



Commission for
Communications Regulation

Transition from Eir's Copper Network

Responses to ComReg Document No 16/01

Submissions to Call for Input 16/01

Reference: ComReg 16/01s

Version: Final

Date: 15 June 2016

An Coimisiún um Rialáil Cumarsáide

Commission for Communications Regulation

Abbey Court Irish Life Centre Lower Abbey Street Dublin 1 Ireland

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

Submissions Received from Respondents

Document No:	16/01s
Date:	15 June 2016

Call for Input:	16/01

Content

Section

- 1: ALTO
- 2: BT Communications Ireland Limited
- 3: Eircom Limited
- 4: Enet Telecommunications Networks Limited
- 5: Imagine Communications Ireland Limited
- 6: Vodafone Ireland Limited

1: ALTO

alto

alternative operators in the communications market

**Consultation: Transition from Eir's copper network - Ref:
16/01**

Submission By ALTO

Date: February 17th 2016

ALTO is pleased to respond to the Consultation: Transition from Eir's copper network – Ref: 16/01.

ALTO welcomes this opportunity to comment on this important and complex consultation and would like to make the following general comments before addressing the questions in detail.

Preliminary Remarks

ALTO notes with interest that ComReg plans to bring forward market reviews in markets 3a, 3b and 4 during calendar 2016. Those three market reviews coupled with the signals received from ComReg relating to the National Broadband Plan – NBP, including this particular consultation paper, do not necessarily inspire the requisite confidence in the Ireland Inc. communications market investment story that ComReg should be seeking to maintain.

ALTO submits that ComReg must not be under any pressure to mandate transition, or to remove antecedent network in advance of gaging economic behaviours post the NBP deployment.

ALTO makes some serious points in its responses to this ComReg consultation that cannot be taken lightly. In particular we note that there is little or no certainty, or even an ability to properly forecast what the communications market position will be like subsequent to the Department of Communications NBP tendering processes. Anecdotal evidence is all that appears to be available to most in the market at this time. That is not to detract from the excellent work undertaken by the Department of Communications, but even they acknowledge the challenges in forecasting commercial behaviours and the operation of the Intervention areas under consideration within the NBP.

ALTO submits that the timelines set out in the Consultation paper are aspirational at best. We have input comments in respect of what we believe are the most appropriate timelines in which ComReg should seek to bring forward plans to transition from the copper networks, whether those be Eir's or other operators networks in the future.

Response to Consultation Questions:

Q.1. Do you think that the principles set out in this paper should be restricted to the NBP intervention area or should they have wider applicability? Please provide suitable detail.

A. 1. ALTO does not consider that the principles set out in this papers should be restricted to the NBP intervention area, and that the principles identified should have wider applicability as suggested.

ALTO considers that the overall discourse surrounding the replacement of the copper network in Ireland maybe premature. Below we set out some reasons for this view:

1. In the event that Eir lose one or both of the NBP tender competitions, ALTO considers that such an occurrence could logically act as an incentive for Eir to invest in the NBP areas and to leverage its existing duct, pole and copper networks. That coupled with innovations in technology such suggest that copper may work to a 1Gbit/s over several poles distance. This has obvious implications for competition and regulation.
2. In the event that Eir were to win one or both of the NBP tender competitions, ALTO considers that Eir may use the State funding to upgrade its access network in the intervention area, resulting in a need to address the replacement of copper, however in this scenario the obligations would continue with Eir. ALTO remains deeply concerned that unnecessary market

conditions are stalling the wider market's ability to provide regional access to wholesale NGN network that serves Broadband and that the eventual outcome may make it uneconomic for new entrants to reach the volume of Aggregation nodes.

Q. 2. Do you agree with the list of wholesale principles set out above in section 2.1 to 2.2? Are there any other principles in this respect that should be considered? Please set out clearly the reasons for your response.

A. 2. ALTO generally agrees with the principles highlighted in section 2.2 of the Consultation paper. We specifically agree with proposals surrounding including number portability and that Eir should absorb the cost of the migration in the event that they win either NBP intervention bid.

As regards the migration ALTO members are concerned that such will likely mean a migration from the WLR voice service and this will be dependent on a number of issues as set out below:

1. ALTO considers that ComReg should ensure that other operators could provide a consumer VoIP platform prior to allowing a switch off of Wholesale Line Rental – WLR, services.
2. ALTO considers that Open Eir should provide efficient Interconnect options from its NGN Broadband platform. At present the Open Eir resistance to meet the regional handover Statement of Requirements – SOR, for Edge connection at the PE node suggests they will not supply without a regulatory remedy. ALTO understands that Open Eir has around 150 Aggregation nodes and we expect this number to increase significantly with NBP. ALTO also expects that most of the new Aggregation nodes will be very inefficient to reach based on the same economic issues of providing Local Loop Unbundling – LLU. Hence regional handover at a discount from national handover is a necessity. This would also align more closely with the head-

end approach taken in the UK.

3. The industry number portability platform is not fit to support the porting of consumer volumes and this is a serious concern.

Q. 3. In assessing these issues what costs and benefits should ComReg take into account in forming its opinion?

A. 3. ALTO submits that network efficiencies will need to be assessed properly by ComReg to take account of such items as: VoIP migration, power, co-location, access and the availability of wholesale solutions for access and handoff.

Q. 4. In your view, in the context of Copper Switch-off and were Eir not to bid for/win the NBP tender how should the costs of migrating current Open Eir wholesale customers be recovered?

A. 4. ALTO anticipates that Eir will possibly leverage its ubiquitous duct, pole and existing network to commercially challenge the NBP winner in the event that it is unsuccessful in any NBP intervention tender (this may be a good outcome for rural broadband).

With the clear, efficient and substantial advances in next generation communications technology for local copper access, the expectation is that this will remove the most expensive elements of service deployment to previously inefficient parts of the network.

ALTO submits therefore consider that ComReg should suspend any decision on copper withdrawal pending a reasonable period (NBP deployment period plus six years) to understand how the market will evolve. During that time both Eir and the NBP should jointly be designated with the USO, with Eir also being designated for both copper and fibre. ALTO requires that ComReg consider deploying strong remedies in order to promote strong wholesale competition, coupled with robust consumer protection advantages.

Q. 5. Should Eir be required to reflect the wholesale principles in its commercial agreements with operators, or should the principles be used only as guidance for ComReg if and when Eir asks for permission to withdraw regulated wholesale access products offered on its copper network?

A. 5. ALTO submits that ComReg must exercise extreme caution in its approaches to this serious and consequential subject. It is ALTO's experience that Eir does precisely what it wants to do in the market and is generally unimpeded by regulatory or competition issues that would ordinarily act as a deterrent in a properly functioning market. ALTO submits that ComReg has evidence to underpin this view in spades when reviewing this question in light of the Eir Regulatory Governance Model – RGM, disclosures made in August of 2015. Those disclosures were both material and impacting to wholesale competition and were not as simple as the RGM report made them out to be. We await tangible responses from ComReg about how it intends to proceed in this area, but again restate and submit our desire for a cautious approach from ComReg at this juncture.

Q. 6. Do you agree with the universal service principles set out in relation to ensuring citizens' universal service rights during a transition from the existing copper access network to a New Network? Are there other principles in this respect that should be considered? Please set out clearly the reasons and evidence for your response.

A. 6. ALTO generally agrees with the universal service principles set out by ComReg with regard to ensuring citizens' universal service rights during a transition from the existing copper access network to a new next generation network should generally be maintained. ALTO submits the following additional remarks:

1. ALTO considers that any migration from copper will only logically occur if

Open Eir succeeds in the NBP tender bids. ALTO considers that in such a case, ComReg should be considering mandating Open Eir to provide the existing copper services for several years (extending the 5 to 7 years considered by ComReg) through the USO, during which ComReg should also closely monitor demand. Only when demand highlights the decline of copper (for example Fibre to the premises could pose a price barrier for many) a project should commence to migrate the copper services to Fibre in a transparent and managed way. ALTO considers that USO should be maintained on Eir for the whole period whether service is supplied by fibre or copper. We also consider Eir should be responsible for the costs over the migration to set the correct signals for this to be done carefully.

2. ALTO notes that in Clause 52 ComReg proposes to consult on DC power issues, however certain ALTO members already have substantial numbers of VoIP. ALTO considers that the mains power in urban areas is now very reliable hence we would suggest that ComReg properly consider and contemplate battery back up as a viable solution for areas where the mains power is less reliable.

Q. 7. Do you agree with the general retail (end-user) principles that ComReg has identified for protecting consumer interests during any Copper Switch-off? Are there other principles in this respect that should be considered? Please set out clearly the reasons and evidence for your response.

A. 7. ALTO agrees with the general retail end-user principles that ComReg has identified for protecting consumer interests during any Copper Switch-off. As many consumers are served by competing operators, and in some instances, operators competing for segmented services (TV, Telephone, Internet, Mobile) to Eir and to uphold those consumer rights it is important that both ComReg Retail and Wholesale teams work to ensure seamless retail and wholesale processes and engineered for the change.

Q. 8. Do you agree with the likely areas of risk to protecting consumer interests that ComReg has identified that need to be addressed by RSPs during a transition away from the copper access network to a New Network?

A. 8. ALTO agrees with the likely areas of risk to protecting consumer interests that ComReg has identified that need to be addressed by RSPs during a transition away from the copper access network to a New Network.

Q. 9. What challenges and benefits for consumers should ComReg take into account in forming any future opinion as to the appropriateness of universal service and general retail (end-user) principles during a transition from the copper access network to a New Network?

A. 9. See ALTO response to Q. 11. ALTO submits that the pricing of voice services will be important for the consumer and likely impact the desire to migrate.

Q. 10. What other important consumer interests are there?

A. 10. ALTO members companies expect to maintain a close engagement with their customers during any type of network change. ALTO notes that with the clear exception of business customers, the vast majority of customers who stand to be impacted by such a change fall into the retail and wholesale resale categories.

Q. 11. In assessing these issues what costs and benefits should ComReg take into account in forming any future opinion in relation to these matters?

A. 11. ALTO submits that pricing issues are noticeably absent this consultation and as such could act to distort any migration as voice only customers would be likely to challenge any form of price increase. Until there were more information on the likely NBP consumer pricing it is very difficult to ascertain the potential challenges that may present themselves in terms of migration.

