nodes being built beyond 2017;
 - To ensure cost recovery for eir, it is necessary to estimate costs including the effect of SIRO's Phase 2 rollout starting in 2019 that deploys an additional 25 nodes in each year;
 - the draft model assumes that Virgin Media achieves an implausibly small share of the additional 200,000 homes and businesses it announced it will pass rather than achieving a similar share to that it has achieved in its existing areas.
220. Additionally, we believe that virtually all subscribers are likely to have to migrate off FTTC services to FTTH, 5G or other new technologies by 2035 and as such FTTC-specific costs will need to be recovered by 2035. This 2035 date is in line with the European Commission's forecast technology mix across Europe⁸⁸ and independent forecasts, such as that by Credit Suisse.⁸⁹
221. We find that the NGA model results increase from €18.99 to €[Confidential], as shown in Figure 7, if the model demand is updated with modelling errors corrected and the demand forecasts in the NGA model adjusted. Requiring the recovery of the DSLAM and EVDSL DSLAM assets by 2035 further increases the NGA model results to €[Confidential].

Figure 7 - Impact of updating NGA model demand forecasts

[Confidential]

8.1.1 Concerns regarding technology migration

222. In Paragraph 6.37 (e) of ComReg's consultation 17/26 it is stated that:

it is assumed in the NGA Cost Model that customer demand for these FTTH services will be from the existing current generation access ('CGA') broadband base or customers that do not currently subscribe to a fixed line broadband service.

223. However, the model is structured such that FTTC customers are the shortfall between the 2016 broadband line base and the forecast number of lines migrating to other technologies and platforms. As such, any reduction in CGA demand, on sites where FTTC or EVDSL is deployed, that is not compensated for with an increase in

⁸⁸ European Commission, *Staff Working Document Directive of the European Parliament and of the Council establishing the European Electronic Communications Code (Recast)*, 14 September 2016;

⁸⁹ Credit Suisse, *Building the gigabit society*, 7 September 2016

demand for rival operator platforms or the share of FTTH lines migrating from eir EVDSL and FTTC lines is absorbed into the FTTC and EVDSL lines.

224. This inadvertently acts to have all demand for FTTH subscribers on sites within the existing FTTC/EVDSL coverage area coming from customers that do not currently subscribe to an eir fixed line broadband service, while CGA customers migrate to FTTC, EVDSL or alternative platforms. Therefore in 2026, only [Confidential] of the [Confidential] FTTH subscribers, or less than [Confidential] %, are migrated CGA customers while none are migrated from FTTC/EVDSL services.
225. However, we would expect significant migration both from FTTC and EVDSL technologies to FTTH and that some of the CGA customers migrate to FTTH rather than EVDSL and FTTC:
- We assume that on sites with existing FTTC or EVDSL deployment where FTTH is to be rolled out a proportion of CGA customers migrate to these technologies while some would migrate to FTTH throughout the entire model, both before and after 2020;
 - Additionally, given the market expectation that FTTH will be the NGA technology of choice in the long run there is likely to be some additional migration of FTTC and EVDSL subscribers onto FTTH after 2020 at the sites where the technology is deployed.

8.1.1.1 *Errors in the model formulae*

226. If the *Part of FTTH lines migrating from eir EVDSL and FTTC* parameters are adjusted upwards to reflect our expectations of technology migration from CGA to FTTH it is apparent that the model formulae are not accurately feeding this adjustment through. For example, adjusting these parameters has no impact on the rival operator demand.
227. Adjusting the before-2020 parameter impacts both FTTC and EVDSL outputs while adjusting the after-2020 parameter only impacts FTTC. Counter-intuitively, as shown in Table 15, increasing the migration parameters in fact increases the subscribers on the FTTC network.

Table 15 - Impact of adjusting Part of FTTH lines migrating from eir EVDSL and FTTC parameters on 2026 eir demand

[Confidential]

228. There are modelling errors in the forecasts of FTTC from 2020 onwards:

[Confidential]

229. [Confidential]

230. As shown in Table 16, this results in a reduction in both EVDSL and FTTC subscribers reflecting the CGA migration onto FTTH rather than FTTC or EVDSL.

Table 16 - Impact of adjusting Part of FTTH lines migrating from eir EVDSL and FTTC parameters on 2026 eir demand in corrected NGA model

[Confidential]

8.1.1.2 Impact of adjusting model to reflect technology migration

231. Using the FTTH migration parameters in the corrected NGA model to show migration of CGA into FTTH on sites where FTTH services are deployed alongside FTTC or EVDSL reduces the growth in the eir subscriber base. Due to the linked nature of the demand forecasts in the NGA and NGN models, the NGN model inputs to the NGA model need to be recalculated.
232. This has an impact on the NGA model results. As shown in Figure 8, the model results rise from €18.99 with migration parameter set to 0% to €[Confidential] with these parameters set to 30%. The majority of this increase comes from VUA costs.

Figure 8 - Impact of adjusting Part of FTTH lines migrating from eir EVDSL and FTTC parameters on corrected NGA model results

[Confidential]

8.1.2 Concerns regarding platform migration

233. Limited documentation is provided on the draft models. We assume that the rival platforms in the NGA model are NBP, Rival Platform 1 (SIRO) and Rival platform 2 (Virgin Media). We assume that the model only considers subscribers to these networks that are migrated from eir's customer base. There are different approaches taken to forecasting the demand for these three platforms within the model:

[Confidential].

234. We have particular concerns that the draft model substantially underestimates the likely loss of customers to both SIRO and Virgin Media. This is even more concerning as eir is also at risk of losing customers to other rival networks such as Imagine.

8.1.2.1 SIRO

235. The draft model's estimated costs carry a significant risk of preventing cost recovery by eir by underestimating the extent of customers likely to be lost to SIRO over

time. SIRO is modelled as launching no new nodes beyond 2017 and having no additional new demand for their service from 2019. On any given node the roll-out profile is to be adopted by [Confidential] of customers in Y1, [Confidential] in Y2 and [Confidential] from Y3 onwards.

236. SIRO's roll-out is only modelled for [Confidential] nodes, significantly below the [Confidential] in the model and the [Confidential] for which the customers are detailed on the *Rival Platform 1 Cust. by site* tab. This acts to cap SIRO customers at [Confidential] from 2019.
237. [Confidential].
238. Given SIRO's public Phase 1 rollout plan is to reach 500,000 premises in 50 towns by the end of 2018⁹⁰, the [Confidential] demand appears low, suggesting only [Confidential] % take-up in its coverage area. SIRO has also announced that they plan in Phase 2 to connect a further 300 towns: "*We have plans for a second phase which covers over 300 smaller towns and we are shortlisted for the Government's National Broadband Plan, which aims to deliver high-speed access to all citizens by 2020*".⁹¹ Given that the model spreads cost recovery into the future based on forecast demand, it needs to reflect likely forecast demand to ensure that eir will be able to recover its costs. The model however ignores SIRO's Phase 2 rollout entirely.
239. If we assume that SIRO Phase 2 rolls out to an additional 300 nodes in line with its plan then a further [Confidential] customers could move onto the SIRO network. This would rely on SIRO rolling out at the nodes with highest demand in line with the information provided on the *Rival Platform 1 Cust. by site* tab.
240. We have tested the impact of such a Phase 2 rollout, commencing in 2018 after the completion of Phase 1, with the network deployment beginning on 50 sites in each year 2019-2024 and following the roll-out profile of [Confidential] as used in the draft NGA model. We have additionally tested a half-paced Phase 2 roll-out, with 150 nodes reached beyond the Phase 1 footprint at a rate of 25 per year.
241. This would change the demand for SIRO significantly, increasing from [Confidential] in 2025 to [Confidential] (or if at half-pace [Confidential]) as shown in Figure 9 below.

Figure 9 - Impact of including Phase 2 roll-out on SIRO demand

[Confidential]

242. Taking into account the likely Phase 2 deployment increases SIRO demand at the expense of eir CGA, FTTC and EVDSL subscriptions, as shown in Table 17.

⁹⁰ SIRO website; <http://siro.ie/more-about-siro/>

⁹¹ Siro chief executive, Seán Atkinson, reported in the Irish Times, 21 September 2016.

Table 17 - Impact of adjusting SIRO footprint on NGA model demand

[Confidential]

243. Increasing the modelled SIRO demand, and thus reducing the subscribers on the eir network has a significant impact on estimated costs. As shown in Figure 10, Local Loop and VUA costs rise increasing estimated bitstream costs from €18.99 to €[Confidential] with a half-paced Phase 2 roll-out to 150 additional nodes and to €[Confidential] with roll-out to 300 nodes.

Figure 10 - Impact of adjusting SIRO footprint on NGA model results

[Confidential]

8.1.2.2 Virgin Media

244. Virgin Media announced the extension of its cable network to an additional 200,000 homes and businesses.⁹² Under the assumption that Virgin Media gains a similar 50%⁹³ share in its expansion area as it has achieved in its existing area, there would be a loss of 100,000 lines from the eir base to Virgin Media as a result of its network expansion. We note that Ofcom has assumed a range of 30-50% (with a medium case of 40%) for the share of new homes passed that Virgin Media will connect for its expansion in the UK based on Virgin Media's own forecast.⁹⁴ ComReg could also seek Virgin Media's own forecast take-up for its network expansion in Ireland.
245. The draft NGA model assumes that on any site on which Virgin Media is planning to deploy, only [Confidential] % of eir's 2016 NGA base, or [Confidential] lines, will be lost to Virgin Media by 2027. As shown in Table 18, increasing this to [Confidential] % would result in the model migrating [Confidential] lines from the eir base to Virgin Media.

Table 18 - Impact of adjusting Virgin Media uptake in coverage area on NGA model demand

[Confidential]

- 246.

⁹² Independent.ie, *Virgin Media digs in for fibre battle as major network expansion beckons*, 26 May 2017

⁹³ Draft Decision, footnote 50.

⁹⁴ Ofcom, Wholesale local access consultation, April 2017, para. A10.52.

247. Increasing the modelled Virgin Media demand, and thus reducing the subscribers on the eir network has a significant impact on the model results. As shown in Figure 11, Local Loop and VUA costs rise resulting in model results rising from €18.99 to €[Confidential] with an increase from [Confidential] % to [Confidential] % of NGA lines on a site with Virgin Media deployment, or [Confidential] customers, moving to Virgin Media.

Figure 11 - Impact of adjusting Virgin Media demand on NGA model results

[Confidential]

8.1.3 FTTC specific costs should be modelled over a shorter period reflecting the likely lifespan of FTTC services

248. FTTC costs are modelled over 50 years. However, well before the end of this period, customers are likely to have migrated to faster technologies. The European Commission's *European Gigabit Society*⁹⁵ sets a target of "access for all European households to connectivity offering at least 100 Mbps" by 2025. FTTC services can only provide such high speeds to those customers within close proximity of the cabinet (~5%⁹⁶). The OECD describes FTTH as a future proof high speed network:

While OECD countries are at different stages of development, depending on inherited infrastructure, population density and so forth, they are all witnessing deeper deployment of fibre networks to the premises or in the "last mile", in part because the technology is widely regarded as being "future proof".⁹⁷

249. The European Commission's 2016 proposal for updating the communications code⁹⁸, forecasts technology mix across Europe. Their accelerated fibre scenario forecasts have FTTH rising from a 10% share of technologies in 2015 to a 55% share in 2025 "based on a relatively conservative scenario in terms of expected roll-out of fibre networks". This forecast can be trended forward an additional 5 years, assuming the growth rate in FTTH share of connections again falls by 30%⁹⁹, giving a forecast of FTTH making up 98% of connections in the EU by 2030, as shown in Figure 12.

⁹⁵ European Commission, *Connectivity for a European Gigabit Society*

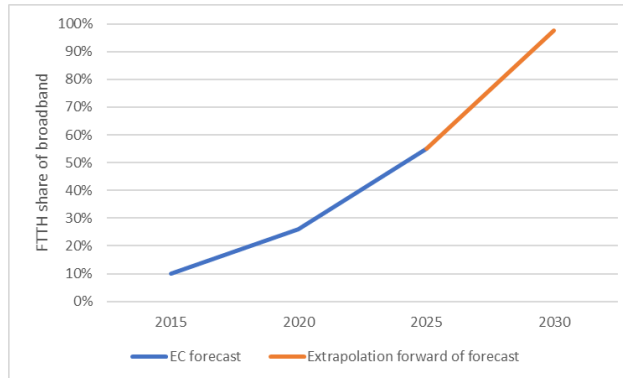
⁹⁶ Think Broadband, *Fibre Broadband Guide*

⁹⁷ OECD, *Development of High Speed Networks and the role of municipal networks*, 9 November 2015

⁹⁸ European Commission, *Staff Working Document Directive of the European Parliament and of the Council establishing the European Electronic Communications Code (Recast)*, 14 September 2016;

⁹⁹ FTTH share of broadband increases by 160% in the period 2015-2020, this 5-year growth rate falls to 112% in 2020-2025, a reduction of 30%; we forecast a further reduction in five-year growth rate of the FTTH share of broadband to 78% for the period 2025-2030

Figure 12 - Extrapolation of the European Commission's accelerated fibre scenario of technology mix



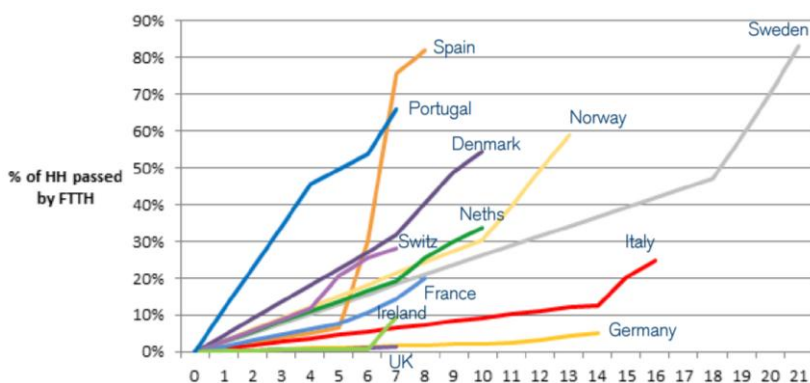
Source: CEG extrapolation of data from EC Staff Working Document on a Directive of the European Parliament and of the Council establishing the European Electronic Communications Code (Recast)

250. Ireland is somewhat behind the EU average in terms of current FTTH take-up. When comparing FTTH adoption in the eir network to the Europe-wide picture shown in the EC forecast, the NGA model has eir's FTTH subscribers making up 10% of their fibre base in 2018, three years behind the date at which the 10% take-up was achieved on average across the EU (2015). Taking into account this three-year delay between eir's FTTH and the average for Europe would suggest that only 2% of eir's customer base will remain on the FTTC and EVDSL networks in 2033. We recognise that as the deployment of FTTH increases there may be a greater slowdown in its adoption (albeit that we have already assumed a 30% fall in the growth rate across 5 years in projecting forward the EC forecast). We believe it is reasonable to assume that eir's subscribers will have moved off the FTTC network and onto FTTH by 2035. Such a migration forecast can be considered conservative as eir's modelled customer base does not contain the subscribers in rural areas covered by the National Broadband plan while the EC forecast is for all geotypes and includes these hardest to reach customers. In addition, there is uncertainty in the market when forecasting out that far due to potential development of other technologies (such as 5G deployment) and of rival networks.
251. ComReg needs to ensure that the costs associated with equipment used exclusively in the FTTC and EVDSL networks are recovered by the time customers have migrated away from these technologies. Given that certain assets in the FTTC cost base¹⁰⁰ have lifetimes of 40 years we would expect these costs to be recovered by 2035. We propose adjusting the economic depreciation of cost calculations for DSLAMs such that costs are not depreciated and recovered for the period 2013-2061, but rather for the reduced period 2013-2062. We have carried out the same adjustment for the recovery of the costs of EVDSL DSLAMs.

¹⁰⁰ Plinth, Council, ESB and Duct to existing cabinet.

252. A 2035 cut-off date for FTTC is in line with independent forecasts. Credit Suisse¹⁰¹ has reported that they expect FTTC to have a limited lifespan, before being replaced by FTTH. They predict that the BT and Deutsche Telecom FTTH deployments in the UK and Germany will take 15-20 years to complete. That would suggest full FTTH coverage in these countries between 2031 and 2036. As shown in Figure 13, Ireland's FTTH coverage at the date of the report was higher than that in either the UK or Germany, so we could expect FTTH deployment to be completed earlier (suggesting a 2035 date of eir's subscribers moving from FTTC to FTTH is conservative).

Figure 13 - Years taken to reach current FTTH coverage (September 2016)



Source: Credit Suisse Equity research

253. Reducing the recovery period also aligns with the view expressed by Openreach in their response to Ofcom's consultation on possible approaches to fibre cost modelling¹⁰²; that there is a risk of adopting

an approach to assessing cost recovery by reference to Economic depreciation charges based on implausible assumptions about the ability of the hypothetical operator to generate future value, way beyond the end of the market review period, from the VDSL2 assets in the face of growing demand for access speeds that cannot be delivered by that technology and increased competition from ultrafast technologies.

254. Ofcom modified their modelling approach to reflect cost recovery over a shorter time period:

that BT's actual GEA rental charge was below our estimated CCA unit cost for the period from 2010/11 to 2013/14, and above it from 2014/15 to

¹⁰¹ Credit Suisse, *Building the gigabit society*, 7 September 2016

¹⁰² Ofcom, *Wholesale Local Access Market Review Response to Ofcom consultation on possible approaches to fibre cost modelling*, 10 June 2016

*2019/20 – when access prices should start converging with costs due to our charge control.*¹⁰³

255. Adjusting the cost recovery period for the FTTC and EVDSL specific DSLAM assets to 2013-2035 increases the NGA model results to €[Confidential]. Applying this changed cost recovery period in the model in addition to our updated demand forecasts increases the NGA model outputs further, from €[Confidential] to €[Confidential] as shown in Figure 14.

Figure 14 - Impact of requiring the recovery of costs for the FTTC and EVDSL specific DSLAM assets by 2035

[Confidential]

8.2 Concerns regarding parameter assumptions in the NGN model

256. The NGN model provides both the *Inter-aggregation nodes link Cost + Exch to Agg link Cost* and the *WBA price floor* inputs for the NGA model. We have identified a number of concerns with the assumptions in the draft NGN model:

[Confidential].

8.2.1 The bitstream backhaul inputs calculated for the WBA price floors in the NGA model should be for a FTTC service

257. The NGN model has two purposes, both the generation of CGA costs for use in margin squeeze and the calculation of inputs to the NGA model. The NGA model inputs for backhaul bitstream are calculated in the *input for NGA model Nat Dynamic* and *input for NGA model Reg Dynamic* sheets.

258. In paragraph 8.4 of the ComReg consultation 17/26 it is stated that:

The cost of backhaul traffic for FTTC based bitstream has been derived in the core network module and used as an input to the proposed NGA cost model.

259. However, the NGN model calculations use CGA broadband costs to drive these inputs. [Confidential].

260. We believe this to be a model error and the calculations should be updated to make use of FTTC related inputs, [Confidential]

¹⁰³ Ofcom, *Wholesale Local Access Market Review – Annexes, A12.255*

261. As shown in Table 19 below for one set of the NGA model inputs affected by this, correcting the NGN model as set out above results in a significant increase in the NGN model costs flowing into the NGA model.

Table 19 - Impact of changing the drivers of the bitstream inputs to the NGA model for Footprint scenario 1 WBA floors National Handover without Agg nodes costs

		2017	2018	2019	2020	2021
Driven by CGA inputs	Fixed			[Confidential]		
	Variable FTTC					
Driven by FTTC inputs	Fixed					
	Variable FTTC					

Source: CEG calculations based on the NGN and NGA models developed for ComReg

262. Adopting these in the NGA model results in bitstream-specific costs more than doubling, rising from €[Confidential] to €[Confidential] as shown in Figure 15. This drives an increase in total NGA model outputs to €[Confidential].

Figure 15 - Impact of adjusting the drivers for the NGA bitstream backhaul inputs from the NGN model

[Confidential]

8.2.2 The NGN model Opex can be forecast more accurately on the basis of the trends for individual Opex components

263. In the NGN model Opex values for eight categories are taken from eir’s accounts for years [Confidential], with trends applied to forecast these out to [Confidential]. The trends used are calculated at an average level across the following three cost groups:

[Confidential]

264. However, the model contains the scope to forecast these at a more granular level, subdividing the cost groups into their component sub-categories of:

[Confidential]

265. As the individual components have specific trends, it is more accurate to project forward the individual trends rather than the average trend over recent years for the overall group of costs. Aggregating before forecasting carries risks of forecast Opex being either too high or too low as future aggregate Opex will reflect the changes in the individual components.

266. In the illustration shown in Table 20 for the two cost categories, A and B, we have three years of historic cost data and are forecasting for a further 2 years.

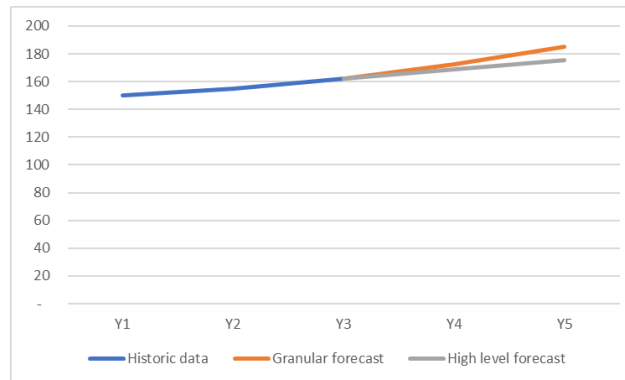
Table 20 - Illustration of the impact of forecasting at a high level rather than on a more granular basis

	CAGR (Y1-Y3)	Y1	Y2	Y3	Y4	Y5
A forecasts	-5%	100	95	90	86	81
B forecasts	20%	50	60	72	86	104
A forecasts + B forecasts (granular)	N/A	150	155	162	172	185
(A+B) forecasts (high level)	4%	150	155	162	169	176

Source: CEG calculations

267. Cost categories A and B grow at different rates and when forecast separately these give a cumulative cost greater than when aggregated prior to forecasting. As shown in Figure 16, this divergence increases the further the forecasts extend. Given that in the NGN model, opex is forecast for [Confidential] years ([Confidential]) it is important to consider it at the most granular level to accurately reflect the behaviour of individual cost sub-categories.

Figure 16 - Aggregate costs of A and B forecast using a granular and high level methodology



Source: CEG calculations

268. If the NGN model is changed to consider the granular opex trends, the modelled opex increases significantly in later model years. This in turn increases the Inter-aggregation nodes link Cost + Exch to Agg link Cost inputs to be included in the NGA model. As shown in Figure 17, this increases both VUA and Bitstream costs, with total model results rising from €18.99 to €[Confidential].

Figure 17 - Impact of moving to granular NGN Opex forecasts on NGA model results

[Confidential]

8.2.3 The NGN model should calculate inputs to the NGA model for an OAO model without Leased Lines

269. [Confidential].

270. [Confidential].

271. In paragraph 5.37 of the ComReg consultation 17/26 they state that:

In determining the appropriate cost for FTTC based Bitstream, we must ensure that it sets the appropriate incentives for OAOs to move to VUA. Therefore, we propose to adjust Eircom's BU-LRAIC+ costs specific to the Bitstream element of FTTC based Bitstream... to reflect the market share of a similarly efficient operator ('SEO'), as a proxy for a REO.

272. Modelling bitstream costs assuming that the OAO does not supply leased lines would avoid undermining the investments of OAOs with no or less extensive leased line businesses. It would also further encourage OAOs to rely on VUA more and deploy more of their own network elements. If the NGN model outputs for the updated NGA model are changed to reflect the exclusion of leased lines, then the model outputs rise from €18.99 to €[Confidential], as shown in Figure 18 below.

Figure 18 - NGA model outputs with different inputs from the NGN model

[Confidential]

8.2.4 The NGN model should continue to allocate the fixed share of capital costs in line with service revenues per user

273. The NGN model includes an option to switch between four alternative approaches to allocating the fixed share of capital costs:

- Based on service revenues;
- Based on service revenues per customer;
- Assigning an equal share of costs to each of the services; and
- Based on traffic.

274. While allocation based on traffic is the historical approach in Ireland, we believe that moving to allocating these costs in accordance with service revenues per user would better reflect the distribution of costs across services. We note that the

arbitrary 1/3 each approach would carry a high risk of costs not being recovered, in particular as voice revenues shrink the share of these costs assigned to the voice service will become less likely to be recoverable.

275. However, a current revenue based approach or even the revenue per user approach carries a risk that costs will be allocated to voice that are not able to be recovered as voice revenues shrink. ComReg will need to adjust their modelling to reflect this expected reduction in the importance of voice services, to allow costs to better reflect the traffic mix to ensure sustainability.
276. We also note that any alternative approaches based on incremental costs would risk perverse outcomes given the small size of incremental costs relative to fixed and common costs (i.e. a change in incremental costs that is small relative to total costs could lead to large changes in cost allocations between services). Difficulties in robustly estimating price elasticities are also likely to prevent the application of more economically 'pure' approaches aimed at maximising allocative efficiency.

8.2.5 The NGN model should be adjusted to reflect the share of NGA wholesale customers taking bitstream and VUA services and the impact of this on model traffic volumes and costs

277. Between February 2015 and April 2017, the share of eir's wholesale NGA connections that take bitstream has fallen from [Confidential] to [Confidential]. We would expect this migration to VUA services, and away from bitstream, to continue. Given that customers taking a VUA service self-provide backhaul (either by using their own network or purchasing backhaul from the range of suppliers that exist in the market), this migration significantly reduces the traffic on eir's core network. As a result, the model is likely to be assuming higher traffic volumes and lower unit costs than what eir will achieve. Adjustments to the model are needed to more accurately reflect open eir network demand. In particular, the NGN model continues to assume that all wholesale lines in the eir network are for the provision of a bitstream service. As only [Confidential] of these wholesale NGA lines are, as of April 2017, bitstream lines, the model requires adjustment to reflect that fact. Such an adjustment would increase unit costs.

8.3 Concerns regarding economic elements of the draft models

8.3.1 Additional WACC mark-up

278. As noted in Section 5 of our report, the application of cost-based price regulation to eir's FTTC investment at this time would deny eir a 'fair bet' on its investment. Cost-based regulation effectively caps returns so that the upper end of the distribution of possible returns is curtailed. Had ComReg announced that it will impose such

regulation in the future, an investment that would have been expected to deliver a return equal to the cost of capital (i.e. a probability weighted return) would have instead been expected to deliver returns less than the cost of capital.

279. As noted earlier, we believe that the strength of competition as well as the risks to investment caution against regulating FTTC access at cost. If, nonetheless, ComReg proceeds to impose cost-based regulation, ComReg can moderate (although not eliminate) the harm to investment by allowing a mark-up over the WACC.¹⁰⁴ A number of regulators have recognised that the risks of Next Generation investments warrant a mark-up over the WACC to ensure a 'fair bet' for investment. For example, Ofcom has stated:

An investment is a "fair bet" if, at the time of investment, expected return is equal to the cost of capital. This means that, in order to ensure that an investment is a fair bet, the firm should be allowed to enjoy some of the upside risk when demand turns out to be high (i.e. allow returns higher than the cost of capital) to balance the fact that the firm will earn returns below the cost of capital if demand turns out to be low. This issue is particularly important where there is significant uncertainty around demand (or other factors that affect returns), and so is particularly relevant to NGA.¹⁰⁵

One way of compensating for the asymmetry is to allow an upward adjustment to the regulated price to reflect the reduction in the expected returns due to the asymmetric treatment. Whilst this does not correct for the asymmetry it may be able to compensate for the asymmetric treatment such that the investor faces a 'fair bet' when undertaking the investment.¹⁰⁶

280. Ofcom decided to not regulate BT's FTTC services for the period it calculated would be sufficient to provide BT with a fair bet on its investments. Other regulators have decided to allow a mark-up over the WACC which moderates to some extent the harm to investment incentives.

¹⁰⁴ We note that this is different to allowing a higher WACC for any difference in systematic (non-diversifiable risk) between NGA investments and other investments.

¹⁰⁵ Ofcom, Wholesale broadband access charge control consultation, January 2011, paragraph A8.27.

¹⁰⁶ Ofcom, Regulatory challenges posed by next generation access networks, 23 November 2006, para. 4.52.

Table 21 - Additional mark-up over WACC allowed for FTTC networks

NRA	Mark-up over WACC
AGCOM, Italy (2015)	1.5% (FTTC)
BIPT, Belgium	1.5% (FTTC)
IRL, Luxembourg (2014)	2.5% (FTTC)

Source: Agcom, Il calcolo del Risk Premium per gli investimenti in reti NGA, FTTH e FTTC; and Frontier Economics, Input data and intermediate calculations report for ILR, March 2014.

281. OPTA in the Netherlands also recognised the need for a mark-up for asymmetric risk. The specific mark-up is relatively high reflecting the higher risks associated with FTTH investments relative to FTTC investments:

OPTA explicitly allows for asymmetrical regulatory risks in its approach to tariff regulation of unbundled fibre access. It does so by incorporating a fixed premium of 3,5% for regulatory risks in the all-risk WACC against which the IRR is periodically checked for excess profits. By incorporating this fixed premium for asymmetrical regulatory risks in the all-risk WACC, OPTA commits itself, ahead of the moment at which the investment decision is made, not to skim off positive results up to a certain level. Investors may assume they may hold on to the positive results from their investments up to a certain level.¹⁰⁷

282. We believe that capping the returns to risky investments such as FTTC will damage incentives for operators to make future investments in deploying new technologies with uncertain returns. Even if competitive constraints were not fully effective, the risk of deterring such investments should caution against price regulation being imposed before [Confidential], i.e. the period required to provide eir with a fair bet on its FTTC investment. If ComReg nonetheless proceeds to impose price regulation in 2018, then allowing a mark-up over the WACC would moderate the risk to investment. A mark-up of 1.5% would be in line with the mark-ups allowed by the Belgian and Italian regulators while being less than the mark-up determined by the regulator in Luxembourg.

¹⁰⁷ OPTA, *Regulation, risk and investment incentives – Regulatory policy note 06*, May 2010, p.31.

8.3.2 Recovery of national average costs

283. ComReg is required to ensure that regulated prices provide for a reasonable return on adequate capital employed.¹⁰⁸ In setting the price for SB-WLR, ComReg noted¹⁰⁹ that its national price would ensure:

that nationally Eircom does not over or under recover its actual incurred costs adjusted for efficiency plus a reasonable rate of return and prices remain geographically averaged.

284. In effect, the national SB-WLR price based on nationally averaged costs enables ComReg to help fund the provision of SB-WLR in higher cost rural areas through earning a margin in the SB-WLR price in urban areas over the cost of providing SB-WLR in urban areas.
285. However, ComReg is now proposing prices for FTTC and EVDSL WLA and WCA services based on the relatively low cost of urban sub-loops for FTTC and short loop lengths for EVDSL. This would mean that the margin that eir earns on a SB-WLR line in urban areas that is necessary for national cost recovery would be lost when that line is used for stand-alone VDSL VUA and POTS-based VDSL VUA. ComReg will need to remedy this flaw if eir is not to be denied the opportunity to recover its legitimate costs.
286. While this review is associated with the setting of prices for NGA FTTC and EVDSL services, there is a certain amount of overlap between the network costs associated with these and those for the copper access network. In particular, these NGA services make use of civil infrastructure also used for copper service, including D-side Copper and E-side Ducts, and thus the networks share common costs.
287. The ComReg Decision D03/16 set out the updated price control for PSTN wholesale line rental, recovering the costs of PSTN line card and the national average cost of the local access network infrastructure. The national average cost of the access network, of €14.54, was calculated as a weighted average across eir's 1148 exchanges, for which the actual costs range between €10 and €25 depending on the geotype in which they are located.
288. These costs were based on Eircom's TD costs and adjusted for efficiencies associated with the provision of SB-WLR nationally, a level that:
- achieves a balance of allowing Eircom to recover its national efficiency incurred costs while at the same time ensuring that there are appropriate investment incentives in urban areas.*¹¹⁰

¹⁰⁸ Access Directive, Article 13(1).

¹⁰⁹ ComReg, Wholesale Access Price consultation (1567), para. 6.151.

¹¹⁰ ComReg, *Consultation on Current Generation Wholesale Access Services*, 3 July 2015

289. In response to the reduction in regulated prices for WLR, from €18.02 to €15.91 eir rebalanced their VUA service tariffs, such that the common costs across the CGA and NGA networks continued to be recovered. As shown in Table 22, eir's adjustment of their NGA tariffs in September 2016 in response to the regulated reduction in the price for SB-WLR was such that it offset the reduction in revenues resulting from this.¹¹¹

Table 22 - Illustration of the tariff rebalancing carried out by eir

	October 16 Volumes	eir prices August 2016	eir prices September 2016	Revenues at August 2016 prices	Revenues at September 2016 prices	Revenue change
External CGA						[Confidential]
Stand-alone VUA						
POTS-based VUA						
Retail CGA						
Stand-alone retail FTTC						
POTS-based retail FTTC						
Total						

Source: CEG calculations based on customer data provided by eir and publicly available pricing information

290. As can be seen in Table 24 below, the costs chosen by eir, of €23.00 for stand-alone FTTC/EVDSL and €8.09 for POTS-based FTTC/EVDSL are roughly in line by those suggested by the ComReg NGA model if a consistent approach to these access network costs were to be adopted to that taken for WLR:

- €[Confidential] for POTS-based blended FTTC/EVDSL reflecting VUA costs of €[Confidential] net of [Confidential];
- €[Confidential] for stand-alone blended FTTC/EVDSL, [Confidential].

291. Comparing the revenues that would be achieved using eir's existing pricing regime and those suggested from adapting the NGA model as above we can see, in Table 23, that if eir's service volumes stabilise at their April 2017 volumes, revenues are stable, with only ~0.1% variation in the total regardless of the pricing approach selected. This suggests that eir's existing prices are in line with the modelled costs of

¹¹¹ We do not have access to network volumes for September 2016, the date of the price changes, however if considering the eir network volumes for October 2016, eir marginally increases their revenue. However, if we instead use the April 2016 Volume data provided to us by Eir we find that the revenue change is a net loss of [Confidential].

service provision when access network costs are aligned with those calculated for Do3/16.

Table 23 - Impact of adoption of prices suggested by the NGA model on eir's revenues

	April 17 Volumes	Model price	eir price	Revenues at model price	Revenues at eir price	Difference between model and eir price revenues
Stand-alone VUA				[Confidential]		
POTS-based VUA						
Stand-alone retail FTTC						
POTS-based retail FTTC						
Total						

Source: CEG calculations based on customer data provided by eir, publicly available pricing information and the NGN and NGA models developed for ComReg

292. However, the approach taken in the NGA model prices wholesale VDSL access using an allocation of access network costs well below that used in the WLR pricing calculations. These are based not on a national average of access network costs, but rather on an average over lines with sub-loop lengths of less than 2.5km and LLU lines within the LEA.
293. ComReg's document 17/26 in fact proposed that for the year 01/07/2016 to 30/06/2017 prices for VUA services are set at:
- €4.96 for POTS-based FTTC NGA service;
 - €16.50 for stand-alone FTTC based VUA.
294. While costs in the areas for which the access costs are calculated in the NGA modelling will be fully recovered, the access network costs outside this area are both higher than NGA model costs and the national average costs used for SB-WLR. This move away from calculating these based on nationally averaged costs means that the nationally average costs used for the remaining SB-WLR services will be below the level required for cost recover purposes.
295. We have compared the revenues that would be achieved using the costs we have derived using the NGA model with an approach to access network costs consistent to that taken for WLR and those in ComReg 17/26. As shown in Table 24, if eir's service volumes stabilise at their April 2017 volumes, moving to the ComReg proposed costs results in a significant amount of stranded revenue. In fact, revenues under these updated prices would fall by close to [Confidential], [Confidential] of

total revenues if the costs that are consistent with the WLR approach are maintained.

Table 24 - Impact of adoption of prices in ComReg 17/26 on eir's revenues

	April 17 Volumes	17/26 price	model price	Revenues at 17/26 price	Revenues at model price	Difference between model and eir price revenues
Stand-alone VUA				[Confidential]		
POTS-based VUA						
Stand-alone retail FTTC						
POTS-based retail FTTC						
Total						

Source: CEG calculations based on customer data provided by eir, publicly available pricing information and the NGN and NGA models developed for ComReg

296. If the volumes are updated to reflect eir's business plan for FY17/18, rising to [Confidential] FTTC subscribers across both retail and VUA, this revenue reduction rises to €[Confidential].
297. If ComReg is to allow eir to fully recover these common access costs, this will have to be absorbed into the costs borne by the PSTN subscribers with no FTTC on the same path. We have approximated these as the residual subscribers when FTTC and stand-alone CGA subscribers are netted off the total number of access paths. As shown in Table 25, in order to recover the access costs, the wholesale PSTN price would be required to rise by between €[Confidential] -€[Confidential] above the levels set in DO3/16.

Table 25 - Required rise in PSTN prices to absorb stranded revenue resulting from the

	PSTN Volumes	Stranded revenue	Required increase in monthly PSTN prices
Actual April 17 volumes		[Confidential]	
FY17/18 business plan volumes			

Source: CEG calculations based on customer data provided by eir, publicly available pricing information and the NGN and NGA models developed for ComReg

298. However, as it stands, the SB-WLR pricing mechanism does not allow for an increase in prices to reflect the higher cost of the access service not considered in

the NGA modelling. Therefore, this is likely to result in eir being unable to recover their costs.

