

September 2008

ETNO Reflection Document on EC consultation on the draft Recommendation on “The Regulatory Treatment of Fixed and Mobile Termination Rates in the EU”

Executive summary^{1 2}

ETNO welcomes the possibility to express its position on the regulation of termination rates (TR) in Europe. ETNO would like to highlight that over the last decade, considerable work has been invested by operators and regulators to develop and implement TR regulation. This has led to a set of accepted regulatory practices and costing principles on which business is based and which should not be disrupted.

ETNO is concerned with all the provisions in the draft concerning common and joint costs, particularly mobile licence and coverage costs, and considers that the corresponding paragraphs should be suppressed from the final version of the Recommendation.

ETNO agrees with the draft Recommendation on the issue of symmetry of TR between different mobile networks and between different fixed networks respectively and encourages adopting a faster glide path to reach such symmetry.

Our organisation also acknowledges that the level of symmetric TR may be derived from the costs incurred by an efficient operator model but strongly disagrees on essential elements on how such models should be built.

¹ BT does not support this ETNO position.

² ONO does not support the views contained in this Reflection Document.

ETNO welcomes the possibility to express its position on the regulation of termination rates (TR) in Europe. This answer summarises the main points of ETNO's position on the EC draft Recommendation. It then gives ETNO's detailed comments on the text of the draft Recommendation and its Explanatory Note. It is written in relation with the text of the consultation. More detailed and systematic presentations of ETNO's position on Termination Rates can be found in:

- ETNO Reflection Document on the ERG draft Common Position on symmetry of mobile/fixed call termination rates (January 2008 - RD274 (2008/01))
- ETNO Reflection Document on Termination Rates (April 2008 – RD281 (2008/04)).

These two documents are annexed to the present answer.

ETNO's answer takes into account the results of economic academic literature on Termination Rates regulationⁱ.

GENERAL ETNO POSITION

ETNO understands that the Commission has carried out an in-depth analysis of termination rates (TR) regulation under the EU regulatory framework and would like to highlight that over the last decade, considerable work has been invested by operators and regulators to develop and implement TR regulation. This has led to a set of accepted regulatory practices and costing principles on which business is based and which should not be disrupted.

ETNO is concerned with all the provisions in the draft concerning common and joint costs, particularly mobile licence and coverage costs, and considers that the corresponding paragraphs should be suppressed from the final version of the Recommendation.

ETNO agrees with the draft Recommendation on the issue of symmetry of TR between different mobile networks and between different fixed networks respectively and encourages adopting a faster glide path to reach such symmetry.

Our organisation also acknowledges that the level of symmetric TR may be derived from the costs incurred by an efficient operator model but strongly disagrees on essential elements on how such models should be build.

These points are developed in the following lines.

1. For symmetric national FTR and symmetric national MTR³

ETNO supports the reasoning of the draft recommendation and its Explanatory Note about avoiding deviations from a single efficient cost

³ Eircom is of the view that transient asymmetry can be objectively justified in light of exogenous cost factors the most significant of which are differences in spectrum licence holdings and time of market entry.

level. Hence ETNO supports the conclusion of the draft Recommendation on symmetry between national MTRs and symmetry between national FTRs. Symmetry should be implemented in each country as soon as is legally feasible.

2. Observation based instead of discretionary bottom-up models to fix efficient levels of Termination Rates

ETNO supports the principle of fixing symmetric termination rates at the level given by Long Run Average Incremental Costs of an efficient operator. ETNO acknowledges that for MTRs this implies that the model to calculate LRAIC needs to be a form of bottom-up model as it does not correspond to a particular operator on which a full top down approach could be used, but to a notional mobile operator with an average market share. Fixed operators are too heterogeneous to define a notional fixed operator, therefore the incumbent's LRAIC must stay the reference to define the efficient level of Fixed Termination Costs.

However, ETNO is convinced that reconciliation between bottom-up and top down models must be mandatory in order reach reliable results, when bottom-up models are used. In particular, such reconciliation should provide the identification of technical and cost parameters for the efficient operator bottom-up model which serve as a reference for symmetric Mobile Termination Rates. We are concerned that the draft recommendation contains numerous superficial and in the end eventually inaccurate statements on the comparison between bottom-up and top-down models as well as between historical and current costs. For instance, current costs are surely an acceptable reference but it is clearly not correct to assume that they systematically lead to lower figures than historical costs.