Q. 12. Are there any additional options which you consider may be appropriate? Please provide sufficient detail on your identified option(s) including any associated timeframes.

A. 12. ALTO submits the follow as additional options that we consider to be appropriate:

Customer Demand

Customer demand should be considered in the timing of any planned copper switch-off. At this time we do not yet know the price to the end customers of NBP. Owing to ComReg's policy objectives, we submit that ComReg must properly consider the consumer and part of any plan should listen to the views of the consumers.

Street Level withdrawal of Copper

The three options in the Consultation paper are overly rigid in ALTO's submission. This is so as it is not clear to us that Copper withdrawal will necessarily happen as expected (if at all). Again, if for some reason Eir do not bid, or in the alternative lose the NBP bid ALTO expects considerable activity to compete with the NBP winner, possibly on the basis of most risk to Eir. ALTO submits that street-by-street approach rather than a local exchange situation would appear possible, if not preferable in the circumstances. If Eir win the NBP tender, or part thereof, and the Eir infrastructure is subsequently upgraded then the situation maybe more organised and Eir would clearly be the dominant provider and should be tightly regulated for any withdrawal of assets.

ALTO members request clear and comprehension guidance from ComReg about how it intends to behave in the best interests of both the Consumer and in order to protect wholesale competition, in the event of a withdrawal of the copper network based on uneconomic streets/roads level rather than at exchange level.

Q. 13. Do you agree with the proposed hybrid approach (Option C) in respect of Copper Switch-off in the NBP intervention area? Please set out clearly the reasons for your response.

A. 13. ALTO submits that in circumstance where Eir wins the NBP and decides to close its copper network, ALTO members are likely to agree with Option C. This because there will be unexpected issues to be resolved in the network and a full trial would be prudent in order to expose any service issues on a small scale and provide the basis for refining processes. ALTO also agrees with the Part A and B approach.

In circumstances where Eir either, do not bid, or lose an NBP area, we consider that this will most likely stimulate Eir to leverage its extensive existing duct, pole and copper network including with new copper enhancing technologies such as G.Fast. We therefore do not envisage the wide spread switch-off or copper in such a scenario. In this scenario we consider any switch off would be at a cabinet / street level rather than an exchange level.

Q. 14. Do you consider that a similar proposed approach would be appropriate for the non-intervention area? Please set out clearly the reasons for your response.

A. 14. ALTO believes that NBP is a compelling event with significant complexities and we consider it would not be helpful to add the complexities of LLU, VUA, Leased Lines and co-location investments at this time. For example while LLU traffic maybe slowly declining the use of the LLU co-locations has significantly increased in importance with the NGA and NGN products and such will expand into non-LLU exchanges. To bring NBP into the wider regulatory issues will open considerable competition issues that we expect would take several years to resolve in regulation and potentially through the courts. ALTO notes that ComReg is preparing for the Market 3a and 3b review and is working on the Market 4 review and these are clearly the places to consider the complex market dynamics of each market. ComReg adopting a rushed approach to somehow meet NBP timescales

would be outside ComReg's immediate remit, fraught with risk and almost certainly damaging to competition. ALTO cautions against such an approach.

Q. 15. Should Eir not be successful in the NBP tendering process, what additional complexities may there be which may impact wholesale notifications to industry regarding a proposed Copper Switch-off? Please set out clearly the reasons for your response.

A. 15. Please see our earlier answers above. ALTO considers that such a scenario will stimulate Eir to compete with the NBP with the potential to extend the life of copper through technologies such as G.Fast.

Q. 16. Do you agree with ComReg's proposed pre-notification procedures for the Copper Switch-off trial in specified exchanges? What period of notice do you think is appropriate before trial commencement? What information should be provided as part of the notification process? Please provide reasons for your response

A. 16. ALTO submits that by reference to Clause 71 that members are concerned that such a Copper Switch-off announcement could be subject to regulatory gaming and potentially otherwise mislead parties as such would not be binding and likely to change with events.

It remains ALTO's strong view that ComReg should let the market develop for at least three years in time (with extensions in the event of litigation or State Aid claims), which should predominately be the build stage of NBP hence withdrawal in this period would seem unlikely. Once areas become completed (nothing is, as yet fully certain) for NBP, then it is likely that customer behaviour will drive demand and events and only then will it start to emerge what could be possible for copper switch-off.

Q. 17. Do you agree that it is appropriate for ComReg to insist on a limited

trial in advance of a more general Copper Switch-off programme? Please set out clearly the reasons for your response.

A. 17. ALTO agrees that a limited trial should be conducted. ALTO expects that it would take several years to complete such an initiative and which we would anticipate will highlight not insignificant issues that will need to be overcome. For example we would expect it to highlight many issues including the following:

1. ALTO members submit that closing any live platform and moving customers is usually extremely difficult task and even for a relatively small customer base can take a minimum of about two years in time. We would expect larger customer bases to take considerably longer.
2. Who pays? A common approach would be to set a point of no new supply (as mentioned above) and to notify and to let customers voluntarily migrate to new solutions over a period of several years. The small remaining customers could then be at least cost solution.
3. The existing facilities for number porting are insufficient to support a volume increase in operator VoIP services. This is known by ComReg and is a problem.
4. ALTO members are very concerned that with the control that Eir has over Standalone Broadband pricing (as seen by the Eir arbitrary €2 per user/per month price increase), that this would need to become heavily regulated in order to provide confidence for operators to invest, i.e., that there are more issues than just infrastructure to consider.

Q. 18. Do you agree with the pre-notification procedures proposed for Copper Switch-off on an exchange-by-exchange basis? What notice periods do you think would be appropriate? What sequence should they follow? What information would industry and end users reasonably require? Please justify your response

A. 18. ALTO would usually agree with pre-notification periods when there is some certainty about what precisely is going to happen.

ALTO members remain concerned that a very early pre-notification could lead to regulatory gaming, uncertainty in the market and could potentially mislead consumers.

ALTO

17th February 2016

2: BT Communications Ireland Limited

BT Communication Ireland’s “BT” Response to ComReg’s Public Consultation:

Transition from Eir’s copper network

Proposed principles and notification procedures

Issue 1 – 17th February 2016

1.0 Introduction

This is a timely consultation to make operators consider the consequences of the anticipated NBP and the future of the copper infrastructure in Ireland. Our general conclusion is whatever outcome emerges with the NBP that Eir will basically control the outcome and thus they should be regulated with effective monitoring and effective enforcement by ComReg

Pricing

We consider the pricing differentials for standalone broadband, WLR, VoIP and the offering of regional handover interconnect will be key determinants as to the establishment of competition in the NBP areas. Given the lack of functional separation and the remaining large scale dependence on EOO regulation in Ireland (most products are still EOO regulated), the past history of margin squeeze issues/concerns and the recent admission of numerous discriminations in the Eircom Regulatory Governance Report known as the Styles report; margin squeeze activity in Ireland is a clear and present risk to competition. For example a clear candidate for ex ante regulation in Ireland will be sufficient margin for providers to offer their own VoIP solutions.

Regulation

In the event that Eir were to win the NBP areas the ComReg regulation should continue alongside the legal obligations of the NBP. However where Eir do not bid or lose the bid for an NBP area, our view is that both Eir and the winner of the NBP should be jointly deemed to be dominant by ComReg and both should be regulated through competition regulation and the USO for the provision of an essential facility.

Eir Win Lose Scenarios

In the intervention areas where Eir may win the bid(s) to provide NBP the government funding would potentially assist their management of the copper switch-off and we would expect a more bullish approach to copper replacement to reduce their overall costs.

In intervention areas where Eir do not bid or lose the bid(s) we see a potential for Eir extending the life of the existing copper deployment on an economic cherry picking basis to compete directly with the winner the NBP funding. There are numerous reasons for such an outcome and we have provided four below:

1. It would be natural for a competitor to do this.
2. We perceive this is what happened with the NBP1 Intervention.
3. Copper enhancement technology innovation continues at pace and would be cheaper than fibre into the premises whilst offering speeds up to 1 Gbit/s.
4. Eir have publicly stated they will roll-out to an extra 300k premises many of which are in the intervention areas.

Hence in areas where Eir is not the NBP provider we believe we will see an outcome where copper would be left in place or further installed where it can earn income and any replacement with fibre would be down to the street or cabinet resolution and not solely at the exchange level.

Switch Off Planning

In terms of mandating Eir to publish an overall copper switch-off plan shortly after the NBP announcement we have two concerns:

1. Such could be subject to regulatory gaming to mislead investment and could create the wrong customer expectations.
2. Things rarely go to plan and we would expect much of an early plan to be inaccurate.

In our view the plan should be linked to the actual completed deployment phases or areas of the NBP to remove the key variables and improve certainty. Customer demand is also important should there be barriers to using NBP such as pricing or poor service management etc. ComReg has a policy objective in the 2002 Act to protect the consumer and should consider the preferences of the consumer/customer before allowing any switch-off. Our view is switch-off should not be considered until the NBP deployment has completed and then a notice of at least 5 years notice of withdrawal given.

We would agree to a copper switch-off trial to be conducted over a couple of years in a single location. The trial should at least provide time for parties to develop consumer VoIP solutions and should seek to understand the issues that will need to be resolved such as the need for a volume number portability solution in Ireland.

Non NBP Areas

Other complexities emerge in non-NBP areas such as operator investment in LLU, VUA, NGN Leased Lines, traditional voice interconnect and co-location in the Eir exchanges.

✂ It is our considered opinion that these more complex investment issues should be addressed in a separate study as we expect their complexity will delay an outcome during the NBP timescales.

2.0 Detailed Comments

Q. 1 Do you think that the principles set out in this paper should be restricted to the NBP intervention area or should they have wider applicability? Please provide suitable detail.

A.1

The NBP is a compelling event with significant complexities and we consider it would not be helpful to add the complexities of LLU, VUA, Leased Lines and co-location investments at this time. For example whilst LLU traffic maybe slowly declining the use of the LLU co-locations has significantly increased in importance with the NGA and NGN products and such will expand into non-LLU exchanges. To bring NBP into the wider regulatory issues will open considerable competition issues that we expect would take several years to resolve in regulation and potentially through the courts. We note that ComReg is preparing for the Market 3a and 3b market review and is working on the Market 4 review and these are the appropriate vehicles to consider the complex market dynamics of each market. We consider a whistle stop approach to meet NBP timescales would be both irresponsible and potentially damaging to competition.