8.3.3 Depreciation approach

299. CEG has previously raised concerns with the depreciation approach adopted in the NGA and NGN models. The depreciation approach in the model will not ensure cost recovery if maintained over several regulatory reviews, i.e. if the same approach is applied with parameter values based on the forward-looking costs and subscriber numbers at the time of the future regulatory reviews. Instead the draft model's approach risks leading to an under- or over-recovery of the cost of particular assets depending on their price trends and the regulatory price setting periods. In particular, for some assets, the depreciation approach pushes cost recovery into the future so that relatively fewer costs are recovered in the current period. Assuming that the price trends continue in the future, if this approach is applied again in the next regulatory review period then cost recovery will again be pushed into the future and the present value of revenues will never fully recover the present value of costs. Conversely, the costs of other assets will be over-recovered.

300. ComReg has responded to CEG's concerns noting that: (i) in the current draft model economic depreciation is implemented over a 50-year period with the aim to achieve stable pricing; and (ii) the euro amount of the depreciation cost to be recovered for each asset will be held constant over this period without being re-assessed in future regulatory reviews.

301. We do not find it plausible that ComReg is able to commit to ensuring that eir is able to recover the same depreciation amount from the services for a 50-year period. As costs and subscriber numbers change, the parameters underlying the current depreciation calculation are likely to diverge increasingly from the actual market data. Indeed, it is highly likely that eir's FTTC services will cease being used well before the end of the 50-year period as faster technologies are implemented and rival networks are rolled out. Ofcom has recognised this point:

In particular, the use of economic depreciation entails forecasting costs over a long time period (in this case 40 years). As highlighted in Annex 6, we have made a number of assumptions as to the impact of our DPA [ducts and poles access] policy and Virgin's Project Lightning on the modelled network's volumes. We recognize there is considerable uncertainty around these parameters, particularly as we go further out into a 40-year forecast period. Given the sensitivity of the model outputs to service volumes (see Annex 14), we would expect such uncertainty to affect the reliability of the results of economic depreciation.¹¹²

302. ComReg will face an increasingly dilemma between:

¹¹² Ofcom, Wholesale local access market review, para. A12.220

- needing to maintain the current depreciation calculation to ensure that cost recovery that has been pushed into the later part of the 50-year modelling period actually takes place; and
- needing to update the depreciation calculation to align cost recovery with actual costs and subscribers at the time of future regulatory reviews.

303. Ofcom reviewed its initial proposal to model FTTC costs over a 40-year period and now proposes that costs be modelled over 20 years from the launch of BT's FTTC network in 2008/09. We recommend that ComReg should also revisit its approach and apply a NPV-neutral approach over a modelling period that is no greater than 20 years. A shorter modelling period will better ensure cost-recovery and enable a better alignment of depreciation with costs in future regulatory periods. 20 years is also a much more reasonable timeframe to be confident the services will continue to be in use compared with the current 50-year modelling period.

8.3.4 Common and indirect costs

304. ComReg's has derived annual common costs for the NGA model from analysis of eir's 2015/16 regulated accounts¹¹³. These costs, €[Confidential], are expected to be incurred in each year of the 50-year model period 2013-2062. These costs are amortised over the *Total Yearly NGA subs* in the model, which comprise FTTC, EVDSL and FTTH subscribers. We have concerns that this approach risks under recovery of eir's common costs.

305. As noted in Section 8.1 there are a number of issues with the demand forecasts in the NGA model. This has the effect of making the cost per line value used for common costs uncertain. As a result of modelling errors relating to forecast demand, the number of NGA network subscribers are likely to be an over-estimate of actual future demand and thus we would expect the unit costs of these common and indirect costs to be higher. If eir does not achieve the volumes forecast in the NGA model it will be unable to recover an appropriate share of common costs for NGA. The impact of moving to more realistic demand forecasts leads to an increase in the modelled indirect and common costs associated with VUA services output (from €[Confidential] to €[Confidential]). This has a material impacts on the overall modelled costs for VUA over FTTC (it is included in the cost rise to €[Confidential] as shown in Figure 7).

306. The concerns we have identified regarding the depreciation approach used in the NGA model have impacts on the modelled indirect and common costs. Costs are only recovered over the full fifty-year term of the model, with the majority of this cost recovery occurring in the years after the end of this price control period (less than [Confidential] % of the common costs are recovered over the period of the price control – 2018-2020).

¹¹³ Sourced in the model as WBA Opex 2016

307. As shown in Figure 19, only [Confidential] % of costs can be recovered across the three regulatory periods to 2026. The majority of common costs remain to be recovered after 2026, in a period where ComReg has noted that the level of uncertainty of demand is higher and thus there is significant risk these will remain unrecovered, especially in light of our concerns over the model demand forecasts and our expectation that NGA subscribers will have migrated away from the FTTC network by 2035. Hence under ComReg's approach common costs are unlikely to be recovered. ComReg's modelling approach should be adjusted to allow a greater proportion of common costs to be recovered earlier in the modelling period when there is more demand certainty. Such an adjustment would have the impact of increasing the modelled NGA costs.

Figure 19 - Share of NGA common and indirect costs recovered in model periods

[Confidential]

308. Additionally, common costs have been modelled with no adjustment to reflect inflation. For a zero growth rate in common costs, eir would have to achieve efficiency gains that offset inflation¹¹⁴. If eir's common costs were to rise from FY2016 levels at an annual rate of 0.7%, to reflect CPI in March 2017¹¹⁵, they would have risen to €[Confidential] in 2026 and €[Confidential] in 2052, increases of [Confidential] respectively that would need to be offset by efficiency gains. It is unreasonable to expect eir to achieve such gains and a growth rate should be applied to common costs to account for inflation. If common costs were to rise at 0.7% in line with CPI, indirect and common costs associated with VUA services would rise from €1.48 to €[Confidential], driving an increase in total NGA model outputs to €[Confidential] as shown in Figure 20.

Figure 20 - Impact of adjusting growth rate of NGA model common and indirect costs

[Confidential]

309. Adjusting the model to accurately reflect common costs and ensure their recovery would increase modelled costs and the NGA model outputs.

¹¹⁴ We note that in Ofcom's WLA market review they apply forecasting assumptions to their base year common costs as "*a weighted average annual efficiency rate and price inflation*"; Ofcom Wholesale local access market review Annex 11; paragraph A11.4

¹¹⁵ Central Statistics Office (CSO). Change in consumer prices between March 2016 and March 2017.

Brian Williamson

**Supporting fibre rollout and infrastructure competition in
Ireland via continued pricing flexibility**

June 2017

Disclaimer

This is an independent report funded by eir. The opinions offered herein are those of the author. They do not necessarily represent the views of eir, nor do they represent a corporate opinion of Communications Chambers.

About the Author

Brian Williamson is a Partner at Communications Chambers. He has extensive policy, strategy and regulatory experience in relation to network access, internet applications and radio spectrum. His clients include governments, regulators, leading fixed and mobile telcos and global online and device businesses.

Contents

1. Executive summary.....	1
2. Context – ensuring connectivity needs are met in Ireland	4
The digital economy in Ireland is a success to date	4
The ICT sector has made a strong contribution to growth, though investment is relatively weak	4
Household broadband adoption compares favourably	5
Broadband platforms are diverse, competing & expanding	5
Broadband speeds compare favourably but lag leading nations	6
Conclusion	7
3. The ComReg rationale for pricing freedom, and price controls	8
ComReg rationale for moving to comprehensive price controls	8
The original ComReg rationale for pricing freedom	10
Conclusion	12
4. The impact of supply and demand side innovation	14
Supply side changes – innovation and competition	14
Demand side changes – mobile devices and wireless	15
Evidence in relation to bandwidth demand	17
Timeframe for analysis – beware of hubris	18
Conclusion	19
5. The value of service-price flexibility	20
Promoting investment and infrastructure competition	20
Supporting Ireland’s National Broadband Plan	27
Promoting fibre use, efficient mobile backhaul and copper retirement	28
Minimising the information burden & cost of “errors”	29
Conclusion	29
6. The value of predictability and commitment.....	30
7. Beyond dichotomy – introducing a wider set of options.....	32
Introducing a safeguard cap	32
Moving to a higher quality anchor product	32
Removing other controls if cost orientation is adopted for FTTC	34
Conclusion	34
8. The way forward	35

1. Executive summary

ComReg propose moving from wholesale pricing freedom for Fibre to the Cabinet (FTTC) to comprehensive price controls. Price floors and margin tests are also proposed for FTTC and fibre to the home (FTTH), with margin squeeze tests applying both between retail and wholesale prices and next generation and current generation access. Further, it is proposed that price differentiation should only reflect cost differences, which would preclude value based differentiation.

The shift in stance proposed by ComReg, from pricing freedom to comprehensive price controls for FTTC, is striking given the adoption of the European costing and non-discrimination recommendation – establishing a framework permitting pricing freedom – in September 2013; and the growth in infrastructure based competition in the Irish market. Less, rather than more, regulation appears appropriate.

Virgin continue to upgrade cable and expand coverage using fibre and coax, fibre entrant SIRO who started investing in 2015 and plan to initially reach 500,000 premises with FTTH, and the auction of 3.6 GHz spectrum in May 2017 has increased spectrum supply by 86%, supporting market entry and introduction of 5G “wireless fibre”.

In addition to growing infrastructure competition, regulated current generation copper based access also continues to exert a constraint on other services. Advances in compression are reducing the bandwidth required for a given level of video quality, which tends to narrow the service gap between current and next generation access.

Pricing freedom underpins the growth in infrastructure competition, and investment by eir. Pricing freedom has promoted a virtuous circle, consistent with Goal 13 of the April 2017 ComReg Strategy Statement that:

“Competitive incentives facilitate efficient commercial investment in infrastructure and services to the widest extent possible.”

Reducing FTTC pricing to the estimate ComReg have derived, assuming an implausible 50-year economic life for FTTC, would undermine these developments and, via the impact on the market price of FTTH, undermine achievement of the National Broadband Plan.

Restricting pricing freedom, service price differentiation and inter-service margins has additional adverse consequences beyond the

harm to investment, infrastructure competition and delivery of the National Broadband Plan. These include:

- Limiting scope to charge higher and lower prices for higher and lower service levels respectively, thereby limiting adoption.
- Via reduced fixed adoption an inefficient reduction in indoor Wi-Fi offload.
- Reduced scope to manage the transition to fibre, and ultimately copper retirement.

In addition to the suggestion that there is insufficient pricing constraint on FTTC, ComReg argue that uncertainty regarding the demand for FTTC has diminished to the point where it is possible – presumably with a degree of confidence – to set the price of FTTC.

However, whilst current demand is known, future demand remains uncertain, and longer-term uncertainty has arguably increased with the entry of SIRO into the market.

ComReg consider a time frame of 50 years for FTTC, which is very long given development of competing wireless and fibre platforms, and possible changes in longer-term demand which renders FTTC obsolete. The estimated cost reflective price for FTTC, in turn, depends on assumed demand over the entire 50-year time horizon.

Plausible future demand scenarios and/or a shorter assumed economic life for FTTC are likely to be consistent with a wide range of estimates of cost reflective unit prices. In contrast to a price fixed by regulation, the market can continuously adapt to competition and changing expectations regarding future technology and market developments. As ComReg noted in 2013:

“a pricing regime which is flexible and not overly intrusive is essential to mirror market-based incentive...”.

Whilst there are grounds for continuing to allow pricing freedom for FTTC, there are also a range of options short of a comprehensive price control that should be considered in coming to a view regarding a proportionate approach – if continued pricing flexibility were rejected. ComReg have not done this, instead treating the choice as dichotomous between a comprehensive price control and pricing freedom.

Further, the proposed shift to comprehensive price controls is also arguably inconsistent with the need for regulatory predictability (if pricing freedom was appropriate in 2013 then why not now, given increased infrastructure competition?). Further, a degree of

regulatory commitment not to expropriate the gains from innovation and investment is desirable, and arguably incompatible with a price control for FTTC based on an assumed asset life of 50 years. The need for regulatory commitment, and the benefits of market flexibility, can and should be squared.

A range of intermediate options exist, with the following discussed in this report: a safeguard nominal (CPI-CPI) price cap; a cost oriented price control, but only applied to a service tier below the full capability of FTTC (say at 30 Mbps); and an upgraded anchor product, say at 15 Mbps, based on the price of regulated current generation access.

In conclusion, the growing competitive constraint on FTTC coupled with ongoing demand uncertainty constitutes grounds for maintaining pricing freedom. However, if pricing freedom is no longer considered appropriate, an expanded set of options should be evaluated in deciding on a proportionate approach. In judging what is appropriate, the harmful consequences of a fixed price control – based on an uncertain estimate of costs and future demand - for investment, infrastructure competition and delivery of the National Broadband Plan should be key considerations.

2. Context – ensuring connectivity needs are met in Ireland

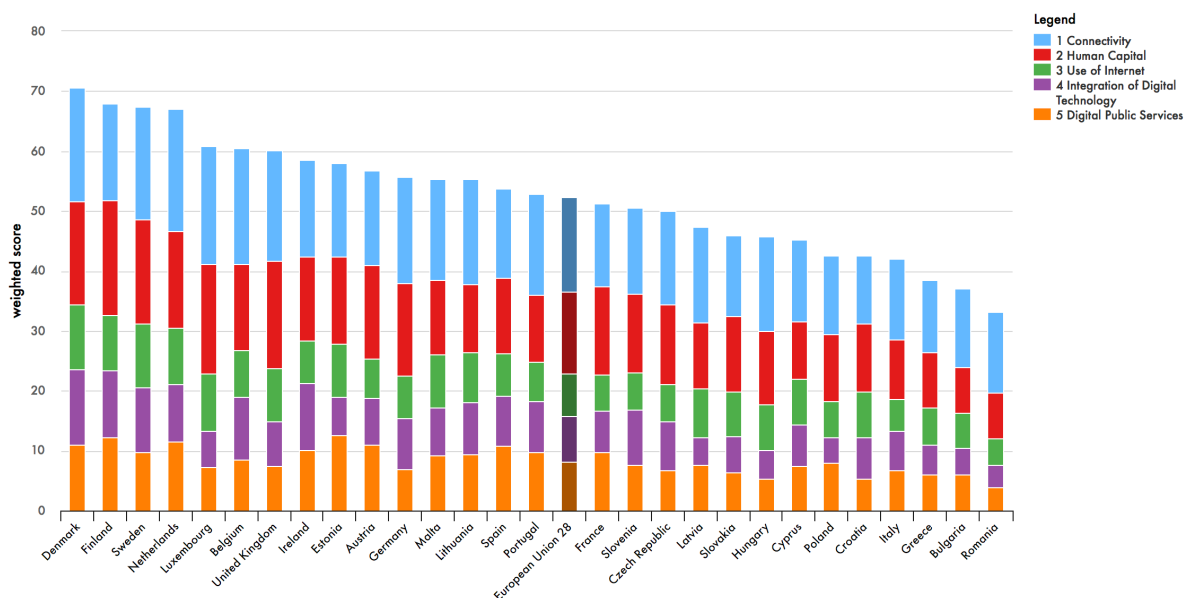
At one level a market review is a narrow technical exercise. It should, however, be seen in the wider context of the contribution of connectivity to society and the economy.

From this perspective connectivity investment, innovation and use; and infrastructure competition, which helps deliver all three, are priorities. This context section therefore sets the scene in terms of where Ireland has got to, and where it might go next, in terms of connectivity.

The digital economy in Ireland is a success to date

The digital economy in Ireland is a success story to date, and overall outcomes rank 8th on the European Digital Economy and Society Index (Figure 1).¹

Figure 1: Ireland ranks 8th on the Digital Economy and Society Index



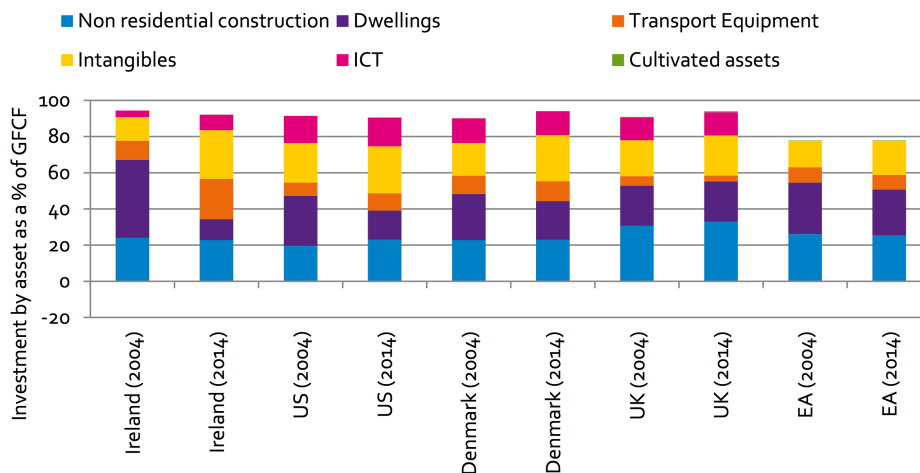
The ICT sector has made a strong contribution to growth, though investment is relatively weak

The ICT sector has made a strong contribution to growth in Ireland. However, whilst investment in the ICT sector has grown, it is still low as a share of overall investment in the economy relative to the US, UK and Denmark (see Figure 2).²

¹ European Commission, *Europe's Digital Progress Report 2017 – Ireland*.

² National Competitiveness Council, *Benchmarking Ireland's Productivity Performance – 2004-2014*, January 2017.

Figure 2: The ICT investment share has grown, but is roughly half that in the US



ICT investment is likely to be a key determinant of longer-term growth for Ireland, and policies which support investment should therefore be given priority.

Household broadband adoption compares favourably

Household broadband adoption lagged the European average up to 2013, but has now overtaken it with household adoption at 86% versus 83% for Europe.³ The proportion of adults who used the internet over the past three months was 82% in 2016, equal to the European average.⁴

Broadband platforms are diverse, competing & expanding

Broadband is provided over a diversity of platforms in Ireland. Cable covers 42.7% of households, around the EU average,⁵ whilst wireless is widespread and satellite close to universal.

Figure 3 shows broadband platform market shares. Next generation access adoption has grown strongly in recent years, with VDSL subscriptions now outnumbering ADSL subscriptions, having grown 33.9% in the year to Q1 2017.

In relation to mobile broadband, the statistics do not include smartphone only households. However, Eurobarometer

Figure 3: Broadband platforms shares⁶

Platform	Subscribers	Share
DSL	414473	24.1%
VDSL/FTTC	526026	30.6%
Cable	367653	21.4%
FTTP	12076	0.7%
Satellite	5218	0.3%
Fixed wireless	47452	2.8%
Mobile broadband	348820	20.3%
Total	1721718	100%

³ Eurostat, *Digital economy and society statistics - households and individuals*, 2017.

⁴ Eurostat, *Digital Economy and Society*, 2016.

⁵ EC, *Broadband coverage in Europe*, 2015.

⁶ ComReg, *Quarterly Key Data Report Data as of Q1 2017*, June 2017.

estimate that smartphone only households had grown to 11% of households by 2015⁷.

Some argue that smartphone only access is not functionally equivalent to broadband. However, smartphones offer functionality that a PC does not, including the diversity of applications and in-built sensors. Smartphones can also support other devices via Wi-Fi tethering. For many, they are superior, not inferior, to a PC. Smartphone data connectivity also continues to improve in terms of speed and data allowances.

The prospects for further growth in infrastructure competition and next generation access are good, with eir and SIRO investing in FTTH, and Virgin investing in footprint expansion, including FTTH in areas not covered by DOCSIS, and network upgrades.

SIRO's Phase One fibre investment, which started in early 2015, will see SIRO initially reaching 500,000 premises in 51 towns and is expected to be fully rolled-out by the end of 2018. eir committed in April 2017 to rolling out FTTH to 300,000 premises.⁸

Imagine Communications Ireland Ltd, currently the largest Wireless Internet Service Provider (WISP), obtained 60 MHz of spectrum in the 3.4-3.6 GHz auction which concluded in May 2017. Others have also acquired spectrum, and the development of competing service offers is anticipated, as ComReg Chairperson Gerry Fahy put it:⁹

“The outcome also produced new market entry with the potential for increased investment and innovation, thereby enhancing competition and customer outcomes”

The National Broadband Plan also envisages further extension of high speed broadband, likely to comprise FTTH, to an additional 542,000 premises.

Broadband speeds compare favourably but lag leading nations

Average broadband speeds in Ireland compare favorably with the EU-5, but lag those in leading nations. The average speed in Ireland, as measured by Akamai (an end-to-end measure including in-home constraints), was 15.6 Mbps in Q1 2017.¹⁰ This compares speeds in France 10.8 Mbps, Germany 15.3 Mbps, Italy 9.2 Mbps, Spain 15.5

⁷ Eurobarometer, *E-Communications and Telecom Single Market Household Survey*, 2016.

⁸ DCCA, *Naughten finalises the Broadband Intervention Map*, March 2017.

⁹ ComReg, *Five Winning Bidders in ComReg's 3.6 GHz Band Spectrum Award*, May 2017.

¹⁰ Akamai, Q1 2017, *State of the Internet – connectivity report*, Volume 10, Number 1.

Mbps and the UK 16.9 Mbps; and 23.5 Mbps for Norway which had the highest broadband speed in Europe.

Conclusion

Outcomes in Ireland in terms of the digital economy are strong. Whilst there are underserved areas in relation to broadband access, overall progress towards next generation access and in terms of average broadband speeds compare favourably, but are not exceptional.

Infrastructure competition is well developed and intensifying. The next phase, involving improvements in coverage under the National Broadband Plan and commercial FTTH deployment by SIRO and eir, will be challenging. Mobile network densification, particularly as 5G is deployed, will also require additional fibre investment.

The proposal to move from pricing freedom for FTTC to a comprehensive cost-oriented price control, if implemented, will intensify the challenge by lowering anticipated revenues for all investors.

The cost in terms of foregone infrastructure competition, innovation and investment - and ultimately foregone benefits to Irish Citizens and the Irish economy – is likely to be high.

This paper considers the rationale for the proposals, assessing them against the market context and economic benefits of pricing flexibility, and concludes that a move to a comprehensive cost based price control is unwarranted and would prove harmful.

Whilst the *status quo* is preferred, options other than comprehensive price controls exist. Setting up a choice between pricing freedom and comprehensive price controls is a false dichotomy.

The proposed approach should be re-appraised considering wider economic and social objectives for the Irish economy, market developments towards infrastructure competition and an assessment of the potential foregone benefits of pricing flexibility.

3. The ComReg rationale for pricing freedom, and price controls

ComReg rationale for moving to comprehensive price controls

Rationale

ComReg 17/26 of March 2017 gives the following reasons for moving to cost orientation:¹¹

“ComReg considered that recent price increases by Eircom for both standalone broadband services and for POTS based NGA services, ...indicates that pricing constraints in relation to Eircom’s retail and/or wholesale broadband prices, are of limited effectiveness and that existing price controls (i.e., margin squeeze obligation) need to be updated to reflect new circumstances. In particular, the constraint posed by copper based broadband is likely to have diminished as evidenced by the reduction in LLU volumes and the switch from copper to fibre based services in the NGA footprint. Cable alone cannot create a full retail constraint on Eircom’s NGA products at the national level but only in geographically limited areas. SIRO’s fibre to the building (‘FTTB’) coverage is likely to be very limited in the short to medium term. Therefore, alternative networks cannot generate competitive pressure across a sufficiently broad territory. In addition, prices are differentiated between networks. FTTB/H products are priced at a premium to FTTC products, which in turn are priced at a premium to CGA products. Therefore, price constraints between the different technologies are not sufficiently strong.” Paragraph 5.5.

“In addition, demand for FTTC based NGA services is now easier to forecast given the historic penetration data that is available since Eircom began deploying its fibre network in 2013. Therefore, it would be easier to determine forecasted costs and volumes associated with the provision of FTTC based NGA services.” Paragraph 5.6.

Comment

ComReg state that price increases for broadband services indicate that pricing constraints are of limited effectiveness. However, initially setting prices for a new service low and later raising them

¹¹ ComReg, [Pricing of wholesale services in the Wholesale Local Access \(WLA\) market and in the Wholesale Central Access \(WCA\) markets: Further specification of price control obligations in Market 3a \(WLA\) and Market 3b \(WCA\)](#), April 2017.

("penetration pricing") is a means of achieving word of mouth marketing and gaining momentum (Netflix, for example, increased its price in Ireland from an initial €7.99 to €9.99 in May 2016). Returns may also be front-loaded with irreversible investment under uncertainty and competition due to real options effects, as discussed by Ofcom.¹² Further, eir has been a price follower rather than leader, responding to price changes by Virgin, and to regulatory changes by ComReg which reduced the scope for common cost recovery from copper loops.

Another consideration, in judging whether prices are excessive, is whether demand is suppressed (demand reflects both quality and price, and is therefore arguably a better measure than price alone). Good progress relative to European peers, as discussed in Section 2, in terms of digital economy outcomes, overall internet use, broadband adoption and transition to higher speed services does not suggest that demand is suppressed in Ireland.

The argument that "alternative networks cannot generate competitive pressure across a sufficiently broad territory" is curious given that the geographic extent of competition from alternative networks, and their capability, has increased and is expected to increase further (and acts as a national constraint given that eir market broadband on a national basis).

Whilst adoption of high speed broadband has grown, the switch from copper to fibre based services is not *per se* evidence that the constraint of regulated current generation broadband on next generation services has diminished. A judgment regarding incremental willingness to pay for different bandwidths, and the likely response to an increase in price differentials, is instead required. Consideration of drivers of demand and willingness to pay, and evidence from other markets which could inform such a judgment, are considered in Section 4.

The claim that a price premium for higher bandwidth technologies and products indicates that price constraints between the different technologies are not sufficiently strong is entirely without foundation. A price gradient with speed is efficient and to be expected. Retail providers of SIRO fibre differentiate their offers by speed, differentials are observed in other broadband markets and in other markets including the air travel market. Service-price

¹² Ofcom, [Ofcom's approach to risk in the assessment of the cost of capital](#), August 2015. Annex to Section 9.

differentiation increases overall demand, and better aligns investor and customer interests. Finally, Ofcom have noted that:¹³

“... a premium for SFBB [superfast broadband] is consistent with a chain of substitution.”

The argument that it is now easier to forecast demand is of course correct in relation to current demand, but not necessarily future demand. Demand for FTTC could steadily grow, slow (if improvements in compression make ADSL an increasingly acceptable alternative) or reverse (if households migrate to cable, FTTH and 5G wireless instead of FTTC).

Demand, at least in the medium-term, remains uncertain; and given the entry of SIRO and recent developments in relation to 5G “wireless fibre” is arguably less predictable than it was in 2013 when ComReg decided to allow pricing freedom.

The original ComReg rationale for pricing freedom

Rationale

ComReg 17/26 of March 2017, which proposed cost orientation for FTTC, gave the following reasons for having previously allowed pricing freedom:

“In the 2013 NGA Decision ComReg considered that a cost orientation obligation was not appropriate given the then level of uncertainty associated with the rollout of FTTC, both in terms of costs and penetration levels. In addition, ComReg considered at that time that there was a sufficient degree of effective retail pricing constraints from cable and prospectively from LLU based retail and wholesale services (if the right regulatory protections were in place) to warrant a more flexible pricing approach.” Paragraph 5.3.

ComReg 13/11 of January 2013¹⁴ set out the following rationale for pricing freedom, subject to a margin squeeze test:

“In order to stimulate investment in NGA or at least ensure that there are no regulatory barriers to investment, sufficient flexibility is needed to provide scope to react to market demand, since demand and appropriate price points are uncertain at the early stages of market development. In particular, a pricing regime which is flexible and not overly

¹³ Ofcom, [Review of the wholesale broadband access markets - Statement on market definition, market power determinations and remedies](#), 26 June 2014, Paragraph 3.70.

¹⁴ ComReg, Next Generation Access (‘NGA’): [Remedies for Next Generation Access Markets](#), January 2013.

intrusive is essential to mirror market-based incentives, by allowing the incumbent to respond to observed prices and demand levels.” Paragraph 2.17.

ComReg 13/11 also pointed to the benefits of flexibility:

“a pricing regime which is flexible and not overly intrusive is essential to mirror market-based incentive...”.

ComReg 13/11 also noted that:

“Consistent with the principle of proportionality, which requires that the means used to attain a given end should be no more than what is appropriate and necessary to attain that end, ComReg has undertaken an incremental assessment of remedies (from the lightest to the most intrusive).” Paragraph 2.12.

Comment

Uncertainty regarding demand is identified as a rationale for pricing flexibility. Yet, over the very long – 50 year time horizon - used by ComReg to assess cost oriented pricing for FTTC, demand is likely to be as, or more uncertain, than it was in 2013. Indeed, demand for FTTC could ultimately fall to zero if demand for bandwidth grows and cable, FTTH and 5G fixed wireless are available as alternatives.

The broader rationale for pricing flexibility identified in 2013, namely “to mirror market-based incentive” remains valid, yet the proposals for cost orientation are not assessed relative to this broader rationale. Section 5 of this paper unpacks the value of pricing flexibly, broadening the basis for an assessment of alternative regulatory remedies.

Further, following the 2013 ComReg decision, the Commission adopted the pricing and non-discrimination recommendation that set criteria for allowing pricing freedom:

“In view of the benefits of pricing flexibility in these circumstances, under the recommended approach, wholesale access prices for passive NGA wholesale inputs or non-physical or virtual NGA wholesale inputs offering equivalent functionalities are deemed to be sufficiently constrained (i.e. price-related competition problems are considered to be effectively addressed) when: (i) there is a demonstrable retail price constraint resulting from the infrastructure competition or a price anchor stemming from cost oriented wholesale copper access prices, and (ii) the ex ante economic replicability test is in place in those cases

where wholesale price regulation should not be imposed, and (iii) there is an obligation of providing wholesale access services on the basis of EoI. In other words, where EoI is applied and NRAs consider that the above competitive safeguards are in place, they should not impose a regulated access price for those NGA wholesale inputs.” Paragraph 52.

“NRAs should ensure that the margin between the retail price of the SMP operator and the price of the NGA wholesale input covers the incremental downstream costs and a reasonable percentage of common costs. Where wholesale price regulation for NGA wholesale inputs should not be imposed on the SMP operator when additional safeguards are implemented in accordance with this Recommendation, a lack of economic replicability can be demonstrated by showing that the SMP operator’s own downstream retail arm could not trade profitably on the basis of the upstream price charged to its competitors by the upstream operating arm of the SMP operator (‘equally efficient operator’ (EEO) test). The use of the EEO standard enables NRAs to support the SMP operators’ investments in NGA networks and provides incentives for innovation in NGA-based services.” Paragraph 64.

The adoption of the September 2013 recommendation, alongside material and growing infrastructure competition in Ireland since 2013, provides a sound basis for allowing continued pricing freedom for FTTC, coupled with an economic replicability test based on the equally efficient operator standard.

Finally, in assessing alternative remedies, ComReg has not set out a range of options and undertaken an incremental assessment to identify a proportionate approach. Rather, the proposal to move to cost orientation is considered as a binary choice versus a continuation of the *status quo*. Additional options are considered in Section 7.

Conclusion

The case for moving from pricing freedom to cost orientation set out by ComReg is not supportive of such a precipitative shift in regulatory stance. The proposed shift in stance should be evaluated against two criteria, namely the degree of competitive constraint in the market and the incremental costs and benefits of different remedies.

Independent infrastructure competition has increased, and looks set to continue to increase with further expansion of competing cable

and fibre and the possibility of 5G fixed-wireless coupled with substantially greater spectrum availability. ADSL will continue to provide a constraint, and improvements in compression are reducing video bandwidth requirements (traffic growth *per se* does not necessitate a higher connection speed, if it relates to increased use rather than peak simultaneous use). The combined competitive constraint of ADSL and independent infrastructure may have strengthened, and has not obviously weakened.

Further, the full set of considerations for deciding the balance of costs and benefits of different remedies, including pricing freedom, remain valid. These include the 2013 rationale, namely “to mirror market-based incentive”, which was not evident in relation to the 2017 evaluation. Further, whilst the proposed costing and non-discrimination recommendation had been signaled at the time of the 2013 decision, its adoption in September 2013 strengthens the institutional basis for maintaining pricing freedom.

4. The impact of supply and demand side innovation

Following the decision to allow pricing freedom in 2013 several changes, and announcements in relation to anticipated changes, in supply and demand conditions have occurred. Some information is also comparatively recent, and was not available to inform the ComReg November 2016 draft wholesale market review decision (ComReg 16/96). Developments in supply and demand conditions point to:

- Increased scope for infrastructure competition.
- Ongoing uncertainty regarding demand for fixed broadband, and for FTTC.
- Compression of the willingness to pay bandwidth gradient.

Whilst supply and demand side developments are first considered separately below, the two interact. For example, a reduction in the required bandwidth for video may increase competition between lower and higher bandwidth access services.

Supply side changes – innovation and competition

Increased infrastructure competition was anticipated by ComReg in 2013, and announcements in relation to cable and fibre plans in Ireland have confirmed these expectations. Technology change is also opening new possibilities and lowering barriers to entry:

- Advances in the capability of cable (and telco copper) beyond what was previously anticipated, for example full duplex (symmetric) multi-gigabit-per-second cable DOCSIS technology.¹⁵
- Advances in 4G coverage, capacity and capability, coupled with the growing capability of smartphones and apps to perform many functions.
- The transition to 5G opens the possibility of “wireless fibre”, with Qualcomm announcing the XG50 5G modem¹⁶ and trials underway in the US and elsewhere.¹⁷ Fixed wireless access, rather than mobile, is the early use case for 5G.¹⁸

¹⁵ <http://www.cablelabs.com/full-duplex-docsis/>

¹⁶ <https://www.qualcomm.com/news/onq/2017/02/27/hype-reality-leading-way-global-5g-nr-trials-accelerate-5g>

¹⁷ AT&T, *AT&T Details 5G Evolution*, January 2017.

Verizon, *Verizon to deliver 5G service to pilot customers in 11 markets across U.S. by Mid 2017*, February 2017.

Verizon, *J.P. Morgan Global Technology, Media and Telecom Conference*, 22 May 2017.

¹⁸ Williamson, *Mobile first, fibre as required – the case for “fibre to 5G”*, January 2017.

- AT&T is trialing the use of powerline infrastructure as a waveguide for millimeter band radio (“AirGig”).¹⁹ This technology could provide backhaul for small cell fixed wireless to the home.
- Increases in capacity for geosynchronous satellite broadband, for example, with a doubling of capacity between ViaSat-1 and ViaSat-2 (which launched in June 2017), and an almost 10-fold increase in capacity between ViaSat-1 and ViaSat-3, which will offer total capacity of 1 Tbps.²⁰
- Low-earth-orbit, low-latency, satellite. This is more speculative, though SpaceX have submitted plans with the FCC for a constellation of 4,425 satellites to deliver high speed broadband and plans to launch the first test satellite in 2017.²¹ SpaceX has demonstrated re-use of a first stage rocket booster, which is expected to substantially lower launch costs.

Changes in wireless technology will be coupled with a substantial increase in spectrum available for mobile and fixed wireless access in Ireland, from 405 MHz post the 2012 multi-band award to 755 MHz following the 3.6 GHz award in May 2017, and 1145 MHz allowing for future 700 MHz, 1.4 GHz, 2.3 GHz and 2.6 GHz awards.²²

Demand side changes – mobile devices and wireless

On the demand side, the pivot to mobile devices and to over the top video services has made Wi-Fi the default form of indoor connectivity and led to more bandwidth efficient applications:

- The shift to Wi-Fi, rather than wired connectivity, indoors means that Wi-Fi, rather than broadband constraints, are growing in relative importance. A US study found that:²³ “...nearly 80% of the bottlenecks are in the wireless network when access throughput exceeds 20 Mbps.”; whilst UK fibre provider Gigaclear note in relation to speed tests that “Realistic WiFi performance is in the range 30-50Mbps and therefore we do not recommend speed tests via wireless.”²⁴

¹⁹ IEEE Technology Blog, [AT&T to Trial Highly Touted AirGig Technology for fronthaul/backhaul](#), May 2017.

²⁰ SpaceNews, [ViaSat plans massive ground network of smaller gateways for ViaSat-2 and ViaSat-3 satellites](#), May 2017.

²¹ The Verge, [SpaceX plans to launch first internet-providing satellites in 2019](#), May 2017.

²² ComReg, [Electronic Communications Strategy](#), 17/30, April 2017.

²³ Sundaresan, Feamster and Teixeira, [Home Network or Access Link? Locating Last-Mile Downstream Throughput Bottlenecks](#), March 2016.

²⁴ Gigaclear, [Verifying the speed of your new service](#). Accessed 16 May 2017.

