

Copper switch-off strategy essential for achieving European broadband targets

EU Telco Regulators should signal significant cuts in copper charges whilst allowing rapid switch-off if dominant firms install open fibre, new WIK study concludes

Bad Honnef / Brussels, 12 April 2011; High charges for copper telephone networks are deterring the roll-out of fibre across Europe, a new WIK study for the European Competitive Telecommunications Association (ECTA) concludes. By allowing incumbents to reap high profits from their legacy assets without the need to invest in replacing the lines, current pricing structures for telecoms are likely to delay the move to 100Mbit/s broadband speeds, a target set by the European Commission in its EU2020 strategy in March last year.

Currently, on average European regulators set the wholesale charge to rent the incumbent's copper lines at €8.55 per month. However, this charge is usually based on the cost of building a brand new copper network, which no-one would do today. Such costs can be double the amount that it actually cost to install the lines decades ago. WIK suggests that due to the high profits that the current access charges allow, copper charges could need to be cut substantially to make it more profitable for incumbents to renew their networks towards fibre. Incumbents have been pressing for higher copper access charges across Europe. WIK model results, however, show that this would lead to disincentives for fibre investment.

Another key finding from WIK's research is that it is nearly never profitable to run copper and fibre networks side by side. WIK therefore recommends that incumbents should be allowed to switch off their copper networks and transfer all customers onto the new fast networks as soon as they build fibre networks which are effectively open and allow fair competition. WIK calculates – for a representative European country – that cost-based charges for the new fibre network should not be set more than a few euros higher than the current copper access charges in Europe. This would provide incumbents with a fair return on their investments whilst ensuring that competition flourishes and retail prices are affordable for ordinary consumers.

“Commercial decisions about network investments are driven by profit considerations. Incumbents will only invest in fibre if this is more profitable than staying with copper. If regulators signal that copper access prices will be cut, but that incumbents can switch the copper off if they invest in open fibre, that should provide the incentives we need to kick-start the move to high-speed broadband. Consumers will receive faster and better services quickly and at little additional cost,” said Prof. Ingo Vogelsang, one of the authors of the study.

Because the business case for fibre depends on transferring all the copper customers onto fibre, the study also concludes that an alternative operator investing in a separate fibre network would face very high hurdles to make the economics work, and would need special advantages in the areas they cover to enable it to outplay the incumbent.

The European Commission has announced that it will be issuing guidance on how regulators calculate wholesale charges. The WIK study suggests that “forward looking” methods to calculate charges remain appropriate for growing markets such as fibre but are no longer the relevant benchmark for declining markets such as copper. Instead, regulators should set a cap on charges, but also make sure that the prices do not allow a margin squeeze.

The full study will be available at www.wik-consult.com.

Key conclusions of the study are as follows:

- In our basic scenario fibre wholesale costs are estimated at €11.65 per month in a representative European country, if the incumbent can make use of available ducts ("Brownfield"). If wholesale charges are set at this level, customers would pay €36 on average for faster fibre-based services – only a little more than they pay today for standard broadband. However, incumbents would not invest in fibre at these charges unless copper prices are drastically cut – to around €4 per month.
- In a Greenfield scenario where no ducts can be reused the costs are estimated at 13.92€ per month. If wholesale charges are set at Greenfield cost then customers would pay about 38€ per month for fibre based service. In this scenario copper access charges at 6€ or below would induce fibre investment.
- At the current European national average copper access charge of 8.55€, incumbents are unlikely to invest at a large scale because a fibre wholesale access charge of €19.49 (significantly above the cost-based rate) would be needed to make fibre more profitable for an incumbent than continue their existing copper networks. At these high wholesale rates for fibre, customers would pay on average €42 for their telecom services, significantly more than they pay today. Competition and consumer welfare would be reduced.
- It is not cost-effective to run fibre and copper in parallel. This situation is possible only with copper and fibre access charges that are so high that they generate monopoly profits for both networks and keep entrants virtually out. This would lead to high retail prices, low competition and low consumer surplus. A forced migration strategy from copper to fibre is therefore economically rational and desirable from a welfare perspective.
- To avoid a "rate shock" whereby customers face a large gap between the charges for the copper network and fibre network, regulators could "signal" that they will bring down copper charges sharply, but allow the incumbent to switch-off the copper network and transfer customers swiftly if they install open fibre networks. This strategy is likely to lead to investment before copper charges actually come down. Customers would pay only a little more than today for telecoms services, but immediately benefit from the higher fibre capacities provided in a competitive market.
- An investor other than the incumbent would require special cost savings or other advantages in order to outcompete the copper incumbent and may face the threat of the incumbent pre-empting its investment thereby rendering it unprofitable. The model shows that only with very high access charges would it be viable for an independent investor to install fibre alongside the existing copper network in large parts of the country. Viability at lower access charges is assured only in cases with special advantages in certain cities.
- We do not recommend that regulators continue setting copper charges on a forward-looking basis at a time when copper is no longer the modern technology. If regulators continue to pursue this approach, copper charges are likely to rise, increasing retail prices for telecoms, undermining competition and thereby weakening incentives for incumbents to invest in fibre. Instead, regulators should set a cap on copper wholesale charges at the last relevant price before volumes started to decline, and carry out a margin squeeze test to identify the appropriate level.
- While our numerical results stem from representative country data and parameters of our models, our main conclusions are independent of these particular numerical results and only relate to the relative rankings and orders of magnitudes conveyed by our results.

- Despite a high degree of harmonization between European price control methods in principle, costing methodologies in detail however, vary significantly. As a consequence the range of ULL prices is rather large in Europe (6€ - 16€ per month). The majority of regulators have not yet adjusted their approaches to value copper as a legacy technology. Some regulators have even increased, or proposed to increase copper charges at a time when such an approach is questionable.

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About WIK

WIK is one of Europe's leading telecoms research and analysis firms. It is focused on regulatory economics and policy issues. WIK has advised the EU Commission, numerous Regulatory Authorities in Europe and abroad as well as incumbents and alternative operators in all aspects of the telecoms framework and NGN in particular.