Q. 2 Do you agree with the list of wholesale principles set out above in section 2.1 to 2.2? Are there any other principles in this respect that should be considered? Please set out clearly the reasons for your response.

A.2

As regards the migration we are concerned that such will likely mean a migration from the WLR voice service and this will be dependent on a number of issues as below:

1. We consider that ComReg should ensure that other operators can generally provide a consumer VoIP platform prior to allowing a switch off of WLR services. This is not the case today.
2. That Open Eir will provide efficient Interconnect options from its NGN Broadband platform. At present the Open Eir resistance to meeting the regional handover SOR for Edge connection at the PE node suggests they will not supply without a regulatory remedy. We understand that Open Eir has circa 150 Aggregator nodes and we would expect this number to increase with its rollout and with NBP. We also expect many of the new Aggregator nodes will be uneconomic for other operators to reach based on the same economic issues of providing LLU. Hence regional handover at a discount from national handover is a necessity. This would also align more closely with the head-end approach taken in the UK.
3. The industry number portability platform is not fit to support the porting of larger consumer volumes and this is a serious concern. Just mandating operators to make it happen is not sufficient and the current project to contract a new vendor will need ComReg assistance to complete. The risk of some parties not using such a system will further complicate a move to consumer VoIP and our view is ComReg must mandate all operators to use a common porting system.
4. As indicated in the introduction and our response to question 11 ComReg has a significant role in ensuring the pricing and pricing differentials do not stifle or foreclose competition.

Q. 3 In assessing these issues what costs and benefits should ComReg take into account in forming its opinion?

A.3 We consider ComReg need to consider the following:

1. The implications of moving to a VoIP solution in terms of the efficiency of Interconnect and the additional costs in providing the service in the customer premises, for example mains power will now be required for the phone service hence the new line terminating Unit and its associated Modem/ATA will need to be physically co-located near main power.
2. We consider that Eir is unreasonably bundling national transport into its broadband services and preventing operators from taking advantage of their own national investments. We consider the obstruction in providing both NGA and CGA regional breakout is limiting competition in the market and acting to keep prices high for the benefit of Eir. An obligation not to unreasonably bundle is clearly required in any ComReg consideration of NBP. I.e. Like SIRO where the European Commission prohibited it from providing backhaul, Eir should be made to open its access at the local and regional levels so as not to unreasonably bundle.

Q. 4 In your view, in the context of Copper Switch-off and were Eir not to bid for/win the NBP tender how should the costs of migrating current Open Eir wholesale customers be recovered?

A.4. There appears to be a presumption in the question that should Eir not bid or lose the NBP tender then the access game is over for them in those areas. We disagree and as indicated in question 1 we would expect Eir to leverage its ubiquitous duct, pole and existing network to challenge the NBP winner. We perceive this is what happened with the '3 Ireland' NBP 1 intervention and we fully expect the same to happen again. Also, like the NBP 1 intervention we anticipate they will economically cherry pick NBP 2. We note Eir has already announced a 300k premises roll-out many of which are in the NBP Intervention area without the caveat of winning NBP. We therefore assume this statement is independent of whether they participate or win or lose in the NBP process.

There have been substantial advances in the G.Fast technology for local copper access and this removes the most expensive part of the deployment, i.e. the last 100 meters into the premises.

Hence we consider that the point of not bidding or not winning the NBP tender does not provide a reliable indicator for copper switch-off and indeed such may stimulate the increased growth of copper by Open Eir. We are concerned that the act of economic cherry picking potentially undermines the business case of the NBP winner hence it would be pre-mature to take the regulation away from Eir. We consider ComReg should hold fire on any decision on copper withdrawal pending a reasonable period (at least five years from NBP deployment being completed) to understand how the market will evolve. During that time both Eir and the NBP should jointly be designated with SMP and for the USO, with Eir also being designated for both copper and fibre.

Given the above we consider the question of migrating from Open Eir is premature for mass migration. If there were to be a small number of locations they wish to exit we

would expect these to be patchy and our perceived view of Eir's generally difficult wholesale approach to industry suggests ComReg will need to deploy strong remedies.

Q. 5 Should Eir be required to reflect the wholesale principles in its commercial agreements with operators, or should the principles be used only as guidance for ComReg if and when Eir asks for permission to withdraw regulated wholesale access products offered on its copper network?

A.5

In our view Eir does what it wants to do and non-mandatory guidance is a waste of time. In our view the issues we raised to questions 1 and 2 must be dealt with through mandatory regulatory remedies. We consider that ComReg must show extreme care not to damage both competition and customers by prematurely removing the access regulation from Eir even when NBP is in place. We don't believe Eir will give up and use NBP from another provider, moreover we consider they will directly compete with NBP through economic cherry picking. The concern should be whether a non EIR NBP provider can survive.

Q. 6 Do you agree with the universal service principles set out in relation to ensuring citizens' universal service rights during a transition from the existing copper access network to a New Network? Are there other principles in this respect that should be considered? Please set out clearly the reasons and evidence for your response.

A.6

We agree the universal service principles set out in relation to ensuring citizens' universal service rights during a transition from the existing copper access network to a New Network should generally be maintained. However we would like to offer the following comments.

1. As per our earlier answers we consider that a migration will be more likely if Eir win the bid(s). If such were to happen we consider Eir should be mandated through SMP regulation and the USO to provide the existing copper services for 5 years from NBP being completed during which ComReg should monitor demand. Only when demand demonstrates the decline of copper (for example Fibre to the premises could pose a price barrier for many) a project should commence to migrate the copper services to Fibre in a transparent and managed way. We consider SMP regulation and the USO should be maintained on Eir for the whole period whether service is supplied by fibre or copper, however, it may help increase the voluntary migration if new supply is only over fibre.
2. We note in clause 52 that ComReg is going to consult on DC power however there is already a substantial base of customers (100's of thousand) already using VoIP without battery back-up and ComReg should have acted on this some years ago if it had intended for there to be national battery backup approach. The mains power supply is now very reliable in urban areas and the advent of mobile is removing the dependence on the fixed lines hence we consider any consultation would be best limited to rural locations where mains supply is more susceptible to the weather.

Q. 7 Do you agree with the general retail (end-user) principles that ComReg has identified for protecting consumer interests during any Copper Switch-off? Are there other principles in this respect that should be considered? Please set out clearly the reasons and evidence for your response.

A.7

BT is not trading in the consumer market hence we consider this question is best left to the active players in the market.

Q. 8 Do you agree with the likely areas of risk to protecting consumer interests that ComReg has identified that need to be addressed by RSPs during a transition away from the copper access network to a New Network?

A.8

BT is not trading in the consumer market hence we consider this question is best left to the active players in the market

Q. 9 What challenges and benefits for consumers should ComReg take into account in forming any future opinion as to the appropriateness of universal service and general retail (end-user) principles during a transition from the copper access network to a New Network?

A.9

BT is not trading in the consumer market hence we consider this question is best left to the active players in the market

Q. 10 What other important consumer interests are there?

A.10

BT is not trading in the consumer market hence we consider this question is best left to the active players in the market

Q. 11 In assessing these issues what costs and benefits should ComReg take into account in forming any future opinion in relation to these matters?

A.11

Pricing issues are absent this consultation and such could act to distort the migration as customers on voice only services would likely challenge any form of price increase. We consider the following combination of prices and services need to be considered by ComReg in their regulatory remedies to protect the market and the customer during copper withdrawal. As highlighted earlier the pricing differential will be critical both to the rate of migration and also the ability of others to compete. Given the lack of EOI for most products, the lack of functional separation and the transparency/system separation that such brings, past problems with Margin squeeze in Ireland and the poor regulatory behaviour of Eir as demonstrated by 'Styles' the squeezing of VoIP margins would be a strong candidate for ex ante margin squeeze regulation.

A combination of the following will be critical to the pricing of NBP and ComReg need to take a tight control of these in the NBP areas.

1. The price of WLR
2. The price of Standalone Broadband – we cannot have a repeat of the arbitrary 2 euro per month wholesale increase of 2015.
3. The efficiency and pricing of broadband interconnect including regional handover to prevent unreasonable bundling of national backhaul in broadband and speech services.
4. A margin squeeze risk from Eir voice (VoIP and WLR) products could limit other operator's ability to compete.

Q. 12 Are there any additional options which you consider may be appropriate? Please provide sufficient detail on your identified option(s) including any associated timeframes.

A.12

Customer Demand

Customer demand should be considered in the timing of the copper switch-off plans. At this time we do not yet know either the price or the service quality to the end customers of NBP. Our UK experience of FTTC was a slow initial take up of early adopters and pent up demand but it was not until sometime later did the volumes start to grow significantly. ComReg has a policy objective to consider the customer and part of any plan should listen to their views. We also do not yet know the commercial approach of companies that have already invested in local access such as Eir and the Wireless Internet Service Providers (WISPs) who may decide to extend the life of existing products.

Street Level withdrawal of Copper

The three options appear a little too rigid as it is not clear to us that Copper withdrawal will necessarily happen as expected. As discussed above if Eir do not bid or lose the bid we would expect considerable activity to compete with the NBP winner on an economic cherry picking basis. Hence a street by street approach to copper withdrawal rather than a local exchange situation would appear possible. If Eir win and the Eir infrastructure is upgraded then the situation maybe more organised and in this situation Eir would clearly be the dominant provider and should be tightly regulated for any withdrawal of assets.

We therefore need to understand ComReg's thinking in the event of a withdrawal of the copper network based on uneconomic streets/roads level rather than at the exchange level.

Q. 13 Do you agree with the proposed hybrid approach (Option C) in respect of Copper Switch-off in the NBP intervention area? Please set out clearly the reasons for your response.

A.13

Where Eir win the NBP and decide to close its copper network we would agree there will be unexpected issues to be resolved and a trial would be prudent to expose any issues on a small scale and provide the basis for refining processes. We would also agree with the Part A and B approach.

Where Eir do not bid or lose an NBP area we consider such will stimulate Eir to leverage its extensive existing duct, pole and copper network including with new copper enhancing technologies such as G.Fast. We therefore do not envisage the wide spread switch-off or copper in such a scenario. In this scenario we consider any switch off would be at a cabinet / street level rather than an exchange level.

Q. 14 Do you consider that a similar proposed approach would be appropriate for the non-intervention area? Please set out clearly the reasons for your response.