- Growing consumption of video indoors on mobile devices, coupled with lower bandwidth requirements for small screen consumption, lowers bandwidth requirements.
- Improvements in compression including from H.264 to H.265 – which halves the requirement (with an H.265 successor under development which could halve the requirement again)²⁵; and to the open standard VP9 and its successor AV1.²⁶ These developments are expected to reduce requirements to a few hundred Kbps for mobile video, 1-2 Mbps for HD and under 10 Mbps for 4K. Compression is also under development for AR, VR and 3D graphics.^{27 28} Finally, advances in machine learning may support further reductions in file size, for a given quality of experience.²⁹
- Wider implementation of existing, but improved compression, as advances in computing and operating systems support new compression standards. Apple, at the World Wide Developer Conference 2017, announced implementation of H.265 compression with the forthcoming release of macOS “High Sierra” alongside High Efficiency Image File Format (HEIF) in iOS which will halve the size of photos.³⁰

Consumption on small screens and improved compression are driving down bandwidth requirements, thereby reducing the difference that higher speed access makes. Use of Wi-Fi also reduces the differences that superfast broadband makes, since Wi-Fi becomes the binding constraint at higher speeds.

On the other hand, the shift to higher quality video formats and increased simultaneous use within household drives up bandwidth demand, but these drivers have natural limits (in terms of the human ability to perceive quality differences and everyone simultaneously using video or other applications within a household). Further, increased overall data traffic does not necessarily require higher speed access, if it relates to more use of online (for example, watching more hours of Netflix), rather than higher peak bandwidth demand.

²⁵ The Register, [ITU-T wants video sizes to halve again by 2020](#), February 2017.

²⁶ Streaming Media, [Bitmovin Pushes AV1 Forward, Joins Alliance for Open Media](#), April 2017.

²⁷ Facebook, [Next-generation video encoding techniques for 360 video and VR](#), January 2016.

²⁸ Google Open Source Blog, [Introducing Draco: compression for 3D graphics](#), January 2017.

²⁹ Google blog, [Saving you bandwidth through machine learning](#), January 2017.

³⁰ Apple, [macOS High Sierra delivers advanced technologies for storage, video and graphics](#), 5 June 2017.

Apple, [iOS 11 brings powerful new features to iPhone and iPad this fall](#), 5 June 2017.

Evidence in relation to bandwidth demand

Whilst Ireland has seen a migration from ADSL to FTTC, it is difficult to infer much from this regarding incremental willingness to pay for higher speed, since VDSL service is not offered at a price premium over ADSL service.

In Australia, however, the price of fibre service (FTTH and FTTC) offered by NBN is differentiated by speed at the wholesale level and this differentiation is reflected at the retail level. The price premium of 50 Mbps over 25 Mbps is AUS\$10, as is the price premium of 25 Mbps over 12 Mbps.³²

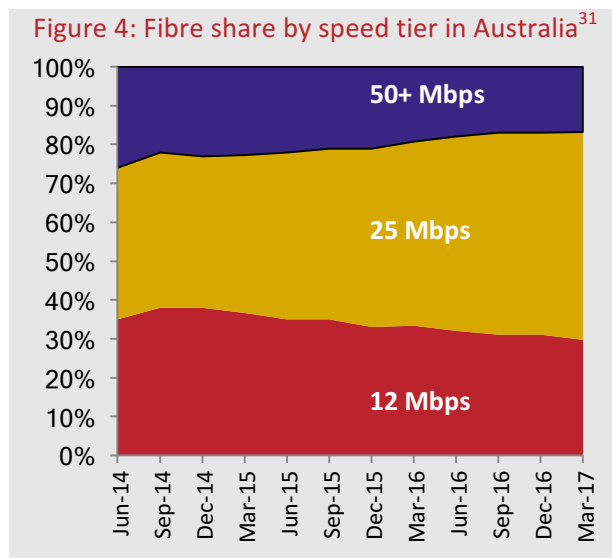


Figure 4 shows that the proportion of customers taking a speed of 25 Mbps or less has been growing, whilst the proportion of those taking more than 25 Mbps and 12 Mbps has been shrinking.³³ A declining proportion of people are willing to pay a AUS\$10 premium for 50+ Mbps, but a growing proportion are prepared to pay a AUS\$10 premium for 25 Mbps.

The decline in incremental willingness to pay for a 50+ Mbps service in Australia has occurred despite 26 unbroken years of GDP growth – a developed country record – since the last technical recession involving two quarters of negative growth i.e. it does not appear to be due to an income effect.

Further, in Denmark just 11% of FTTP customers take speeds of 100 Mbps or higher,³⁴ whilst in the UK the price premium of dual play super-fast broadband over standard broadband has declined over time.³⁵

Overall it appears that incremental willingness to pay for higher speeds may have declined rather than risen, and that there is very little incremental willingness to pay beyond around 25-50 Mbps. The price of lower speed services can therefore be expected to exert a strong constraint on the price of higher speed services.

³¹ ACMA, [NBN Wholesale Market Indicators Report](#), May 2017.

³² Based on retail prices from one provider: [V4 NBN Pricing and Product Information](#), [accessed 19 June 2017]

³³ Wholesale tiers include 12/1, 25/5, 25/10, 50/20 and 100/40 Mbps. The two 25 Mbps download packages, and 50 and 100 Mbps packages, are combined in the figure.

³⁴ Energistyrelsens, [Telestatistik - Første halvår 2016](#), 2016

³⁵ Ofcom, [Pricing trends for communications services in the UK](#), 2017. Figure 1.22.

Timeframe for analysis – beware of hubris

In the near-term, it is reasonable to anticipate that demand and incremental willingness to pay for ever higher speed access will be subject to diminishing returns (as compression improves and quality approaches the limits of human vision). In the near-term, it is also reasonable to assume a continued transition from current to next generation broadband, and that fixed access will maintain a sizable share of the access market.

However, over the longer-term, beyond a decade or so, all bets are off. Peak bandwidth demand growth may see a resurgence if AR and VR go mainstream, large screen video consumption at home sees a resurgence and compression hits diminishing returns. Alternatively, the shift to small screen devices and improving compression may see peak bandwidth requirements decline over the medium term, alongside increasing data consumption as more video is consumed.

On the supply side FTTC may rapidly give way to FTTH, or FTTH may turn out to be anything but “future proof” with 5G “wireless fibre” and low earth orbit satellite meeting demand at lower cost, and offering greater value by supporting mobility as well as broadband access indoors.

We really don’t know what supply and demand will look like 10 years from now, let alone several decades hence. Uncertainty grows, rather than diminishes, the further out one looks.

This is a reason, where at all possible, to forebear from choosing technologies and setting prices and margins. A market continuously adapts, whereas regulation imposes hard constraints (and whilst regulation is periodically reviewed, there is a tendency towards path dependence and lock-in since regulation itself is not a competitive endeavor, and what regulation crowds out is not observed).

Where one chooses to intervene, one should admit and take account of the underlying uncertainty. To do otherwise risks hubris, and consumer and economic harm.

To illustrate the risk, ComReg assume a 50-year time horizon in modelling FTTC costs and demand. Yet, let’s be honest, we really don’t know what, if any, role FTTC will play in the market beyond the next decade or so.

The EC 2013 costing and non-discrimination recommendation mentions the economic life of FTTC:

“When setting the economic life time of the assets in a modelled FTTC network NRAs should take into account the expected technological and network developments of the different network components.” Paragraph 41.

Conclusion

On the supply side, 5G fixed access may play a growing role alongside cable and FTTH (with FTTC expected to prove transitional in the Irish market). Ensuring an efficient transition from current generation access and FTTC to FTTH points to the need for pricing flexibility for fibre and for the margin between different services.

On the demand side, improved compression may reduce the capability gap between different platforms in the near term, thereby intensifying platform competition. Demand uncertainty would also be increased for a given platform.

In the longer-term, it is less clear what will happen in terms of supply and demand. Continued advances in compression will lower video requirements, whilst virtual, augmented and mixed reality may create new demands beyond 2020. On the supply side, 5G fixed wireless may come to play a prominent role, supported by a dense fibre network, but not requiring fibre to the premise.

5. The value of service-price flexibility

“[T]he communications sector is different to utilities. The communications sector is characterised by a continual evolution in technologies and service capabilities, matching changing consumer demand and differentiated willingness to pay for different features.” Ofcom, 2015³⁶

Given the dynamic nature of the telecoms sector the ability to offer a diversity of access services at different price points, and the ability to adapt and respond, has particular value (put simply, telecoms is not a utility). The value of flexibility should be considered when deciding whether, and how, to intervene; and in deciding what response is proportionate.

No only should intervention pass a competition test to see whether the market is sufficiently competitive (taking account of competition from regulated current generation access and other competing platforms), but the costs and benefits of different interventions in relation to FTTC should be assessed in deciding what approach is proportionate.

An assessment of the value of flexibility is an important input to such an evaluation, and the following elements of the value of flexibility are considered in this section before considering a range of regulatory options in the following section:³⁷

- Promoting investment and infrastructure competition.
- Supporting delivery of Ireland’s National Broadband Plan.
- Promoting fibre use, efficient mobile backhaul and copper retirement.
- Minimising the information burden and cost of “errors”.

Promoting investment and infrastructure competition

Investment is needed to deliver required connectivity; whilst investment by eir and competing cable, fibre and wireless providers strengthens infrastructure competition (itself a spur to further investment and lower prices). Such a virtuous circle is consistent with Goal 13 of the April 2017 ComReg Strategy Statement that:³⁸

³⁶ Ofcom. July 2015. “Strategic review of digital communications – Discussion document.” Paragraph 1.22. http://stakeholders.ofcom.org.uk/binaries/consultations/dcr_discussion/summary/digital-comms-review.pdf

³⁷ These considerations span the economic concepts of dynamic, allocative and productive efficiency.

³⁸ ComReg, *Electronic Communications Strategy Statement: 2017 – 2019*, April 2017.

“Competitive incentives facilitate efficient commercial investment in infrastructure and services to the widest extent possible.”

Yet, whilst in 2013 ComReg pointed to the benefit of pricing flexibility “a pricing regime which is flexible and not overly intrusive is essential to mirror market-based incentive...”; ComReg now argue that that price controls are preferable:

“A cost orientation obligation for FTTC based NGA services should also provide the appropriate investment signals to market participants...” Paragraph 5.6

The view in 2013 was the correct one, since pricing freedom, rather than a regulated price based on an uncertain estimate of unit costs, is needed to provide appropriate investment signals. There are a number of reasons for this:³⁹

- First, a price control is based on estimates of costs, demand asset lives and the cost of capital, which are uncertain and will almost inevitably prove wrong. There are sound reasons for thinking that demand risk will persist (see previous section), and favourable near-term FTTC adoption may presage a more rapid transition to FTTH or fixed wireless and a truncated asset life. The market can continuously anticipate and adapt to change in a way that a price control cannot.
- Second, it is likely to be optimal – from an investor and consumer perspective – to differentiate service levels and prices (in a manner that reflects value rather than cost differences) to better align investment decisions with customer willingness to pay, and to maximise adoption via lower speed lower price offers alongside higher speed higher price offers. A comprehensive price control may rule out such differentiation.
- Third, investment decisions should reflect value as well as cost. With pricing flexibility investment decisions can take account of the potential to charge more for improved service. Imposing a price control is likely to result in inefficient investment choices.

Non-cost based differentiation between current and next generation access may also be efficient where they share costs in common, or to foster transition and, ultimately, retirement of the legacy service. Imposing cost based margin constraints between different

³⁹ Brian Williamson, [Anchor Product Regulation - Retrospective and Prospective](#), October 2013

broadband services would therefore be expected to result in inefficiency.

The September 2013 European Commission recommendation on costing and non-discrimination noted benefits from pricing flexibility:⁴⁰

“...pricing flexibility at wholesale level is necessary to allow both the access seeker and the SMP operator’s retail business to introduce price differentiation on the retail broadband market in order to better address consumer preferences and foster penetration of very high-speed broadband services.” Paragraph 49.

The Commission recognised the benefits in terms of investment in terms of consumer preferences, and adoption (see Figures 5 and 6 below which illustrate why differentiation better aligns consumer and investor interests, and supports lower-speed entry products as the counterpart of higher-speed premium products).

Figure 5: Without differentiation

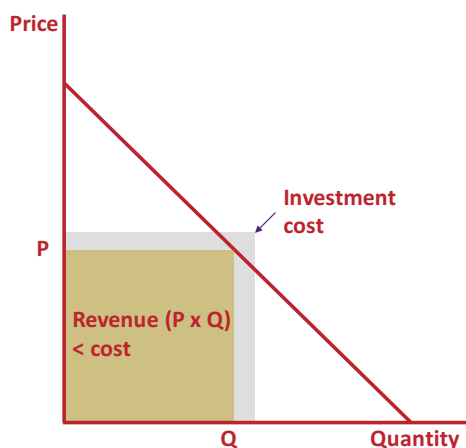
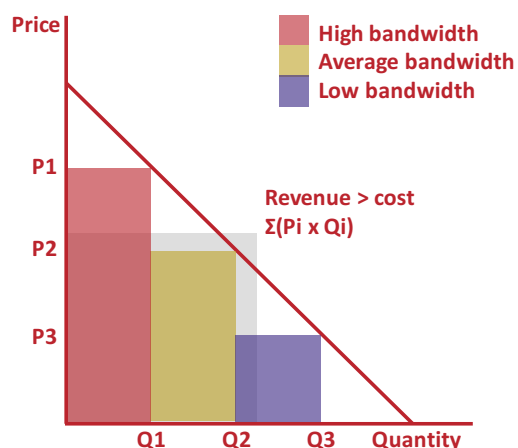


Figure 6: With service-price differentiation



The Commission also recognised that differentiation at the wholesale level is necessary to sustain retail differentiation (since, otherwise, retail arbitrage based on a single wholesale input will undermine speed differentiation at the retail level).

Prior to the EC recommendation, Ofcom first contemplated the anchor product approach and pricing flexibility in 2007, noting several rationales for pricing flexibility including flexibility to experiment, differentiation and investment:⁴¹

⁴⁰ [Commission recommendation on consistent non-discrimination obligations and costing methodologies to promote competition and enhance the broadband investment environment](#), September 2013.

⁴¹ Ofcom, [Future broadband - Policy approach to next generation access](#), September 2007. (A7.18)

“Anchor products provide a high degree of flexibility for investors in new access networks, allowing the option to secure higher returns for new or higher performance services. This flexibility also provides operators with an ability to experiment with service offerings and tailor them to end customer needs. Such price differentiation is also welfare enhancing. Price differentiation...could in turn allow investments to take place that would, with a single price, not be possible.”

In 2008 Ofcom further developed the rationale for pricing flexibility and an anchor product approach:⁴²

“We consider that of the options outlined, the anchor product pricing approach has significant advantages. Where feasible, [it] is likely to be the most efficient pricing approach for risky next generation access products. Its main advantages are:

- it provides incentives to invest by allowing higher returns on new products (likely to be higher speed broadband);
- it minimises the risk of detriment by ensuring that products equivalent to those available today are offered at equivalent prices;
- the ability to charge excessive prices is limited because the anchor product’s price constrains the prices of all other products offered;
- it allows flexibility in pricing, enabling investors to trial different price points and change price to maximise take-up; and
- it carries less regulatory cost and risk compared with the option where the regulator sets the absolute prices.”

An additional point noted by Ofcom is the reduction in regulatory cost and risk compared to price setting. In 2009 Ofcom announced its intention to allow pricing flexibility.⁴³ Simultaneous with the Ofcom announcement, BT announced its intention to invest in FTTP and FTTC. The policy approach was formally agreed in 2010. Virgin also subsequently proceeded in expanding their footprint in the UK utilising DOCSIS and FTTH.

Ofcom now propose moving to a cost-oriented anchor product set at 40 Mbps, with pricing freedom for other service levels (though the 40 Mbps specification is excessive since it corresponds to the most

⁴² Ofcom, *Delivering super-fast broadband in the UK*, 23 September 2008

⁴³ Ofcom, *Stimulus to super-fast broadband*, March 2009.

popular existing service tier rather than one sufficient to constitute a price on constraint on other services).

HSBC Global Research (April 2017) consider that the Ofcom proposal, if implemented, would harm investment:⁴⁴

“...would be highly counterproductive, as it would not only impact BT’s ability and incentive to invest, but would also we believe render a substantial portion of Virgin Media’s intended build programme uneconomic”.

The Financial Times, reporting on an increase in the value of TalkTalk shares, noted the HSBC analysis:⁴⁵

“Investment in faster services only invites further regulation so, rather than being incentivised to build their own networks, BT competitors will be better off reselling BT’s infrastructure, said HSBC. That makes TalkTalk “an obvious beneficiary”, it argued.”

Pricing flexibility, rather than a comprehensive price control, is required to support efficient investment and infrastructure competition. Further, in considering whether to move to cost orientation the various rationales for, and benefits of, pricing flexibility should all be given due weight.

The fair bet and adequate returns

Ofcom discuss the “fair bet” in a paper on assessing risk, and note that.⁴⁶

“An important point to note is that, when assessing cash flows on an ex post basis, it should be recognised that there may be a discrepancy between the cash flows that are realised on an ex post basis and those that were expected on an ex ante basis. High cash flows that are realised on an ex post basis may partly reflect a reward for ex ante uncertainty, and, if correctly applied, the NPV framework offers investors a “fair bet”, in which the rewards from successful investments within the portfolio are expected to be sufficient to pay for the losses associated with unsuccessful investments, and additionally to allow an adequate return overall across the diversified set of investments.”

⁴⁴ HSBC, Price controls = less investment, April 2017.

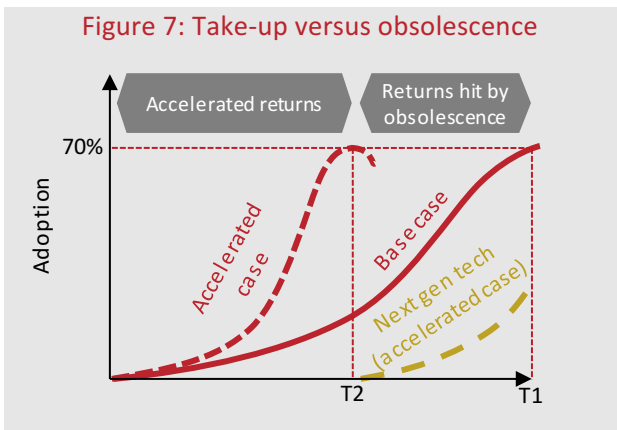
⁴⁵ Financial Times, [TalkTalk climbs on talk of price controls backfiring](#), 21 April 2017.

⁴⁶ Ofcom, [Ofcom’s approach to risk in the assessment of the cost of capital](#), August 2015. Paragraph 3.14.

We note that, in assessing the fair bet, regard should not only be had to investment risk relating to eir, who started investing in FTTC in 2011; but also to other investors. SIRO, who started Phase One of their FTTH investment plan in early 2015 and plan to initially reach 500,000 premises in 51 towns by the end of 2018.

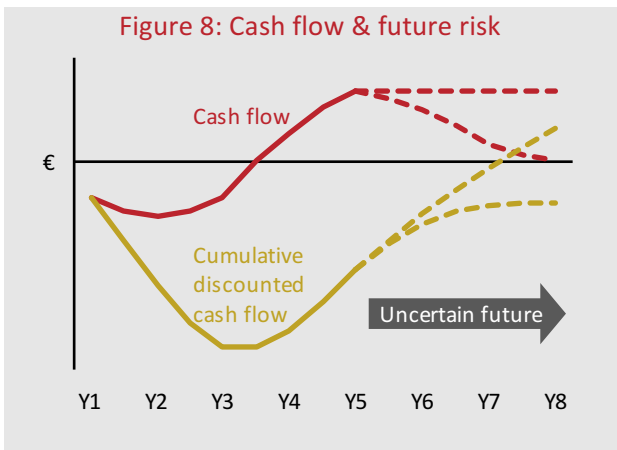
Even if it were concluded that eir had had a fair bet, which seems unlikely, SIRO could not possibly have had a fair bet within the current review period. This matters, as the price of FTTC will impact the price and share of FTTH.

If returns, including anticipated returns, are higher than a normal return consistent with the weighted average cost of capital, that of itself is not grounds for intervention to bring prices down. First, higher returns in a “good state of the world” may simply offset poor returns in an equally plausible “bad state of the world” (*ex ante*). Second, higher returns in the short-term - say due to more rapid adoption than anticipated – may presage poor returns in the future as bandwidth demand outstrips not only ADSL but also the capability of FTTC (as illustrated in Figure 7).



Accelerated obsolescence will feed into the overall returns of the investment, by reducing value in the outer years. This can mean that that an investment achieves positive cash-flow, but nonetheless fails to generate a positive net present value (Figure 8). Only with full hindsight will the full picture be clear.

An evaluation taking account of the fair bet could therefore either lead to a decision not to impose price controls on grounds that returns look reasonable given the *ex ante* risk at the time investment was made; or to a decision to apply a higher price cap than would otherwise be the case (for example, by taking account of the impact of faster adoption than anticipated for the asset life assumed for FTTC).



However, forbearance and a higher *ex ante* risk adjusted price cap nevertheless differ. The price cap, even if adjusted based on the best available information, will almost immediately be “wrong” as circumstances change. It is also likely to impede service-price

differentiation, which will result in lower overall adoption and weaker incentives for eir and others to invest.

Irreversible investment, uncertainty and real options

Investment decisions do not typically involve a binary choice at a point in time; but involve the option to wait, the option to expand or curtail investment whilst it proceeds and potentially the option to upgrade (for example introducing vectoring with FTTC).

With irreversibility and uncertainty – which apply to next generation access investment – these options have value and may change the “text book” decision rule to invest when the net present value is greater than zero. The hurdle rate for investment may be greater than the cost of capital, and price dynamics over time may be influenced by real option values.

Ofcom have considered real options, and note that they can impact price dynamics as follows:⁴⁷

“...under uncertainty, short-term prices are high enough for the successful outcomes to be sufficiently profitable for them to compensate the early investor for the unsuccessful outcomes, whilst investors that wait until uncertainty is resolved still make only normal profits – prices fall as uncertainty is eliminated.”

The complexity of the dynamics involved is itself a further reason to put weight on pricing freedom, real options are also a consideration in deciding whether prices are excessive and, if cost orientation is introduced, real options are relevant to the efficient time profile of regulated prices.

Information rents and efficient investment

To support efficient ongoing investment and investment choices, returns must not only be acceptable allowing for *ex ante* risk, but must be aligned with the value of alternative investment options. To align consumer and investor interests, not only should returns reflect value, but some surplus (referred to by economists as “information rent” - the additional return required to motivate efficient investment choices with information asymmetries⁴⁸) must be left with the investor.

Further, as investors are not simply making an invest/don't invest decision, but deciding on the technology, timing, pace and extent of investment; it is not simply a matter of offering just enough surplus

⁴⁷ Ofcom, *Ofcom's approach to risk in the assessment of the cost of capital*, August 2015. Annex to Section 9.

⁴⁸ Jean Tirole, *Market power and regulation*, October 2014.

to get them to invest. The payoff should be greatest for making the right decision, and pricing flexibility is the only way to incentivise this.⁴⁹

Price controls, even if sufficient to motivate investment, will not motivate efficient investment choices. Pricing flexibility has an inherent advantage in this regard.

Supporting Ireland's National Broadband Plan

One of the objectives of the National Broadband Plan is to deliver universal availability of broadband in Ireland capable of 30 Mbps downstream and 6 Mbps upstream. Doing so will require significant investment, and such investment is dependent on commercial returns and government support.

The ComReg proposals would undermine delivery of the National Broadband Plan (or necessitate increased government funding) since, by lowering the price of FTTC, ComReg would also lower the price and revenues expected by investors under the plan.

New Zealand – a lesson in what can go wrong

Experience in New Zealand illustrates the harm that can arise when regulation and national broadband objectives are pursued independently. Following the 2008 general election, the incoming Government promised a NZ\$1.5bn investment to bring fibre to the premise (FTTP) to 75% of New Zealanders by 2019.

Responsibility for fibre rested with the Government, not the regulator, with contract prices set out to 2020. Acting independently, and with responsibility for copper but not fibre, the regulator (the Commerce Commission) proposed a significant reduction in the price of copper in 2012, thereby undermining the fibre business case. In response, Prime Minister John Key:⁵⁰

“indicated the Government would change the law rather than see its ultra-fast broadband network compromised by a Commerce Commission decision.”

The decision threatened not only fibre plans, but New Zealand's reputation amongst international investors. It also undermined regulatory independence. In December 2015, the price of copper was

⁴⁹ Williamson, The regulation of next generation access networks and the draft Commission Recommendation, In [NEREC – Monitoring EU telecoms policy](#), 2009.

⁵⁰ Radio NZ, [PM not ruling out legislation over broadband](#), December 2012.

partially restored to the pre-review level. As Bronwyn Howell (2013) noted regarding experience in New Zealand:⁵¹

“It appears that the government’s “grand strategy” for a fibre network was implemented as if it was a stand-alone project independent of any need to co-ordinate the integration of either the network or the requisite regulatory framework governing it into the existing industry. Meanwhile, the custodians of the regulatory framework governing the pre-fibre industry appear to have failed to appreciate the revolutionary effect of the government’s strategy on their sector.”

Maintaining pricing freedom for FTTC would help ensure that similar problems do not arise in Ireland.

Promoting fibre use, efficient mobile backhaul and copper retirement

There is little point in building a high quality broadband access network in Ireland unless it is adopted and used. As discussed above, adoption can be promoted by pricing flexibility since flexibility allows experimentation and differentiation. The rivalry associated with infrastructure competition, promoted by pricing flexibility, also supports adoption.

Whilst pricing flexibility supports adoption, it also supports optimal use of fixed and mobile from a converged perspective. The reason for this is that mobile has high incremental per gigabyte costs and low fixed costs; whilst fibre has high fixed costs and very low incremental per gigabyte costs. To the extent that fixed access is made available, but not adopted and used, overall inefficiency can therefore arise since indoor mobile traffic must be carried by the mobile network rather than Wi-Fi and the fixed network.

From a converged perspective pricing flexibility, by increasing the likelihood that fixed is used for backhauling indoor mobile device traffic, therefore promotes overall efficiency across fixed and mobile infrastructure. Concern regarding indoor mobile coverage is also reduced if fixed and Wi-Fi is adopted (Wi-Fi calling was introduced by eir in May 2017).

Finally, pricing flexibility and service-price differentiation also support copper-fibre migration and, ultimately, copper retirement. Entry level transition products can be offered on fibre. To support

⁵¹ Bronwyn Howell, *Broadband Regulation and Government Investment in Nationwide UltraFast Fibre Broadband Networks: evidence from New Zealand*, September 2013.

efficient transition flexibility is not only required to differentiate fibre service prices, but also flexibility to lower prices for transitional services if required to support transition, and to reduce the margin between next and current generation access. The ComReg proposals, which include price floors and inter-service margin tests, are not compatible with these requirements.

Minimising the information burden & cost of “errors”

A benefit of maintaining the anchor product approach is that it reduces the information burden and cost of “errors”, since costs and demand do not need to be modelled to set a price or revenue cap, and since the market has greater scope to self-correct given competition and anticipated changes in technology and demand.

The reality is that in setting a price control, there is little prospect of getting it right. The costs of “errors” in setting different regulatory constraints should therefore be considered. No one has perfect foresight, and whilst a regulated firm may have information that the regulator lacks, both the regulator and the firm operate with imperfect information and in an uncertain world.

The likelihood of substantial error is compounded by the 50-year time horizon used by ComReg in modelling the costs of FTTC, a technology which is expected to prove transitional.

The market can correct errors much more quickly than regulation. The cost of persistent errors, and the cost involved in the expectation that such errors are likely to arise, is therefore a relevant consideration in deciding the extent to which prices should be fixed by regulation versus free to adjust.

Conclusion

Price flexibility, including scope for service-price differentiation on a value rather than cost reflective basis and flexibility regarding inter-service margins, offers a range of benefits. These benefits should be given appropriate weight in deciding what, if any, form of price control is required.

6. The value of predictability and commitment

ComReg rightly point to the desirability of predictability and stability. However, ensuring predictability and stability may appear difficult to reconcile with the previous sections' emphasis on the benefits of pricing flexibility.

The key to reconciling the desire for predictability and stability with the benefits of flexibility and change is to consider market governance and market conduct separately, and to distinguish predictability and stability from commitment.

A normal market, particularly one significantly impacted by technological and demand changes, is anything but stable (and may or may not prove predictable, depending on how much foresight different market participants have).

The benefit of flexibility regarding services and prices is that it allows the market to shape and adapt to changes, including through investment, in both technology and demand. For example, the development of the multi-touch smartphone involved substantial investment and risk, but generated substantial economic surplus with demand forthcoming at a substantially higher price point than existing phones.

It is difficult to imagine this innovation happening, had the mobile handset market been subject to "cost oriented" price controls. Telecoms is, of course, different – to the extent that access genuinely is a bottleneck and wholesale access regulation is justified. Nevertheless, the value of flexibility should be recognised and its scope maximised.

Predictability comes to play in relation to the conduct of regulation, since the regulator has considerable power – subject to statutory objectives and due process – to reallocate value. If regulatory discretion is unfettered, investors may be reluctant to invest, fearing that once investment is sunk access prices will be lowered.⁵² Access seekers must also make commitments, investing in complementary assets and in gaining market share.

Predictable regulation does not necessarily imply regulatory stability, since if the facts change it may be appropriate for regulation to

⁵² This concern does not indicate a lack of regard by the regulator for the public good, rather it recognises that socially optimal conduct over time may require a regulator to commit – to tie their hands – so as not to pursue near term gains. Kydland and Prescott, Rules rather than discretion, the inconsistency of optimal plans, *The Journal of Political Economy*, Volume 85(3), June 1977.

change. It also most certainly does not imply market stability: innovation may see new technology replace old technology; significant service and price changes; and, potentially, new market participants displacing existing market participants.

Regulatory predictability may be necessary, but is not sufficient, to support efficient investment. What is required is a commitment not to remove the gains from innovation and investment *ex post*. This is a hard problem, but one regulatory institutions should constantly seek to solve through their conduct over time and the signals they send to the market. A degree of commitment not to transfer the gains from innovation and investment wholly to competitors or consumers is required, if the optimal degree of innovation and investment is to be forthcoming.

The proposal to move to from pricing flexibility to comprehensive price controls for FTTC would forego the ongoing benefits of pricing freedom set out in the previous section. It is also arguably inconsistent with the need for predictability (if pricing freedom was appropriate in 2013 then why not now, given increased infrastructure competition?); and with a commitment not to expropriate the gains from innovation and investment, something a price control for FTTC based on an assumed asset life of 50 years would surely do.

The following section considers a range of options for squaring the requirement to check the prospect of abuse of market power with the benefits of market flexibility and regulatory commitment. A continuation of the *status quo* until the next review – pricing freedom – should remain amongst the options for re-evaluation.

7. Beyond dichotomy – introducing a wider set of options

Assessing the *status quo* versus a comprehensive cost-oriented price control represents a false dichotomy.

If – notwithstanding the evidence and pitfalls set out above – ComReg conclude that the *status quo* is not a sustainable and proportionate approach, for the period to 2020, then there are a range of intermediate options short of a comprehensive price control that should be considered. Several options are considered below.

Introducing a safeguard cap

A straightforward option would be to apply a nominal cap (CPI-CPI) based on the current price of FTTC. No estimate of costs or demand are required, and such a cap would prevent any price increase over the review period. In three years' time the development and impact of infrastructure competition can be assessed, and the option to move to cost orientation or to restore full pricing freedom re-considered.

A variant of this approach, which would leave greater pricing flexibility with the market whilst also providing clarity regarding the price allowed under the National Broadband Plan, would be to apply the nominal cap to a 30 Mbps downstream, 6 Mbps upstream, anchor product.

Moving to a higher quality anchor product

If the concern is that an ADSL anchor product, coupled with infrastructure competition, is insufficient constraint on FTTC prices, then a possibility short of a comprehensive price control would be to upgrade the quality of the anchor product.

Ofcom has pointed to the possibility, should the chain of substitution break down, of adopting a fibre based anchor product:⁵³

“...an anchor fibre price ... combined with flexibility on more advanced service offers.”

The 2013 EC costing and non-discrimination recommendation includes the option of an NGA-based anchor product:

⁵³ Ofcom, *Fixed access market reviews: wholesale local access, wholesale fixed analogue exchange lines, ISDN2 and ISDN30*, Volume 1, June 2014. ¶12.144, 12.151 and 12.154

“If the product offered by the SMP operator on the legacy access network is no longer able to exercise a demonstrable retail price constraint on the NGA product (for example in the event of a copper switch-off), it could in principle be replaced by an NGA-based product that is tailored to have the same product features. However, it is not envisaged that such an NGA-based anchor will be required in the immediate future or before 2020.”

A higher quality anchor could be specified above typical ADSL service levels, but below the full capability of FTTC, to act as a price constraint via a chain of substitution whilst preserving a degree of pricing freedom and scope for service-price differentiation.

In New Zealand, where the government proposes that from 2020 the current contract price for a fibre anchor product be rolled forward as a safeguard price cap (and adjusted annually for inflation), and that copper based broadband be deregulated in FTTH areas, it was noted that:⁵⁴

“the regulated fibre broadband anchor product should be an entry-level product, not the most popular product”

An anchor product with a download speed of around 15 Mbps and an upload speed of around 2 Mbps could be introduced at a price equivalent to that for ADSL. This would strike a balance between pricing freedom and constraint. 15 Mbps would offer a download speed better than most ADSL customers receive, whilst 2 Mbps is double the upload speed for ADSL.

Choosing an anchor significantly below the National Broadband Plan specification of 30 Mbps downstream and 6 Mbps upstream would also reduce the negative impact on the plan.

This approach would also aid transition from ADSL to VDSL, and FTTH if the basic anchor speed tier were mirrored for fibre; and allow partial or full copper retirement in fibre areas since the anchor is decoupled from the underlying technology.

⁵⁴ MBIE, *Review of the Telecommunications Act 2001: Final Decisions on Fixed Line Services, Mobile Regulation and Consumer Protection*, June 2017.

Removing other controls if cost orientation is adopted for FTTC

Should cost orientation be applied to FTTC, a margin squeeze test need not also be applied. Ofcom propose dropping the *ex ante* margin squeeze test if they adopt cost orientation for VDSL⁵⁵.

Further, if cost orientation is applied to FTTC it would act as a constraint on ADSL in FTTC areas. Therefore, ADSL pricing could be deregulated subject to a margin squeeze test and flat national pricing.

Whilst current generation broadband constrains next generation broadband pricing, the constraint in the other direction is even stronger. Thus, if some form of price control is introduced for next generation access, there are grounds for removing current generation access regulation.

This would simplify regulation and leave the market to determine the margin between current and next generation access considering the difference in willingness to pay and the desirability of migration (and ultimately retirement) of legacy services and network elements. This is the approach proposed in New Zealand alongside regulation of a fibre anchor product.⁵⁶

Conclusion

There are a range of options between pricing freedom and cost orientation for FTTC. The incremental costs and benefits of a wider set of options should be appraised by ComReg and a proportionate approach adopted, if it is decided that pricing freedom is not appropriate. Further, to the extent that additional price controls are introduced, there may also be opportunities to remove other existing regulation.

⁵⁵ Ofcom, [Wholesale local access market review](#), Volume 1, March 2017, Para 5.11.

⁵⁶ MBIE, [Telecommunications Act Review: Post-2020 Regulatory Framework for Fixed Line Services](#), February 2017.

8. The way forward

The way forward is to first reappraise the combined competitive constraint from regulated current generation access and growing infrastructure competition on FTTC pricing in Ireland. This reappraisal should consider anticipated changes in supply and demand conditions, and international as well as local evidence.

If it is concluded that the combined competitive constraint is sufficient to prevent excessive pricing, then not only should wholesale pricing be maintained, but flexibility should apply to the margin between next and current generation access.

If it is concluded that the combined competitive constraint is insufficient, then a range of possible remedies should be assessed. A judgement regarding the incremental costs and benefit of each option is required, to identify a proportionate approach.

The appraisal of alternative remedies should have regard to the range of benefits of pricing flexibility - price experimentation, optimisation of inter-temporal cost recovery and service price differentiation - which in turn support investment, broadband adoption, transition to fibre and retirement of copper, infrastructure competition, efficient in-premise wireless backhaul and delivery of the National Broadband Plan.

It may be decided, following an evaluation of alternative remedies, that even were there to be some potential for excess pricing, that on balance maintaining the *status quo* is appropriate given the balance of costs and benefits of alternative options (and accounting for the fact that a degree of pricing power need not harm downstream retail competition, provided there is non-discrimination).

However, if additional consumer protection in relation to pricing is considered appropriate, a proportionate option should be chosen. If the concern is the possibility of future price increases, then a nominal (CPI-CPI) price cap could be adopted – potentially on an intermediate bandwidth service, say 30 Mbps, and based on the current price of FTTC. Alternatively, an uprated anchor product, say at 15 Mbps and priced in line with current generation access could be adopted.

If it is, nevertheless, decided that cost orientation is proportionate, then the fair bet should be assessed; and future FTTC demand, asset life and efficient intertemporal cost recovery re-appraised having regard to cable upgrades, FTTH investment and prospective 5G fixed wireless.

Pricing freedom and scope for service-price differentiation should, to the extent possible, also be preserved if a cost orientated control is imposed. One way of doing so would be to adopt a revenue cap rather than price cap. Another option would be to impose the cost-oriented price cap to a 30 Mbps anchor product, rather than to FTTC more generally.