This is very worrying because important technical errors may easily be made when developing bottom-up current costs models, especially when such models are not matched with the direct observation of real networks in operation, inter alia:

- model network configurations which would not work in practice,
- model network configurations which do not provide the wholesale and retail services provided by the real network,
- implicitly assume time travelling in the estimation of capital costs (i.e. assets assumed to be simultaneously new to be made of the latest technology and old to be as depreciated actual assets),

We have doubts as to the economic calculation parts of the draft recommendation which makes us uneasy regarding the way such technicalities of network cost modelling may be addressed in the implementation of the recommendation. Therefore the parts of the text about the general positioning of current costs as opposed to historical costs should be suppressed.

Moreover, specific technico-economical elements provided in the draft recommendation confirm these concerns:

- to impose pure NGN core network hypothesis is in breach of the technological neutrality regulatory principle, as it chooses a specific reference technology although no empirical evidence and no serious studies have proven that it actually corresponds to an economic optimum in reality, in particular to serve analogue lines,
- it is not founded on a facts-based or empirical analysis and devoid of market reality since no one has observed this technology in operation yet; therefore nobody has any reliable idea on how much its deployment and its functioning would cost (nor if it would work indeed),
- it exceeds the competence of regulators: regulators are not competent, neither technically nor institutionally to assess the validity of a network technology that has not been observed in operation and to impose its roll-out – the validity of a technology or network topology is essentially an operator responsibility.

All the statements about the choice of pure NGN as a reference technology for bottom-up model should therefore be deleted.

3. For the suppression of inappropriate provisions concerning joint costs identification and allocation

ETNO disagrees with the parts of the draft recommendation concerning the identification of joint and common costs identification and the parts concerning their allocation between different services. ETNO believes these parts of the draft recommendation should be suppressed in the final Recommendation.

Joint and common costs identification

Parts on the identification of joint and common cost are inaccurate.

Inconsistency:

The definition of a practical frontier between network parts used for access and traffic respectively is precisely defined for fixed networks: it is the point where traffic concentration begins and where specific resources of the network stop being allocated to a specific subscriber. This existing and well-known definition is also relevant for mobile networks. As the radio access network is shared between customers and does not contain any resources allocated to individual mobile customers, this definition unambiguously leads to the inclusion of the entire radio access network in mobile traffic cost.

In contrast, the draft Recommendation tries to elaborate a result-driven and opportunistic definition of what it considers to be “traffic related costs” in mobile networks. This definition, however, is arbitrary both in concept and in practice. It is further wholly inconsistent with the frontier between access and traffic related network segments as defined for fixed networks.

Inefficient allocation of mobile coverage and licence costs:

Mobile coverage costs must be included in mobile traffic costs not only because this is consistent with the standard definition of traffic costs as

defined for fixed network (see above) but also because it is efficient to do so and it would be inefficient to exclude them:

- it is efficient to do so, because increased mobile coverage leads to increased mobile traffic of existing subscribers much more than to increased subscriptions;
- it would be totally inefficient and indeed inconsistent to do the contrary (i.e., have mobile coverage costs covered by subscription prices), as subscriptions of customers hardly drive the coverage costs for mobile networks.

As regards, licences costs, they are a precondition for the implementation of mobile coverage and capacity. Both are traffic related costs and license costs must therefore be recognized as traffic related costs also.

Meaningless definition of increments:

We believe that wholesale incoming traffic is not a meaningful increment as it is an increment which cannot exist without simultaneous outgoing traffic in other networks, and vice-versa. Therefore identifying wholesale incoming traffic and retail outgoing traffic as two separate and independent increments is meaningless.

Detailed regulatory multi-service cost model cannot provide reliable incremental or stand alone costs:

Experts in network engineering models know that the more detailed the model, the more contingent it is to the specific situation it represents. Knowing that, it is a candid and dangerous belief to assume that to calculate the incremental cost of a service, it is enough to calibrate a multi-services cost model on the basis of a multi-services engineering hypothesis and then to set to zero the volume of the particular service for which the incremental cost is calculated. In fact, network engineering, architecture and dimensioning may change radically when a specific service does not have to be produced. For instance, the right way to estimate SMS stand alone cost is not to set to zero the volume of voice services in a voice+SMS cost model, but to evaluate the cost of a network specifically designed to carry only SMS.