A.14

Please see our response to question 1. We are concerned that ComReg is considering reducing access regulation and co-location regulation at a time when both are required more than ever. The LLU co-location has become a focal point for access to the Eir NGA and NGN networks through VUA and Ethernet WEILs. We see this co-location footprint growing beyond the LLU footprint in the near future although as highlighted earlier we are very concerned that Eir will continue to roll out Aggregator nodes beyond our economic reach and thus the need for regional handover. We thus consider bringing other areas into the NBP debate brings additional huge concerns and complexity that will ultimately delay an outcome for the NBP. Hence our view is not to bring non-NBP areas into this discussion.

Q. 15 Should Eir not be successful in the NBP tendering process, what additional complexities may there be which may impact wholesale notifications to industry regarding a proposed Copper Switch-off? Please set out clearly the reasons for your response.

A.15

Please see our earlier answers as we consider such a scenario will stimulate Eir to compete with the NBP with the potential to extend the life of copper through technologies such as G.Fast. We consider the Eir announcement to roll-out to 1.9 Million has given notice to the DCENR that they will compete although it's possible it will be through economic cherry picking.

A complexity will be the viability of the NBP winner should Eir adopt economic cherry picking as such could potentially undermine the NBP business case leading to a potential serious under recovery of income.

Hence we envisage the life of copper will potentially extend in this scenario, however should Eir seek to fibre some streets then copper withdrawal at a cabinet/street level may be required. Exchange withdrawal maybe required on a limited basis.

Q. 16 Do you agree with Coreg's proposed pre-notification procedures for the Copper Switch-off trial in specified exchanges? What period of notice do you think is appropriate before trial commencement? What information should be provided as part of the notification process? Please provide reasons for your response.

A.16

In relation to clause 71 we are concerned that such a Copper Switch-off announcement could be subject to regulatory gaming and potentially mislead other parties as such would not be binding and likely to change with events. Our view would be to let the market develop for at least three years which would predominately be the build stage of NBP and withdrawal in this period would seem unlikely. Once areas become completed (nothing is certain) for NBP then customer behaviour will likely drive events and only then will it start to emerge what could be possible for copper switch-off. In areas where Eir did not bid or lost the bid we consider they may seek to grow aspects of the copper network and any closures could be at the street, cab or exchange level. In areas where they win then Eir would have the dominance to dictate and tight regulatory control must be established.

Q. 17 Do you agree that it is appropriate for ComReg to insist on a limited trial in advance of a more general Copper Switch-off programme? Please set out clearly the reasons for your response.

A.17

We would agree that a limited trial should be conducted which we expect would take several years to complete and which would highlight the issues to be overcome. For example we would expect it to highlight many issues including the following:

- Experience has shown us that closing any platform and moving customers is very difficult and even for a small base can take about two years. We would expect larger bases to take considerably longer.
- For Copper removal changes of the connection arrangement and mains power within the customer premises should not be underestimated.
- Who will pay for this? A common approach would be to set a point of no new supply and let customers voluntarily migrate over a period of several years. The small remainder could then be moved at far less cost.
- The existing facilities for number porting are insufficient to support a volume increase in operator VoIP services.
- We are concerned with the control that Eir has over Standalone Broadband pricing (as seen by the Eir arbitrary 2 Euro per user per month hike) and this would need to become heavily regulated to provide confidence for operators to invest. I.e. there are more issues than just infrastructure to consider. Please see our response to question 11.
- ✂

Q. 18 Do you agree with the pre-notification procedures proposed for Copper Switch-off on an exchange-by-exchange basis? What notice periods do you think would be appropriate? What sequence should they follow? What information would industry and end users reasonably require? Please justify your response.

A.18

We would agree with pre-notification periods when there is some certainty that such is going to happen and consider this should not be given until NBP is complete and should

then give a minimum of 5 years notice. However, to reduce cost it would be worth including a policy of no new supply at say 3 years after NBP to commence a cheaper and more manageable customer led voluntary migration. We are concerned that a very early pre-notification could lead to regulatory gaming, uncertainty in the market and could potentially mislead people as the variety of variables makes the confidence of accuracy low.

We also consider ComReg need to consider sub exchange levels (street and cabinet withdrawal) and economic cherry picking is a real possibility where Eir do not win the bids. We note that Eir has already declared it will commercially deploy in NBP areas hence it could always argue that it told the DCENR even if it was not accepted.

End

3: Eircom Limited

eir

Response to ComReg Consultation Paper:

Transition from eir's copper network

Proposed principles and notification procedures

ComReg Document 16/01



17th February 2016

**DOCUMENT CONTROL**

Document name	eir response to ComReg Consultation Paper 16/01
Document Owner	eir
Last updated	17 th February 2016
Status	Non-Confidential

The comments submitted in response to this consultation document are those of Eircom Limited (trading as 'eir' and 'open eir') and Meteor Mobile Communications Limited ('MMC'), collectively referred to as 'eir Group'.



Executive Summary

eir welcomes the opportunity to contribute to the development of ComReg's thinking regarding the transition from eir's copper network. The consultation is timely given that ubiquitous Next Generation Access (NGA) will be a reality by the end of this decade through a combination of commercial roll-out and the National Broadband Plan (NBP) State intervention. As fibre roll-out intensifies in the access network the case for copper retirement in local areas will arise in the next few years.

The Consultation considers a range of regulatory issues regarding the transition from eir's copper network. The regulatory issues can be addressed under three distinct elements of the regulatory regime:

- eir's Significant Market Power (SMP)

We agree with ComReg's proposed principles of replicability and migration. ComReg proposes to adopt what it terms as a hybrid approach (Option C) regarding the definition and implementation of transition activities leading to the retirement of the copper access network. However, ComReg's proposed approach is likely to have a substantial administrative overhead.

In eir's view regulatory rules should not aim to set out a detailed and prescriptive process but rather focus on a framework of principles to underpin the transition and on establishing appropriate notification periods. Transition planning needs to be flexible whilst finding an appropriate balance between the interests of eir and its wholesale and retail customers with a view to minimising the inefficient parallel running of two access networks in a local area. We believe that ComReg should establish appropriate principles and set reasonable minimum notification periods for transition activities and then allow the transition to proceed without requiring ComReg to grant consent for copper retirement on an exchange by exchange basis.

Ultimately it must be eir's choice if and when and where to decommission copper. It is eir that is making the substantial investments and it is eir that is bearing the risk. eir will take into account a number of factors to determine if the time is right to progress with decommissioning including the extent of fibre build in the area, the penetration of fibre take-up in the area and the cost of maintaining the copper network in the area. The circumstances in Ireland reflect the international evolution path of fixed network access technologies. The technological evolution should be embraced as being in the long term interest of society. It will be important to ensure that regulatory processes, including notification periods, do not introduce or exacerbate cost inefficiencies.

- eir's designation as Universal Service Provider (USP) within the Access at Fixed Location Universal Service Obligation (AFL USO) regime

ComReg is undertaking a strategic review of the AFL USO regime and should be consulting shortly if it is to meet the 30th June 2016 deadline when the current designation expires. Any new regime will need to be sufficiently flexible to ensure that eir is not required to continue to invest in maintaining a parallel copper network.

- the application of general consumer protection issues.

ComReg considers consumer protection issues with a view to ensuring that end-users are fully informed of the differences between products and services provided over copper access networks and fibre access networks. The issues are already relevant and are not unique to the transition from eir's copper network in the future. Matters such as establishing a clear policy for battery back-up should be addressed in the near term for all market players.



Response to Consultation

Introduction

eir's access network is undergoing a transformation to meet end user demand for high speed broadband services. The NGA network already passes 1.4 million premises and eir is committed to rolling out commercially to another 500 thousand premises over the next few years. This combined with the outcome of the Government's NBP will mean ubiquitous NGA availability across the State by the end of the decade.

To date eir has invested over €345m in NGA. NGA brings many benefits to society, end-users and eir's wholesale customers. Innovation, investment and network evolution should be encouraged by regulatory policy and transition rules should be sufficiently flexible so that the inefficiencies of maintaining parallel NGA and legacy networks and services are minimised.

eir has commenced the next phase of its NGA roll-out which will see a predominately fibre access network pass 300 thousand premises in rural Ireland. In most cases this deployment will be a replacement for the legacy copper access network. eir also, in fibre enabled exchange areas, will only deploy fibre in new access network builds, such as new housing developments. open eir is developing a Voice Over Internet Protocol (VOIP) proposition, [✂ ✂ ✂ ✂], that will provide first line voice services over the fibre access network.

eir's NGA network is currently being rolled out using two technologies. The copper access network will continue to have a role to play where VDSL (Very-high-bit-rate Digital Subscriber Line) is deployed. The copper access network will become redundant in areas where Fibre To The Premises (FTTP) is deployed in a fibre access network using GPON technology (Gigabit Passive Optical Networks). It is this scenario that is the focus of ComReg's consultation in terms of retiring the copper access network. Consideration is also required regarding the retirement of legacy services. As NGA availability becomes ubiquitous it will be efficient to retire the legacy switched voice over the Public Switched Telephone Network (PSTN) and legacy broadband services using Asymmetric Digital Subscriber Line (ADSL) on a local, regional or national basis. The principles regarding the retirement of such legacy services should be included within the scope of this current ComReg work item.

Q. 1 Do you think that the principles set out in this paper should be restricted to the NBP intervention area or should they have wider applicability?

In eir's view the principles can and should have wider applicability. It is not clear why a distinction should be drawn between the State intervention (NBP) area and the commercial area, particularly as the NBP does not specify any one technology. The wholesale principles for replicability and migration apply nationwide in terms of supporting the retirement of legacy services and technology.

It should be noted that there is an ongoing natural market-led migration towards NGA services that commenced with the launch of NGA services in 2013. The following graph outlines the volumes and trend since Q4 2012 up to Q3 2015 demonstrating a significant and ongoing decline in the CGA broadband line base.