The *ex ante* margin squeeze test should also be dropped if cost oriented pricing is imposed. Where a margin squeeze test is applied it should be on an equally efficient operator (EEO) basis, and should not apply to every margin (for example, between current and next generation access) to enable prices and margins to be varied to support network transition. In the event of cost orientation for FTTC, regulation of current generation broadband could also be phased out in FTTC areas.

The work done to date provides a valuable starting point. However, a fresh start is required - utilising a wider evidence base, giving due weight to the value of pricing flexibility and considering a wider set of potential remedies. The potential benefits for consumers and the Irish economy from such a re-appraisal more than justify the time and effort involved.

5. e-Nasc Éireann Teoranta (Enet)

enet response to ComReg's Consultation Document and Draft Decision: Pricing of wholesale services in the Wholesale Local Access market and in the Wholesale Central Access markets (ComReg Document 17/26)

enet is pleased with this opportunity to provide its comments in response to the Consultation Document and Draft Decision issued by ComReg setting out further specification of price control obligations in relation to wholesale services provided in the Wholesale Local Access (WLA) market and in the Wholesale Central Access (WCA) market (ComReg Document 17/26).

In this response, enet provides some overview comments before briefly responding to the consultation questions posed by ComReg in its Consultation Document.

Overview

Investment in infrastructure has been a recurring theme in the communications sector ever since the days of sectoral liberalisation two decades ago. It is without question that the present time is a period of unprecedented investment in broadband infrastructure. ComReg's consultation on the pricing of wholesale services in the WLA and WCA markets will have a crucial bearing on investment decisions in the sector, as its price control period will extend beyond the current phase – involving Virgin Media's upgrade of its cable network and Eircom's rollout of VDSL services – and into the period within which it is anticipated that widespread deployment of FTTH networks will take place.

[✕] If investment incentives for infrastructure-based operators are set correctly over the coming years, there is a real opportunity that deployment of FTTH networks on a transformative scale will occur across the country. However, such a scenario is far from a certainty at this stage, no investments of this kind are as yet locked-in and for all potential network investors the business cases are marginal. There remains great uncertainty about the investment landscape, the consequent scale of deployment and the likelihood of being able to secure an economic return on capital deployed in FTTH-based network assets.

Because of this, it is imperative that ComReg is aware of - and that its actions are predicated on - the need to encourage investment in FTTH infrastructure. This awareness needs to be central to ComReg's decision-making process and all decisions made by ComReg, in particular in the crucial area of

wholesale regulated pricing by the SMP operator, have to be framed in such a way that investment incentives are underpinned and not undermined.

In this regard, it is equally important for ComReg to understand that its need to support ongoing infrastructure investment does not solely (or, indeed, primarily) relate to network deployment by Eircom. While the SMP operator is, of course, set to be an important player in the area of NGA service provision, the investment plans of other players are equally important and must be incentivised in equal manner by ComReg in the decisions that it takes.

Needless to say, it is the regulated wholesale prices – arising from its SMP position – charged by Eircom that set the commercial terms for the entire broadband market in this country. Depending on how and at what level these charges are set, incentives for other players to invest in broadband, and in particular in FTTH networks, will be impacted either positively or negatively.

enet accepts that the BU-LRAIC methodology is an appropriate cost standard to set wholesale regulated prices. Its use in price-setting within the WLA and WCA markets, however, needs to take account of the investment imperative in NGA infrastructure. In particular, wholesale charges based on the BU-LRAIC standard must reflect the costs of new infrastructure built by alternative operators and must not be predicated solely on Eircom's network deployment. If this does not happen, there is a very real risk that investment plans by other operators will be put in jeopardy.

For the period of the proposed WLA/WCA price control, Eircom's VDSL-based VUA product is set to be the 'anchor' product, the regulated wholesale price of which will determine the level of all prices – retail as well as wholesale – across the entire broadband market. This will be the case regardless of the technology used to deliver broadband services to end-users, which means that current generation regulated wholesale prices will bear down directly on retail prices that operators are able to charge for next generation services, including those provided over FTTH networks.

This much is already clear when one observes market developments to date in the provision of high-speed broadband services. Virgin Media, for example, prices its higher-speed cable broadband offering at a lower level than competing lower-speed VDSL-based services. It is, then, highly likely that FTTH retail services will remain very much a niche product if operators are forced to price such services at a significant premium to VDSL-based services.

The cost of FTTH deployment means that there is already a risk of such a wedge developing but BU-LRAIC-based WCA and WLA prices, which do not take sufficient account of FTTH investment incentives, will increase this risk significantly. The likely outcome is that lower cost VDSL products – either

supplied directly at the retail level by eir or by VDSL-based alternative operators, using regulated WLA and WCA inputs – will drive competing FTTH-based investment from the market. This, in turn, risks undermining Government policy aimed at widespread nationwide FTTH network deployment and end-user take-up of NGA broadband services.

enet has specific concerns in relation to ComReg's proposal to put in place a single, i.e. flat-rate, monthly rental charge for FTTC-based VUA services, with this charge set using the BU-LRAIC+ cost standard. Such a proposal does not make sense from an economic perspective – given that increased bandwidth and greater local access usage of such services has to drive higher costs – and it is not welfare-enhancing either, with the flat-rate VUA product coming into conflict with tiered Bitstream services to create obvious margin squeeze issues.

In enet's opinion, the only way to avoid an inevitable margin squeeze in this area is for ComReg to move away from a flat-rate approach to VUA and instead to adopt a tiered procedure in relation to wholesale pricing. enet would suggest that three tiers – 150 Mbps, 300Mbps and 1 Gbps – should be established for wholesale pricing purposes in this respect and that the base price for VUA should be set by reference to the lowest tier price for Bitstream services.

By setting up wholesale prices in this way, ComReg should be able to avoid a margin squeeze between VUA and Bitstream services. At the same time, ComReg should also seek to avoid any large gaps between VUA and Bitstream, because to allow this to happen would transfer value in the market away from operators who are focused on investment and towards access-based Retail Service Providers (RSPs). While RSPs play an important role within the market, infrastructure-based players are the ones who will dictate the speed and scale of NGA deployment and so they need to face the correct investment incentives to ensure that this deployment happens as rapidly and as widely as possible.

Over the medium-term, enet would be supportive of breaking the link between how regulated wholesale prices are set for NGA services compared to CGA services, including wholesale voice, Bitstream, LLU etc. While these services are still in large demand at the wholesale level and form the basis for retail services that continue to be used by large numbers of customers, over the medium-term, their popularity will inevitably decline. ComReg needs to think about when would be the appropriate time to sever the link in wholesale pricing between these legacy CGA wholesale products and NGA products.

enet's responses to the questions raised in ComReg's Consultation Document

QUESTION 1: *Do you have any further comments regarding the pricing proposals in ComReg Document 16/96 (WLA / WCA Market Review) in light of the pricing obligations further specified in this Draft Decision? Please provide reasons for your response.*

enet has no further comments to make on the pricing proposals set out in ComReg Document 16/96 (WLA/WCA Market Review) in light of the detailed pricing obligations ComReg has further specified in the Draft Decision.

QUESTION 2: *Do you agree with ComReg's preliminary view that the BU-LRAIC+ methodology should be applied to determine the appropriate level of costs associated with the provision of FTTC based VUA (including EVDSL) in the WLA Market and for FTTC based Bitstream and current generation Bitstream and BMB in the Regional WCA Market? Please provide reasons for your response.*

While enet understands the rationale set out in the Consultation for the use of the BU-LRAIC+ methodology to determine costs associated with the provision by the SMP operator of FTTC-based VUA, Bitstream and BMB products within the relevant markets, we would re-emphasise the point that anchoring FTTC wholesale pricing to the BU-LRAIC+ standard will inevitably lead to a knock-on reductions in all related wholesale prices, including for FTTH-based wholesale products. As we have already outlined in our overview comments, such a reduction in regulated wholesale prices the SMP operator is allowed to charge for FTTC-based services will have a major impact on alternative providers of FTTH services and could call into question planned investments by these operators, enet included. As a result, ComReg needs to think very carefully about the ramifications for FTTH deployment of its decisions on regulated prices for FTTC-based services to ensure that alternative FTTH operators face appropriate investment incentives and to avoid the undermining of planned FTTH investments by these operators.

QUESTION 3: *Do you agree with ComReg’s preliminary views regarding the proposed costing methodology for Reusable Assets, Non-reusable Assets and active / other assets in the provision of FTTC based VUA (including EVDSL), FTTC based Bitstream and current generation Bitstream and BMB services? Please provide reasons for your response.*

As we have outlined in our response to Question 2, enet is of the view that ComReg’s use of the BU-LRAIC+ methodology – in this case, for costs relating to reusable assets, non-reusable assets and active/other assets – in relation to the provision of regulated FTTC-based services by the SMP operator should not result in price reductions for FTTC-based regulatory services which would have the effect of undermining planned FTTH investments by alternative operators.

QUESTION 4: *Do you agree with the proposed timeframe of the model and with the proposed approach and assumptions used in determining the service volumes / demand for FTTC based VUA (including EVDSL) and FTTC based Bitstream in the NGA Cost Model? Please provide reasons for your response.*

QUESTION 5: *Do you agree with ComReg’s proposed modelling approach for determining the demand and costs inputs associated with the provision of FTTC based VUA, including Remote VUA, Local VUA and EVDSL services? Please provide reasons for your response.*

QUESTION 6: *Do you agree with the proposed inputs and assumptions in the NGA Cost Model for determining the costs associated with the provision of FTTC based Bitstream? Please provide reasons for your response.*

As per our response to Question 2, enet is of the view that ComReg’s use of the BU-LRAIC+ methodology in relation to the provision of regulated FTTC-based services by the SMP operator should not result in price reductions for FTTC-based regulatory services which would have the effect of undermining planned FTTH investments by alternative operators.

QUESTION 7: *Do you agree with the proposed approach for determining the port rental costs for POTS based FTTC NGA services going forward and the proposed additional port rental price for POTS based FTTC services of €4.96? Please provide reasons for your response.*

enet has no comments to offer in relation to ComReg’s proposed approach to this issue.

QUESTION 8: *Do you agree with ComReg’s preliminary view that a consistent monthly or annual charge should apply for each year of the price control period in relation to the NGA Cost Model and NGN Core Model? Please provide reasons for your response.*

enet has no comments to offer in relation to ComReg’s proposed approach to this issue.

QUESTION 9: *Do you agree with ComReg’s preliminary view that the single monthly rental charge for FTTC based VUA (including EVDSL based VUA) should be based on the BU-LRAIC+ methodology generally and Eircom’s Indexed RAB for Reusable Assets in those exchanges where Eircom has deployed active FTTC and EVDSL lines? Please provide reasons for your response.*

QUESTION 10: *Do you agree that in the exceptional case where Eircom reduces the price for FTTC based VUA that any such reduction should also be reflected in the price for FTTC based Bitstream subject to the price floors requirements in Chapter 12 of this document and ComReg’s regulatory approval? Please provide reasons for your response.*

enet has significant concerns in relation to ComReg’s proposal to put in place a single, i.e. flat-rate, monthly rental charge for FTTC-based VUA services, with this charge set using the BU-LRAIC+ cost standard. Such a proposal does not make sense from an economic perspective and it is not welfare-enhancing either. In economic terms, it is self-evidently the case that increased bandwidth and greater local access usage of such services has to drive higher costs, which would mean that wholesale prices should be set on a tiered basis rather than as a single flat-rate charge. From a welfare perspective, the flat-rate VUA product will inevitably conflict with the tiered pricing of Bitstream services to create obvious margin squeeze issues.

In enet’s opinion, the only way to avoid an inevitable margin squeeze in this area is for ComReg to move away from a flat-rate VUA price and instead to adopt a tiered approach to VUA pricing. enet would suggest that three tiers – 150 Mbps, 300Mbps and 1 Gbps – should be established for pricing purposes. The base price for VUA should then be set by reference to the lowest tier price for Bitstream services.

By setting up wholesale prices in this way, ComReg should be able to avoid a margin squeeze between VUA and Bitstream services. At the same time, ComReg should also seek to avoid any large gaps between VUA and Bitstream, because to allow this to happen would transfer value in the market away from operators who are focused on investment and towards access-based RSPs.

QUESTION 11: *Do you agree with ComReg’s preliminary view that at the time of the Decision the FTTC based VUA and EVDSL footprint should be locked-in for the purposes of setting the single FTTC based VUA (including EVDSL based VUA) monthly rental price for the entire price control period? Please provide reasons for your response.*

enet has no comments to offer on this issue.

QUESTION 12: *Do you agree with ComReg’s preliminary views that it is appropriate to maintain a link between the price for FTTC based VUA (including EVDSL) and the price for LLU such that any changes to the underlying costs (e.g. SLU) should be applied consistently to the price of both services? Please provide reasons for your response.*

While it is inevitable that a link will need to be kept in place in the short-term between VUA and LLU services, ComReg will, over the medium-term, need to consider when best to sever that link. While these services are still in large demand at the wholesale level and also form the basis for retail services that continue to be used by large numbers of customers, their popularity will decline over the medium-term and hence any link between legacy wholesale services such as LLU and NGA services such as VUA will in time no longer be justified.

QUESTION 13: *Do you agree with ComReg’s preliminary view that the monthly rental charge for FTTC based Bitstream should be based on the BU-LRAIC+ methodology and Eircom’s Indexed RAB applied to Reusable Assets based on those Local VUA sites yet to be unbundled in the Regional WCA Market and with an adjustment to Bitstream specific costs to reflect the scale of a hypothetical SEO with a 25% retail broadband market share? Please provide reasons for your response.*

QUESTION 14: *Do you agree with ComReg’s preliminary view that the FTTC based Bitstream footprint should be locked-in at the date of the Decision for the purposes of setting the FTTC based Bitstream monthly rental price in the Regional WCA Market for the entire price control period? Please provide reasons for your response.*

QUESTION 15: *Do you agree that in exceptional cases only Eircom should be allowed to reduce the price for FTTC based Bitstream so long as any such reduction is reflected in the price for FTTC based VUA (in order to maintain a sufficient economic space between the two services) and subject to the price floor requirements in Chapter 12 of this document and ComReg’s regulatory approval? Please provide reasons for your response.*

As per our response to previous questions above, enet is of the view that ComReg's use of the BU-LRAIC+ methodology in relation to the provision of regulated FTTC-based services by the SMP operator should not result in price reductions for FTTC-based regulatory services which would have the effect of undermining planned FTTH investments by alternative operators.

QUESTION 16: *Do you agree with the proposed principles, inputs and assumptions in the NGN Core Model for determining the costs associated with the provision of broadband services? Please provide reasons for your response.*

QUESTION 17: *Do you agree with ComReg's preliminary view that traffic costs on the core network should be allocated based on revenue per user (option 3 above)? Please provide reasons for your response.*

enet has no comments to make on ComReg's proposed principles, inputs and assumptions in the NGN Core Model. We would, however, re-emphasise the point that ComReg's use of the BU-LRAIC+ methodology in relation to the provision of regulated FTTC-based services by the SMP operator should not result in price reductions for FTTC-based regulatory services which would have the effect of undermining planned FTTH investments by alternative operators.

QUESTION 18: *Do you agree with ComReg's preliminary view that the monthly price for current generation Bitstream and BMB services should be based on the average BU-LRAIC+ costs across the Regional WCA Market as set out in Figure 31 (for 2017/18) and in Figure 37 (of Chapter 14) for each year of the proposed price control period? Please provide reasons for your response.*

enet agrees with ComReg's preliminary view that the monthly price for current generation Bitstream and BMB services should be based on the average BU-LRAIC+ costs across the Regional WCA Market in the manner set out in Figures 31 and 37.

QUESTION 19: Do you consider that a price floor for CGA Bitstream services is no longer required for the proposed price control period given the declining demand in CGA investment? Please provide reasons for your response.

QUESTION 20: If you consider that a price floor for CGA services is appropriate, do you agree with ComReg's preliminary view on the margin squeeze assumptions and the indicative price floors (for 2017/18) for current generation Bitstream services from the NGN Core Model? Please provide reasons for your response.

QUESTION 21: Do you consider that the price points for CGA Bitstream and BMB services should be set based on Eircom's BU-LRAIC+ costs or the BU-LRAIC+ costs of a REO i.e. the price floors? Please provide reasons for your response.

enet does not believe that a price floor for CGA Bitstream services is required for the proposed price control period in order to support CGA investment. Given where the market is currently at in terms of the shift to NGA and the investment required to underpin this, ComReg's focus needs to shift so that appropriate investment incentives are provided for the deployment of NGA assets and the provision of NGA-based services, rather than being used to underpin declining CGA services.

QUESTION 22: Do you agree with ComReg's preliminary views regarding the principles of the wholesale margin squeeze test between FTTH based VUA and FTTH based Bitstream? Please provide reasons for your response.

QUESTION 23: Do you agree with ComReg's preliminary views regarding the principles of the margin squeeze test between the price of WLA services in the footprint corresponding to the Urban WCA Market and retail services provided by way of WLA inputs in the footprint corresponding to the Urban WCA Market? Please provide reasons for your response.

QUESTION 24: Do you agree with ComReg's preliminary views regarding the margin squeeze principles for the wholesale End-to-end margin squeeze tests for both current generation and next generation? Please provide reasons for your response.

QUESTION 25: Do you agree with ComReg's preliminary view regarding the margin squeeze principles for the retail margin squeeze test for NGA services in the Regional WCA Market? Please provide reasons for your response.

QUESTION 26: Do you agree with ComReg's preliminary view on the margin squeeze principles that should apply to the retail margin squeeze test for current generation services in Regional Area 1 and Regional Area 2 of the Regional WCA Market? Please provide reasons for your response.

enet reiterates its view that ComReg's use of the BU-LRAIC+ methodology in relation to the provision of regulated FTTC-based services by the SMP operator should not result in price reductions for FTTC-based regulatory services which would have the effect of undermining planned FTTH investments by alternative operators. The specifics of ComReg's margin squeeze tests for the pricing of services in the WLA and WCA Markets should be such that planned FTTH investments by alternative operators are appropriately incentivised.

QUESTION 27: *Do you agree with ComReg's preliminary view that the price control period should be for three years but should remain in place any further notice by ComReg and that Eircom should review the models annually for material / exceptional changes? Please provide reasons for your response.*

enet agrees with ComReg's preliminary view that the price control period should be set at three years. While, for practical purposes, the control will need to remain in place until further notice by ComReg, its work programme will need to take account of the requirement to consider a future price control following the end of the proposed price control period up to 2019/20. enet also agrees that Eircom (and ComReg) should review the models annually for material and/or exceptional changes.

QUESTION 28: *Do you agree with ComReg's preliminary views regarding the pre-notification procedures that should apply to all proposed wholesale price changes or for new wholesale prices associated with the price control obligation for all WLA and WCA services mandated in the WLA / WCA Market Review? Please provide reasons for your response.*

QUESTION 29: *Do you agree that there should be no wholesale promotions and discounts going forward for WLA or WCA services? Please provide reasons for your response.*

enet supports ComReg's preliminary views on pre-notification procedures that should apply in relation to price changes or the provision of new wholesale products in the WLA and WCA markets. enet also agrees that there should be no wholesale promotions or discounts provided by the SMP operator for WLA or WCA services.

QUESTION 30: *Do you agree with ComReg's preliminary views that pre-notification and pre-clearance is appropriate for retail price changes in the WLA Market and the Regional WCA Market? Please provide reasons for your response.*

enet supports ComReg's preliminary proposals in relation to pre-notification and pre-clearance for retail price changes in the WLA Market and the Regional WCA Market.

QUESTION 31: *Do you agree with ComReg's preliminary view regarding the regulatory approval mechanism and that in exceptional circumstances only Eircom may be allowed to reduce wholesale prices for FTTC based NGA services (VUA and Bitstream) below the regulated price so long as it does not breach the price floor requirements at paragraphs 12.54-12.55 and subject to ComReg's approval? Please provide reasons for your response.*

QUESTION 32: *Do you agree with ComReg's preliminary view regarding the regulatory approval mechanism (and pre-conditions at paragraph 12.54) that the price for FTTH based VUA should not go below the price floor at paragraph 12.72 and that Eircom's full deployment costs for FTTH based VUA should be calculated with reference to Eircom's own business case / plan? Please provide reasons for your response.*

QUESTION 33: *Do you agree with ComReg's preliminary view that in the context of the price floor for SABB in Regional Area 2 (as per Section 4.2 of the Decision Instrument in Annex 2 of 2016 Access Pricing Decision) that the footprint of the "Modified LEA" should be replaced by those exchanges in Regional Area 1 excluding those exchanges in Criterion 5 of the 2013 Bundles Decision? Please provide reasons for your response.*

Pricing below cost tends to be anti-competitive and so there would need to be a pro-competitive rationale for allowing Eircom to do so. ComReg oversight and approval will obviously be key to ensuring that this the case.

QUESTION 34: *Do you agree with ComReg's preliminary view that the connection costs associated with CGA and NGA services should be recovered through a combination of an upfront connection charge and a monthly rental charge as set out at paragraph 13.43? Please provide reasons for your response.*

enet agrees with ComReg's preliminary view that connection costs associated with CGA and NGA services should be recovered through a combination of an upfront connection charge and a monthly rental charge as set out in para. 13.43 of the Consultation Document.

QUESTION 35: *Do you agree with ComReg's preliminary view that the WEIL charges, including BECS and BECS over WEIL, in the WLA Market and the Regional WCA Market should be based on a BU-LRAIC+ methodology? Please provide reasons for your response.*

enet agrees with ComReg's preliminary view that the WEIL charges in the WLA Market and Regional WCA Market should be based on a BU-LRAIC+ methodology.

QUESTION 36: *Do you have any comments on the Regulatory Impact Assessment and in your opinion are there other factors which ComReg should consider in completing its Regulatory Impact Assessment? Please provide reasons for your response, clearly indicating the relevant paragraph numbers to which your comments refer, along with relevant factual evidence supporting your views.*

QUESTION 37: *Do you believe that the draft text of the proposed Decision Instrument for the Wholesale Local Access market at a fixed location (WLA Market or Market 3a) is from a legal, technical and practical perspective, sufficiently detailed, clear and precise with regards to the specifics proposed? Please explain your response and provide details of any specific amendments you believe are required.*

QUESTION 38: *Do you believe that the draft text of the proposed Decision Instrument for the Wholesale Central Access market for mass market products at a fixed location is from a legal, technical and practical perspective, sufficiently detailed, clear and precise with regards to the specifics proposed? Please explain your response and provide details of any specific amendments you believe are required.*

enet has no comments to offer on ComReg's Regulatory Impact Assessment nor on the proposed Decision Instruments.

6. Sky Ireland Limited (Sky)



PRICING OF WHOLESALE SERVICES IN THE WHOLESALE LOCAL ACCESS (WLA) MARKET AND IN THE WHOLESALE CENTRAL ACCESS (WCA) MARKETS: FURTHER SPECIFICATION OF PRICE CONTROL OBLIGATIONS IN MARKET 3A (WLA) AND MARKET 3B (WCA)

Sky's response to the consultation should be read in conjunction with the attached report ("AM Report") from independent consultants, Analysys Mason.

Question 1

Do you have any further comments regarding the pricing proposals in ComReg Document 16/96 (WLA / WCA Market Review) in light of the pricing obligations further specified in this Draft Decision? Please provide reasons for your response

1. Sky are concerned that ComReg appears to have made no commitment to quickly address evidence of excessive pricing behaviour by Eircom in the event that it arises with respect to its FTTH service. ComReg were advised of substantial price increases in May 2016 for its FTTC service (Standalone and POTS based) by Eircom notwithstanding the fact that ComReg regarded sufficient remedies having been put in place following its 2013 NGA Remedies decision to negate the likelihood of any such eventuality. It was clear that ComReg's expectation of what would transpire on foot of regulation put in place by it turned out to be wide of the mark. The upshot of this development has been 12 months (and counting) of windfall profits to Eircom as a consequence of it being afforded freedom to set its access prices contrary to the 2013 NGA Recommendation. The increased pricing has also had a knock on effect on retail prices and by extension retail consumers.
2. The basis on which ComReg has chosen to forbear requiring cost orientation obligation on Eircom for FTTH is questionable. As noted in the report the AM Report it is not clear what demonstrable retail pricing constraints (created either by alternative infrastructures or by competing products) will curtail Eircom's incentive to engage in excessive pricing behaviour.
3. Consequently, we would strongly urge that ComReg outline a plan to promptly address the emergence of any evidence whereby Eircom are seen to be raising prices of its FTTH service independent of its customers or competitors.

Question 2

Do you agree with ComReg's preliminary view that the BU-LRAIC+ methodology should be applied to determine the appropriate level of costs associated with the provision of FTTC based VUA (including EVDSL) in the WLA Market and for FTTC based Bitstream and

current generation Bitstream and BMB in the Regional WCA Market? Please provide reasons for your response.

4. Sky agrees with ComReg's preliminary view as outlined in the question. The move to BU-LRAIC+ is in line the NGA recommendation and as such is long overdue. We further agree that the approach ought to apply for CGA as the methodology promotes consistency with other services e.g. access network costs, regulated leased lines etc. and reduces risk of over-recovery/double counting.

Question 3

Do you agree with ComReg's preliminary views regarding the proposed costing methodology for Reusable Assets, Non-reusable Assets and active / other assets in the provision of FTTC based VUA (including EVDSL), FTTC based Bitstream and current generation Bitstream and BMB services? Please provide reasons for your response.

5. ComReg claims to have been guided by the European Commission's definition of non-reusable assets being "*those legacy civil engineering assets that are used for the copper network but cannot be reused to accommodate a NGA network*".
6. It is clear that FTTC-based NGA uses SLU as an input. Therefore it is unclear why ComReg has determined that all D-side assets are deemed to be "Non-Reusable assets". In FTTC areas these assets should be deemed to be reusable with the reuse factor to be determined based on actual replacement of copper cables when Eircom rolled out FTTC.
7. With respect to NBP areas (which will significantly overlap WCA market 2) FTTH will have been fully rolled out by the end of the proposed review period. As such D-side copper assets will neither be reused nor replaced when it reaches end of asset life. As such there is no need to value copper on a LRAIC+ replacement cost basis. Indeed at paragraph 6.39 ComReg predicts CGA "*volumes are assumed to fall to zero*" by 2026. Eircom will not be replacing copper where volumes fall to zero.
8. Rewarding Eircom with a replacement cost on copper that clearly will not be replaced is not justified and in fact can be used to subsidise its roll-out of FTTH in this area. In fact it is likely to amount to a subsidy on top of the subsidy Eircom are bidding for from the government to roll-out FTTH in this area. Furthermore the granting of such a subsidy to Eircom may give it an unfair advantage in terms of bidding for the NBP and consequently we would strongly urge ComReg to amend its approach to copper replacement costing in the CAM before this occurs.

Question 4

Do you agree with the proposed timeframe of the model and with the proposed approach and assumptions used in determining the service volumes / demand for FTTC based VUA (including EVDSL) and FTTC based Bitstream in the NGA Cost Model? Please provide reasons for your response.

9. Many of the demand assumptions presented by ComReg has been redacted on grounds that are not clear to Sky. It is unclear what competitive advantage Sky or other OAOs can derive from been aware of these key demand inputs. Presumably, however, this information has been shared with Eircom and if there is any perceived advantage for a retail provider having access to this information, then ComReg has taken a view that this is an advantage that should only be afforded to Eircom including its retail arm. Interestingly Eircom, which is not functionally separated, requires detailed quarterly forecasts from OAOs on product order types. The request for this data is deemed not only to be reasonable but necessary in order for Eircom to efficiently deploy resources in the field. There are no formal regulations in place that prevents key personnel in Eircom in its pricing department, for example, having access to this information as provided by other OAOs, yet ComReg has deemed the aggregation of demand figures as outlined in this consultation cannot justifiably be presented to or commented on by OAOs.
10. With respect to details not withheld we would suggest ComReg's assumption "*Eircom's 2026 broadband line base will be similar in size to the 2016 broadband base*" is conservative considering (a) Virgin's Broadband base has been in decline over the last 18 months with little evidence its footprint is increasing (b) Eircom's announcement it is investing in FTTH in 300k homes that have been removed from the governments intervention area. Eircom are likely to continue to be a fixed monopoly provider in this underserved footprint and as such is likely to enjoy significant growth particularly, at the expense of mobile broadband (c) Eircom may well win one or both lots of the NBP ensuring its fixed monopoly status in these footprints and (d) Ireland's increasing population.

Question 5

Do you agree with ComReg's proposed modelling approach for determining the demand and costs inputs associated with the provision of FTTC based VUA, including Remote VUA, Local VUA and EVDSL services? Please provide reasons for your response.

11. Sky would refer ComReg to section the AM report for a comprehensive response to this question. In particular we would note that the dimensioning of DSLAM/OLTs does not appear to follow a truly bottom up approach. In addition we consider the inclusion of longer SLU lines (up to 2.5km) to be inappropriate as is the use of national SLU and LLU inputs as NGA inputs.

Question 6

Do you agree with the proposed inputs and assumptions in the NGA Cost Model for determining the costs associated with the provision of FTTC based Bitstream? Please provide reasons for your response.

12. ComReg's proposal results in FTTC-based bitstream prices that are above Eircom's efficiently incurred costs based on ComReg's REO proposal (25% market share). Should ComReg maintain this proposal it will be a significant concession to Eircom and ComReg should be mindful of this where any further concessions are being considered or are being sought by Eircom in terms of increasing prices towards the upper end of the ranges currently being considered.

Question 7

Do you agree with the proposed approach for determining the port rental costs for POTS based FTTC NGA services going forward and the proposed additional port rental price for POTS based FTTC services of €4.96? Please provide reasons for your response.

13. Sky considers the €4.96 figure is almost certainly overstated. This is because customer using POTS based FTTC will pay for the feeder trench twice based on the allocation methodology outlined by comparison to customer using FTTC plus VOIP. Where the copper feeder cable is revalued on a replacement cost instead of being considered reusable asset the problem of double charging is exacerbated. Having two different feeder networks is inefficient. The reason Eircom maintains the two is because the copper feeder is a sunk cost so the cost of continuing to use/maintain is cheaper than upgrading DSLAMs to Multi Service Access Nodes (MSAN) which would be the MEA to DSLAMs.
14. If Eircom were faced with the choice of replacing copper feeders with MSAN it would choose the latter yet it is being allowed to recover replacement costs of the copper as a reusable asset (as though replacing the copper would be its choice). This is likely to have resulted in a higher than justifiable charge for the POTS element of POTS based FTTC and as such should be revised downward by ComReg.

Question 8

Do you agree with ComReg's preliminary view that a consistent monthly or annual charge should apply for each year of the price control period in relation to the NGA Cost Model and NGN Core Model? Please provide reasons for your response.

15. Sky considers a consistent monthly/annual charge should apply for each year of the price control period for reasons outlined by ComReg in this section. However, Sky would question the magnitude of the annual increases being proposed over the review period. ComReg has not attempted to explain the level of the increases in terms of price trends anticipated for various assets. Again, Sky see no justification for this information being withheld from respondents on the grounds of confidentiality - on what basis is ComReg's view of future equipment price trends commercially sensitive? Increasing equipment/civil costs will not be factors endogenous to Eircom.
16. It is not practicable for respondents to provide comments on what it believes to be appropriate set of inputs to consider for each and every redacted cell (of which there are thousands) in the various cost models that forms the basis to this consultation. Rather, as Sky had reasonably requested, access to the models ought to have been provided subject to strict NDA obligations that would have allowed respondents to make a comprehensive assessment of all the assumption actually being proposed. As it stands we can only speculate that it is inappropriate assumptions about future asset pricing that is leading to excessive annual price increments being proposed. Sky reserves its rights in this regard.

Question 9

Do you agree with ComReg’s preliminary view that the single monthly rental charge for FTTC based VUA (including EVDSL based VUA) should be based on the BU-LRAIC+ methodology generally and Eircom’s Indexed RAB for Reusable Assets in those exchanges where Eircom has deployed active FTTC and EVDSL lines? Please provide reasons for your response.

17. See response to question 3, 5 and 8 above.

Question 10

Do you agree that in the exceptional case where Eircom reduces the price for FTTC based VUA that any such reduction should also be reflected in the price for FTTC based Bitstream subject to the price floors requirements in Chapter 12 of this document and ComReg’s regulatory approval? Please provide reasons for your response.

18. Sky agrees with this proposal from ComReg. Any decrease in the underlying VUA price/costs should be reflected in the bitstream service price that sits on top of it. Sky further agrees that it would indeed be exceptional for Eircom to engage in such behaviour but support ComReg’s approach that recognises the need for contingencies for such eventualities. It is for this reason that we would propose similar contingencies are considered in the context of FTTH pricing in particular as ComReg appear intent on not following the EU NGA Recommendation. A repeat of the excessive pricing strategy deployed by Eircom last year on FTTC should serve as a further warning as to the value of catering for unforeseen contingencies on pricing with respect to the SMP operator.

Question 12

Do you agree with ComReg’s preliminary views that it is appropriate to maintain a link between the price for FTTC based VUA (including EVDSL) and the price for LLU such that any changes to the underlying costs (e.g. SLU) should be applied consistently to the price of both services? Please provide reasons for your response.

19. See response to question 5 and AM Report

Question 13

Do you agree with ComReg’s preliminary view that the monthly rental charge for FTTC based Bitstream should be based on the BU-LRAIC+ methodology and Eircom’s Indexed RAB applied to Reusable Assets based on those Local VUA sites yet to be unbundled in the Regional WCA Market and with an adjustment to Bitstream specific costs to reflect the scale of a hypothetical SEO with a 25% retail broadband market share? Please provide reasons for your response

20. As noted above Sky consider the approach based on BU-LRAIC+ methodology and Eircom’s Indexed RAB are consistent with the NGA Recommendation and we therefore welcome the proposal. We do not however agree with the adjustment to reflect the scale of a hypothetical SEO (see also response to Question 6 and AM Report).

Question 15

Do you agree that in exceptional cases only Eircom should be allowed to reduce the price for FTTC based Bitstream so long as any such reduction is reflected in the price for FTTC based VUA (in order to maintain a sufficient economic space between the two services) and subject to the price floor requirements in Chapter 12 of this document and ComReg’s regulatory approval? Please provide reasons for your response.

21. Eircom ought to be allowed and even required to reduce to the price of bitstream services if the price of the service does not reflect the underlying cost of the service. While Sky acknowledge the need to promote competition and investment in VUA it should not be on the basis of an arbitrary rule with no link to costs. For example if the cost of elements of Eircom’s bitstream service is falling that are not part of its VUA service (e.g. backhaul) these costs are achievable/replicable by competing operators investing in VUA and as such the reduction in the bitstream price need not necessarily result in a reduction in the VUA price. However, if the bitstream reduction is as a consequence of lower costs of VUA then a corresponding reduction in the VUA price should be required.

Question 16

Do you agree with the proposed principles, inputs and assumptions in the NGN Core Model for determining the costs associated with the provision of broadband services? Please provide reasons for your response.

22. Sky considers the backhaul for bitstream services as currently calculated implies a cross-subsidisation between leased lines and broadband and voice services. For further details see AM Report.

Question 17

Do you agree with ComReg’s preliminary view that traffic costs on the core network should be allocated based on revenue per user (option 3 above)? Please provide reasons for your response.

23. Sky are concerned that the level of detail being provided on this point is at too high a level. It is unclear for instance what ComReg’s definition of “revenue” and “forecast revenue per service type” is. For instance revenue could be based the headline price of a service or based the price net of offers and discounts. It is also unclear as to whether ComReg are using Eircom only data in making its initial assessment or whether it is a portfolio/mix of pricing and volume of services as provided by all operators on the Eircom network.
24. The matter is further complicated by the fact that ComReg’s preliminary conclusions as outlined in 14/90 on the regulation of bundles in the context of the current markets under review proposed permissibility of a degree of cross-subsidisation from profits on regulated products to unregulated products e.g. margin earned on a dual play fixed voice and broadband plan could be used to subsidise a triple play element (e.g. IPTV). Under such a scenario and combined with ComReg’s proposal (option 3) to allocate core network traffic costs based on revenue per user, the scope for a disconnect between a customer’s willingness to pay and Eircom’s retail commercial strategy are self-evident.

25. This in turn could result in an under allocation of costs to IPTV in the scenario outlined and indeed that is an outcome Eircom is likely to have an incentive to pursue. ComReg ought to be mindful of this and clearly outline the detail of what it means by allocation of costs based on revenue per user as this has not been done in the consultation. This information, including future volume assumptions in terms of allocations should be public as there is no reasonable basis on which it could be argued it ought to be confidential and/or commercially sensitive.

Question 18

Do you agree with ComReg’s preliminary view that the monthly price for current generation Bitstream and BMB services should be based on the average BU-LRAIC+ costs across the Regional WCA Market as set out in Figure 31 (for 2017/18) and in Figure 37 (of Chapter 14) for each year of the proposed price control period? Please provide reasons for your response

26. Sky agrees with ComReg’s proposed approach in this regard. As noted by ComReg there is “no material difference” between the average BU-LRAIC+ costs in Regional Area 1 or Region Area 2 and the latter is the likely footprint of future NBP deployment in the coming years.
27. Furthermore, we agree that logarithmic scale pricing should be maintained and indeed mandated by ComReg for the reasons outlined in the AM Report.

Question 19

Do you consider that a price floor for CGA Bitstream services is no longer required for the proposed price control period given the declining demand in CGA investment? Please provide reasons for your response.

28. Sky considers that a price floor for CGA Bitstream services may no longer be required and even if it were justified for a further period of time it is unlikely it should cover the proposed price control period of 3-5 years. ComReg claim the difference between Eircom’s BU-LRAIC+ costs and the costs of a REO are relatively small. If this is the case there seems little value in maintaining the current price floor requirement.

Question 20

If you consider that a price floor for CGA services is appropriate, do you agree with ComReg’s preliminary view on the margin squeeze assumptions and the indicative price floors (for 2017/18) for current generation Bitstream services from the NGN Core Model? Please provide reasons for your response.

29. See response to Question 19 above.

Question 21

Do you consider that the price points for CGA Bitstream and BMB services should be set based on Eircom's BU-LRAIC+ costs or the BU-LRAIC+ costs of a REO i.e., the price floors? Please provide reasons for your response.

30. Sky consider that CGA Bitstream and BMB services should be set based on Eircom's BU-LRAIC+ costs for the reasons outlined by ComReg in paragraph 9.47-9.50. Also see response to Question 19.

Question 22

Do you agree with ComReg's preliminary views regarding the principles of the wholesale margin squeeze test between FTTH based VUA and FTTH based Bitstream? Please provide reasons for your response.

31. See responses to Question 19, 20 and 21 above.

Question 23

Do you agree with ComReg's preliminary views regarding the principles of the margin squeeze test between the price of WLA services in the footprint corresponding to the Urban WCA Market and retail services provided by way of WLA inputs in the footprint corresponding to the Urban WCA Market? Please provide reasons for your response

32. Sky considers that a product by product approach ought to be used in preference to a portfolio approach. A portfolio approach makes it harder for OAOs to replicate Eircom's offers if they do not offer the same portfolio. Furthermore, Sky considers that the treatment of promotions/offers has not been properly taken account of in the context of the margin squeeze. Promotions spending should not be derived from the customer lifetime assumption but rather actual audited accounts and it is not clear that this is the case.

Question 24

Do you agree with ComReg's preliminary views regarding the margin squeeze principles for the wholesale End-to-end margin squeeze tests for both current generation and next generation? Please provide reasons for your response.

33. Sky has no further comments to raise in relation to ComReg's specific proposals in this section. We would reiterate the importance of revisiting the issue of how ComReg treats offers/promotions in its margin squeeze tests and we plan to expand on this matter in response to the forthcoming bundles consultation.

Question 25

Do you agree with ComReg's preliminary view regarding the margin squeeze principles for the retail margin squeeze test for NGA services in the Regional WCA Market? Please provide reasons for your response.

34. Sky has no further comments to raise in relation to ComReg's specific proposals in this section. We would reiterate the importance of revisiting the issue of how ComReg treats offers/promotions in its margin squeeze tests and we plan to expand on this matter in response to the forthcoming bundles consultation.

Question 26

Do you agree with ComReg's preliminary view on the margin squeeze principles that should apply to the retail margin squeeze test for current generation services in Regional Area 1 and Regional Area 2 of the Regional WCA Market? Please provide reasons for your response.

35. Sky has no further comments to raise in relation to ComReg's specific proposals in this section. We would reiterate the importance of revisiting the issue of how ComReg treats offers/promotions in its margin squeeze tests and we plan to expand on this matter in response to the forthcoming bundles consultation.

Question 27

Do you agree with ComReg's preliminary view that the price control period should be for three years but should remain in place any further notice by ComReg and that Eircom should review the models annually for material / exceptional changes? Please provide reasons for your response.

36. Sky agrees that the price control period should be for at least a period of three years but should be extended beyond that if need be given ComReg's has historically been unable to conduct reviews within EU recommended timelines. The current market review process has already taken almost 2 years since initiated and has not yet reached a conclusion. On that basis ComReg would have to very quickly initiate the next 3a/3b market review after a final decision on the current review simply to meet a 3 year review timeframe.
37. Given this track record and being aware of what Eircom has done on FTTC pricing in the past i.e. introduced substantial price increases in the absence of anticipated pricing constraints, it is imperative that ComReg has a contingency in place to deal with similar behaviour with respect to Eircom's FTTH product. It would appear the FTTC price increases last year caught ComReg by surprise and while that may be understandable to a degree, ComReg has been well forewarned with respect to FTTH on this occasion so as to ensure such a development could not reoccur without prompt intervention by ComReg i.e. ComReg needs to be able to take action without initiating another market review.
38. ComReg's non-confidential version of Eircom's costs models indicates that it has already initiated modelling work on the costs of FTTH and this is to be welcomed but it is important that a clearly laid out plan is put in place as part of the final decision to this consultation as to how it will deal with and respond to evidence of excessive pricing behaviour during the price review period. Given the NGA Recommendation and clear evidence that there will in fact be no retail pricing constraints from other infrastructure providers for a large portion of its FTTH footprint, ComReg would be failing in its regulatory remit not to prepare to respond quickly to such potential exploitative action on this occasion.

Question 28

Do you agree with ComReg's preliminary views regarding the pre-notification procedures that should apply to all proposed wholesale price changes or for new wholesale prices associated with the price control obligation for all WLA and WCA services mandated in the WLA / WCA Market Review? Please provide reasons for your response.

39. Sky agrees with the timelines as proposed by ComReg.

Question 29

Do you agree that there should be no wholesale promotions and discounts going forward for WLA or WCA services? Please provide reasons for your response.

40. Sky agrees with this only in the context of services that are subject to a cost orientation obligation. However, we are strongly of the view that this provision ought not to apply to services not subject to a cost orientation obligation.

41. ComReg simply state "*Discounts and promotions create considerable uncertainty for access seekers and are difficult to justify by reference to underlying costs.*" ComReg should not allow its position on promotions and discounts generally to be guided by historic events with respect the WLR discount which was tied to Eircom's NGA take up strategy. There is little doubt the genesis of and eventual withdrawal of that discount was a uniquely unsatisfactory experience for OAOs and no doubt ComReg. However, this was because while the discount itself was predicated on desire to drive uptake of NGA, it was applied to rental charges for WLR and was most likely conceived of in order that Eircom could pass standing margin squeeze tests. The interdependency of these factors is what led to uncertainty and at the time blatant "gaming" on the part of Eircom.

42. However, proposing a blanket ban on discounts and promotions on the basis of that experience could deny operators and by extension its retail customers access to significant savings in the future. It could further deny Eircom access to a capability to drive uptake of FTTH in the early years.

43. Difficulties with respect to promotions arise only when there are not strict rules in place for how they can be deployed. For example, if Eircom wished to run a 6 month promotion on FTTH rental charges in order to drive uptake, then this is something that can clearly deliver benefit to Eircom, OAOs and retail customers. Historically, OAOs were concerned about the asymmetry of information that occurred where Eircom were the only party that knew if a discount/promotion was to be extended and so could plan from a retail perspective on this basis while OAOs had to wait until late in the day before they could assimilate such information. However, this matter can easily be addressed by requiring minimum periods being put in place before the same promotions can be run again. All operators would therefore be able to plan for the finite nature of the promotion and used it to its maximum benefit.

44. Taking this approach coupled to adequate notification periods of promotions can alleviate concerns about asymmetric information and deliver benefits to the market and consumers. Ensuring that promotions are simple (unlike the WLR promotion) would further address ComRegs concern about "uncertainty".

45. Sky considers that concerns around uncertainty can easily be addressed by a clear framework for allowing promotions. On a first principles basis OAOs will always welcome lower prices however it is achieved so it is wrong to present the proposal as something that is being proposed on the basis of protecting or benefitting OAOs.

Question 30

Do you agree with ComReg's preliminary views that pre-notification and pre-clearance is appropriate for retail price changes in the WLA Market and the Regional WCA Market? Please provide reasons for your response

46. Sky agrees with ComReg's preliminary views for the reasons outlined in this section.

Question 31

Do you agree with ComReg's preliminary view regarding the regulatory approval mechanism and that in exceptional circumstances only Eircom may be allowed to reduce wholesale prices for FTTC based NGA services (VUA and Bitstream) below the regulated price so long as it does not breach the price floor requirements at paragraphs 12.54-12.55 and subject to ComReg's approval? Please provide reasons for your response.

47. Sky agrees with this proposal as outlined. OAOs (and indeed Eircom retail) must be allowed to compete in specific geographic areas if an Alternative Infrastructure Provider such as Virgin Media, decreases its prices to level that may not recover more than its incremental costs.

Question 32

Do you agree with ComReg's preliminary view regarding the regulatory approval mechanism (and pre-conditions at paragraph 12.54) that the price for FTTH based VUA should not go below the price floor at paragraph 12.72 and that Eircom's full deployment costs for FTTH based VUA should be calculated with reference to Eircom's own business case / plan? Please provide reasons for your response

48. Sky agrees with the proposals as outlined in this section.

Question 34

Do you agree with ComReg's preliminary view that the connection costs associated with CGA and NGA services should be recovered through a combination of an upfront connection charge and a monthly rental charge as set out at paragraph 13.43? Please provide reasons for your response.

49. Sky agrees with ComReg's proposal in this section. The magnitude of Eircom's FTTH connection charge price increase from €150 to €270 highlights the urgency for imposing a cost orientation obligation on such ancillary services as uncertainty around this key pricing component can distort the market and give Eircom a distinct advantage over its competitors in terms of "picking" a price that best meets its own commercial objectives independent of its wholesale customers.

ANNEX 1

1. Analysys Mason Report (confidential and non-confidential versions).



Final report for Sky Ireland

**WLA and WCA
consultation support**

20 June 2017

Gilles Monniaux, Audrey Bellis

Ref: 2010337-241

Contents

1	Introduction	1
2	Comments on ComReg's pricing proposals as set out in the 2016 market review	2
2.1	Q1	2
3	Comments on ComReg's costing methodology proposals	4
3.1	Q2	4
3.2	Q3	4
4	Comments on ComReg's NGA cost model	6
4.1	Q5	6
4.2	Q6	11
4.3	Q7	11
4.4	Q8	13
5	Comments on ComReg's pricing approach for FTTC-based NGA services	16
5.1	Q9	16
5.2	Q13	16
6	Comments on ComReg's NGN core model	17
6.1	Q16	17
6.2	Q17	18
7	Comments on ComReg's pricing approaches for CGA services	20
7.1	Q18	20
8	Comments on ComReg's margin squeezes proposals	21
8.1	Q23	21
8.2	Q25	22
8.3	Q26	22
9	Comments on ComReg's proposals for ancillary charges	23
9.1	Q34	23

Copyright © 2017. The information contained herein is the property of Analysys Mason Limited and is provided on condition that it will not be reproduced, copied, lent or disclosed, directly or indirectly, nor used for any purpose other than that for which it was specifically furnished.

Analysys Mason Limited
St Giles Court
24 Castle Street
Cambridge CB3 0AJ
UK
Tel: +44 (0)1223 460600
cambridge@analysysmason.com
www.analysysmason.com
Registered in England No. 5177472

1 Introduction

On 7 April 2017 ComReg published a consultation ('the Consultation document') regarding price control obligations in Market 3a (WLA) and Market 3b (WCA)¹. Analysys Mason has been commissioned by Sky Ireland to produce a report analysing the Consultation document and proposed regulation by ComReg.

The remainder of this document is laid out as follows:

- Section 2 includes comments on ComReg's pricing proposals
- Section 3 includes comments on ComReg's costing methodology proposals
- Section 4 includes comments on ComReg's NGA cost model
- Section 5 includes comments on ComReg's pricing approach for FTTC-based NGA services
- Section 6 includes comments on ComReg's NGN Core Model
- Section 7 includes comments on ComReg's pricing approaches for CGA services
- Section 8 includes comments on ComReg's margin squeezes proposals
- Section 9 includes comments on ComReg's proposals for ancillary charges.

¹ Consultation and Draft Decision, ComReg 17/26, dated 7/04/2017.

2 Comments on ComReg's pricing proposals as set out in the 2016 market review

In this section, we comment on ComReg's pricing proposals as set out in the 2016 market review².

2.1 Q1

Q1 Do you have any further comments regarding the pricing proposals in ComReg Document 16/96 (WLA/WCA Market Review) in light of the pricing obligations further specified in this Draft Decision? Please provide reasons for your response.

2.1.1 ComReg is right to emphasise the need for consistency between LLU/SLU and FTTC-based VUA, but FTTH-VUA should also be regulated in the same way

In §5.7 and §5.77, ComReg argues the need to use a consistent methodology between LLU/SLU and FTTC-based VUA. We agree that this is a good way to provide regulatory certainty in the Irish market. However, to date ComReg has chosen not to regulate FTTH-based VUA in the same way as LLU/SLU and FTTC-based VUA. In §6.6, ComReg explains that this is because “a large degree of uncertainty still prevails with regard to the costs of FTTH network deployment and the reach and uptake for FTTH services”.

The NGA recommendation allows no cost orientation for NGA services provided there is

- equivalence of inputs or obligations relating to technical replicability when equivalence of inputs is not yet fully implemented
- obligations relating to the margin squeeze obligation
- a demonstrable retail price constraint (created either by alternative infrastructures or by competing access products).

It is not clear that FTTH fulfils those conditions in Ireland as ComReg's main argument for not applying cost orientation to FTTH is about the uncertainty of demand, not the presence of alternative infrastructure. ComReg could clarify why it thinks cost orientation is not needed for FTTH access services at this time and how its decision is consistent with the NGA recommendation.

It would be useful for ComReg to monitor the situation closely and potentially regulate FTTH-based VUA in the same way as LLU/SLU and FTTC-based VUA in the near future e.g. at least before FTTH reaches similar maturity as FTTC has today. This suggestion to monitor and potentially regulate prior to FTTH maturity arises from the view that previous assumed constraints on FTTC pricing proved not to be effective and significant price increases for FTTC were notified by Eircom in mid-2016.

² Consultation and Draft Decision: Market Reviews – Wholesale Local Access (WLA) provided at a Fixed Location and Wholesale Central Access (WCA) provided at a fixed location for Mass Market Products; dated 11 November 2016

2.1.2 FTTH VUA should be cost oriented in NBP areas

For CGA and FTTC wholesale services, ComReg proposes cost orientation combined with wholesale and/or retail margin squeeze tests to allow economic replicability. For FTTH wholesale services, however, ComReg only proposes wholesale and/or retail margin squeeze tests.

The NGA recommendation suggests that it is possible not to apply cost orientation for NGA services provided there is

- equivalence of inputs or obligations relating to technical replicability when equivalence of inputs is not yet fully implemented
- obligations relating to the margin squeeze obligation
- a demonstrable retail price constraint (created either by alternative infrastructures or by competing access products).

The consultation does not explicitly discuss the 'equivalent of inputs' however we assume that the existing FTTH products satisfy the first criterion. ComReg proposes margin squeeze tests which satisfies the second criterion. However, we are not convinced that the third criterion is satisfied, especially in the NBP areas. In the NBP areas, the provider of the NBP FTTH network is not expected to face NGA competition and therefore there would not be any retail price constraints absent service-based competition, i.e. FTTH VUA should be cost oriented in NBP areas.

3 Comments on ComReg's costing methodology proposals

In this section, we comment on ComReg's costing methodology proposals as set out in Chapter 5 of the Consultation document.

3.1 Q2

Q2 Do you agree with ComReg's preliminary view that the BU-LRAIC+ methodology should be applied to determine the appropriate level of costs associated with the provision of FTTC-based VUA (including EVDSL) in the WLA Market and for FTTC-based bitstream and current generation bitstream and BMB in the Regional WCA Market? Please provide reasons for your response.

3.1.1 The use of BU-LRAIC+ for cost-oriented FTTC and CGA services is reasonable

In §5.35 and §5.37, ComReg proposes that cost orientation for FTTC-based VUA (and EVDSL) services in the WLA market and FTTC-based bitstream in the Regional WCA Market should be done on an LRAIC+ basis. Similarly, ComReg proposes in §5.38 to §5.40 that CGA services should be regulated on an LRAIC+ basis rather than FAC/HCA as it was before.

The move to LRAIC+ for cost-oriented FTTC and CGA services is reasonable as a way to promote consistency with other regulated services (e.g. access network costs, regulated leased line services) and to reduce the risk of recovery of inefficiently incurred costs and outdated historical costs.

3.2 Q3

Q3 Do you agree with ComReg's preliminary views regarding the proposed costing methodology for reusable assets, non-reusable assets and active/other assets in the provision of FTTC-based VUA (including EVDSL), FTTC-based bitstream and current generation bitstream and BMB services? Please provide reasons for your response.

3.2.1 ComReg's treatment of D-side assets in FTTC areas does not reflect the real situation or its own statements in the Consultation document

SLU (and LLU for EVDSL lines) is an important component of FTTC-based NGA services. In that context, §5.89 to §5.98 refer to the fact that the LLU/SLU decisions taken in 2016 have treated D-side "other passive local loop assets" (i.e. NTU, final drops, joints, D-side cables, cabinets) as entirely non-reusable assets that have therefore been assessed on a replacement costs/LRAIC+ basis.

In FTTC areas (i.e. areas where there is no FTTH and no NBP), however, those D-side "other passive local loop assets" are being reused by eircom. Treating these assets as entirely non-reusable is therefore not consistent with the real situation. In addition, this is also not consistent with other statements from ComReg in its consultation document including:

- §5.91, which indicates that ComReg expects copper replacement “at least on the E side”
- §5.100, which indicates that ComReg considers cables as different from active assets (although both are treated as non-reusable assets in the SLU/LLU decision)
- §6.59, which indicates “FTTC services can reutilise the D-Side copper network”.

In ComReg’s proposals, the D-side “other passive local loop assets” are assessed on a replacement costs/LRAIC+ basis rather than on a regulatory accounting/indexation method basis. By treating assets that are actually reused by eircom as non-reusable, ComReg is allowing eircom to recover more than its efficiently incurred costs.

ComReg should modify its methodology and treat at least a share of D-side “other passive local loop assets” in FTTC areas (i.e. areas where there is no FTTH and no NBP) as reusable. The reusable assets should be assessed on a regulatory accounting/indexation method basis while the non-reusable assets should be assessed on a replacement costs/LRAIC+ basis. The proportion of reusable assets to total assets (i.e. the reuse factor) should be determined based on actual reuse of D-side “other passive local loop assets” by eircom when it deploys FTTC. The same should be done for EVDSL areas for the full copper local loop assets as the full local loop can be reused for NGA in the case of EVDSL areas.

3.2.2 ComReg’s treatment of D-side assets in the NBP areas is not reasonable given expected competition for the NBP

The NBP areas (mainly Regional WCA Market 2) are effectively guaranteed to have FTTH over the period of this review. There is competition to supply the NBP, so it is highly certain that FTTH will be deployed in NBP areas. In addition, eircom is extending its own FTTH network within the originally planned NBP footprint. This means that in the NBP areas, the D-side copper will neither be reused for NGA nor replaced when it reaches the end of its life as it would not make any sense for eircom to re-invest in a copper network when the NBP FTTH network is present. As a consequence, there is no need to value copper on a LRAIC+ replacement cost basis in NBP areas. Modelling copper with a replacement cost in the NBP areas would award eircom the replacement cost of copper when in fact no party wants to use the copper for NGA or needs to renew the copper in that area.

3.2.3 Lack of detail or clarity regarding ComReg’s proposals

In this section, we identify a number of points raised by the lack of clarity or detail in the consultation document.

- Figure 8 may contain an error as it does not include a local loop in the components of CGA bitstream.
- The sources of the following are not clear:
 - reuse factor of 92% for poles (§5.87)
 - reuse factor of 95% for trenches (§5.88)

ComReg should clarify and publish the sources if they are based on public benchmarks.

4 Comments on ComReg's NGA cost model

In this section, we comment on ComReg's NGA cost model as described in Chapter 6 of the Consultation document.

4.1 Q5

Q5 Do you agree with ComReg's proposed modelling approach for determining the demand and costs inputs associated with the provision of FTTC-based VUA, including remote VUA, local VUA and EVDSL services? Please provide reasons for your response.

4.1.1 The dimensioning of DSLAM/OLTs does not appear to follow a truly bottom-up model approach

In §6.46, ComReg explains that the number of DSLAMs/OLTs is based on the number of those assets operated by eircom in 2016. This raises two issues:

- First, the number of assets between 2013 (model start date) and 2016 may be too high unless a progressive deployment has been modelled (which is not clear from the consultation³)
- Second, the number of assets may be too high in absolute terms if eircom has over-dimensioned for either copper or fibre access technologies, or both of these technologies, at the present time.

A truly bottom-up model approach would initially include a lower number of assets (e.g. one per DSLAM/OLT location according to the deployment schedule) with demand over time driving the deployment of additional DSLAM/OLTs. A calibration of the model results for 2016 with eircom's data (adjusted for any inefficiencies) could be done to ensure a realistic but efficient deployment.

We suggest further clarification of and investigation into a bottom-up calculation of eircom's efficiently dimensioned, progressive deployment of DSLAMs/OLTs, such that no over-dimensioning is included in the calculated costs.

4.1.2 The use of economic depreciation is reasonable, however its implementation could be improved

§6.75 explains that economic depreciation (ED) is used for VUA components. In our opinion this approach makes sense given the significant changes over time in the level of demand for broadband services.

In §6.155, ComReg explains that ED "calculates an average cost that is constant for every year of the cost model or a price that evolves in line with the changes to the price of the underlying network asset". However, we note from the 'Draft NGA Cost Model – Public v2' model that the ED calculation only

³ Slide 13 of the 'Draft NGA specification document April 2017 – Public v2' presentation indicates a ramp-up: "From 2013 to 2016, DSLAM number follows the deployment phases as per "AMP per volume" file". However, sheet "DSLAM" of the 'Draft NGA Cost Model – Public v2' model shows no such ramp-up with an actual model start date of 2016 instead of the 2013 indicated in the consultation document

takes into account asset cost trends when calculating the discounted volume of subscribers (if that option is selected). The ED calculation does not appear to apply the asset cost trend to the result of the division (discounted costs/discounted volume of subscribers) to calculate a price that changes over time.

We suggest that a price which is constant for every year of the cost model is not consistent with an ED method reflecting the economic value of the assets (i.e. the asset cost trend).

4.1.3 The inclusion of longer SLU line lengths is problematic

§6.100 indicates that ComReg plans to use as model input a SLU component based on all SLU lines up to 2.5km in length. This is despite the fact that long lines are not capable of delivering an NGA service of 30Mbit/s. (ComReg suggests in the same paragraph that long lines may be able to receive up to 10 or 20 Mbit/s.)

End users with lines between 1.5km and 2.5km in length may be willing to pay for FTTC services. The FTTC services would be an improvement on lower-speed CGA services. However, it is not clear how much FTTC take-up there would be. It is also not clear whether end users with lines between 1.5km and 2.5km in length, who would not be able to receive a 30Mbit/s service even if they upgraded to FTTC, would be willing to pay as much as end users able to receive a 30Mbit/s service.

ComReg offers no evidence, such as from actual consumer surveys or conjoint analysis, showing what proportion of end users with lines between 1.5km and 2.5km in length would be willing to pay for FTTC services (and thereby should be included when calculating the SLU cost component). Including all lines between 1.5km and 2.5km also assumes that the FTTC take-up for those lines will be the same as for lines shorter than 1.5km, which seems unrealistic.

By including lines between 1.5km and 2.5km in length in the calculation, ComReg increases the cost of FTTC wholesale services for OAOs (by “less than €0.50 per line per month” according to §6.97). If end users with lines between 1.5km and 2.5km in length do not take up FTTC services at the same rate as end users with lines shorter than 1.5km, OAOs risk end up paying too much for FTTC wholesale services.

4.1.4 The use of national SLU and LLU inputs as NGA inputs is not reasonable

In §6.100 and §6.101, ComReg explains that it has used SLU and LLU costs calculated on a nationwide basis (excluding lines above 2.5km in length for SLU). However, FTTC services will only be available in FTTC NGA areas and not nationwide. The average SLU or LLU line length is likely to be longer in non-NGA areas (as confirmed by ComReg in §7.8) so using national values risks over-estimating the costs of FTTC wholesale services. An alternative would be for ComReg to define VDSL-specific SLU and LLU products used as inputs for FTTC VUA and bitstream products. §7.19 shows a precedent where ComReg has used varying LLU input prices based on varying options for the geographical footprint of the calculation.

4.1.5 The cost of VUA should be based on eircom's costs or an EEO's costs

In §6.110 and §6.135, ComReg indicates that “[i]n order to ensure that the investments made by alternative operators in remote sites is protected (...) the inter-aggregation link (...between the node reach site and the parent aggregation node...) is assessed in the NGN model based on the OAO (or REO) scenario (and not based on Eircom's costs).” Therefore, ComReg uses a different operator basis for the “pure” VUA components (i.e. based on eircom's costs) and the “inter-aggregation link” costs components (i.e. based on the costs of an operator with a 25% market share). It is not consistent to use a different operator definition for different parts of the same network. While there may be some debate about the appropriate operator definition to use, the definition is usually applied consistently across network elements.

The use of different operator types is unexpected here as ‘remote VUA’ and ‘local VUA’ are technical components of a product (VUA) only offered by eircom.

We note that §6.137 says “Please note that the FTTC-based VUA costs are based on the BU-LRAIC+ costs of Eircom and are not reflective of a SEO” which directly contradicts §6.110 and §6.135. We assume this is an error in §6.137.

ComReg's proposals result in a FTTC-based VUA which is above eircom's efficiently incurred costs. Consequently, due to its higher market share eircom will benefit from extra profit compared to its efficiently incurred costs.

ComReg should modify its methodology and use eircom's scale for all cost components of FTTC-based VUA.

4.1.6 FTTC DSLAM dimensioning could be more modular

In §6.45, ComReg describes a modular dimensioning of FTTC DSLAMs. However, in §6.113, ComReg indicates that “the cost of shelves and port cards are also included in the average cost of the FTTC DSLAM”, which potentially implies an average configuration. §6.112 and §6.113 do not clearly indicate whether each DSLAM cost component has its own lifetime or whether an average lifetime of eight years is used for the entire configuration. ESB connection costs and existing copper cabinet remediation costs are incurred only once, while the cabinet itself is replaced. This may imply different assumptions for different assets, but it is not clearly stated.

Sheet “Inputs” of the ‘Draft NGA Cost Model – Public v2’ confirms that VDSL cabinets include the following assets:

- ‘New active cab incl. VDSL Node’ with an asset life of 8 years
- ‘Cabinet I&C Huawei’ with an asset life of 8 years
- ‘Plinth’ with an asset life of 40 years
- ‘Council’ with an asset life of 40 years
- ‘ESB’ with an asset life of 40 years
- ‘Existing copper cab remediation’ with an asset life of 20 years

- ‘Copper link cable’ with an asset life of 20 years
- ‘Duct to existing cabinet’ with an asset life of 40 years
- ‘Commissioning cabinet’ with an asset life of 8 years
- ‘Vectoring’ with an asset life of 8 years
- ‘Other Cab Costs’ with an asset life of 8 years
- ‘Cabinetise’ with an asset life of 8 years.

All components of the FTTC DSLAM are therefore included in the first asset with a stated capacity of 192 ports. The calculation could be made more modular by having separate assets for the FTTC DSLAM chassis, additional shelves and cards. This would, for instance, make allowance for FTTC DSLAMs with less than 192 ports (assuming it is possible to deploy a rack with less than the full number of shelves and ports cards).

Based on the “NGA Forum Update” documents from eircom, the number of full/limited space cabinets is very low (less than 1%; around 50 to 60 from more than 6000 cabinets). It is therefore also possible that many cabinets have been over-dimensioned.

4.1.7 EVDSL DSLAM dimensioning could be combined with CGA DSLAMs

§6.48 seems to indicate that ComReg’s modelling does not allow for the possibility that EVDSL DSLAMs and CGA DSLAMs are combined (possibly with different line cards in the same chassis) or that all CGA DSLAMs are replaced by EVDSL-compatible DSLAMs even if some end users stay on CGA services (i.e. the same line cards would be used for EVDSL and CGA with CGA services being restricted by configuration from reaching EVDSL performance levels).

This approach of combined CGA DSLAMs and EVDSL DSLAMs (with xDSL cards able to offer both ADSL and VDSL services) is for instance the one used by BIPT in Belgium in its NGN core model.

The sheet “Inputs” of the ‘Draft NGA Cost Model – Public v2’ model confirms that dedicated EVDSL DSLAM assets are deployed:

- ‘EVDSL DSLAM Rack (192 ports)’ with an asset life of 8 years
- ‘EVDSL DSLAM Rack (36 port cards)’ with an asset life of 8 years
- ‘EVDSL DSLAM shelf (8 port cardsx288 ports max capacity)’ with an asset life of 8 years
- ‘EVDSL DSLAM Port cards (48 ports)’ with an asset life of 8 years.

ComReg should consider modelling the same DSLAMs for CGA and EVDSL to avoid asset duplications in exchanges.

4.1.8 Lack of detail or clarity regarding ComReg’s proposals

In this section, we identify a number of points raised by the lack of clarity or detail in the consultation document.

- The consultation mentions the use of the NGA margin squeeze model “cost stacks” as a starting point to determine the appropriate BU-LRAIC+ costs (i.e. the NGA cost model) (§6.3). It also mentions an access model dimensioned on a bottom-up basis using a “scorched node” approach (§6.34). The ‘Draft NGA Cost Model – Public v2’ shows a bottom-up calculation that is consistent with §6.34. ComReg should clarify what §6.3 means when it describes the use of the NGA margin squeeze model “cost stacks” and how that is consistent with a bottom-up approach.
- In §6.53 and §6.120, ComReg describes the use of SR12s as aggregation nodes. However, Chapter 8 mentions the use of ESS12s as aggregation nodes and SR12s being used as edge nodes. We note in addition that SR12s have large capacities (typically up to 200GB of total capacity per chassis). §6.141 indicates that “each aggregation node has a design capacity of 10 Giga Ethernet (GE) ports”, which is more consistent with an ESS12 than an SR12. The ‘Draft NGA Cost Model – Public v2’ does not reveal whether ESS12s or SR12s are modelled. ComReg should clarify and ensure that the more expensive SR12s are only modelled if there is a sufficiently high amount of traffic. Otherwise, cheaper ESS12s should be modelled.
- §6.54 does not indicate whether any efficiency checks/adjustments have been made to cost model inputs derived from eircom data (i.e. ‘design and planning costs’, ‘Network Management Systems’ and ‘cost of migrating end users from CGA services to NGA services’). It is also not clear whether ‘design and planning costs’ are assumed to be incurred only once per asset or if these costs are assumed to be incurred every time the asset is replaced. The latter would not be an efficient assumption as ‘design and planning’ is required initially when the asset is deployed for the first time rather than when it is replaced. The only exception would be if the replacement asset was so different from the initial asset that a re-planning was required but this seems unlikely given that ComReg has explicitly modelled separate technologies in the different NGA areas.
- In §6.54 and §6.123, the explanations about the ‘cost of migrating end users from CGA services to NGA services’ does not explain what those costs are in practice and how they relate to non-recurring fees. It would make sense to include those costs in monthly line charges if they correspond to the initial installation or migrations, with later, “in life” migrations being charged as non-recurring fees. Chapter 13 suggests that upfront costs should only consist of “those costs that arise each time an end user migrates between RSPs” (§13.39). This would be consistent with the above-mentioned approach. ComReg should be more transparent in what is included in the ‘cost of migrating end users from CGA services to NGA services’ that forms part of the monthly rental cost and how this avoids double-counting with non-recurring fees charged upfront.
- In §6.77, ComReg indicates that efficiency adjustment checks have been made to the 2016 eircom HCA cost data to estimate the operational cost inputs of the Revised CAM model. This seems reasonable, but the lack of detail (beyond mentioning the LFI rate check and its impact on staff levels) makes it difficult for any party except eircom to comment or contribute. To clarify the outcome of this assessment, ComReg should disclose where it made efficiency adjustments, of what magnitude and on what basis.

4.2 Q6

Q6 Do you agree with the proposed inputs and assumptions in the NGA cost model for determining the costs associated with the provision of FTTC-based bitstream? Please provide reasons for your response.

4.2.1 FTTC-based bitstream element costs should be based on eircom's costs or an EEO's costs

§5.72 and §6.129 show that in the modelling of FTTC-based bitstream, ComReg uses a different operator basis for the bitstream VUA components (i.e. based mostly on eircom's costs though not entirely, as seen in 4.1.5) and the bitstream-specific cost component backhaul costs and WEILs (i.e. based on the costs of an operator with a 25% market share). It is not consistent to use a different operator definition for different parts of the same regulated network. While there may be some debate about the appropriate operator definition to use, the definition is usually applied consistently across network elements.

ComReg's proposals result in a FTTC-based bitstream which is above eircom's efficiently incurred costs. Consequently, due to its higher market share eircom will benefit from extra profit compared to its efficiently incurred costs.

ComReg should modify its methodology and use eircom's scale for all cost components of FTTC-based bitstream. By comparison, in the UK an allowance for the higher bandwidth costs of OAOs is applied by Ofcom, but within the margin squeeze test 'downstream margin' as opposed to the wholesale price of regulated incumbent network access.

4.3 Q7

Q7 Do you agree with the proposed approach for determining the port rental costs for POTS-based FTTC NGA services going forward and the proposed additional port rental price for POTS-based FTTC services of €4.96?

4.3.1 The modelling of POTS-based FTTC NGA services does not reflect efficient dimensioning

In §6.147, ComReg explains that

- the cost for POTS-based VUA service is calculated as FTTC-based VUA service + LLU – SLU (POTS-based VUA requires access to a full copper local loop) + POTS line card in the local exchange
- the cost for POTS-based EVDSL service is calculated as EVDSL-based VUA service + POTS line card in the local (as the full LLU cost is already recovered in the EVDSL charge).

The consultation does not explain what relative proportion of EVDSL lines (as opposed to FTTC lines) has been used in the calculation. The current proportion might be too low because of constraints from eircom's legacy architecture and/or current DSLAM generation. The proportion could rise with the

deployment of a more efficient architecture or DSLAM generation. If the proportion used is too low, this would result in an over-estimation of the cost.

The calculation in §6.147 means that the customers selecting POTS-based NGA pay twice for the feeder trench and pays both for a copper feeder cable and for a fibre feeder cable. This is not efficient and reflects the dated architecture of eircom's network – POTS is based in exchanges and NGA is based in cabinets. As a consequence, a customer using POTS-based NGA pays twice as much in feeder costs as a customer using VoIP-based NGA. The double payment for the trench is limited to some extent because the trench is a reusable asset (at 95%) and therefore assessed on a RAB/historical basis. However, the copper feeder cable is revalued on a replacement cost instead of being considered as a reusable asset which amplifies the issue of having to pay for it on top of the fibre feeder cable.

Having two different feeder networks is inefficient. The main reason eircom does this is because its copper feeder is a sunk cost. eircom therefore rationally compares the cost of continuing to use its copper feeder (low cost, only maintenance required) to the cost of upgrading DSLAMs to MSANs (material cost). We presume eircom concludes that it is better to split voice and data at the exchange and use both feeders. However, the cost modelling does not reflect that decision, as it values the copper feeder cable on a full replacement basis. If eircom faced the forward-looking choice of either deploying a new copper feeder or upgrading DSLAMs to MSANs, we believe it would adopt the latter as the modern, efficient choice.

We note that in §8.53, ComReg suggests that in the NGN core model, voice services are handled by DSLAMs. This contradicts the use of two feeder networks for POTS-based FTTC NGA services.

In order to have an efficient modelling of POTS-based NGA, ComReg should modify its methodology and:

- either model voice provision as a MEA i.e. with the TDM-to-IP conversion being done in the cabinet by the DSLAM (which would become a MSAN) and with no copper feeder needed
- or model voice provision in the traditional way but treat the entire copper feeder as a reusable asset.

4.3.2 The pricing of POTS-based FTTH, though not addressed in the consultation, raises similar issues to POTS-based NGA

The consultation does not address the issue of POTS-based FTTH, which requires OAOs to buy a full wholesale line rental (WLR) component on top of the FTTH component.

This raises similar issues to POTS-base NGA. The lack of an integrated, modern-equivalent voice and broadband architecture results in an inefficient duplication of infrastructure between the voice and broadband components. The issue is more significant in the case of POTS-based FTTH, as both the feeder and the distribution are duplicated.

ComReg should modify its methodology and:

- either model voice provision as an MEA i.e. with the TDM-to-IP conversion being done in the ONT and with no copper access line needed
- or model voice provision in the traditional way but treat the entire copper line as a reusable asset, and make sure that the LLU model takes into account the sharing of infrastructure with FTTH so that there is no double recovery of costs.

4.4 Q8

Q8 Do you agree with ComReg's preliminary view that a consistent monthly or annual charge should apply for each year of the price control period in relation to the NGA cost model and NGN core model? Please provide reasons for your response.

4.4.1 The magnitude of the increase in NGA service access line charges over time is not explained or justified by a transparent calculation

In §6.155, ComReg explains that economic depreciation (ED) “calculates an average cost that is constant for every year of the cost model or a price that evolves in line with the changes to the price of the underlying network asset”.

The upwards direction of the evolution over time of NGA services seems to indicate that the model assumes that on average, the prices of the underlying network assets increase over time (in other words, the cost trends are positive). However, the magnitude of that increase appears large (as shown in Figure 4.1 below). The size of the increase is not fully explained by ComReg, or supported by a transparent model calculation.