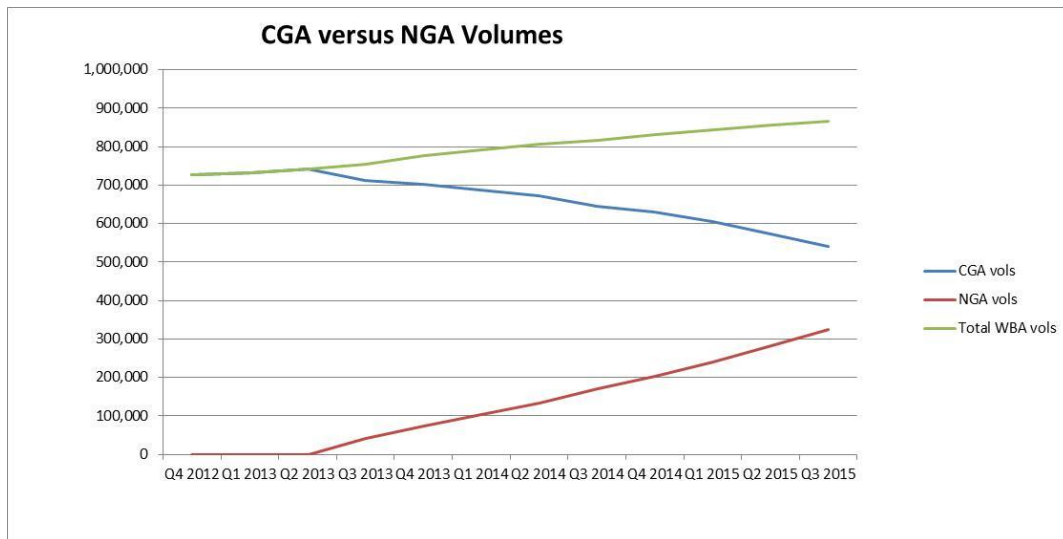


Figure 1 – CGA and NGA Line Broadband Trends 2012 – 2015

A downward trend can also be observed for in the following graphs for CGA Local Loop Unbundling and Line Share consumption.

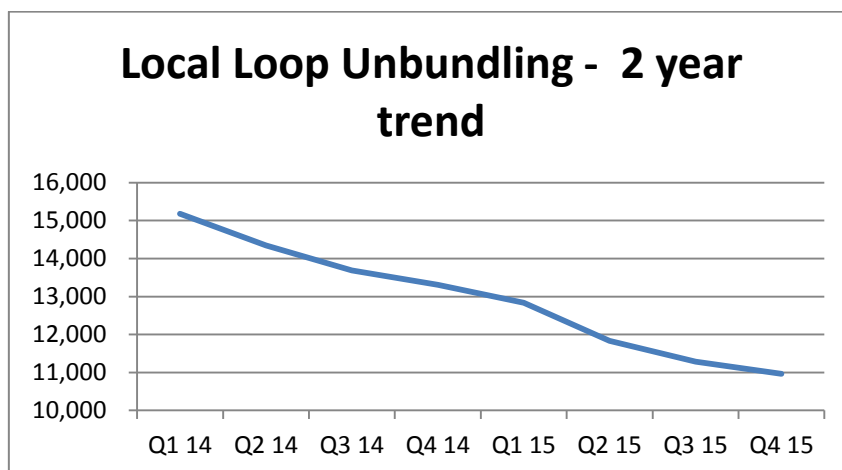


Figure 2 – Local Loop Unbundling 2 year trend

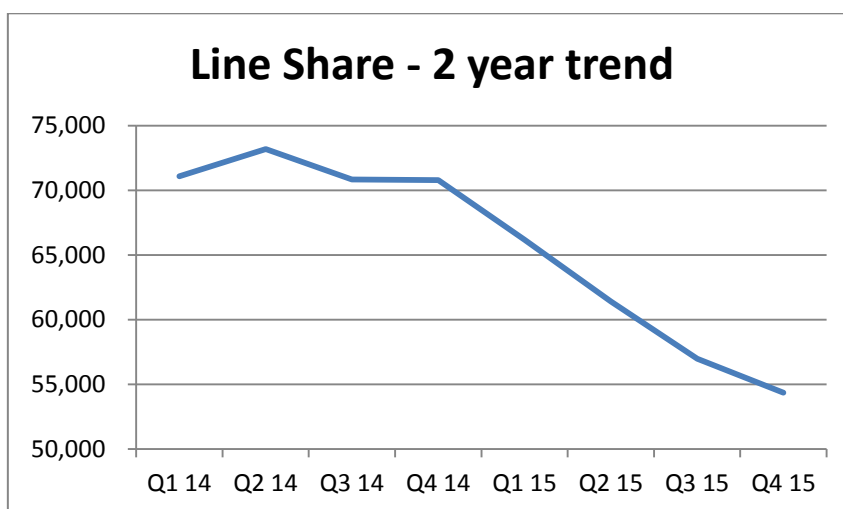


Figure 3 – Line Share 2 year trend



These trends are expected to continue such that demand for CGA services will be negligible by 2020. The trends are also likely to accelerate with the rollout of more NGA services across the country by SIRO, Virgin Media, and the ongoing large scale rollout of fibre from eir.

Q. 2 Do you agree with the list of wholesale principles set out above in section 2.1 to 2.2? Are there any other principles in this respect that should be considered?

eir agrees that the wholesale principles of replicability and migration should be maintained.

In terms of replicability, eir already has equivalent Bitstream product sets for CGA and NGA with the NGA product set offering a far richer end-user experience. We note ComReg's comments in section 2.1 regarding whether there will be a need to mandate a wholesale VOIP product as a successor to WLR. open eir is developing a wholesale VOIP product which will be made available [x x x x] to wholesale customers that wish to provide a voice and broadband service to end users over NGA. Other wholesale customers who wish to self-provide VOIP can do so limiting the wholesale service supplied by open eir to Standalone Broadband. The principle of replicability will thus be met.

DCENR envisages that a full range of wholesale remedies will apply in the NBP area. However one element that may require more consideration is the provision of basic broadband services which the DCENR has proposed that the NBP operator is not allowed to provide, probably until 2020. This could impact the provision of USO services if a low data rate Functional Internet Access (FIA) is to be specified within the USO and is something ComReg should clarify with the DCENR.

Ultimately it must be eir's choice if, when and where to decommission copper. It is eir that is making the substantial investments and it is eir that is bearing the risk. eir will take into account a number of factors to determine if the time is right to progress with decommissioning. These factors will include:

- The extent of fibre build in the area.
- The penetration of fibre take-up in the area.
- The cost of maintaining the copper network in the area.

It is important that eir is given flexibility to make localised decisions depending on the prevailing circumstances. For example significant storm damage to the copper network in an area where fibre is already present may accelerate the business case for the retirement of copper in that area. Copper retirement could take place on an exchange area basis or ribbon by ribbon (i.e. individual routes in the exchange area).

Q. 3 In assessing these issues what costs and benefits should ComReg take into account in forming its opinion?

It is not clear why ComReg needs to consider costs and benefits in the context of this consultation. Generally we would expect there to be a market led migration as end users avail of superior NGA broadband services. A relatively short period of parallel running of the copper and fibre networks would be expected following fibre access deployment in an area. The parallel running will be a cost to open eir but will allow end users time to migrate to the fibre access network. Towards the end of the parallel running period open eir would work with Retail Service Providers (RSPs) to migrate the remaining end users from the copper network. It is difficult to offer a view on the quantum of incremental cost associated with a migration of open eir wholesale customers. It would be expected that much of the migration would be market led and therefore business as usual. End users should see substantial benefits from NGA broadband availability.



The circumstances in Ireland reflect the international evolution path of fixed network access technologies. The technological evolution should be embraced as being in the long term interest of society. It will be important to ensure that regulatory processes, including notification periods, do not introduce or exacerbate cost inefficiencies.

Q. 4 In your view, in the context of Copper Switch-off and were Eir not to bid for/win the NBP tender how should the costs of migrating current Open Eir wholesale customers be recovered?

At paragraph 38 ComReg states that the cost of migration should be borne by eir if it wins the NBP. It is not clear what is meant by this. As noted above we expect that much of the migration will be market led as end users and RSPs embrace the benefits of NGA broadband. Customer premises equipment will be reusable and so will not be an issue from the end user perspective, unlike analogue TV switch-off where end users had to buy digital receivers for service continuity.

The interaction with the AFL USO is relevant irrespective of whether eir wins the NBP. As the penetration of end users on the legacy copper network declines there will come a point when it is more economical to migrate the remaining end users onto the fibre access network and retire the copper network. If one of the drivers requiring the continued operation of the copper network is maintaining the AFL USO service for a small category of end users then this will have a direct impact in the net cost of the USO which will be borne by industry.

Q. 5 Should Eir be required to reflect the wholesale principles in its commercial agreements with operators, or should the principles be used only as guidance for ComReg if and when Eir asks for permission to withdraw regulated wholesale access products offered on its copper network?

We do not believe there is benefit in putting the principles into commercial agreements as the principles should be reflected in the relevant products and processes.

Other matters raised in Chapter 2

We note ComReg's reference to other potential notification obligations in paragraph 68. Neither of these is directly relevant to the transition matters under consideration.

Regulation 7(4) of the Universal Service Regulations is only relevant in respect of an undertaking designated with the AFL USO that is selling / disposing of some or its entire access network to a legal entity under different ownership. In the case where eir is the NBP winner and some form of AFL USO is applicable to the NBP winner, Regulation 7(4) does not apply where eir is transitioning its access network from copper to fibre. There is still an access network. In the case where eir is not the NBP winner and the copper network is rendered obsolete as a consequence of the NBP then the removal of the redundant infrastructure would not fall under Regulation 7(4) because there can be no objective justification to impose the AFL USO on any entity other than the NBP winner.

We do not consider that Conditions 18.2 and 18.3 of the General Authorisation are relevant in the case of eir transitioning from a copper access network to a fibre access network. As ComReg highlights in footnote 33 the definition of 'Cessation of Service' does not include the replacement of a network with a functionally equivalent network. eir acknowledges that in the circumstances where the copper network is being closed and not replaced by eir because it has been rendered

uneconomic and obsolete by the NBP then this would constitute a cessation of service and the Conditions to notify apply.

Q. 6 Do you agree with the universal service principles set out in relation to ensuring citizens' universal service rights during a transition from the existing copper access network to a New Network? Are there other principles in this respect that should be considered?

For the purpose of the consultation ComReg assumes that the AFL USO regime and the designation of eir as USP will continue for a period of 5 to 7 years. We do not believe that this is an appropriate assumption. Current ComReg thinking promotes the concept of two lines being connected to each premises in the NBP area, one for narrowband and one for broadband. However the rationale for the NBP State Intervention is that it is not economic to run two fixed networks in this area. The economics in the NBP intervention area logically only support one fixed access network. DCENR and ComReg must work together to establish a joined up regulatory regime in the NBP area that meets policy objectives in respect of social inclusion by voice and broadband services. To the extent that a narrowband AFL USO regime is to be maintained in the NBP area the designation should be aligned to the NBP provider, as the one guaranteed to be present for 25 years.