Figure 4.1: Comparison between increases in proposed prices in Ireland and wholesale prices trends in France and in the UK [Source: Analysys Mason, 2017]

Service	Country	Percentage change	Comment
FTTC-based VUA	Ireland ⁴	2.1% to 2.2%	From 2017/18 to 2021/22
FTTC-based bitstream per port charge (assumed 90% / 10% mix)	Ireland	2.0% to 2.1%	From 2017/18 to 2021/22
CGA BMB Bitstream per port charge (national)	Ireland	2.4% to 2.9%	From 2017/18 to 2020/21
CGA BMB Bitstream per port charge (regional)	Ireland	2.2% to 2.8%	From 2017/18 to 2020/21
MPF rental	UK ⁵	CPI +0.3%	Charge 2015/16 to 2016/17

⁴ Source: Chapter 14 of ComReg's consultation document

⁵ Source: <https://www.ofcom.org.uk/about-ofcom/latest/media/analysts/regulated-prices>

Service	Country	Percentage change	Comment
SMPF rental	UK	CPI -33.4%	Charge 2015/16 to 2016/17
WLR rental	UK	CPI -3.0%	Charge 2015/16 to 2016/17
Fully unbundled line recurring monthly fee	France ⁶	+3.84%	2016 to 2017
Shared access line recurring monthly fee	France	No change	Period of 2014 to 2017
Recurring monthly fee for analogue WLR	France	+1%	2014 to 2015/16/17
Recurring monthly fee for digital WLR	France	No change	2014 to 2016

We note that the treatment of D-side copper assets as non-reusable assets might be a contributing factor as copper prices are known for their volatility. As indicated previously, ComReg should treat D-side copper assets as reusable assets which would reduce the magnitude of the cost increase over time.

In addition, ComReg should fully explain the magnitude of increase over time of NGA services. This would include disclosing what price trends are used (by asset type) and which assets contribute to the cost increase over time. Given the long lifetime of copper assets and their diminishing relevance to supplying fixed access connectivity, short-term copper price trends do not reflect the underlying economic value of the copper assets.

Sheet “Inputs” of the ‘Draft NGA Cost Model – Public v2’ shows 0% price trends for all assets. If asset prices are expected to be increasing in Ireland, this is relevant to the wider telecoms industry and not something that eircom should consider to be confidential or commercially sensitive. Figure 4.2 shows examples of cost trends by asset category set by the Swedish Post and Telecom Authority (PTS) in Sweden.

Figure 4.2: Examples of cost trends in Sweden [Source: Analysys Mason, 2017]

Equipment	Country	Percentage change per annum
Active equipment (e.g. switches)	Sweden ⁷	-5%
Passive equipment (e.g. fibre cable)	Sweden ⁸	-2%
Passive equipment (e.g. ODF, Fibre NTP)	Sweden ⁹	0%

⁶ Source: http://www.arcep.fr/index.php?id=8571&no_cache=1&L=1&tx_gsactualite_pi1%5Buid%5D=1800&cHash=34d2e3c17b86b2b66fe9977b266d7e55

⁷ Source: PTS Hybrid Core Model, Final HY Core model 10.1.xls available on <http://www.pts.se>

⁸ Source: PTS Hybrid Access Model, Final HY Access model 10.1.xls available on <http://www.pts.se>

⁹ Source: PTS Hybrid Core Model, Final HY Core model 10.1.xls

Equipment	Country	Percentage change per annum
Civil works (e.g. manhole, cabinets, poles)	Sweden ¹⁰	1%
Civil works (e.g. trench, ducts)	Sweden ¹¹	2%
Passive equipment (e.g. copper cable)	Sweden ¹²	6%

¹⁰ Source: PTS Hybrid Access Model, Final HY Access model 10.1.xls

¹¹ Source: PTS Hybrid Core Model, Final HY Core model 10.1.xls

¹² Source: PTS Hybrid Access Model, Final HY Access model 10.1.xls

5 Comments on ComReg's pricing approach for FTTC-based NGA services

In this section, we comment on ComReg's pricing approach for FTTC-based NGA services as described in Chapter 7 of the Consultation document.

5.1 Q9

Q9 Do you agree with ComReg's preliminary view that the single monthly rental charge for FTTC-based VUA (including EVDSL-based VUA) should be based on the BU-LRAIC+ methodology generally and Eircom's indexed RAB for reusable assets in those exchanges where Eircom has deployed active FTTC and EVDSL lines? Please provide reasons for your response.

Please refer to Sections 3.2.1, 4.1 and 4.4.1 for our previous comments on the cost modelling of FTTC-based VUA (including EVDSL-based VUA).

5.2 Q13

Q13 Do you agree with ComReg's preliminary view that the monthly rental charge for FTTC-based bitstream should be based on the BU-LRAIC+ methodology and Eircom's indexed RAB applied to reusable assets based on those local VUA sites yet to be unbundled in the Regional WCA Market and with an adjustment to bitstream-specific costs to reflect the scale of a hypothetical SEO with a 25% retail broadband market share? Please provide reasons for your response.

Please refer to Sections 3.2.1, 4.1 and 4.2.1 for our previous comments on the cost modelling of FTTC-based bitstream.

5.2.1 The cost of FTTC-based bitstream should be based on all local VUA sites in the Regional WCA Market rather than on yet-to-be-unbundled local VUA sites in the Regional WCA Market

In §7.79 to §7.91, ComReg proposes calculating the cost of FTTC-based bitstream using only yet-to-be-unbundled local VUA sites in the Regional WCA Market. Using this calculation would mean that the cost of FTTC-based bitstream would not be the efficiently incurred cost for eircom (the operator being regulated) but the cost that would be incurred by an unbundler in yet-to-be-unbundled local VUA sites. Using costs calculated based on only 48 yet-to-be-unbundled local VUA exchanges and then applying these costs to the 78 local VUA exchanges in the Regional WCA Market creates a discrepancy. We suggest that costs for FTTC-based bitstream should be based on all local VUA sites in the Regional WCA Market.

6 Comments on ComReg's NGN core model

In this section, we comment on ComReg's NGN core model as described in Chapter 8 of the Consultation document.

6.1 Q16

Q16 Do you agree with the proposed principles, inputs and assumptions in the NGN core model for determining the costs associated with the provision of broadband services? Please provide reasons for your response.

6.1.1 The calculation of backhaul for bitstream services implies a cross-subsidisation between leased line and broadband and voice services

In §8.53, ComReg explains that the number of access-facing ports for ANs includes:

- 1 port per fibre termination for leased lines
- 2 ports per DSLAM for broadband and voice services¹³.

In §8.82, ComReg indicates that a “fee or cost for each 1M/b of traversal cost” is calculated for each type of router (aggregation, edge and core routers) by dividing the total costs of router ports by the total traffic level. This makes sense at the edge and core routers level which are pure routing elements, but not for aggregation routers. This is because as seen above, part of the access-facing ports for aggregation routers are connectivity-driven (e.g. ports used by leased lines) rather than (significantly) traffic-driven. By calculating an average cost for each 1Mbit/s, the NGN core model creates a cross-subsidisation between leased line and broadband and voice services.

A more appropriate allocation of asset costs to the services causing them would avoid this. Leased line-facing router ports would be allocated to leased line services, while DSLAM-facing router ports would be allocated to broadband and voice services.

6.1.2 The depreciation method used in the NGN core model is not consistent with the method used for the NGA cost model

In Chapter 8, it is not clear if the core model uses ED. §8.18 mentions dimensioning for a given year, which could imply a tilted annuity.

Slide 94 of the ‘Draft NGN specification document April 2017 – Public v2’ presentation indicates that the following annuity formula is used:

¹³ The reference to voice services handled by DSLAM is surprising given the way POTS-based FTTC NGA services is modelled (see Section 4.3.1 of this report)

$$A_1 = \frac{I}{(1+w)^{T+\frac{1}{2}}} \times \left[\frac{w-P}{1 - \left(\frac{1+P}{1+w}\right)^N} \right]$$

- *A₁, the annual charge in year one (used for price calculation)*
- *I, the investment value of the asset*
- *w, the cost of capital (parameter)*
- *P, the real annual change in the price of the asset*
- *N, the useful life of the asset*
- *T, the average payment term for the 4th formula*

Figure 6.1: 'Draft NGN specification document April 2017 – Public v2' presentation [Source: ComReg, 2017]

ComReg does not explain the reason for using ED for NGA access services and tilted annuity for core services. In addition, as shown in Figure 6.1 above, the tilted annuity adjusts only for assumed equipment price trends and not for demand growth. We expect there to be considerable demand growth in the core network (associated with increasing fibre broadband take-up) and hence the tilted annuity should also have a demand tilt to account for expected demand growth. This would also make the core network costing consistent with the approach for NGA services.

6.2 Q17

Q17 Do you agree with ComReg's preliminary view that traffic costs on the core network should be allocated based on revenue per user (Option 3 above)? Please provide reasons for your response.

6.2.1 The proposed cost allocation of fixed network costs among services is not consistent and does not follow cost causation

In §8.113, ComReg suggests a different allocation among services between fixed elements (allocated by one of four methods discussed below) and variable elements (allocated based on traffic per service). This is reasonable in principle, however:

- connectivity-driven ports (e.g. ports used by leased lines) should be allocated directly to the services causing them
- building costs should not be considered as one asset to be allocated, but could be treated as a charge for the use of the building (i.e. a charge per m²) which could be included in the unit opex of each asset
 - this would be more reflective of adhering to cost causation principles (i.e. modelling building costs as one single cost item creates a cost allocation problem which is avoided by “charging” each asset for its use of building resources).

In §8.115–§8.123, ComReg discusses four options to allocate fixed network costs among services. It proposes using Option 3, an allocation based on the share of revenue per service (calculated from fixed revenue per service per user and forecast product volumes changes), as a way to reflect relative willingness to pay for the different services.

There are some issues common to Options 3 and 4:

- using revenue per service creates a circularity – retail prices are partly driven by wholesale prices and Options 3 and 4 link back wholesale prices back to retail prices
- given the increasing popularity of bundles, their revenue needs to be allocated between broadband, voice and IPTV services which is not a trivial problem
 - it is not clear that the input data on revenues will truly reflect the willingness of consumers to pay for broadband services considered within the scope of WLA and WCA costs (prices).

In addition, Option 3 suffers from the uncertainty associated with forecasting. If ComReg underestimates the take-up of for instance IPTV or leased line services, OAOs buying broadband services risk paying too much. We note that in §8.121, ComReg implies that with Option 3 “if the forecast traffic per user for a service increases significantly (...), the fixed costs allocated across each of the services will change”. This contradicts the assumption of a fixed revenue per user and also counters ComReg’s own argument in §8.121 that “broadband and leased lines services have increasing levels of traffic per end user but end users are generally not willing to pay a high price for this better service”.

We believe that Option 1 does not reflect willingness to pay and that Option 2 is arbitrary and does not reflect either cost causation nor willingness to pay. An alternative option would be to use a statistical method like conjoint analysis. This could enable a more accurate analysis of consumers’ relative willingness to pay for the different types of service included in bundles.

In any case, ComReg should ensure that it has not over-stated the magnitude of long-run fixed costs in the NGN core model. The beginning of this section 6.2.1 mentions that buildings could be allocated directly to the assets using them (and therefore indirectly allocated to the services using those assets). Other fixed elements could be allocated in a similar way. For instance, cables could be allocated to the ports they are connected to (and therefore indirectly allocated to the services using those ports); trenches or ducts could be allocated based on the relative use of the trench by the various cables in the trench; chassis could be allocated to their ports (and therefore indirectly allocated to the services using those ports), and so forth.

If ComReg’s approach leads to a smaller set of long-run fixed costs in the NGN core model, then the question of how to allocate these costs will be much less sensitive, and an allocation based on EPMU (similar to non-network costs) would be one commonly adopted option.

7 Comments on ComReg's pricing approaches for CGA services

In this section, we comment on ComReg's pricing approaches for CGA bitstream and BMB services as described in Chapter 9 of the Consultation document.

7.1 Q18

Q18 Do you agree with ComReg's preliminary view that the monthly price for current generation bitstream and BMB services should be based on the average BU-LRAIC+ costs across the Regional WCA Market as set out in Figure 31 (for 2017/18) and in Figure 37 (of Chapter 14) for each year of the proposed price control period? Please provide reasons for your response.

7.1.1 The log-pricing approach for capacity pricing is good practice

In §9.7, ComReg describes how CGA broadband prices uses a logarithmic cost curve for the per-MB throughput charge. This is a good approach. However, the explanation provided in §9.7 does not really explain why the log approach “reflects the economies of scale that are realised when non-traffic sensitive cost components can cater for significant increases in overall network capacity or traffic demands”, especially as a per-port charge is already used for non-traffic sensitive costs.

A more persuasive argument for log pricing is based on pricing discrimination and willingness to pay. The demand curve for bandwidth is not linear so the allocative efficiency is improved by using non-linear prices. Data from retail markets show that log pricing or similar methodologies are a good proxy for that demand curve (in the absence of accurate elasticities). Using a similar curve for retail and wholesale products helps replicability by OAOs and is therefore in the interest of competition and end users.

In addition, log pricing brings stability to the market. Relatively small increases in data consumption do not require models to be updated frequently as would be the case with linear pricing.

8 Comments on ComReg's margin squeezes proposals

In this section, we comment on ComReg's margin squeezes proposals as described in Chapter 10 and 11 of the Consultation document.

8.1 Q23

Q23 Do you agree with ComReg's preliminary views regarding the principles of the margin squeeze test between the price of WLA services in the footprint corresponding to the Urban WCA Market and retail services provided by way of WLA inputs in the footprint corresponding to the Urban WCA Market? Please provide reasons for your response

8.1.1 Portfolio analysis makes it harder for OAOs to replicate eircom's offers

Portfolio analysis for retail margin squeeze (as suggested in §10.80, §10.81, §11.70, §11.126, §11.127) makes it harder for OAOs to replicate eircom's offers if they do not offer the same portfolio as eircom. The flexibility offered could lead to eircom strategically choosing to price competitive products below retail cost and non-competitive products above retail cost. The Consultation document implies that the portfolio would be based on all eircom products rather than on those offered by OAOs. ComReg should consider applying the methodology in one of the following ways:

- either on a product-by-product basis
- or via a portfolio based on only those products offered by OAOs.

8.1.2 Promotions do not seem to be properly taken into account

Promotions are a legitimate retail cost in a margin squeeze calculation and should be treated accurately and in a consistent manner. §10.97 and §11.91 indicate that ComReg assumes a customer life of 42 months split between an initial offer period and remaining customer life with different headline rates. We suggest that ComReg should instead take the official headline price as revenue for the whole duration of the contract. It should then include connection and retention promotions as part of marketing and advertising costs. These could be recovered over the effective customer contract duration or they could be recovered on average (e.g. as a percentage of headline prices).

✕

✕

Promotion spending should not be derived from the customer lifetime assumption but derived from actual audited accounts. This will ensure that the inputs take into account cases where a new promotion is offered after the end of the initial offer period. This is common practice when contracts expire after 12, 18 or 24 months. As a consequence of regulatory requirements to limit contracts to no more than 24

months, it is very likely that the average customer will benefit from additional promotions up to the average 42nd month of subscription.

8.2 Q25

Q25 Do you agree with ComReg's preliminary view regarding the margin squeeze principles for the retail margin squeeze test for NGA services in the Regional WCA Market? Please provide reasons for your response.

Please refer to our comments in Sections 8.1.1 and 8.1.2 which are also relevant to the above question.

8.3 Q26

Q26 Do you agree with ComReg's preliminary view on the margin squeeze principles that should apply to the retail margin squeeze test for current generation services in Regional Area 1 and Regional Area 2 of the Regional WCA Market? Please provide reasons for your response.

Please refer to our comments in Sections 8.1.1 and 8.1.2 which are also relevant to the above question.

9 Comments on ComReg's proposals for ancillary charges

In this section, we comment on ComReg's proposals for ancillary charges as described in Chapter 13 of the Consultation document.

9.1 Q34

Q34 Do you agree with ComReg's preliminary view that the connection costs associated with CGA and NGA services should be recovered through a combination of an upfront connection charge and a monthly rental charge as set out at paragraph 13.43? Please provide reasons for your response.

9.1.1 ComReg's proposals with regards ancillary services for FTTH are reasonable in principle but the cost increase is not explained

The arguments in §13.16, §13.23, §13.30 and §13.39 are reasonable, suggesting that connections from DP to end-users' ONT should be recovered over their lifetimes rather than upfront from the first RSP. This sensibly avoids a situation where RSPs (apart from eircom) refuse to serve end users not already connected.

However, the increase from EUR150 to EUR270 is not properly explained. The magnitude of that increase appears large, when compared with the increases presented in Figure 4.1, and is not explained by ComReg, or supported by a transparent model calculation.

Figure 9.1: Comparison between increases in connection cost input in Ireland and wholesale prices trends for ancillary services in France and in the UK [Source: Analysys Mason, 2017]

Service	Country	Percentage change	Comment
WLR transfer	UK ¹⁴	CPI +34.4%	Charge 2015/16 to 2016/17
MPF Single Migration	UK	CPI -1.5%	Charge 2015/16 to 2016/17
SMPF Single Migration/Provide	UK	CPI -1.5%	Charge 2015/16 to 2016/17
Fully unbundled line recurring service access charge	France ¹⁵	-10.71%	2014/15 to 2016/17
Fully unbundled line recurring cancellation fee	France	-25%	2014/15 to 2016/17

¹⁴ Source: <https://www.ofcom.org.uk/about-ofcom/latest/media/analysts/regulated-prices>

¹⁵ Source: http://www.arcep.fr/index.php?id=8571&no_cache=1&L=1&tx_gsactualite_pi1%5Buid%5D=1800&cHash=34d2e3c17b86b2b66fe9977b266d7e55

Service	Country	Percentage change	Comment
Shared access line recurring service access charge	France	No change	2014 to 2017
Shared access line recurring cancellation fee	France	No change	2014 to 2017
Analogue WLR service access charge	France	No change	2014 to 2017
Analogue WLR line installation fee	France	No change	2014 to 2017
Digital WLR line installation fee	France	No change	2014 to 2017
Digital WLR line installation fee	France	No change	2014 to 2017

ComReg may have had access to data from eircom allowing it to verify the input, but OAOs are not in a position to do either, so additional transparency would be beneficial for the consultative process.

7. Virgin Media Ireland Limited (Virgin Media)



Virgin Media response to:

Consultation on the pricing of wholesale services in the Wholesale Local Access (WLA) and Wholesale Central Access (WCA) markets

ComReg 17/26

26 June 2017

Summary

Virgin Media Ireland Limited (**‘Virgin Media’**) welcomes the opportunity to respond to ComReg’s Consultation (**‘the Consultation’**) on the pricing of wholesale services in the Wholesale Local Access (WLA) and Wholesale Central Access (WCA) markets (**‘ComReg 16/116’**).

Virgin Media’s position in relation to ComReg’s proposals can be summarised as follows.

- 1. Infrastructure-based competition is the best driver of investment, innovation and consumer welfare.** Virgin Media’s investment in a high-speed broadband network triggered a wave of investment by other operators, in particular by eir. This has resulted in higher speeds being offered across the market.
- 2. ComReg’s current light handed approach to Next Generation Access (‘NGA’) regulation is working.** The market has become more competitive, while at the same time operators, including Virgin Media, have invested substantially in new infrastructure. In light of this increased competition, a proportionate approach would involve tapering back wholesale broadband regulation, or at least maintaining a light handed approach - whereas ComReg has proposed instead to introduce more onerous regulation with respect to NGA.
- 3. The reasons behind ComReg’ light handed approach remain relevant.** ComReg previously took a light handed approach to NGA regulation in order to create conditions that are conducive to investment in infrastructure. It remains the case today that further investment is required in high speed broadband networks, particularly outside of cities. Consumers would benefit from more investment in competing networks, in terms of greater choice. For these reasons, there is no obvious reason for ComReg to change its approach.
- 4. The imposition of cost-oriented obligations on eir’s fibre to the cabinet (‘FTTC’) VUA and Bitstream products has the potential to undermine investment in competing broadband infrastructure.** The availability of regulated cost-oriented access to eir’s FTTC network could impact decisions by operators, including Virgin Media, to deploy network in some areas.
- 5. A national cost orientated price control for FTTC VUA and FTTC Bitstream fails to account for the variation in network deployment costs.** By definition, this would result in under-recovery in towns with higher-than-average deployment costs.
- 6. Operators may review or delay deployment plans as a result of reduced FTTC VUA and FTTC Bitstream prices.** Virgin Media and other operators face a *build or buy* decision when considering how best to grow their reach and base. ComReg’s proposed initial €6.50 reduction in the VUA price changes the relative payoffs, and may encourage operators to review or delay their medium and long-term investment plans.
- 7. Those households and businesses most in need of infrastructure investment could miss out.** The proposed introduction of a cost oriented price control for FTTC VUA and Bitstream could lead to price reductions for households and businesses in urban areas that already benefit from platform competition. However, this is likely to be at

the expense of some households and businesses outside of Virgin Media's current footprint that end up missing out on gaining access to a competing network.

8. **Virgin Media therefore disagrees with ComReg's proposal to a introduce cost oriented price control on the provision of FTTC VUA and Bitstream by Eir.** Virgin Media considers these proposed measures to be unnecessary and disproportionate, since the market will deliver a fair price in circumstances where competition takes place between broadband platforms.

As a safeguard, ComReg may wish to maintain the existing margin squeeze obligation on eir's wholesale NGA products. In any case, Virgin Media notes that the pricing of eir's wholesale NGA products will be constrained by the availability of current generation WLA products at a cost oriented price.¹

Please note that confidential information has been redacted from this document.

1 Introduction

As noted above, Virgin Media welcomes the opportunity to respond to the Consultation. We recognise the effort involved in deciding on what is an important regulatory issue. Virgin Media considers that is of utmost importance for market players to have certainty about any regulation that applies to eir's wholesale products.

As an operator with our own local access network, we are not reliant on securing access to wholesale physical and broadband inputs from eir. For this reason, we have not provided detailed replies to each of the questions set out in ComReg's consultation document. Instead, this response focuses on proposals made by ComReg within the consultation that have a direct impact on Virgin Media's investment plans in the Irish market, and the potential consequences that arise for consumers and businesses.

The transition to NGA brings with it a complex set of policy decisions for ComReg. The regulation of eir's wholesale prices is one such area. On the face of it, capping wholesale prices may appear an attractive option for ComReg. If wholesale price reductions are passed on by retail broadband providers (which is not a given), consumers with access to a high speed broadband network can benefit from reduced prices. Yet intervening in markets in this way inevitably leads to indirect effects that may be less obvious at first look – in particular, reducing prices can trigger a supply side response in a market where operators have not yet committed to network deployment.

Up until now, ComReg has taken a light handed approach to regulating NGA. In 2013, ComReg published a decision on its approach to regulating eir's NGA wholesale services ('**2013 NGA Decision**').² Virgin Media broadly agreed with the approach taken by ComReg in the 2013 NGA Decision. ComReg emphasised the promotion of efficient

¹ The degree of substitutability between NGA services and eir's current generation services is implied by ComReg's WLA product market definition, which includes current generation access and NGA services in the same product market.

² ComReg Decision No D03/13, ComReg Document No 13/11: Remedies in Next Generation Access Markets; dated 31 January 2013 ('**2013 NGA Decision**').

investment and innovation in new and enhanced infrastructure as a policy objective and recognised that there is a need to maintain effective competition as an important driver of investment over time. Crucially, ComReg recognised in the 2013 NGA Decision that restrictive price controls could slow down or hamper investment in NGA. Rather than imposing cost oriented pricing for eir's wholesale NGA services, ComReg imposed a margin squeeze test that provided eir with flexibility in its retail prices for high speed broadband, while allowing efficient broadband providers the opportunity to compete using eir's NGA network.

In this Consultation, ComReg has proposed a departure from the approach that it took in the 2013 NGA Decision. That is, to impose restrictive cost oriented price controls on eir's FTTC network. Virgin Media is concerned that this could undermine current plans for investment in broadband networks in Ireland, causing operators to reconsider the boundaries of new deployment areas in light of revised business models, with potentially significant detrimental consequences for consumers outside of urban areas.

Proposals like this have the potential to shape the strategic investment and deployment decisions of operators, and therefore the competitive broadband landscape in the future. Virgin Media is conscious that the way in which these proposals impact on the business plans and growth strategies of operators may not be immediately obvious. In this response, we will attempt to shed some light on these impacts, and what this means for consumers. We will assess ComReg's proposed change in approach, and make the case that ComReg should maintain the position it took in the 2013 NGA Decision, which promotes platform competition and maximises benefits to consumers and businesses.

2 **Virgin Media's investment in NGA**

Virgin Media invested heavily in the upgrade of its cable networks so that it could be in a position to offer high speed broadband and triple play products to its Irish customers. By the end of 2016, approximately 46% of Irish homes were 360 Mbps capable. We offer high speed broadband (and triple play services) in the following areas:

Dublin, Cork, Limerick, Waterford, Galway, Kildare, Kilkenny, Carlow, Newbridge, Naas, Navan, Sligo, Clonmel, Thurles, Mullingar, Athlone, Ashbourne, Ratoath, Donabate, Lusk, Balbriggan, Ennis, Drogheda, Dundalk, Enniscorthy, Tullamore, Ballina, Portlaoise and Charlesland/Greystones.

Virgin Media's parent company, Liberty Global plc. (**Liberty Global**), is embarking on a new build project across its European subsidiaries. As part of this broader investment, Virgin Media in the UK and in Ireland commenced a new build program in 2016 under the name of Project Lightning.

✂

✂

Figure 1: [CONFIDENTIAL] Liberty Global Investment



Table 1: [CONFIDENTIAL] List of prospective towns in Project Lightning scope



✂

Table 2: [CONFIDENTIAL] Project Lightning footprint expansion

✂

✂

However, it is important to note that the plans are based on assumptions and investment conditions as they stand today. For example, they do not take into account the impact of ComReg's proposed changes in its approach to regulating wholesale access to eir's NGA network on key inputs such as wholesale charges and *average revenue per user* (discussed further below). Beyond 2017, these plans can be adapted and revised in light of changes in investment conditions.

3 Infrastructure-based competition is the best driver of investment, innovation and consumer welfare.

It is evident from ComReg's analysis of the retail broadband market in its recent market review consultation (ComReg 16/96) that Virgin Media's investment in a high-speed broadband network has been the number one driver of competition in the Irish retail broadband market.³ It is this competition that has spurred significant investment, and product enhancements in the broadband market.

Virgin Media's growth in the market is indicative of the value that our customers receive from the services we provide. In particular, we offered customers a *premium* broadband product that was very much in demand, and was not previously available to most households. Unlike some of our competitors that use eir's network to provide broadband, we were able to attract customers by differentiating our product.

Our customers are not the only beneficiaries of Virgin Media's investment in broadband infrastructure. When it comes to broadband speeds, we set the benchmark for our competitors to follow. As eir's share of the broadband market declined⁴, it was compelled to invest heavily in its own infrastructure in order to retain customers. These investments by eir in its broadband network have resulted in higher speeds being offered to many of eir's customers, as well as to customers of other operators that make use of eir's network.

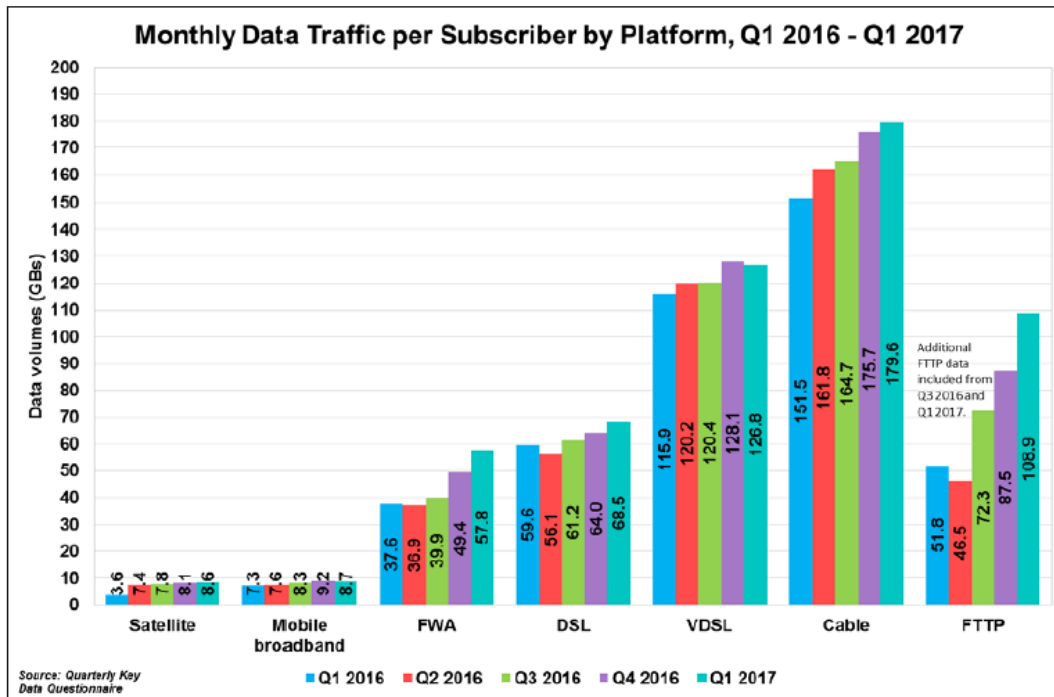
It is important to highlight that broadband providers that use eir's network to provide the service do not pose this type of competitive threat, since they are not able to offer a superior quality product to that offered by eir. Platform competition is therefore important because it encourages the type of continuous investment in infrastructure that is required in order to keep up with the evolving demands of consumers. The following chart from ComReg's recent quarterly key data report provides a useful illustration both of this growth in demand for broadband service performance, and of how Virgin Media has provided competition on a quality of service / speed dimension. Virgin Media customers consumed 12% more data in Q1 2017 compared with in Q1 2016, and consumed significantly more data than customers connected to other broadband networks.

Figure 2: Monthly Data Traffic per subscriber by platform⁵

³ Consultation on Market reviews: Wholesale Local access and Wholesale Central Access. ComReg 16/96. Available at <https://www.comreg.ie/publication/market-reviews-wholesale-local-access-wholesale-central-access/>

⁴ Eir's share of the fixed internet market fell from approximately 64% in 2008 to 33% of the fixed broadband market in 2014 (See Irish Communications Market: Key Data Report March 2008 ComReg 08/22 and ComReg 16/96). This corresponded with Virgin Media entering the broadband market in 2007 and gaining 29% market share by 2014.

⁵ Irish Communications Market. Key data report – Q1 2017. ComReg 17/50.



4 ComReg’s current light handed approach to Next Generation Access regulation is working.

Until now, ComReg has taken a light handed approach to regulating NGA. For example, in its 2013 NGA Decision ComReg imposed a margin squeeze test that provided eir with flexibility in its retail prices for high speed broadband, whilst at the same time allowing alternative operators the opportunity to compete using eir’s NGA network.

ComReg’s own analysis of the retail broadband market since 2013 suggests that its approach as set out in the 2013 NGA Decision has been successful.⁶ First, the retail broadband market has become more competitive. This is evident from ComReg’s Quarterly Key Data Reports, but also from ComReg’s recent consultation on the wholesale broadband market review, in which ComReg proposed to withdraw regulatory obligations currently imposed on eir in the WCA market in urban areas. These proposals are based on ComReg’s view that competition had intensified since its previous broadband market review in 2011.

In light of this increased competition, Virgin Media considers that a proportionate approach would involve tapering back wholesale broadband regulation, or at least maintaining a light handed approach - whereas ComReg has proposed instead to introduce more onerous regulation with respect to NGA.

ComReg’s current regulatory approach has also fostered an environment that supports investment in new infrastructure. In fact, investment in broadband infrastructure has

⁶ ComReg 16/96

escalated with Virgin Media, eir and Siro all embarking on large scale infrastructure investment projects.

On the basis of the information available, which points to increased intensity of competition and investment, it would appear that ComReg's current light handed approach has successfully struck a balance between ComReg's regulatory objectives⁷ to promote competition and to incentivise efficient network investment by eir and other operators.

5 The reasons behind ComReg' light handed approach remain relevant.

It is clear that further investment is required in high speed broadband networks. Despite the significant investment that has been made to date by operators, there remains significant scope for commercial deployment of high speed broadband networks.

Outside of urban areas, coverage of broadband networks remains patchy, and choices limited. By way of example, the map below illustrates the coverage of Virgin Media's network. It is clear from this map that even for Virgin Media, Ireland's second largest broadband provider by market share, there remain significant investment opportunities outside of our current footprint – opportunities that we are currently exploring within Project Lightning.

⁷ In line with Section 12 of the Communications Regulations Act 2017 ('the Communications Regulations Act 2002 (as amended)') and Regulation 16 of the Framework Regulations

Figure 3: [CONFIDENTIAL] Virgin Media broadband network coverage map



As was the case in 2013, it is evident that many households and businesses would benefit from further investment in competing networks outside of urban areas. Although the government will service some areas under the National Broadband Plan⁸, there remain many towns and localities that fall outside of the Government's proposed *intervention area* where Virgin Media considers the supply of high speed broadband, and in many places platform competition, to be commercially viable under the right regulatory conditions.

For these reasons, there is no obvious reason for ComReg to change its approach, which emphasised the promotion of efficient investment and innovation in new and enhanced infrastructure as a policy objective.

⁸ The National Broadband Plan is a Government wide initiative to deliver high speed broadband services to all businesses and households in Ireland. See <http://www.dcae.gov.ie/en-ie/communications/topics/Broadband/national-broadband-plan/Pages/National-Broadband-Plan.aspx> for more details.

6 The imposition of cost-oriented pricing obligations on NGA services has the potential to undermine investment in competing broadband infrastructure.

The availability of regulated cost-oriented access to eir’s FTTC network could impact on decisions by operators, including Virgin Media, to deploy network in some areas.



Naturally, this plan is guided by a comprehensive business analysis that estimates the expected return on investment for the deployment of network across a defined area. The estimated return on investment is impacted by a number of factors. One of those factors is the estimated retail price of broadband – for which projections are specified as inputs in the financial model used for planning. The introduction of a cost-oriented price control for wholesale access to eir’s FTTC VUA and bitstream, if passed on to retail customers, could reduce the prevailing market price of broadband.

ComReg has proposed the following regulated price cap for VUA on a three year glide path. The current monthly rental charge set out on Openeir’s website for its FTTC based VUA product is €23.00.⁹ This implies an initial reduction of €6.50 in the monthly rental charge.

Table 3: ComReg’s proposed FTTC based VUA glide path¹⁰

Services	€ 2017/2018	€ 2018/2019	€ 2019/2020
FTTC based VUA ²⁸	16.50	16.86	17.21

ComReg has proposed the following regulated price cap for FTTC bitstream on a three year glide path. The current monthly rental charge set out on Openeir’s website for its FTTC based Bitstream product is €23.00.¹¹ This implies an initial reduction of €4.01 in the monthly rental charge (though notably a ‘per MBps usage charge’ has been introduced so the absolute impact is less clear).

Table 4: ComReg’s proposed FTTC based bitstream glide path¹²

⁹ Available on eir’s Bitstream Price List at http://www.openeir.ie/Reference_Offers/

¹⁰ ComReg 17/26

¹¹ Available on eir’s Bitstream Price List at http://www.openeir.ie/Reference_Offers/

¹² ComReg 17/26

Services	€ 2017/2018	€ 2018/2019	€ 2019/2020
Per port charge ³⁰	18.99	19.38	19.78
Per Mbps usage charge	0.34	0.26	0.20



Figure 4: [CONFIDENTIAL] Impact of ARPU adjustments on discounted IRR for Project Lightning





7 A national cost orientated price control fails to account for the variation in network deployment costs.

By definition, a nationally averaged cost oriented price point for wholesale access would result in under-recovery of costs in towns with higher-than-average deployment costs. In practice, this would likely result in such towns being removed from investment plans.

8 Operators may review or delay deployment plans in light of a reduced VUA price.

Virgin Media and other operators face a build or buy decision when considering how best to grow their reach and base. ComReg's proposed reduction in the FTTC VUA and Bitstream prices change the relative payoffs associated with these options in favour of the buy option. This may encourage operators review or delay their medium and long-term investment plans and instead look to use eir's network to reach new customers. As discussed earlier in this submission, this outcome is unlikely to deliver equivalent value to the consumer compared with the presence of a competing broadband network.

9 Those households and business that are most in need of infrastructure investment could miss out altogether.

The proposed introduction of a cost orientated wholesale access price control for FTTC VUA and Bitstream could lead to retail price reductions if wholesale price reductions are passed on by eir's wholesale customers. This may, in the short term, benefit households and businesses in urban area that already benefit from platform competition. However, this is likely to be at the expense of households and businesses outside of Virgin Media's current footprint that end up missing out on receiving access to a competing broadband

network. It may also discourage future investment in network upgrades that will be required to keep up with consumer demand.

10 Virgin Media therefore disagrees with ComReg's proposal to impose a cost-orientation obligation on the provision of FTTC VUA and bitstream by eir.

Virgin Media considers that ComReg should maintain its current light handed regulatory approach to NGA, which is conducive to investment in competing infrastructure. Virgin Media considers that the market will deliver a fair price in circumstances where competition takes place between broadband platforms. However, as an extra safeguard, ComReg may wish to maintain the existing margin squeeze obligation on eir's wholesale NGA products. Doing so would enable operators to continue to compete using eir's broadband network.

Virgin Media notes that, in any case, the pricing of eir's FTTC VUA and bitstream products will be constrained by the availability of cost-oriented current generation WLA products. This constraint is implied by ComReg's WLA product market definition, which includes current generation access and NGA in the same product market.

8. Vodafone Ireland Limited (Vodafone)



Non-Confidential Version

Vodafone Response to ComReg Consultation Document 17/26

Pricing Review

Pricing of wholesale services in the Wholesale Local Access (WLA) market and in the Wholesale Central Access (WCA) markets

26 June 2017

Contents

- Executive Summary** i
- Introduction..... 1
- ComReg Document 16/96 1
- Costing Methodology and Modelling3
- Pricing approaches for FTTC based NGA services 9
- Margin squeeze tests 15
- Other Regulatory Measures 18
- Ancillary 21
- Regulatory Impact Assessment 22
- Draft Decision Instrument – WLA Market 23
- Draft Decision Instrument – WCA Market 23

Executive Summary

- i. Vodafone welcomes the opportunity to respond to ComReg’s consultation on the pricing of wholesale services in the Wholesale Local Access (WLA) market and in the Wholesale Central Access (WCA) markets.
- ii. At the very outset of this response Vodafone makes it clear that it broadly welcomes the general direction of this consultation, though we have specific real concerns which we will highlight in this response. We would urge ComReg, having taken the time to analyse the market in detail now progresses to a prompt final decision. Were there to be delays we could caution that the current level of over-recovery will need to be dealt with through steeper price reductions over the period of this review. Please note our comments above do not apply to the de-regulation of the Urban WCA market which we believe is flawed and needs further and deeper consideration by ComReg, given that ComReg has not set out the necessary ex ante safeguards required to monitor and review any deregulation decision.
- iii. The importance of viable and stable pricing for WLA and WCA services is critical to ensure investment in broadband in Ireland. It is clear that advancements in technology have had a transformative effect across economies and societies. The potential in Ireland however, has been constrained by high wholesale broadband prices which came about, in the absence of sufficient regulatory price control, as a result of unexpected and unjustified price increases since 2015. The requirement for cost based stable pricing is immediate – otherwise the case for further investment in the fixed broadband market in Ireland is questionable.
- iv. The European Commission recommends a methodology that leads to access prices that replicate those expected in an effectively competitive market, based on a modern efficient network and that a BU LRIC+ methodology is deemed best to meet these objectives. It identifies key principles as cost recovery, the provision of appropriate “build or buy” price signals, transparency and consistency¹. The pricing of services as proposed in consultation 17/26 sets Ireland on the right path to achieve these objectives.
- v. Vodafone believe that the price changes as set out in the consultation will drive alternative competitive investment in fixed services. The pricing proposals will provide predictability and certainty. It is evident that proposed price changes are necessary for the industry given the returns being made by eir as the incumbent in certain markets in the last number of years.
- vi. Vodafone does caution that in respect of the price changes ComReg should closely scrutinise eir’s actual costs, as reported in eir’s own annual Regulatory Accounts, incurred during the lifetime of the price control period against those modelled by ComReg to ensure that there is no continued over recovery of costs as has been witnessed previously. Furthermore, given the scale of the current over-recovery by eir it is our view that an immediate price reduction is warranted for CGA products. The price reduction is warranted and should be implemented immediately independent of any further consideration of the WLA/WCA markets.
- vii. Whilst the price changes are welcome there are other aspects of this consultation which Vodafone have concerns on. In respect of the cost modelling, in particular basing retail costs on a hypothetical operator with a retail market share of 25% does appear high as this is not a fair reflection of how the market has matured to date. Vodafone note the objective is to ‘avoid inefficient entry’ but argue that 25% is overly efficient, given the market shares of the other significant retail operators, other than eir. It

¹ Point 31 of The EC Recommendation C(2013)5761

Vodafone Non-Confidential Response – ComReg 17/26

gives the incumbent an opportunity to manipulate both the retail and wholesale FTTH based services markets thereby discouraging investment from other operators. For FTTC based services there is a risk that it allows the incumbent to game the market by selectively reducing retail margin to squeeze out competitors. By setting the market share at 25% for a hypothetical operator there is a risk of exploitative or exclusionary practices by eir, with the incumbent leveraging its market power.

- viii. Furthermore, Vodafone believe that the operator cost base which should be used for the retail margin squeeze test for WLA services in the footprint corresponding to the Urban WCA market should be based on an REO operator cost base and not an EEO as it provides a more realistic reflection of an operator's costs. This provides too significant an opportunity to eir to leverage its overall retail market size in Ireland in the Urban WCA and the corresponding retail market. We believe that this point has not been accurately captured or analysed by ComReg and would request that this is complete before any potential deregulation is actioned by ComReg.
- ix. To restate points made in the previous related submission to ComReg document 16/96. In order for Ireland to maintain its levels of economic growth we should be an international leader in the development of the Gigabit Society: where all consumers and businesses benefit from widespread connectivity of 1 Gigabit per second delivered over future-proof fixed and mobile networks.
- x. This entails all-fibre networks that connect our homes and businesses and which, in turn, can only be possible in the presence of a thriving competitive telecoms industry. We need to make sure that alternative network providers (in addition to eir) are present, and are ready to invest, in Ireland. The Government itself has recognised the importance of this and has put together its National Broadband Plan (the NBP) with a clear objective to achieve the European Commission's broadband targets of coverage and take up.²
- xi. Vodafone is keen to invest and contribute to building out Ireland's digital infrastructure. We are following a 'ladder of investment' approach whereby we migrate customers from WCA delivery to WLA based delivery (especially via NGA VUA) as our network expands. Equally, we are incentivising our customers to move from CGA to NGA products. We are also seeking to acquire new customers by making sure our products meet customer needs and are provided at an attractive price.
- xii. In a number of areas, Vodafone support ComReg's analysis of the pricing of wholesale services, the risks to competition outlined and the remedies it is proposing to deal with them.
- xiii. While we agree with and welcome many of the remedies proposed, as well as recognising that they are designed to address many of the known issues faced by access seekers over recent years, we remain concerned about the length of time taken to address and resolve issues when they emerge. For example, Eir has had the incentive and ability to bring in high, and as identified by ComReg, unwarranted increases in wholesale charges. These charges remain in place and continue to cause harm and distortion to downstream competition.
- xiv. Delays in reversing such eir behaviours have real effect on the market and on the success of competition. While well-designed access remedies are of course welcome, we call on ComReg to proceed with pace to bring into force the proposed changes. We recognise that ComReg needs to follow the formal process to bring changes into effect. Nevertheless, we must stress that there are significant gaps in today's regime and that delays, and a continued absence of strong regulation, impose a significant burden on industry. This in turn hampers competition and its ability deliver much needed benefits to business and residential consumers in Ireland.

² All EU citizens to have access to 30 Mbit/s and 50% of EU citizens take up 100 Mbit/s by 2020.

Vodafone Non-Confidential Response – ComReg 17/26

- xv. While we support many of the remedies proposed by ComReg, there are nevertheless a number of changes which, if not implemented, risk the competitiveness of the markets in scope of the current review.

ComReg Document 16/96 - The Urban WCA market

- xvi. In its consultation, ComReg proposes a number of cumulative criteria which it uses to define a separate WCA Market for premises served by 88 eir exchanges that meet these criteria. ComReg considers this market (the 'Urban WCA market') to be competitive. It therefore proposes that all existing remedies be removed (and that those remedies being proposed for the remaining exchange areas – the 'Regional WCA Market' – should not apply to this market).
- xvii. As we explain in our response, and further discussed in the Compass Lexecon expert report we commissioned, ComReg's analysis is fundamentally flawed. We consider that eir's WCA products at these 88 exchanges are not competitively constrained. There is only one other provider offering third party WCA services. And the indirect constraints from retail providers serving customers in these exchange areas are weak at best.
- xviii. ComReg has failed to demonstrate that the Urban WCA market is distinct or that it is competitive. And there are serious consequences to deregulation and removal of access and associated obligations in a market which is not competitive. These consequences may include: actual or constructive refusal to supply, increased wholesale charges (with squeezed margins for competitors who are unable to increase their retail prices given national pricing controls), poor quality (for example, around provision and repair) and discriminatory practices.
- xix. Given that Vodafone competes at a national level, with national retail pricing, behaviours mentioned above will seriously undermine our ability to gain and retain customers, or to have the prospect of returns that would allow us to invest as significantly as we aspire to. This negative impact would be uniquely the result of eir's dominance being unconstrained by the proposed regulatory framework.
- xx. We urge that ComReg reconsiders its planned implementation to deregulate the Urban WCA market. . Once the market has deregulated the process of reversing the decision will inevitably take a considerable period of time and will result in consumer and economic harm. Vodafone again calls on ComReg not to deregulate the WCA market. Should ComReg decide to proceed with deregulation Vodafone urge ComReg to adopt a slower more gradual and carefully monitored process of deregulation whereby powers are retained by ComReg to prevent market manipulation occurring with the ultimate ability to return to a fully regulated market if (as Vodafone fully expect) that the market does not function as anticipated.
- xxi. We further urge ComReg to complete the necessary additional cost modelling of the true switching cost for operators who wish to move between wholesale services providers as a prerequisite to the implementation of any deregulation. Without this modelling we fail to see how ComReg can properly state whether the Urban WCA market is truly competitive.

Costing Methodologies and Modelling

- xxii. The costing modelling approach based on BU-LRAIC+ methodology to determine the appropriate level of costs associated with the provision of FTTC based services is appropriate in the current market circumstances. Such a price control obligation is now called for and will provide price certainty to all operators, including eir. Furthermore, it is now easier for all to forecast the associated costs of these services.

Vodafone Non-Confidential Response – ComReg 17/26

- xxiii. Given the prices that ComReg is now directing, it must now be evident from ComReg's own cost modelling in the Revised Copper Access Model (termed in the Tera document the 'Revised CAM'), certain eir wholesale price increases (such as the increases in the price of Standalone NGA VUA from €17.50 to €23 and POT Based NGA VUA from €5.98 to €8.09 in 2015 and 2016) were and are not supported by any evidence of increases in eir's cost base and are therefore a key example of eir's ability to 'squeeze' operators seeking to compete with eir based on alternative voice technologies. Vodafone urges ComReg to closely scrutinise eir's actual costs, as reported in eir's own annual Regulatory Accounts, incurred during the lifetime of the price control period to ensure that there is no over recovery.
- xxiv. We agree with ComReg's proposal that the current cost-orientation obligations should continue to apply to current and next generation ancillary (for example migrations and connections)³ and interconnection services (including WEILS).⁴ These are important components in the WLA market which allow alternative operators to compete with eir by interconnecting to its network and if not subject to a price control obligation, would be at risk of excessive pricing.
- xxv. Although ComReg does not propose to impose a cost orientation obligation on FTTH based Bitstream services,⁵ we note that Service Providers, such as Vodafone, who will be relying on these products more in the future, might be at risk of excessive pricing by eir. Vodafone therefore urges ComReg to monitor the market closely during the lifetime of this review and consider the need for a cost orientation obligation should the demand for FTTH based Bitstream services become more predictable.
- xxvi. Vodafone believe that there is a risk that adopting 25% as representative of a hypothetical operator is for legacy modelling reasons, as opposed to reflecting a true view of the current market. As detailed in the answer to question 25 of this document the market share of fixed retail revenues of authorised operators excluding eir is currently not close to 25%, the top 3 are Virgin (14.7%), Vodafone (14.3%) and BT (5.3%)⁶. The effect of using a higher than representative market share for a hypothetical operator for FTTH based services creates additional economies of scale enabling, for example eir to push up wholesale prices relative to the retail price thereby damaging competition in the retail market and damaging the wholesale market such as by potentially dis-incentivising other operators from moving up the ladder of investment. For FTTC based services the effect may allow eir to 'game the market' by selectively reducing their retail margin on certain markets in order squeeze out OAOs. It can be strongly argued that a lower market share would be a fairer reflection given the current market share.
- xxvii. Vodafone understands the shift from SB-WLR as the anchor product to broadband (with POTS to be treated as the add-on). As stated in the consultation the full LLU cost is already recovered in the EVDSL charge so without this change there is a risk of a double charge. Therefore the previous pricing can be seen as significantly over-recovering the underlying true cost of POTS.

Pricing Approaches

- xxviii. Vodafone welcomes the proposed approach to the setting of monthly charge in relation to FTTC based VUA, however we urge ComReg to remain vigilant to ensure that the forward looking portion of charges based on future investment, costs and volumes materially occur as modelled by ComReg. There is a need to ensure that whatever is included in reusable assets (on a BU-LRAIC+ basis) is monitored to ensure the investment is made.

³ § 8.629 of the ComReg Consultation document number 16/96.

⁴ § 8.631 of the ComReg Consultation document number 16/96.

⁵ § 8.624 of the ComReg Consultation document number 16/96.

⁶ 2.1.1 of the Irish Communications Market: Key Data Report – Q4 2016.

Vodafone Non-Confidential Response – ComReg 17/26

- xxix. Vodafone strongly agree that any reduction in FTTC based VUA should be reflected in the price of FTTC based Bitstream given that the FTTC based VUA cost is such a significant proportion of the actual Bitstream cost stack (likely to be 90% plus), as such it is logical that any change must be carried through. A similar logic should also apply between price for FTTC based VUA and the price for LLU.
- xxx. Vodafone note that there is a reliance on ComReg to determine the appropriateness of proposed inputs and assumptions in the NGN Core Model and NGA cost model for determining of costs for the provision of broadband services. Vodafone cannot accurately assess the inputs in the absence of the provision of the confidential model.

Margin Squeeze Tests

- xxxi. Vodafone agrees with the principles of the wholesale margin squeeze test between FTTH based VUA and FTTH based Bitstream given how closely linked the products are in reality. The FTTH based VUA costs are a huge proportion of actual Bitstream cost stack (likely 90% plus), as such it is logical that there is a test to ensure a sufficient economic space or gap is maintained between VUA and Bitstream to send the appropriate investment signals to the market.
- xxxii. Vodafone strongly agree with ComReg's preliminary views on the principles of a margin squeeze test in WLA services in the footprint corresponding to the Urban WCA market. Given the proposal to deregulate this market - a margin squeeze test is one of the measures that is required in order to protect Service Providers. However, Vodafone do not believe that a margin squeeze test in isolation is sufficient to protect against market gaming by eir in the event of the market being deregulated.
- xxxiii. Using an EEO cost base⁷ is also not the appropriate base and Vodafone would urge ComReg to change this to an REO approach (provided sufficient data can be obtained). This would provide a more realistic operator cost base as long as such an approach is based on the blending of other operator costs and that the test is not relying exclusively on eir operating costs. Vodafone have concerns as to how EEO could be accurately calculated.
- xxxiv. Vodafone agree with the retail margin squeeze tests however we note that the adjustment of costs to that of an SEO with a 25% market share needs to be carefully managed. For example, in areas where there are not alternative infrastructure asset providers, the costs are likely to be more accurately assessed using a top down historical costs approach.

Other Regulatory Measures

- xxxv. Vodafone agree that the three year price control period appears reasonable though note that it would be preferable for an indication of the post period price controls that are envisaged by ComReg.
- xxxvi. Vodafone strongly agree with ComReg's view that the pre-notification of price changes are fundamental to a proper functioning wholesale market. In the absence of this requirement, there is a risk that eir has the incentive and ability to delay notification and therefore hinder its downstream competitors from being able to adapt and respond accordingly. Vodafone further agree with the same requirement for retail price changes in the WLA and the Regional WCA Market.
- xxxvii. Vodafone welcome the certainty and transparency that the removal of wholesale promotions and discounts would provide.

⁷ § 10.63 of the ComReg Consultation document number 17/26.

Introduction

1. On 7 April 2017 ComReg published its consultation on the Pricing of wholesale services in the Wholesale Local Access (WLA) market and in the Wholesale Central Access (WCA) markets (referred to as the 'ComReg Consultation').⁸ We welcome the opportunity to respond to this consultation and we set out our views in detail in this document.

Our response

2. We have adopted the following approach in our response:
 - Our response is structured to align to each section of the ComReg Consultation grouping the sections on costing, pricing approaches and margin squeeze tests.
 - We have responded to each question raised in the Consultation. Where there is overlap with question responses we have cross referenced to the relevant detail previously provided.
 - We note that ComReg has issued this document as a follow up to a separate consultation ComReg 16/96 on the WLA and WCA Market Reviews to which we have already issued our detailed response. It should be stated from the outset that arguments set out in that response will be referred to at a high level here but that the detailed focus will be on questions raised in this draft decision.
 - Furthermore it is noted that there is a third and final consultation on bundles (ComReg Doc 17/51) that has issued in the course of this consultation period. Vodafone understands that the final Decision regarding the main consultation (ComReg Doc16/96), this Pricing Consultation (ComReg Doc17/26) and the consultation on bundling will be published (and become effective) simultaneously.

ComReg Document 16/96

3. In this section, we will briefly reiterate our principal issue with the pricing proposals in ComReg Document 16/96 (WLA / WCA Market Review) in light of the pricing obligations further specified in this Draft Decision.

Question 1: Do you have any further comments regarding the pricing proposals in ComReg Document 16/96 (WLA / WCA Market Review) in light of the pricing obligations further specified in this Draft Decision? Please provide reasons for your response.

Vodafone broadly agrees with ComReg's pricing proposals in ComReg Document 16/96 in light of the pricing obligations specified in this Draft Decision

4. While Vodafone supports many of the remedies decided upon by ComReg, and welcome in particular the pricing methodologies and approaches adopted by ComReg, we must reaffirm our belief that the incorrect decision has been made with regard to the deregulation of the **Urban WCA market**. In particular, we are concerned that the evidence does not support the inclusion of SIRO, Virgin Media,

⁸ <https://www.comreg.ie/comreg-invites-responses-submissions-pricing-wholesale-services-wholesale-local-access-wla-market-wholesale-central-access-wca-markets-specification-price-cont/>

Vodafone Non-Confidential Response – ComReg 17/26

Vodafone and others as providing an effective competitive constraint in the WCA Markets.⁹ Furthermore Vodafone believe that the margin squeeze obligations that remain in place, will not suffice in preventing the risk of manipulation of the WCA market, such as through the withdrawal of service or predatory pricing movements. Vodafone continues to believe that ComReg has not sufficiently considered, or in fact modelled, the real costs incurred by an operator, such as Vodafone, when moving between wholesale service providers or when managing inputs from different wholesale providers. We would strongly argue that these costs constitute a real barrier to wholesale competition in the Urban WCA market.

5. Vodafone agrees with Compass Lexecon's conclusions in their report (commissioned by Vodafone and submitted with our response to ComReg 16/96) on ComReg's competitive assessment in the context of the product market definition¹⁰ and we would urge ComReg to reconsider its proposals. If ComReg decides to proceed then any relaxation of regulatory controls should be graduated (i.e. subject to a longer sunset period) to ensure the market can adjust appropriately. A graduated or longer period of implementation will also provide ComReg with clear evidence of market impacts on which it can base any decisions regarding the time and extent of the removal of obligations.
6. Additionally, as mentioned above, Vodafone would like to point out that while certain exchanges in the newly defined Urban WCA market might theoretically offer the provision of alternative sources for wholesale services, the actual switching costs of changing wholesale service providers effectively mean there is highly limited competition. Vodafone acknowledge the provision of a six month 'sunset period' but argue that this time period is completely insufficient given the likely switching costs and commercial agreements that would need to be completed. We see no evidence that these switching costs, which are in effect a barrier to competition in the WCA market, have been considered and we believe that ComReg should address this as a matter of urgency.
7. If ComReg are to (incorrectly) deregulate this market it must only be done so with competitive ex ante safeguards in place. These safeguards would include the monitoring of prices and price movements (if the market is efficient we assume the expectation would be to see lower prices in the marketplace when compared to existing market prices), retaining powers to implement price control measures in the event of market distortion and ultimately reverse the decision on de-regulation. In addition, we believe the application of a stricter 'REO' (Reasonable Efficient Operator), as against the EEO margin squeeze requirements indicated by ComReg would be an essential element in preventing any leveraging of market power, including leverage of its SMP in the remaining regulatory WCA markets as well as in the retails markets, by eir.
8. We believe that only the introduction of such ex ante safeguards can prevent severe negative distortion of competition. Absent regulatory obligations eir has the ability and incentive to engage in exploitative and/or exclusionary behaviour such as predatory pricing (seen previously with the unwarranted SABB increase) leading to a dysfunctional market. Should deregulation go ahead as set out by ComReg there does not appear to be the necessary enforceable competitive safeguards provided for in this Draft Decision to prevent eir from for example, withdrawing their WCA services from competing operators.
9. As stated above, Vodafone is of the view that ComReg needs to reassess its planned implementation process for deregulation of the Urban WCA market should they decide to proceed. In place of a 'light touch' six month sunset period, a slower more gradual implementation should take place whereby the impact of the withdrawal of regulations are assessed as they occur. Vodafone believe that ComReg should retain powers to enforce sanctions if market gaming is taking place in this transitional period

⁹ §§10.133 and 10.175 of the ComReg 16/96 Consultation.

¹⁰ §§ 2.1 to 2.38 of the Compass Lexecon expert report.

Vodafone Non-Confidential Response – ComReg 17/26

and ultimately the power to reverse any actions towards deregulation if it does not appear to be creating a functioning self-regulating market as intended.

10. If the Urban WCA market is now excluded from the costing and scope of the regulated WCA market(s) it potentially provides eir with an opportunity to increase all WCA related prices in excess of those warranted. This is possible as lower unit cost Broadband products are now excluded from the regulated WCA markets, thus leaving on average higher unit cost and thus leading to higher prices.
11. We also would be of the view that if, as would be expected in a normal efficient market, due to the higher unit cost broadband services now being included in a new WCA market Urban WCA prices should fall. But given eir's past and recent track record this is unlikely to occur. We fail to see the actual market and/or safeguards that ComReg will put in place to even monitor that the market is working efficiently and intervene if such price decreases do not occur.

Costing Methodology and Modelling

12. In this section, we comment on ComReg's assessment of appropriate costs methodologies associated with the proposed cost orientation obligation imposed in the WLA / WCA Market Review for the following services:
 - FTTC based NGA services (VUA and NGA Bitstream); and
 - Current generation Bitstream and BMB services
13. We will also comment on ComReg's proposed model used to determine the appropriate level of costs associated with FTTC based products.

Question 2: Do you agree with ComReg's preliminary view that the BU-LRAIC+ methodology should be applied to determine the appropriate level of costs associated with the provision of FTTC based VUA (including EVDSL) in the WLA Market and for FTTC based Bitstream and current generation Bitstream and BMB in the Regional WCA Market? Please provide reasons for your response.

Vodafone agrees with ComReg's preliminary view for the determination of costs

14. The cost modelling approach as detailed by ComReg based on BU-LRAIC+ methodology with a significant proportion of the cost base calculated on eir's underlying Top Down Fully Allocated Costs (for example Poles and Duct), is appropriate in the current market circumstances. Such a costing approach and the resulting price control obligation are justified and necessary. This approach will provide price certainty to all operators, including eir. Furthermore, it is now easier for all to forecast associated costs of these wholesale services, and thus the pricing in the market. However, we are concerned with certain aspects of the use of LRAIC+ which could, if not monitored correctly by ComReg, lead eir to be rewarded in advance for investment that it ultimately does not make.
15. More importantly, ComReg's own analysis demonstrates that, based on recent price changes, eir's wholesale and indeed its retail prices are not effectively constrained in this market.¹¹ eir has increased its NGA wholesale prices twice since the launch of NGA services in 2013. In July 2015 eir increased the Standalone FTTC NGA VUA price by €2 per month. Furthermore, in September 2016 eir increased the Standalone FTTC NGA VUA price by €3.50 and the FTTH VUA price by €3. The

¹¹ § 8.626 of ComReg Consultation document number 16/96.

Vodafone Non-Confidential Response – ComReg 17/26

wholesale price increases have had the effect of significantly increasing our cost of delivering voice and broadband services to our customers. However, we have previously welcomed ComReg's decision to reduce the pricing of WLR products,¹² and now reducing the FTTC prices will stimulate the market in general. But we strongly urge ComReg to reduce the CGA prices due to the excessive over-recovery of costs that has been evident from eir's own annual regulatory financial statements.

16. These price increases to Standalone services had the consequence [CONFIDENTIAL TEXT REDACTED] This is a clear demonstration of dominance for self-benefit. The lack of availability of alternative substitute products highlights an active competitive problem that needs urgent resolution by ComReg.
17. As is now evident from ComReg's own cost modelling in the Revised CAM¹³, these wholesale price increases were not (and cannot now) be supported by any evidence of increases in eir's cost base. These price increases are therefore a prime example of eir's ability to 'squeeze' operators seeking to compete with eir based on alternative broadband and voice technologies.
18. Vodafone urges ComReg to closely scrutinise eir's actual costs, as reported in eir's own annual Regulatory Accounts. They are in effect eir's underlying Top Down Fully Allocated Costs and accurately reflect the true costs that eir has and will incur during the lifetime of the price control period. If prices have been set correctly then eir will neither, under recover or over recover its costs as reported in the annual Regulatory Accounts. To be more specific, Vodafone urges ComReg to closely scrutinise eir's actual costs incurred and line volumes during the lifetime of the price control period to ensure that there is the appropriate level of recovery of costs by eir. This will require a detailed annual review by ComReg of the actual outturns, from a cost, investments, revenues and volume perspective; including commentary and actions by ComReg as to the findings and adjustments necessary to pricing either for implementation in the next pricing review or even during the current pricing control period.
19. We agree with ComReg's proposal that the current cost-orientation obligations should continue to apply to current and next generation ancillary charges (migrations and connections, where relevant)¹⁴ and interconnection services (including WEILS).¹⁵ These are important components in the WLA market which allow alternative operators to compete with eir by interconnecting to its network. If such interconnection is not subject to a price control obligation, then there is a real risk of excessive pricing which would undermine any business case for investment.
20. Although ComReg does not propose to impose a cost orientation obligation on FTTH based Bitstream services,¹⁶ we note that Service Providers, such as Vodafone, who will be relying on these products more in the future, might be at risk of excessive pricing by eir. It is also critical that pricing for FTTH services does not unnecessarily constrain adoption levels. We have commented further in this regard in answer to question to Question 34 below. Vodafone therefore **urges ComReg to monitor the market closely during the lifetime of this review and consider the need for a cost orientation obligation should the demand for FTTH based Bitstream services become more predictable.**

¹² ComReg decision, 16/39. Based on the Revised CAM, the price of the WLR product was decreased from €18.02 to €15.91 (i.e. by €2.11).

¹³ ComReg decision, 16/39. Based on the Revised CAM

¹⁴ § 8.629 of the ComReg Consultation document number 16/96.

¹⁵ § 8.631 of the ComReg Consultation document number 16/96.

¹⁶ § 8.649 of the ComReg Consultation document number 16/96.

Vodafone Non-Confidential Response – ComReg 17/26

21. In addition, we refer to The European Commission 2013 Recommendation which stated that price regulation based on cost orientation on the wholesale access market has proven to be an appropriate obligation where SMP cannot be expected to erode within a reasonable period.¹⁷
22. Furthermore and as noted by ComReg¹⁸, The European Commission in the 2013 Recommendation at Paragraph 30 specifies that:
- “For the purposes of setting copper and NGA wholesale access prices where cost orientation is imposed as a remedy... NRAs should adopt a bottom-up long-run incremental costs-plus (BULRIC+) costing methodology which includes a bottom up modelling approach using LRIC as the cost model and with the addition of a mark-up for the recovery of common costs.”

Question 3: Do you agree with ComReg’s preliminary views regarding the proposed costing methodology for Reusable Assets, Non-reusable Assets and active / other assets in the provision of FTTC based VUA (including EVDSL), FTTC based Bitstream and current generation Bitstream and BMB services? Please provide reasons for your response.

Vodafone agrees with ComReg’s preliminary views regarding the proposed costing methodology for Reusable Assets, Non-reusable Assets and active / other assets

23. In general, Vodafone welcomes the approach outlined and in particular the move to cost orientation pricing. Nonetheless, Vodafone have some concerns that the forward looking approach for Non-Reusable assets and for active / other assets is applied appropriately and as forecast.
24. Vodafone has made its opinion and concerns clear to ComReg in connection to the replacement factors used for Poles and Duct assets, as detailed in our response to ComReg 16/96. The application of the forecast forward looking investment (for example the 8% for poles and 5% for Ducts) needs to be closely monitored to ensure these investments are actually made. The assumptions on which the model is based appear sound but the realistic application of this theory requires ongoing audit by ComReg supported by a penalty regime or clawback mechanism of excessive profit if investment is not made or if network integrity not maintained.
25. As stated above it is particularly important that ComReg closely scrutinises Eir’s actual costs and volumes incurred during the lifetime of the price control period to ensure that there is the appropriate level of recovery of costs by Eir. This will require a detailed annual review by ComReg of the actual outturns, from a cost, investments, revenues and volume perspective; including commentary and actions by ComReg as to the findings and, where appropriate, adjustments necessary to pricing either for implementation in the next pricing review or even during the current pricing control period.

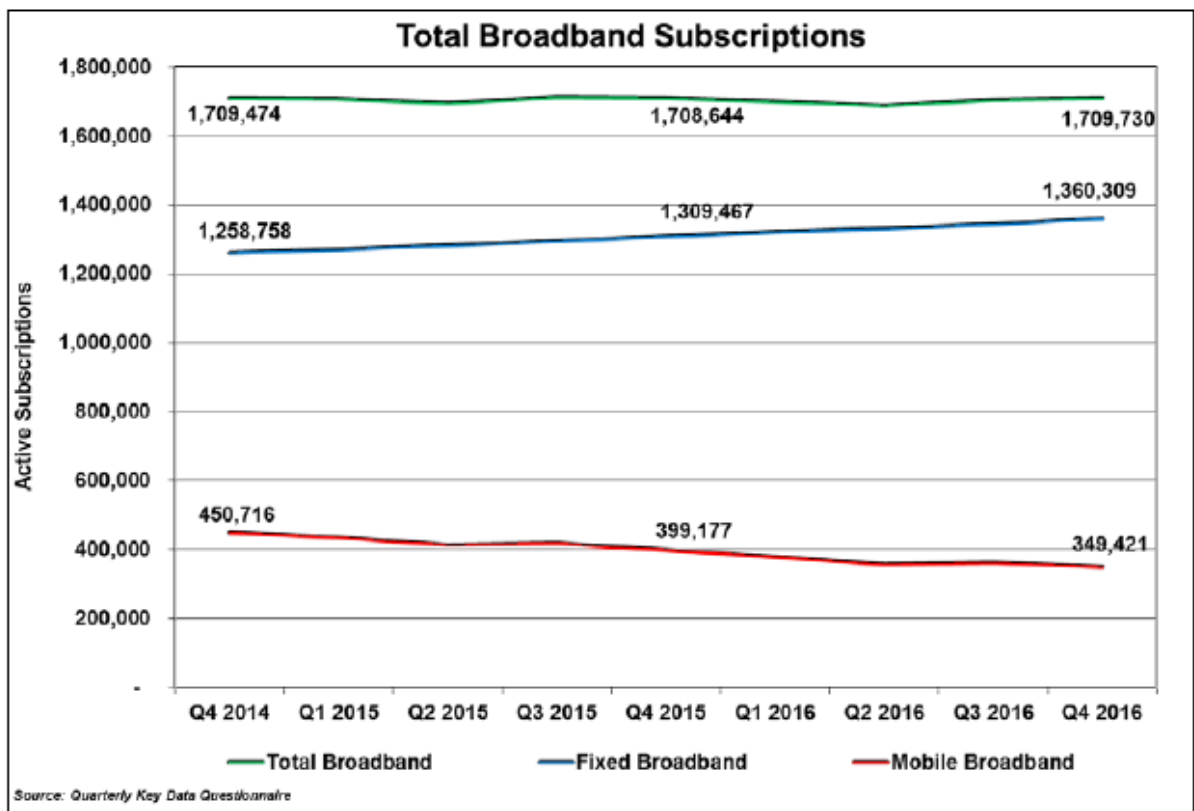
Question 4: Do you agree with the proposed timeframe of the model and with the proposed approach and assumptions used in determining the service volumes / demand for FTTC based VUA (including EVDSL) and FTTC based Bitstream in the NGA Cost Model? Please provide reasons for your response.

¹⁷ Commission Recommendation dated 11 September 2013 on ‘Consistent non-discrimination obligations and costing methodologies to promote competition and enhance the broadband investment environment -Impact assessment <https://ec.europa.eu/digital-single-market/en/news/commission-recommendation-consistent-non-discrimination-obligations-and-costing-methodologies>

¹⁸ § 5.31 of the ComReg Consultation document number 17/26

Vodafone does not agree with ComReg’s proposed timeframe of the model and with the proposed approach and assumptions used in determining the service volumes

26. Vodafone does not agree with the proposed timeframe of the model and with some of the assumptions made. For example, with regard to forecasts and volume reduction assumptions it does appear that that they are overstated, that 15% of the existing broadband base will migrate to OAOs and that overall broadband volumes on eir’s network will reduce by c. 5% appears unlikely based on recent trends¹⁹.
27. The forecast growth in Broadband has been c.4% per annum for the past number of years and while it is expected that this growth rate would gradually decline, there is no obvious reason to believe that this growth rate will reduce significantly over the period of **this** pricing control (since Q1 2014 fixed broadband subscriptions in Ireland have increased on average by 3.9% on an annual basis up until Q4 2016. In the period between Q1 2014 and Q4 2016 fixed broadband subscriptions increased by 12.17%²⁰).



28. We would suggest that the line volumes used by ComReg appear overly conservative (based on the reductions being overstated) and therefore the Broadband prices could lead to an over-recovery of costs by Eir. Thus we urge ComReg to review this again to ensure that the volumes within its costing models are appropriate. An alternative approach may be to adjust pricing during the control period to ensure no over recovery of cost. For example, for transparency we would urge ComReg to publish indicative price levels at different growth rates. This would allow ComReg to monitor the actual

¹⁹ § 6.39 and 6.42 of the ComReg Consultation document number 17/26

²⁰ 2.1.1 of the Irish Communications Market: Key Data Report – Q4 2016.

<https://www.comreg.ie/publication/irish-communications-market-quarterly-key-data-report-data-q4-2016/>

Vodafone Non-Confidential Response – ComReg 17/26

growth in the market and to adjust prices on a forward looking basis to reflect volume increases that are greater than the model forecast. That way there would be a faster adjustment to prices given increased growth and it minimizes the risks of over-recovery of costs by eir.

29. Eir has recently established a position that could be viewed as a monopoly, out of 2.2 million lines they rolled their network past 1.6 million premises and have agreed with the State to increase to 1.9 million premises by the end of 2018.

Question 5: Do you agree with ComReg’s proposed modelling approach for determining the demand and costs inputs associated with the provision of FTTC based VUA, including Remote VUA, Local VUA and EVDSL services? Please provide reasons for your response.

Vodafone agrees with ComReg’s proposed modelling approach for determining the demand and costs inputs

30. Vodafone agree in principle with the proposed modelling approach. A challenge arises in that it is not possible to thoroughly assess the inputs in the absence of access to the underlying model
31. Vodafone note that there is reliance on ComReg to determine this, as even with the provision of a heavily redacted model, an informed decision cannot readily be made. For example, while details are provided as to the inclusion of certain pieces of equipment, such as the aggregation node costs, but no information on the materiality or immateriality of these costs in the overall costs for FTTC based VUA are provided.
32. Vodafone would agree that the use of the tilted annuity modelling for capital related costs is the most appropriate approach. we note that there is economic depreciation used for certain FTTC related assets which we are struggling to understand the rationale for, as well as the effect of using this approach over the use tilted annuity approach, given the relatively stability of FTTC products. We would welcome addition justification and information from ComReg to better understand the logic as well as the impact for this decision.
33. A critical factor concerns the modelling of volumes and also that the modelled costs are truly reflective of future capital investment and associated operating costs. Given the asymmetric nature of the engagement between ComReg and Eir it is important that ComReg incorporates additional triggers and ex ante safeguards against consumer harm into the broadband pricing mechanism. For example, as mentioned before that ComReg should, during the price control period, perform an annual reconciliation between the modelled costs/volumes and Eir Regulatory Accounts. ComReg should be prepared to make adjustment to the current pricing trend, for example if capital investment, operating costs or network volumes are materially different to those modelled. This would prevent any potential gaming of the current cost modelling.
34. Finally we note the use of line lengths of 2.5km, as detailed in 6.99 and 6.101, to underpin the FTTC pricing, while we understand the logic we caution that the relative number of FTTC lines in the range 1.5km to 2.5km, when compared to the number of lines in line length less than 1.5km, should inform the FTTC pricing and would welcome more details on the proportion of additional costs being now included. Without this additional information a determination on the material impact on FTTC costing and pricing of sections 6.99 to 6.101 is not impossible to determine.

Question 6: Do you agree with the proposed inputs and assumptions in the NGA Cost Model for determining the costs associated with the provision of FTTC based Bitstream? Please provide reasons for your response.