ComReg is undertaking a strategic review of the AFL USO regime and should be consulting shortly if it is to meet the 30th June 2016 deadline when the current designation expires. Any new regime will need to be sufficiently flexible to ensure that eir is not required to continue to invest in maintaining a parallel copper network. In the context of the NBP any USO should reside with the NBP provider. From a practical perspective this means that reasonable AFL requests for premises to be served should be met by the new NBP network from the moment that the NBP network has passed the premises. If the USO is to be maintained it needs to be redefined so that it is lighter touch, targeted and focussed on the needs of vulnerable customers. The time has passed when it might have been considered appropriate to apply a blanket obligation for eir to maintain a copper network nationally. The USO regime needs a fundamental overhaul as has been made clear in the current EU review and we look forward to the next stage in ComReg's strategic review in the near future.

Consumption patterns of fixed voice-only services are declining as consumers migrate to bundles with broadband and / or migrate to mobile as the first-line voice technology of choice. The following table shows the movement of eir retail fixed voice only subscriptions during 2015.

[✂ ✂ ✂ ✂ ✂]

There is a clear downward trend in voice only subscriptions. This has important implications for ComReg's policy in respect of the AFL USO. It highlights that the AFL USO cannot be sustained in its current manner. The AFL USO must be designed in a more targeted manner and cannot be left as a blanket national obligation. ComReg acknowledges (paragraph 48) that it is for the USP to decide what is cost effective in terms of technology to deliver a narrowband service for voice. As ComReg notes the cost of provisioning a standalone VOIP service per premise may initially be higher than providing a copper service (if a copper connection is already available at the premises). The AFL USO should be established as a service of last resort as was intended when it was introduced. For example if there is good mobile coverage in an area eir should not be obliged by the AFL USO to provide a standalone voice service.

It should be noted that fibre access will have advantages for vulnerable users in rural areas. Fibre is less affected by the weather, both in terms of water ingress and the effect of wind and lightning. Fibre access facilitates better quality broadband services which in turn offer greater advantages to



end users, for example regarding security applications. Disabled users will be able to avail of the next generation text relay service which requires broadband access to work effectively.

The rules of the NBP are intended to ensure that retail and wholesale services must be affordable.

Q. 7 Do you agree with the general retail (end-user) principles that ComReg has identified for protecting consumer interests during any Copper Switch-off? Are there other principles in this respect that should be considered?

We note ComReg's description of section 3.2 entitled "*Replacement voice services offered on the New Network must comply with the regulatory requirements for publicly available telephone services.*" eir agrees. This section of the Consultation discusses potential end user requirements for battery back-up and ensuring equivalent access facilities for disabled end-users. We noted that ComReg intends to run a separate consultation focussed on battery back-up issues. eir looks forward to further engagement on this topic. We agree it should be a separate consultation process as it is dealing with issues related to all access networks which cannot be remotely powered. The issue is not unique to eir's NGA network and any principles / rules should apply to all operators of networks which cannot be remotely powered.

In section 3.3 ComReg observes that customers need to be given adequate notice of withdrawal of services. We agree with this principle. The notice period should be sufficient to allow end-users to transition but not so long that the call for action is put off to another day. A notice period between 3 to 6 months of withdrawal of service to end users would seem to be a reasonable balance. This would follow a period of market-led take up of the new fibre access network.

At paragraph 56 ComReg observes that customers should be properly informed of any changes arising in respect of the new service. We agree with the principle that customers should have sufficient information to allow them to make informed choices. This issue already exists today when customers migrate from the copper network to an alternative infrastructure provider or technology. Consequently any gap in communication that may give rise to consumer harm should be addressed now, perhaps with a guideline issued to all operators as to the pertinent information that should be communicated to end users. Given that this issue is not unique to eir we believe this could be progressed with the separate consultation on battery back-up.

Q. 8 Do you agree with the likely areas of risk to protecting consumer interests that ComReg has identified that need to be addressed by RSPs during a transition away from the copper access network to a New Network?

As noted above the areas of risk exist today when an end user is enticed away from the copper network. End users should be adequately informed of relevant factors for example regarding the compatibility or otherwise of the access technology with monitored alarms.

Q. 9 What challenges and benefits for consumers should ComReg take into account in forming any future opinion as to the appropriateness of universal service and general retail (end-user) principles during a transition from the copper access network to a New Network?

Please see our replies to the previous question. The transition issues already exist and should be addressed in the near term if there is evidence of consumer detriment.



Q. 10 What other important consumer interests are there?

As noted above there is likely to be a need to raise awareness with third parties such as alarm companies and suppliers of equipment to disabled users. Please note this is already a reality for Virgin Media customers and Standalone Broadband customers.

Q. 11 In assessing these issues what costs and benefits should ComReg take into account in forming any future opinion in relation to these matters?

Please see our response to question 3.

Q. 12 Are there any additional options which you consider may be appropriate? Please provide sufficient detail on your identified option(s) including any associated timeframes.

Ultimately it must be eir's choice if, when and where to decommission copper. eir will take into account a number of factors to determine if the time is right to progress with decommissioning in a local area. These factors will include:

- The extent of fibre build in the area.
- The penetration of fibre take-up in the area.
- The cost of maintaining the copper network in the area.

The process must be supported by sufficient transparency and notice periods to allow eir's wholesale customers, RSPs and end-users to make an orderly transition without prolonging the period of parallel running. We do not believe that the four options described by ComReg offer the necessary flexibility. One of the key factors will be the degree of fibre penetration in an area. It should be possible to develop a rule that copper decommissioning may commence 12 months after fibre build in the local area has been completed.

eir does not believe there is any merit in deferring retirement of legacy services and the copper access network until after the NBP roll-out is complete (Option B).

Option C appears to be unnecessarily complex and is unlikely to be a sufficiently agile approach. Under this option "*Wider roll-out of Copper Switch-off would be subject to more detailed exchange by exchange notifications which would also require an assessment on the impact on end-users and competition.*" However copper retirement is likely to occur first in the NBP area and the design of the NBP renders it unnecessary for exchange by exchange competition and end-user impact assessments.

We agree that Option D will not work as this is tied in with the USO and notice periods in regulatory decisions which only ComReg can change.

Option A may not be as challenging as ComReg's suggests as the winner of the NBP will be required to commit to a detailed roll-out plan with DCENR which will be public so it should be possible to produce and maintain a copper retirement plan that follows the NBP deployment plan. However this only addresses one side of the coin. open eir's fibre deployments in areas that will likely be considered outside of the NBP will also need to be addressed. We refer to this as commercial deployment. open eir's NGA Deployment Plan gives a minimum of six months' notice of new deployments. The Plan is comprehensive and updated monthly. We believe that a



combination of Option A and Option C with reduced administrative overhead could be developed for the NBP and commercial areas.

The Deployment Plan(s) gives advance notice of fibre deployment in a local area. We believe that the following approach could be developed.

Step 1: Principles – following the current consultation ComReg should establish appropriate guiding principles including wholesale principles for replicability and migration. This in turn will inform open eir's product development to support the transition. This will also negate the need for ComReg's proposed Part A to Option C which envisages further industry consultation on a high level transition plan. This is not necessary.

Step 2: Product development – open eir and Industry can review relevant products through the established Industry engagement process.

Step 3: Implementation - A common protocol for local areas will need to be established. eir suggests the following as the main components of the transition protocol:

- Deployment Plan updated on monthly basis giving a minimum of 6 months' notice of NGA build in an area.
- Fibre rollout commences in the local area. Rollout commencement triggers a minimum 12 months' notice of intention to retire CGA services and to retire copper.
- Fibre rollout completed in the local area. As fibre becomes available, no new connections will be made to the copper network. i.e. All new connections will be made on the fibre access network and there will be no backward migration permitted (fibre to copper).
- Call to action 3 to 6 months prior to retirement – Relevant RSPs formally notify end users that copper service will be terminated and that they need to migrate.
- Final call to action - Relevant RSPs formally notify end users that copper service will be terminated in 1 month's time.
- Cessation of legacy service and commencement of copper decommission.

We agree there is merit in undertaking some trials to test and refine protocol and processes.

Q. 13 Do you agree with the proposed hybrid approach (Option C) in respect of Copper Switch-off in the NBP intervention area? Please set out clearly the reasons for your response.

eir does not agree with the proposed Option C approach. We do not believe the proposed Option C is sufficiently agile or flexible. As highlighted above we believe that ComReg should establish a set of principles to inform eir's subsequent transition plans. If eir meets objective criteria it should be able to proceed without needing to seek additional permissions. Option C as it stands proposes to require consultation and/or ComReg approval at various stages in the process including on an exchange by exchange basis. This creates a cumbersome administrative process that will introduce substantial unnecessary delay.

Q. 14 Do you consider that a similar proposed approach would be appropriate for the non-intervention area?

Yes. As explained earlier in this response, the same principles should be applied in areas where copper is to be retired and/or legacy products and services to be withdrawn.



Q. 15 Should Eir not be successful in the NBP tendering process, what additional complexities may there be which may impact wholesale notifications to industry regarding a proposed Copper Switch-off?

If eir is not successful in an NBP area then the SMP obligations should be withdrawn from eir in that area as the successful operator builds out. In such circumstances there can be no justification for the continuation of the imposition of the USO on eir. From a practical perspective this means that reasonable AFL requests for premises to be served should be met by the new NBP network from the moment that the NBP network has passed the premises. In these circumstances ComReg should turn its attention to regulating the new NBP network operator and eir would progress with its wholesale and retail customers on a commercial basis.

Q. 16 Do you agree with ComReg's proposed pre-notification procedures for the Copper Switch-off trial in specified exchanges? What period of notice do you think is appropriate before trial commencement? What information should be provided as part of the notification process?

This call for input is an important step in the awareness process. As noted earlier eir does not agree with ComReg's proposed pre-notification procedures (Part A to Option C) which envisages further industry consultation on a high level transition plan. This is not necessary.

We agree that there is merit in trialling processes and procedures. We have no immediate plans to trial copper retirement processes and procedures. This will be developed in due course and should be supported by agile notification requirements that do not introduce unnecessary delay.