Vodafone agrees with the proposed inputs and assumptions in the NGA Cost Model

35. Similar to the previous question it would appear to be a reasonable approach but this cannot be said with certainty in the absence of access to a transparent and traceable model.
36. Vodafone agree that adopting a model on the basis of the current cost a hypothetical efficient operator would incur is the correct approach and is in line with the European Commission 2013 recommendation which states at paragraph 31:
“NRAs should adopt a BU LRIC+ costing methodology that estimates the current cost that a hypothetical efficient operator would incur to build a modern efficient network, ...”
37. There is a risk that adopting 25% retail market share as representative of a hypothetical operator is for legacy reasons as opposed to reflecting a true view of the current market conditions. The effect of using a higher than representative market share for a hypothetical operator for FTTC based services is that it may allow eir to ‘game the market’ by selectively reducing their retail margin on certain markets in order squeeze out OAOs. It could be argued that a lower market share may be a fairer reflection given the current market share. Again, our concerns and issues are more in connection with the retail margins themselves.
38. ComReg have stated that they are considering using REO data and Vodafone will endeavour to provide supporting data as required. Vodafone note that there is inherent difficult in capturing such data from operators with no experience on the provision of it to date.

Question 7: Do you agree with the proposed approach for determining the port rental costs for POTS based FTTC NGA services going forward and the proposed additional port rental price for POTS based FTTC services of €4.96? Please provide reasons for your response.

Vodafone agrees with the proposed approach for determining port rental costs for POTS based services

39. Vodafone welcomes the shift from SB-WLR as the anchor product to broadband (with POTS to be treated as the add-on).
40. As stated in the consultation the full LLU cost is already recovered in the EVDSL charge so without this change there is a risk of a double charge. Therefore the previous pricing can be seen as significantly over-recovering the underlying true cost of POTS. Again, we would strongly suggest that ComReg use the results of eir’s Regulatory Accounts as the basis for the calculation of the incremental POTS costs. In this context we would argue further that even at the price of €4.96 Eir could now be over-recovering given how far in excess of regulated allowable returns have been in the last number of years (cumulative wholesale fixed narrowband access returns for the last 5 financial years have been higher than the regulated return allowable on capital employed by circa €133 million). We would urge ComReg to very quickly adjust the published Eir regulatory Accounts to require Eir to report the incremental costs and revenues of POTS, over the LLU and/or VUA costs.

Vodafone Non-Confidential Response – ComReg 17/26

This would provide the market with a more transparent and better understanding of eir's real recovery and thus allow the prices to be adjusted accordingly should it be necessary.

41. As stated above, Vodafone would welcome ComReg using REO data from OAOs in the determination of costs. Vodafone will respond to any such data request from ComReg once received.

Question 8: Do you agree with ComReg's preliminary view that a consistent monthly or annual charge should apply for each year of the price control period in relation to the NGA Cost Model and NGN Core Model? Please provide reasons for your response.

Vodafone agrees that a consistent charge should apply for the price control period

42. Vodafone believes that setting a consistent monthly or annual charge is the most appropriate for price setting as it offers transparency between revenues and costs while also providing the necessary consistency, stability and predictability to operators. The absence of certainty in pricing to date has challenged the business case for investing in fixed services in Ireland.
43. Furthermore, by determining the prices to be set for services over the life of the price control period it allows active monitoring by ComReg to ensure appropriateness, efficiencies etc., please see our response to question 2 for more detail on the need for ComReg to review the actual cost, revenues and volumes against those modelled.

Pricing approaches for FTTC based NGA services

44. In this section we respond to the questions on the setting prices for FTTC based VUA in the WLA market and FTTC based Bitstream in the Regional WCA market. We will also respond to ComReg's preliminary views on the pricing approach for Current Generation Bitstream and BMB Services

Question 9: Do you agree with ComReg's preliminary view that the single monthly rental charge for FTTC based VUA (including EVDSL based VUA) should be based on the BU-LRAIC+ methodology generally and Eir's Indexed RAB for Reusable Assets in those exchanges where Eir has deployed active FTTC and EVDSL lines? Please provide reasons for your response.

Vodafone agrees with ComReg's preliminary view for the setting of the single monthly rental charge

45. Vodafone agrees in principle to the proposed approach to the setting of monthly charge but urge ComReg to remain vigilant to ensure that the forward looking portion of charges based on future investments, costs and volumes actually occurs as modelled by ComReg. There is a need to ensure that whatever is attributed to reusable assets (on a BU-LRAIC+ basis) is monitored to ensure these investment are actually made.
46. We stress the importance of a requirement to closely monitor actual costs incurred to ensure that there is no over recovery. For example, we understand the requirement to set the geographic footprint for the price control period however the use of the exchanges where Eir has deployed FTTC and EVDSL should be carefully monitored by ComReg for additional developments and movements Eir to ensure that this footprint remains an appropriate base for use in the costing models.

Question 10: Do you agree that in the exceptional case where Eir reduces the price for FTTC based VUA that any such reduction should also be reflected in the price for FTTC based Bitstream subject to the price floors requirements in Chapter 12 of this document and ComReg’s regulatory approval? Please provide reasons for your response.

Vodafone agree that any reduction in FTTC based VUA should be reflected in the FTTC based Bitstream

47. Vodafone agree that any reduction in FTTC based VUA should be reflected in the price of FTTC based Bitstream in all the FTTC and EVDSL exchanges, given that the FTTC based VUA cost represents the vast proportion of actual Bitstream cost stack (likely 90% plus). It is logical that that reductions in FTTC based VUA should be reflected in FTTC based Bitstream.
48. Furthermore there is a need to ensure that a sufficient economic space or gap is maintained between VUA and Bitstream to send the appropriate investment signals to the market. We would also note that any significant expansion in the margin between FTTC base VUA and FTTC based Bitstream should and would call into question ComReg’s current proposal to deregulate the Urban WCA market. As any such increase would indicate that the market is not acting efficiently. As detailed in our answer to question 1, the Urban WCA market would exclude lower unit cost WCA products, thus leaving on average higher unit cost products in the remaining WCA market. Vodafone remains sceptical that the proposed deregulation in the Urban WCA market will drive down prices.
49. Vodafone assume that the confidential model accurately models the incremental impact that changes in the FTTC based VUA prices have on the FTTC based Bitstream prices and we would welcome additional detail from ComReg on this to ensure that this is the case.
50. Furthermore Vodafone note that any reduction in component parts of FTTC based such as SLU should also flow through to all services that use a common component such as LLU and WLR in the interest of fairness to prevent investments in these components by other operators being undermined.

Question 11: Do you agree with ComReg’s preliminary view that at the time of the Decision the FTTC based VUA and EVDSL footprint should be locked-in for the purposes of setting the single FTTC based VUA (including EVDSL based VUA) monthly rental price for the entire price control period? Please provide reasons for your response.

Vodafone agree that the monthly rental price control period need to be locked in

51. Vodafone agree that locking in a rental price provides certainty, transparency and consistency to service providers. The inflated level of wholesale prices clearly challenge the business case for investment in Ireland. It is also important that operators have price certainty in making strategic decisions on 1) how to serve and grow its customer base and 2) the appropriate wholesale product mix requirements. The current pricing structure and the absence of clear price certainty undermines the case for further investment.
52. Vodafone would stress again that the monthly rental price needs to be closely monitored to ensure that it remains fit for purpose and relative to costs incurred during the lifetime of the price control period to ensure that there is no over recovery.

Question 12: Do you agree with ComReg’s preliminary views that it is appropriate to maintain a link between the price for FTTC based VUA (including EVDSL) and the price for LLU such that any changes to the underlying costs (e.g. SLU) should be applied consistently to the price of both services? Please provide reasons for your response.

Vodafone agree that the price for FTTC based VUA and the price of LLU remain linked

53. Vodafone strongly agree that any reduction in FTTC based VUA should be reflected in the price of LLU given that the FTTC based VUA represents such a large proportion of actual LLU cost stack. It is therefore logical that any change to the FTTC based VUA price must be carried through to LLU.
54. Furthermore there is a need to ensure that a sufficient gap (economic space) is maintained between VUA and LLU to send the appropriate investment signals to the market.
55. Vodafone assume that the confidential model links the incremental impact that price changes in FTTC based VUA have on the LLU prices, which would further support this argument.

Question 13: Do you agree with ComReg’s preliminary view that the monthly rental charge for FTTC based Bitstream should be based on the BU-LRAIC+ methodology and Eir’s Indexed RAB applied to Reusable Assets based on those Local VUA sites yet to be unbundled in the Regional WCA Market and with an adjustment to Bitstream specific costs to reflect the scale of a hypothetical SEO with a 25% retail broadband market share? Please provide reasons for your response.

Vodafone agree with ComReg’s preliminary view on the monthly rental charge for FTTC based Bitstream

56. While Vodafone does not have access to the full model it would appear, as outlined above in response to Question 6, to be a reasonable approach. Also please note our significant concerns with regard to ComReg’s deregulation of the Urban WCA market.
57. Vodafone would note that the adjustment of costs to that of an SEO with a 25% market share needs to be carefully managed. For example in areas with no alternative infrastructure access providers the costs are likely to be more accurately assessed using a top down historical costs approach, in areas such as these we welcome ComReg’s use of such an approach in parts of the Regional WCA Market. It is our view that the use of the 25% as the basis for the SEO needs both better definition and greater input, in terms of the actual percentage of customers being serviced by alternative infrastructure, and also the unit costs from these other Operators. If a lower percentage based on a more accurate reflection of the market is used, this would lower the retail margin available to eir thus preventing them from gaming the market by selectively reducing price on certain products to squeeze out OAOs.
58. The market share of fixed retail revenues of the top 3 authorised operators excluding eir are Virgin (14.7%), Vodafone (14.3%) and BT (5.3%)²¹. The effect of using a higher than representative market share for a hypothetical operator for FTTC based services as stated above is that it may allow eir to ‘game the market’ by selectively reducing their retail margin on certain markets in order to squeeze out OAOs.
59. Please refer to Question 6 for Vodafone comments on the assumed market share of a hypothetical operator.

²¹ 2.1.1 of the Irish Communications Market: Key Data Report – Q4 2016.

Vodafone Non-Confidential Response – ComReg 17/26

60. As noted by ComReg, The European Commission in the 2013 Recommendation at Paragraph 31 specifies that:

“NRAs should adopt a BU LRIC+ costing methodology that estimates the current cost that a hypothetical efficient operator would incur to build a modern efficient network, ...”

Question 14: Do you agree with ComReg’s preliminary view that the FTTC based Bitstream footprint should be locked-in at the date of the Decision for the purposes of setting the FTTC based Bitstream monthly rental price in the Regional WCA Market for the entire price control period? Please provide reasons for your response.

Vodafone broadly agree with ComReg’s preliminary view that the FTTC based Bitstream footprint should be locked-in

61. Vodafone agree that the footprint needs to be locked in so that there is certainty provided to the market to facilitate future planning. Vodafone would again urge ComReg to closely monitor Eir to ensure adherence to the agreed footprint and that it services the regions indicated.
62. If the regions in the footprint are not serviced then ComReg need to take action to ensure Eir make the required adjustments to the model, for example if the footprint actually serviced is smaller than as per model leading to lower than forecast unit costs that the model is subsequently updated to reflect this. In addition, were ComReg to avoid the unnecessary deregulation of the Urban WCA market then these exchanges should also be included for modelling purposes of FTTC based Bitstream.

Question 15: Do you agree that in exceptional cases only Eir should be allowed to reduce the price for FTTC based Bitstream so long as any such reduction is reflected in the price for FTTC based VUA (in order to maintain a sufficient economic space between the two services) and subject to the price floor requirements in Chapter 12 of this document and ComReg’s regulatory approval? Please provide reasons for your response.

Vodafone agree that in exceptional cases Eir whereby are allowed reduce the price in Bitstream it must be reflected in the price of FTTC based VUA

63. Vodafone agree that in exceptional circumstances where a reduction to the price of FTTC based Bitstream is required any reduction must be reflected in the price for FTTC based VUA and be subjected to a price floor and regulatory approval.
64. Similar to Question 10 and Question 12 given the link between the respective cost stacks, it is only logical that a reduction in one leads to a reduction in the other.
65. Vodafone have expressed their views on the price floor and regulatory approval aspect of this question in response to Question 31.

Question 16: Do you agree with the proposed principles, inputs and assumptions in the NGN Core Model for determining the costs associated with the provision of broadband services? Please provide reasons for your response.

Vodafone broadly agrees with ComReg’s proposed modelling approach for determining the costs in the NGN Core Model

66. Vodafone agree in principle with the proposed modelling approach though stress it is very difficult to assess this accurately without full insight into the underlying model and the importance of certain inputs.
67. Vodafone note that there is reliance on ComReg to determine this as even with the provision of a heavily redacted model an informed decision cannot really be made. For example, details of the aggregation node costs are provided but no information on the materiality or immateriality of these costs in the overall costs for the NGN Core Model or in effect for the FTTC based VUA pricing are provided. Again we reference that the overall volumes and volume growth assumptions used by ComReg (overall broadband volumes on Eircom’s network will reduce by c. 5% by 2026) would appear to be conservative and if anything the volumes and unit costs/prices would also appear to be conservative.
68. Ultimately Vodafone would expect that there is a full reconciliation between the historical cost over the longer term and the regulated accounts for consistency of treatment, cost causality, objectivity and transparency and importantly to ensure that eir is rewarded for investments and costs actually incurred and not rewarded in advance (by way of cost models) for such investments and costs that don’t actually occur.

Question 17: Do you agree with ComReg’s preliminary view that traffic costs on the core network should be allocated based on revenue per user (option 3 above)? Please provide reasons for your response

Vodafone agrees in principle with ComReg’s preliminary view on the allocation of traffic costs

69. Vodafone agree in principle with the proposed modelling approach to the allocation of traffic costs. Though we would state that it is difficult to assess the impact of ComReg’s revised approach without better insight into the underlying model and the importance of traffic data inputs.
70. But in principle we agree that this approach is reasonable and would provide the necessary stability in wholesale prices for broadband products in general. We would also agree that the key driver of costs in core networks is no longer traffic with the development of networks where the addition of multiples of capacity can be achieved at far less cost than previous, thus the traffic cost per unit is far from being linear in nature.

Question 18: Do you agree with ComReg’s preliminary view that the monthly price for current generation Bitstream and BMB services should be based on the average BU-LRAIC+ costs across the Regional WCA Market as set out in Figure 31 (for 2017/18) and in Figure 37 (of Chapter 14) for each year of the proposed price control period? Please provide reasons for your response.

Vodafone agrees in principle with ComReg’s preliminary view on the basis for setting monthly CGA prices for Bitstream and BMB services

71. While Vodafone agrees in principle with ComReg’s preliminary view that the monthly price for current generation Bitstream and BMB services, we have significant concerns as to the deregulation of the

Vodafone Non-Confidential Response – ComReg 17/26

Urban WCA market and thus the exclusion of these exchanges information from the calculation of these services.

72. Furthermore, we call on ComReg to remain vigilant in relation to the following concerns raised in our response to the previous consultation document:
- a) Although ComReg does not propose to impose a cost orientation obligation on FTTH based Bitstream services,²² we note that SPs such as Vodafone, who may be relying on these more in the future, might be at risk of excessive pricing by Eir. We therefore urge ComReg to monitor the market closely during the lifetime of this review and reconsider the need for a cost orientation obligation should the demand for FTTH based Bitstream services becomes more predictable.
 - b) Although the cost orientation obligation on CG WCA services mitigates the risk of cross-subsidy between the Regional and Urban WCA markets, it does not remove the risk of Eir allocating (and therefore recovering) more of its fixed and common costs through the regulated Regional WCA market. ComReg needs to closely scrutinise Eir's cost allocation between the Regional and Urban WCA markets in its Separate Pricing Consultation.

Question 19: Do you consider that a price floor for CGA Bitstream services is no longer required for the proposed price control period given the declining demand in CGA investment? Please provide reasons for your response.

Vodafone does not agree with ComReg's view that a price floor is no longer required for CGA Bitstream services

73. Vodafone do not agree with the view expressed by ComReg that a price floor for CGA Bitstream services is no longer required given the long term economic viability of further investment in CGA. Removal of the price floor could lead Eir to reduce the services offered through an anti-competitive margin squeeze.
74. Furthermore, Vodafone would urge ComReg to take **immediate action** to prevent Eir continuing to earn the super normal profits on CGA products like they have been for the last number of years as referred to below. Eir's WLR returns in FY2015 were 17%, significantly higher than the regulated Weighted Average Cost of Capital (WACC) of 8.18%. Between FY2011 to FY2015 the returns average 13% when the regulated WACC was 10.21%.

Question 20: If you consider that a price floor for CGA services is appropriate, do you agree with ComReg's preliminary view on the margin squeeze assumptions and the indicative price floors (for 2017/18) for current generation Bitstream services from the NGN Core Model? Please provide reasons for your response.

Vodafone consider a price floor for CGA services is appropriate

75. Vodafone consider a price floor remains appropriate and that a margin squeeze test should be in place if it is to remain. It is important that a margin squeeze test is in place to prevent further over recovery and instead only the recovery of actual costs incurred.

²² § 8.624 of the ComReg Consultation document number 16/96.

Question 21: Do you consider that the price points for CGA Bitstream and BMB services should be set based on Eir's BU-LRAIC+ costs or the BU-LRAIC+ costs of a REO i.e., the price floors? Please provide reasons for your response.

Vodafone believes that the price points should be set on Eir's BU-LRAIC+ costs

76. Vodafone believes that the price points for CGA Bitstream and BMB services should be set based on Eir's BU-LRAIC+ costs for the reasons stated in the previous two questions.
77. As CGA is a declining market further additional investment by other operators is unlikely. As such in order to prevent Eir continuing to take advantage of their dominant market position and making super normal profits it is important that prices are based on the costs actually incurred by Eir. We will also encourage ComReg to put in place strong ex ante safeguards to prevent Eir abusing their dominant position.

Margin squeeze tests

78. In this section we respond to questions relevant to margin squeeze principles in both current generation and next generation services in the WLA market.
79. We will also respond to questions raised in relation to the margin squeeze principles in Regional WCA Market.

Question 22: Do you agree with ComReg's preliminary views regarding the principles of the wholesale margin squeeze test between FTTH based VUA and FTTH based Bitstream? Please provide reasons for your response.

Vodafone agrees with ComReg's preliminary views on margin squeeze tests between FTTH based VUA and FTTH based Bitstream

80. Vodafone agrees with the principles of the wholesale margin squeeze test between FTTH based VUA and FTTH based Bitstream given how closely linked the products are in reality. The FTTH based VUA costs are a huge proportion of actual Bitstream cost stack (likely 90% plus), as such it is logical that there is a test to ensure a sufficient economic space or gap is maintained between VUA and Bitstream to send the appropriate investment signals to the market.
81. But as noted before Vodafone considers the use of the 25% market share in the calculation of the margin squeeze as needing both better support from the cost actually experienced by other operators and testing in the Irish market to understand if the 25% is relative of the underlying costs. Our major concern is more on the retail margin that use of the 25% market share can generate. The effect of using a higher than representative retail market share for a hypothetical operator for FTTH based services could create additional economies of scale enabling eir to push up wholesale prices relative to the retail price thereby damaging competition in the retail market and damaging the wholesale market such as by potentially dis-incentivising other operators from moving up the ladder of investment.
82. Further Vodafone note that margin squeeze compliance has proven to be an issue in the Irish market which causes some concern. ComReg need to act improve ex ante regulation and increase transparency.

Question 23: Do you agree with ComReg’s preliminary views regarding the principles of the margin squeeze test between the price of WLA services in the footprint corresponding to the Urban WCA Market and retail services provided by way of WLA inputs in the footprint corresponding to the Urban WCA Market? Please provide reasons for your response.

Vodafone agree with the principles of the margin squeeze test

83. Vodafone agrees with ComReg’s preliminary views on the principles of a margin squeeze test in WLA services in the footprint corresponding to the Urban WCA market but have specific concerns. Given the proposal to deregulate this market a margin squeeze test is one of the measures that is required in order to protect Service Providers.
84. However, as referred to in our response to Question 1 of this report, Vodafone do not believe that a margin squeeze test alone is sufficient to protect against market gaming by Eir in the event of the market being deregulated.
85. Using an EEO is also not the appropriate base and would strongly urge ComReg to change this to an REO approach. This would provide a more realistic operator cost base as long as such an approach is based on the blending of other operator costs and that the test is not relying exclusively on Eir operating costs. Vodafone have concerns in how this could be accurately calculated.
86. As stated by Vodafone in our previous submission to ComReg entitled ‘Economic Approach to Average Customer Lifetimes’ Vodafone do not agree with the application of the 42 month customer lifetimes. This outdated assumption applies a blanket rule across all bundles which is unlikely to reflect the individual characteristics of all bundles. Further, there does not appear to be any adjustment to take account of Eir’s inert customer base derived from its legacy incumbency. Vodafone stress that the incorrect application of the customer lifetime effectively facilitates an incumbent in performing a margin squeeze. If a more realistic customer lifetime of 24 months was adopted there are likely to be a number of Eir products that would fail the net revenue test. Given the proposed deregulation of the WCA market it is imperative that the average customer lifetime reflects the reality of a truly competitive market. It is inappropriate to apply a 42-month average in the context of the urban WCA market. The use of 42 months would appear to be based on the average eir customer base and thus when using REO, SEO or even EEO this would not appear to be appropriate as it does not reflect the actual customer lifetimes being experienced by operators other than eir, and this not aligned with the average of the wider industry.
87. Vodafone has concerns with the application of the portfolio principle for the product range without including flagship products as recommended by the EC Commission. It has been the case since the very first days of margin squeeze tests that a portfolio approach can allow key flagship products to be squeezing whilst other less popular products are priced to make the basket or portfolio test pass.
88. The detail has not been provided on whether a breakdown of residential vs business products which would be important, otherwise there is a danger that the incumbent could manipulate the test in their favour by suffering losses in one product group and take gains in others at the expense of other OAOs. Vodafone note that this could happen accidentally or by design.
89. Vodafone are happy to engage with ComReg and to discuss on a confidential basis current retail costs in order to illustrate the potential detrimental impact that any cost changes could have in the Urban WCA market on OAOs.

Question 24: Do you agree with ComReg’s preliminary views regarding the margin squeeze principles for the wholesale End-to-end margin squeeze tests for both current generation and next generation? Please provide reasons for your response.

Vodafone agree with the principles of the margin squeeze test

90. Vodafone agree in principle as the approach is consistent with other assumptions made.
91. Similar to Q.23 Vodafone note that the basis of the costs should not be just anchored on Eir and that a more holistic view across a broadly range of retailing operator, and more reflective of their underlying retail market shares is required.

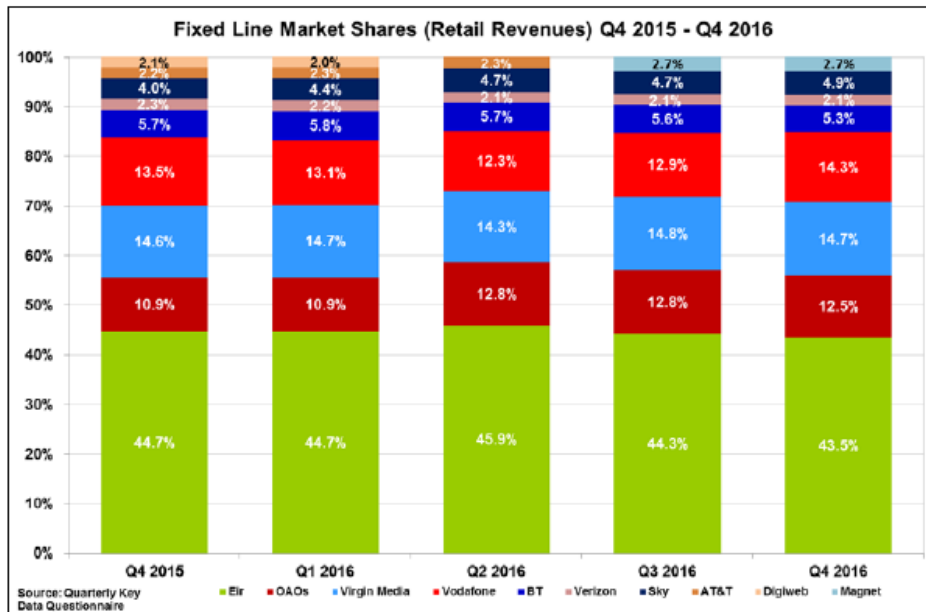
Question 25: Do you agree with ComReg’s preliminary view regarding the margin squeeze principles for the retail margin squeeze test for NGA services in the Regional WCA Market? Please provide reasons for your response.

Vodafone do not agree with the principles of the margin squeeze test

92. Vodafone do not agree with this view for reasons as set out in Questions 23 and 24 specifically on REO / EEO and the use of portfolio product range.
93. Vodafone would note that the adjustment of costs to that of an SEO with a 25% market share needs to be carefully managed. For example in areas where there are not alternative infrastructure asset providers the costs are likely to be more accurately assessed using a top down historical costs approach.
94. Furthermore Vodafone believe that setting the market share of a hypothetical operator at 25% may be too high when considered against the fixed retail revenue market share of authorised operators excluding Eir. The top 3 of these are Virgin (14.7%), Vodafone (14.3%) and BT (5.3%)²³. We strongly urge ComReg to reflect on this information when deciding on how best to model a real life REO operator.

²³ 2.1.1 of the Irish Communications Market: Key Data Report – Q4 2016.

Vodafone Non-Confidential Response – ComReg 17/26



Question 26: Do you agree with ComReg’s preliminary view on the margin squeeze principles that should apply to the retail margin squeeze test for current generation services in Regional Area 1 and Regional Area 2 of the Regional WCA Market? Please provide reasons for your response.

Vodafone do not agree with the principles of the margin squeeze test but have specific concerns with the definitions of the Regions

- 95. Vodafone do not agree with the principles of the test as per the responses to Q23 and Q25 due to concerns on the appropriate use of EEO / REO and the portfolio approach as raised previously. In addition, as detailed in our response to previous questions, we have significant concerns as to the deregulation of the Urban WCA market.

Other Regulatory Measures

- 96. In this section we address the questions related to other regulatory issues that ComReg has considered.

Question 27: Do you agree with ComReg’s preliminary view that the price control period should be for three years but should remain in place any further notice by ComReg and that Eir should review the models annually for material / exceptional changes? Please provide reasons for your response.

Vodafone agree that the price control period should be for three years and that the model should be reviewed annually

- 97. Vodafone agree that the three year price control period appears reasonable though note that it would be preferable for an indication of the post period price controls envisaged.

Vodafone Non-Confidential Response – ComReg 17/26

98. Vodafone would like to reemphasise the importance that despite the price control period lasting three years that the requirement would remain for ComReg (as well as Eir) to review the model annually to ensure it remains accurate and fit for purpose. Specifically Vodafone expect much more close and active ComReg monitoring around assumptions and actual capital investments, costs, revenues and volumes. For example if actual volumes are materially higher than forecasted volumes, then given the asymmetric nature of the modelling engagement between Eir and ComReg, we would expect model and thus pricing adjustments to come into play, or post pricing period adjustment to recovery any material over recovery by eir.

Question 28: Do you agree with ComReg’s preliminary views regarding the pre-notification procedures that should apply to all proposed wholesale price changes or for new wholesale prices associated with the price control obligation for all WLA and WCA services mandated in the WLA / WCA Market Review? Please provide reasons for your response.

Vodafone agree that pre-notification procedures should apply to all proposed wholesale price changes

99. As stated in Vodafone’s response document to consultation document 16/96 we strongly agree with ComReg’s view that the pre-notification of price changes are fundamental to a proper functioning wholesale market. Without this requirement, there is a risk that Eir will use any ambiguity to delay notification and therefore hinder its downstream competitors from being able to adapt and respond accordingly.
100. Coupled with any weakness in non-discrimination obligations and supporting measures to give them effect, a further danger is that Eir’s downstream operations could push for / receive notice of changes, including price changes, in advance of access seekers. As we have argued elsewhere, therefore, a sufficiently strong functional separation model will be needed alongside non-discrimination and transparency obligations. Without this, it is all too easy for key pieces of information to ‘slip’ between Eir’s upstream and downstream businesses in a way that advantages Eir’s retail operations and hinders its competitors. We therefore urge ComReg to consider this risk as part of its review of Eir governance, and seek implementation of a model of functional separation that makes such an eventually less likely to occur and more likely to be detected when it does occur.
101. For these reasons Vodafone would stress the importance that pre-notification periods are clear and strictly enforced by ComReg.
102. As regards to the specific advanced notification proposals,²⁴ Vodafone supports the specific and precise timeframes included within these proposals. We also support the proposal that ComReg reserve the right to extend these timeframes where it considers that proposed changes are likely to have a material impact on related markets.

Question 29: Do you agree that there should be no wholesale promotions and discounts going forward for WLA or WCA services? Please provide reasons for your response.

²⁴ §§8.482 to 8.483 of the ComReg Consultation document number 17/26.

Vodafone agree in principle that there should be no wholesale and discounts for WLA or WCA services.

103. Vodafone welcome the certainty and transparency that the removal of wholesale promotions and discounts would provide. If promotions and discounts are allowed there is a risk that this could lead to market manipulation by Eir by providing temporary discounts in a given geographic area to foreclose the market or to encourage WCA services over WLA services.

Question 30: Do you agree with ComReg’s preliminary views that pre-notification and pre-clearance is appropriate for retail price changes in the WLA Market and the Regional WCA Market? Please provide reasons for your response.

Vodafone agree that pre-notification procedures should apply to all proposed retail price changes

104. Vodafone agree that pre-notification and pre-clearance is appropriate for retail price changes in the WLA and Regional WCA Markets in order to ensure that Eir comply with its retail margin squeeze obligations and to ensure compliance with the imposed price control obligations.
105. Vodafone strongly disagree with the alternative suggested approach of Eir ‘self-complying’ with no pre-clearance requirement due to the potential risk this would result in a retail margin squeeze occurring unknowingly or otherwise.

Question 31: Do you agree with ComReg’s preliminary view regarding the regulatory approval mechanism and that in exceptional circumstances only Eir may be allowed to reduce wholesale prices for FTTC based NGA services (VUA and Bitstream) below the regulated price so long as it does not breach the price floor requirements at paragraphs 12.54-12.55 and subject to ComReg’s approval? Please provide reasons for your response.

Vodafone agree with the regulatory approval mechanism proposed

106. Vodafone welcome the proposed ‘Regulatory Approval’ mechanism for price reductions and are encouraged to see ComReg taking an active role in ensuring that any such price movements are not manipulated.
107. As ComReg have stated, an approval mechanism should avoid situations whereby Eir manipulate the market by providing temporary discounts in a given geographic area to foreclose the market or to encourage WCA services over WLA services.
108. Vodafone further agree that these measures provide greater assurances to OAOs investing in alternative network access infrastructure as the stability provided ensures the price floor protections remain in place.
109. The pre-conditions and requirements set out in 12.54 and 12.55 appear a sensible and reasonable approach of establishing that any proposed reduction is not anti-competitive or an attempt to manipulate the market.

Question 32: Do you agree with ComReg’s preliminary view regarding the regulatory approval mechanism (and pre-conditions at paragraph 12.54) that the price for FTTH based VUA should not go below the price floor at paragraph 12.72 and that Eir’s full deployment costs for FTTH based VUA should be calculated with reference to Eir’s own business case / plan? Please provide reasons for your response.

Vodafone agree with the regulatory approval mechanism proposed

110. Vodafone agree with the regulatory approval mechanism proposed for the reasons set out in our response Q31 and that the approach for the price floor detailed in 12.72 appears reasonable.

Question 33: Do you agree with ComReg’s preliminary view that in the context of the price floor for SABB in Regional Area 2 (as per Section 4.2 of the Decision Instrument in Annex 2 of 2016 Access Pricing Decision) that the footprint of the “Modified LEA” should be replaced by those exchanges in Regional Area 1 excluding those exchanges in Criterion 5 of the 2013 Bundles Decision? Please provide reasons for your response.

Vodafone does not agree to the revised geographic definitions

111. Vodafone would strongly argue that the new definition of the old LEA, and now in effect Regional 1, is not sufficiently linked to the actual costs for an individual operator to move from one infrastructure provider to another. Also, it is now visible from the Department of Communications NBP Map that even within exchanges considered as Regional 1 there are significant areas which do not currently have the necessary infrastructure, from either Eir or alternative operators to be considered as a Regional 1.
112. Therefore we recommend that ComReg review their current definitions of Regional 1 or 2, LEA or non-LEA with reference to the findings in the DCCAIE NBP mapping, in addition to an analysis of the true cost of moving between infrastructure providers in the each individual exchange area. Taken as a whole, this further underlines our significant concerns with regard to ComReg’s deregulation of the Urban WCA market.

Ancillary

113. In this section we address the questions related to recovery of ancillary costs.

Question 34: Do you agree with ComReg’s preliminary view that the connection costs associated with CGA and NGA services should be recovered through a combination of an upfront connection charge and a monthly rental charge as set out at paragraph 13.43? Please provide reasons for your response.

Vodafone agrees in principle with the basis of how connection costs associated with CGA and NGA services are recovered

114. While Vodafone agrees in principle with the proposal and the monthly rental charge as set out 13.43 we note that there would now appear to be inconsistency with this approach for ancillary products compared to other products such as SABB.
115. Vodafone perceived a migration away by ComReg in the use of the split between connection and upfront rental due to potential issues that may be caused with scale. For example if there are very high connection costs the majority of these do not need to be incurred again, in that instance it might make sense to spread those costs over the monthly charge.
116. Vodafone wish to clarify that the costs being recovered refer to FTTH based products and that FTTC based products are not affected.

Question 35: Do you agree with ComReg’s preliminary view that the WEIL charges, including BECS and BECS over WEIL, in the WLA Market and the Regional WCA Market should be based on a BU-LRAIC+ methodology? Please provide reasons for your response.

Vodafone agrees that the charges proposed should be based on a BU-LRAIC+ methodology

117. We agree with ComReg’s proposal that the current cost-orientation obligations should apply to WEIL charges, including BECS and BECS over WEIL, in the WLA Market and the Regional WCA Market should be based on a BU-LRAIC+ methodology. But we would argue that the use of BU-LRAIC+ does run the risk of excessive pricing against these products and while accepting the current prices we would urge ComReg to review the actual recovery of these products by eir.
118. These are important components in the WLA market which allow alternative operators to compete with Eir by interconnecting to its network, if these are not subject to a price control obligation relative to the actual expenditure of Eir there would be at a significant risk of excessive pricing and recovery by eir. Such excessive pricing would be a barrier to entry for individual operators.

Regulatory Impact Assessment

Question 36: Do you have any comments on the Regulatory Impact Assessment and in your opinion are there other factors which ComReg should consider in completing its Regulatory Impact Assessment? Please provide reasons for your response, clearly indicating the relevant paragraph numbers to which your comments refer, along with relevant factual evidence supporting your views.

119. In general Vodafone are in agreement with the policy objectives that ComReg have sought to achieve. Vodafone has invested significant resource in recent years to become the alternative option for total communications services for Irish residential and enterprise customers. Vodafone investment in the fixed market has been undermined by sudden and unjustified changes to our wholesale product prices, as referenced by ComReg in section 15.14(b) of this paper. As a matter of urgency, cost oriented price controls are now required to ensure we can deliver value in fixed services to Irish customers. It is clear

Vodafone Non-Confidential Response – ComReg 17/26

any further investment demands a viable wholesale product, price stability and predictability across all wholesale products.

120. In its RIA ComReg should consider timing impacts and the need to introduce effective price control in the immediate future. We note the time take to date in the market review, price control and bundling papers to allow careful consideration of the approach. We anticipate this will lead to a final ComReg position in the near future. It is clear that the current level of wholesale pricing has constrained the potential for operators to compete effectively – cost oriented stable prices are required as a matter of urgency.
 121. In respect of margins squeeze tests Vodafone notes the position outlined in our response to the main consultation (ComReg doc 16/96) that Vodafone disagrees with the ComReg preliminary conclusion that no undertaking has SMP in the Urban WCA market. In the presence of SMP and absent any regulatory obligations eir has the ability and incentive to engage in exploitative behaviour.
-

Draft Decision Instrument – WLA Market

Question 37: Do you believe that the draft text of the proposed Decision Instrument for the Wholesale Local Access market at a fixed location (WLA Market or Market 3a) is from a legal, technical and practical perspective, sufficiently detailed, clear and precise with regards to the specifics proposed? Please explain your response and provide details of any specific amendments you believe are required.

122. Vodafone has no comment on the Decision Instrument other than to state it is in general agreement with the text subject to consideration of the comments provided in response to this consultation and Vodafone's response to the main consultation (ComReg document 16/96).
-

Draft Decision Instrument – WCA Market

Question 38: Do you believe that the draft text of the proposed Decision Instrument for the Wholesale Central Access market for mass market products at a fixed location is from a legal, technical and practical perspective, sufficiently detailed, clear and precise with regards to the specifics proposed? Please explain your response and provide details of any specific amendments you believe are required .

Vodafone has no comment on the Decision Instrument other than to state it is in general agreement with the text subject to consideration of the comments provided in response to this consultation and Vodafone's response to the main consultation (ComReg document 16/96).