Q. 17 Do you agree that it is appropriate for ComReg to insist on a limited trial in advance of a more general Copper Switch-off programme?

We agree that there is merit in trialling processes and procedures. This is normal practice for major changes. For example a trial was undertaken prior to the launch of NGA services in 2013 and a number of trials are ongoing in respect of the rural deployment of FTTH.

Q. 18 Do you agree with the pre-notification procedures proposed for Copper Switch-off on an exchange-by-exchange basis? What notice periods do you think would be appropriate? What sequence should they follow? What information would industry and end users reasonably require?

Please see our response to question 12.

4: Enet Telecommunications Networks Limited

enet Response to ComReg's Consultation on Transition from Eir's Copper Network

General comments

enet agrees with the provisional view set out by ComReg (para. 27 of the Consultation Document) that it would be economically inefficient to insist on Eir's maintenance for an indefinite period of a separate parallel copper access network where alternative local access infrastructure has been deployed.

ComReg needs to bear in mind, however, that the minimum service requirements that would be applicable to a New Network deployed pursuant to the DCENR's National Broadband Plan (NBP) are expected to be significantly in excess of the minimum service requirements that are applicable to the AFL USO. In particular, the services offered over the New Network, and by Retail Service Providers (RSPs) offering services to end-users, within the intervention area will extend well beyond traditional voice services offered over the legacy copper network and it is not expected that a stand-alone equivalent to existing voice services will be offered over the New Network.

As a result, ComReg needs to consider to what extent the provision of existing traditional voice services needs to be protected, given Government policy aimed at facilitating access to NGA services, and in particular ultra high-speed broadband services (which would be bundled with voice and other services) within the intervention area.

enet also agrees with the point made by ComReg (para. 34 of the Consultation Document) that the principle of wholesale replicability should not necessarily mean that the full wholesale product set provided over the legacy copper network would need to be provided over the New Network as well. As ComReg points out, there may be no need to mandate a wholesale VoIP product as an NGA successor to the current generation WLR product, given operators' ability to develop their own voice solutions independently. enet agrees that it would make no sense from a regulatory perspective to mandate a wholesale VoIP product in such circumstances.

Response to questions

Q.1 Do you think that the principles set out in this paper should be restricted to the NBP intervention area or should they have wider applicability? Please provide suitable detail.

The principles should be restricted to the NBP intervention area. It is only in this area that the New Network is expected to be deployed in parallel with the legacy copper network (at least in the short-to-medium term). In other areas, the deployment of NGA infrastructure is expected to occur on a commercial basis and it would be better for ComReg to adopt a 'wait-and-see' approach in relation to regulatory obligations on the maintenance of the legacy copper network until such time as it is clear what kind of commercial NGA deployment takes place and where.

Q.2 Do you agree with the list of wholesale principles set out above in section 2.1 to 2.2? Are there any other principles in this respect that should be considered? Please set out clearly the reasons for your response.

We agree with the list of wholesale principles as articulated by ComReg in the Consultation Document.

Q.3 In assessing these issues what costs and benefits should ComReg take into account in forming its opinion?

It is too early in the process to identify with certainty the relevant costs and benefits that might need to be taken into account.

Q.4 In your view, in the context of Copper Switch-off and were Eir not to bid for/win the NBP tender how should the costs of migrating current Open Eir wholesale customers be recovered?

enet's preliminary view is that these costs should be borne by the RSPs, including Eir's own retail operations, as it would be those operators providing services to end-users that stand to benefit most from the shift to NGA and the consequent copper switch-off.

Q.5 Should Eir be required to reflect the wholesale principles in its commercial agreements with operators, or should the principles be used only as guidance for ComReg if and when Eir asks for permission to withdraw regulated wholesale access products offered on its copper network?

The principles should be used only as guidance for ComReg if and when Eir asks for permission to withdraw regulated wholesale access products offered on its copper network.

Q.6 Do you agree with the universal service principles set out in relation to ensuring citizens' universal service rights during a transition from the existing copper access network to a New Network? Are there other principles in this respect that should be considered? Please set out clearly the reasons and evidence for your response.

enet broadly agrees with the universal service principles outlined by ComReg. enet notes that the principles will have direct impact on RSPs. enet is not a RSP.

Q. 7 Do you agree with the general retail (end-user) principles that ComReg has identified for protecting consumer interests during any Copper Switch-off? Are there other principles in this respect that should be considered? Please set out clearly the reasons and evidence for your response.

Broadly, yes, although technological advances will continue to impact on these principles. Accordingly any principles adopted should be kept under active review by ComReg.

Q. 8 Do you agree with the likely areas of risk to protecting consumer interests that ComReg has identified that need to be addressed by RSPs during a transition away from the copper access network to a New Network?

This question primarily relates to RSPs. enet is not a RSP.

Q. 9 What challenges and benefits for consumers should ComReg take into account in forming any future opinion as to the appropriateness of universal service and general retail (end-user) principles during a transition from the copper access network to a New Network?

Ensuring consumers have meaningful access to broadband services.

Q.10 What other important consumer interests are there?

Promoting competition at RSP level.

Q.11 In assessing these issues what costs and benefits should ComReg take into account in forming any future opinion in relation to these matters?

As already noted in response to Q.3, it is too early in the process to identify with certainty the relevant costs and benefits.

Q.12 Are there any additional options which you consider may be appropriate? Please provide sufficient detail on your identified option(s) including any associated timeframes.

Not at this point.

Q.13 Do you agree with the proposed hybrid approach (Option C) in respect of Copper Switch-off in the NBP intervention area? Please set out clearly the reasons for your response.

In enet's view, Options A or C are the most appropriate.

Q.14 Do you consider that a similar proposed approach would be appropriate for the non-intervention area? Please set out clearly the reasons for your response.

See response to Q.1 above.

Q.15 Should Eir not be successful in the NBP tendering process, what additional complexities may there be which may impact wholesale notifications to industry regarding a proposed Copper Switch-off? Please set out clearly the reasons for your response.

It is too early in the process to identify with certainty, but the availability (e.g. data protection considerations?), quality (e.g. is it current?) and usability (e.g. format, completeness) of wholesale level information from Eir will be critical.

Q.16 Do you agree with ComReg's proposed pre-notification procedures for the Copper Switch-off trial in specified exchanges? What period of notice do you think is appropriate before trial commencement? What information should be provided as part of the notification process? Please provide reasons for your response.

In principle, yes. The notice period should be shortest feasible time.

Q.17 Do you agree that it is appropriate for ComReg to insist on a limited trial in advance of a more general Copper Switch-off programme? Please set out clearly the reasons for your response.

Yes. Trials will be critical to debugging processes and procedures ahead of large-scale migrations commencing.

Q.18 Do you agree with the pre-notification procedures proposed for Copper Switchoff on an exchange-by-exchange basis? What notice periods do you think would be appropriate? What sequence should they follow? What information would industry and end users reasonably require? Please justify your response.

It is too early in the process to identify with certainty on the proposed procedures, but we agree with them in principle. The notice period should be the shortest feasible time.

5: Imagine Communications Ireland Limited

Comreg consultation response

Imagine responses to

“Transition from Eir’s copper network

Proposed principles and notification
procedures”

Contents

1	Introduction	3
2	Imagine Comments	4

ComReg

1 Introduction

The following sections provide Imagines responses to the questions asked in the consultation “Transition from Eir’s copper network. Proposed principles and notification procedures”

All Imagines answers can be treated as Non-Confidential.

ComReg

2 Imagine Comments

Q. 1 Do you think that the principles set out in this paper should be restricted to the NBP intervention area or should they have wider applicability? Please provide suitable detail.

In general Imagine agrees with the principles set out in this paper but wider applicability with separate analysis for intervention and non-intervention areas would be necessary to fully understand the affect in intervention and non intervention areas.

Q. 2 Do you agree with the list of wholesale principles set out above in section 2.1 to 2.2? Are there any other principles in this respect that should be considered? Please set out clearly the reasons for your response.

Imagine agrees with the list of wholesale principles set out above in section 2.1 to 2.2. However existing processes may not be suitable for application to a New Network and as such these should be subject to separate consultation to determine modern fit-for-propose procedures applicable to the New Network(s).

In particular if a VOIP replacement is to be an acceptable replacement for WLR, the quality of the replacement network should allow for full function over (e.g. Voice, DTMF, Modem, Fax, m2m etc...)

Q. 3 In assessing these issues what costs and benefits should ComReg take into account in forming its opinion?

Imagine believes that ComReg should take into account LYRIC based assessments.

Q. 4 In your view, in the context of Copper Switch-off and were Eir not to bid for/win the NBP tender how should the costs of migrating current Open Eir wholesale customers be recovered?

Imagine believes that costs of migrating must be recovered from either Eir or the New Operator. Costs of migrating Open Eir wholesale customers cannot be borne by the industry in general or by each operator whose customers are migrated.

Q. 5 Should Eir be required to reflect the wholesale principles in its commercial agreements with operators, or should the principles be used only as guidance for ComReg if and when Eir asks for permission to withdraw regulated wholesale access products offered on its copper network?

Imagine believes that wholesale principles should be reflected in agreements by Eir.

Q. 6 Do you agree with the universal service principles set out in relation to ensuring citizens' universal service rights during a transition from the existing copper access network to a New Network? Are there

other principles in this respect that should be considered? Please set out clearly the reasons and evidence for your response.

Yes, Imagine agrees with the universal principles set out in relation to ensuring citizens' universal service rights during a transition from the existing copper access network to a New Network.

Q. 7 Do you agree with the general retail (end-user) principles that ComReg has identified for protecting consumer interests during any Copper Switch-off? Are there other principles in this respect that should be considered? Please set out clearly the reasons and evidence for your response.

Yes, Imagine agrees with the general retail (end-user) principles that ComReg has identified for protecting consumer interests during any Copper Switch-off.

Q. 8 Do you agree with the likely areas of risk to protecting consumer interests that ComReg has identified that need to be addressed by RSPs during a transition away from the copper access network to a New Network?

Yes, Imagine agrees with the likely areas of risk to protecting consumer interests that ComReg has identified that need to be addressed by RSPs during a transition away from the copper access network to a New Network.

Q. 9 What challenges and benefits for consumers should ComReg take into account in forming any future opinion as to the appropriateness of universal service and general retail (end-user) principles during a transition from the copper access network to a New Network?

Imagine believes that a challenge will be the likely duration of any replacement USO on the New Network given uncertainty about the business model (gap or Franchise).

Q. 10 What other important consumer interests are there?

Imagine sees the following items as important consumer interest issues

- Continuity of service
- Eir or the New Operator needs to deliver a solution which should technically fulfil this criterion providing wholesale replicability if the current WLR product is being withdrawn

Q. 11 In assessing these issues what costs and benefits should ComReg take into account in forming any future opinion in relation to these matters?

Imagine believes that ComReg should take into account a LYRIC assessment of all available options.

Q. 12 Are there any additional options which you consider may be appropriate? Please provide sufficient detail on your identified option(s) including any associated timeframes.

Imagine believes that one option that ComReg should consider is to delay until certainty exists on the New Network owner, rollout etc

Q. 13 Do you agree with the proposed hybrid approach (Option C) in respect of Copper Switch-off in the NBP intervention area? Please set out clearly the reasons for your response.

See 12, ComReg should consider delaying until certainty exists on the New Network owner, rollout etc

Q. 14 Do you consider that a similar proposed approach would be appropriate for the non-intervention area? Please set out clearly the reasons for your response.

Imagine believes that a completely different issues exist in non-intervention areas since any individual customer may not be accessible from any one operator. This is a totally different situation and should be treated as such.

Q. 15 Should Eir not be successful in the NBP tendering process, what additional complexities may there be which may impact wholesale notifications to industry regarding a proposed Copper Switch-off? Please set out clearly the reasons for your response.

Image can not see any additional complexities which may impact wholesale notifications to industry regarding a proposed Copper Switch-off should Eir not be successful in the NBP.

Q. 16 Do you agree with ComReg's proposed pre-notification procedures for the Copper Switch-off trial in specified exchanges? What period of notice do you think is appropriate before trial commencement? What information should be provided as part of the notification process? Please provide reasons for your response.

Imagine does not agree with ComReg's proposed pre-notification procedure for the Copper Switch-off trial in specified exchanges. This proposal is too broad and pre-judges the issue in too many ways. This should be the topic of a separate consultation to full understand the issues and potential solutions

Q. 17 Do you agree that it is appropriate for ComReg to insist on a limited trial in advance of a more general Copper Switch-off programme? Please set out clearly the reasons for your response.

Imagine believes that an appropriate trial is the correct approach. However, it is way too early with far too many unknowns at this time to determine the approach, objectives and issues to be dealt with. The parameters and success criteria for any such trial should be the subject of a separate consultation to fully understand OAO's concerns and requirements particularly around Wholesale replicability.

Q. 18 Do you agree with the pre-notification procedures proposed for Copper Switchoff on an exchange-by-exchange basis? What notice periods do you think would be appropriate? What sequence should they follow? What information would industry and end users reasonably require? Please justify your response.

Imagine believes that the overall notice periods need to be determined based on the New Network, transition plans, costs and availability of products. Different OAO's and indeed end-users may have different requirements and this should be the subject of a separate consultation to fully understand the issues.

ComReg

6: Vodafone Ireland Limited

Vodafone Response to ComReg Document:
Transition from Eir's copper network

Document No: ComReg 16/01

Vodafone welcomes this opportunity to comment on this important and complex consultation and would like to make the following general comments before addressing the questions in detail.

This consultation is timely coming as it does at a critical time for investment in fixed networks. The consultation focuses on the upcoming National broadband plan and the possibility of the contracts awarded increasing the investment in fibre in rural areas. However the NBP criteria do not specify fibre to the home solutions and it is possible copper in rural areas will be relied on for many years to come.

ComReg should also consider the impact of investment in copper networks given a discussion on the transition to fibre. Eir's network has been underinvested in for several years and the recent experience of OAOs having to endure almost constant storm mode suggests that the poor quality of eir's copper network needs to be improved. ComReg should ensure it does not allow a discussion of transition to fibre and less focus on copper to give eir a signal not to invest in maintaining a quality copper network.

Response to Consultation Questions:

Q.1. Do you think that the principles set out in this paper should be restricted to the NBP intervention area or should they have wider applicability? Please provide suitable detail.

Vodafone believes the principles should apply nationally not just to NBP areas. It will be a feature of investment in fixed networks in the coming years that fibre will predominate and the status of the legacy copper nationally needs to be considered and consistent principles apply.

Q. 2. Do you agree with the list of wholesale principles set out above in section 2.1 to 2.2? Are there any other principles in this respect that should be considered? Please set out clearly the reasons for your response.

Vodafone supports the views expressed in 2.1 and 2.2. We specifically agree with proposals surrounding including number portability and that Eir should absorb the cost of the migration in the event that they win either NBP intervention bid. Vodafone also believes ComReg should be cautious when approaching WLR and existing copper based services as replacements need to be available, tested and fully defined before copper products are removed.

Q. 3. In assessing these issues what costs and benefits should ComReg take into account in forming its opinion?

Vodafone believe that the transition to fibre is potentially beneficial to consumers and future services. eir should be incentivised to ensure their customers are migrated efficiently form copper to fibre. It should also be in eir's interest to make the transition beneficial for OAOs.

Q. 4. In your view, in the context of Copper Switch-off and were Eir not to bid for/win the NBP tender how should the costs of migrating current Open Eir wholesale customers be recovered?

Vodafone believe eir will invest in NBP intervention areas irrespective of winning or losing lots in the NBP. Eir will be obliged to invest in improving fibre connective either with subsidised investment in winning areas or to mitigate against competitive loss in areas where alternative bidders may win. Eir have already demonstrated this need to continue investing in rural areas with their announcement that they would invest in 300,000 homes in the intervention area without subsidy.

Vodafone believe therefore that ComReg should suspend any decision on copper withdrawal pending a reasonable period (NBP deployment period plus six years) to understand how the market will evolve. It is still likely eir will continue to rely on copper in the NBP areas for some time to come.

Q. 5. Should Eir be required to reflect the wholesale principles in its commercial agreements with operators, or should the principles be used only as guidance for ComReg if and when Eir asks for permission to withdraw regulated wholesale access products offered on its copper network?

Vodafone believe ComReg should be cautious of removing wholesale access products on copper without a full market assessment. Vodafone believe only following market reviews and a full set of wholesale access products are established and in use can eir be allowed to consider withdrawing copper access.

Q. 6. Do you agree with the universal service principles set out in relation to ensuring citizens' universal service rights during a transition from the existing copper access network to a New Network? Are there other principles in this respect that should be considered? Please set out clearly the reasons

and evidence for your response.

Vodafone agrees with the principles as set out on US.

Q. 7. Do you agree with the general retail (end-user) principles that ComReg has identified for protecting consumer interests during any Copper Switch-off? Are there other principles in this respect that should be considered? Please set out clearly the reasons and evidence for your response.

Vodafone agrees with the general retail end-user principles that ComReg has identified for protecting consumer interests during any Copper Switch-off.

Q. 8. Do you agree with the likely areas of risk to protecting consumer interests that ComReg has identified that need to be addressed by RSPs during a transition away from the copper access network to a New Network?

Vodafone agrees with ComReg's assessment.

Q. 9. What challenges and benefits for consumers should ComReg take into account in forming any future opinion as to the appropriateness of universal service and general retail (end-user) principles during a transition from the copper access network to a New Network?

No comment

Q. 10. What other important consumer interests are there?

No comment.

Q. 11. In assessing these issues what costs and benefits should ComReg take into account in forming any future opinion in relation to these matters?

Vodafone believe ComReg should consider the wholesale pricing of fibre products and ensure that cost based wholesale products are offered. The experience in recent years has been high priced wholesale products supporting a poor network leading to high numbers of faults, high prices and poor customer experience.

Q. 12. Are there any additional options which you consider may be appropriate? Please provide sufficient detail on your identified option(s) including any associated timeframes.

Vodafone welcome the ComReg consultation debate and the options available however Vodafone has grave concerns that ComReg are focusing on an issue which is still several years away from being of concern to OAOs. It is likely even if eir are successful in winning both or one lot in the NBP that significant amounts of copper will remain in eir's network.

ComReg need to ensure eir are incentivised to move to NGN products and services however there is no incentive in the short term to remove copper and therefore the existing regime needs to be maintained.

As customer demand grows and investment moves closer to fibre to the home/premise then ComReg should consider the appropriate remedies that encourages that investment but also encourages consumer choice in those retail markets.

Q. 13. Do you agree with the proposed hybrid approach (Option C) in respect of Copper Switch-off in the NBP intervention area? Please set out clearly the reasons for your response.

Vodafone does not agree with the view that eir should start a process of copper switch off after the awarding of the NBP. This assumes a complete replacement of copper will be underway. Vodafone welcomes option c in circumstances where copper switch off is a realistic option and eir produce detailed plans which are transparent and realistic.

Q. 14. Do you consider that a similar proposed approach would be appropriate for the non-intervention area? Please set out clearly the reasons for your response.

It is more realistic to assume copper will be phased out in the non NBP areas first so Vodafone would support ComReg efforts to ensure a copper switch off plan is published, is transparent and realistic.

Q. 15. Should Eir not be successful in the NBP tendering process, what additional complexities may there be which may impact wholesale notifications to industry regarding a proposed Copper Switch-off? Please set out clearly the reasons for your response.

It is too early to speculate as it could be assumed eir would continue to invest even if they were unsuccessful.

Q. 16. Do you agree with ComReg's proposed pre-notification procedures for the Copper Switch-off trial in specified exchanges? What period of notice do you think is appropriate before trial commencement? What information should be provided as part of the notification process? Please provide reasons for your response

Vodafone believe that ComReg should let the market develop for at least three years before ComReg should review the situation with copper.

Q. 17. Do you agree that it is appropriate for ComReg to insist on a limited trial in advance of a more general Copper Switch-off programme? Please set out clearly the reasons for your response.

Vodafone agrees but believes further consultation is needed on the practicalities at an appropriate time

Q. 18. Do you agree with the pre-notification procedures proposed for Copper Switch-off on an exchange-by-exchange basis? What notice periods do you think would be appropriate? What sequence should they follow? What information would industry and end users reasonably require? Please justify your response

Vodafone believes there is merit in this proposal but there is a concern that very early pre-notification could lead to regulatory gaming, uncertainty in the market and could potentially mislead consumers.

END