This is true for all services and in particular for interconnection services. Detailed engineering models do not capture such effects and therefore underestimate long run incremental costs. LRIC estimations from engineering models are arbitrarily dependant from modelling choices and are therefore useless to give robust figures.

Therefore actual Incremental and stand alone costs are likely to be closer to average costs, and joint costs closer to zero than to any values provided by a detailed analytical multi-product bottom up model.

Common costs are variable in the long run

It is part of conventional wisdom, repeated by the draft Recommendation, to state that common costs such as managers' salaries costs do not depend from any specific activities and should not be included in LRICs. However, this "wisdom" should be challenged. The total of top and middle managers salaries obviously vary in the long run with the complexity, the variety, the volume and the value of the services provided by the network. In general, management costs from the bottom to the top obviously have to be adapted to the activities to be managed: each activity adds its part of common costs.

Therefore, managers' salaries and other common costs should be included in LRIC.

Joint and common costs allocation

If we assume in this paragraph that joint and common costs can be reliably identified and separated from LRICs, even though we have shown in the above paragraph that this is most uncertain, the parts of the draft Recommendation concerning the allocation of these common and joined costs are also inaccurate and in our view lack an economically sound rationale and impact assessment.

Moreover they appear to be in contradiction with the Framework as they would lead to the application of a remedy which out of the scope of the remedies available in the Framework.

Absence of economic rationale

The allocation of joint and common costs to different services should be done in order to maximise social welfare. Economic theory is very clear on how to meet this objective: joint and common costs must be allocated in function of demand characteristics, in reverse proportion to the volume-price sensitiveness of each product. The draft Recommendation however does not even refer to this rather basic economic theory. In fact, the draft recommendation does the exact opposite of what economic theory recommends: it allocates joint and common costs first to non-voice services, then to voice subscription, then to voice outgoing traffic and only after that to voice incoming traffic. Thus, it allocates joint and common costs first to the most price sensitive services (i.e., non-voice services, subscription or access, outgoing traffic). This is opposite to economic theory and it would lead to the worst outcome in terms of social welfare.

In contrast using average cost as a regulatory reference has strong rationale:

- prevent major errors in the estimation of LRIC: incremental costs estimations are not robust to modelling choices,
- provide build-in non discrimination characteristics to the regulatory economic system,
- avoid high information requirements of joint cost allocation.

Absence of impact assessment

The draft recommendation claims it is compatible with operator's cost recovery but it falls short in indicating what services would compensate for the costs that are not covered by the Termination Rates and what would be the material consequence for this compensation. However the choice of services that could cover these costs and the effect of the corresponding cost re-allocation are clear:

1) Mobile specific MTR cost reallocation options

If costs are re-allocated to non voice services such as mobile Internet, it will put a break on their commercial development, because their development is still very price sensitive today.

If they are re-allocated to mobile retail voice services, it will be by setting either a minimum subscription (access) fee or a retail price on incoming calls. In the former case, it will put a substantial subscription marginal

price where in fact there is no substantial marginal cost, which is completely inefficient and detrimental to customer welfare. In the latter case, it will be detrimental to low usage subscriber who are net receiver. It should also globally have a negative customer impact as it amounts to transferring costs to a lower value service for the customer.

2) Fixed and mobile TR cost reallocation options

Re-allocating TR costs to outgoing retail voice traffic is not a sustainable option because termination traffic is a substitute to outgoing traffic in particular as a result of call-back arrangements. Therefore it is structurally impossible to sustain a significant cost allocation difference between outgoing and incoming traffics, and non-recovered costs through TRs cannot be transferred to outgoing traffic.

Re-allocation TR costs from wholesale incoming traffic to retail incoming traffic, which means introducing Receiving Party Pays type of prices, would lower the global output and the social welfare. Empirical evidence shows that customers value incoming calls less than outgoing calls. The way the value of calls is shared between both parties is naturally internalised through the calling routines which are set between the parties. Therefore the cost transferred from calling to called party will face lower marginal customer value on the called side and the output will drop.

Finally, applying the draft recommendation would lead to an economic transfer from low usage customers who receive more calls than they make calls, in favour of high usage customers who do the contrary. In the process, a significant proportion of low usage customers may not be able to afford to keep the service and there may be a drop in electronic communications penetration in the population.

Inconsistency with the framework

The claims of the draft Recommendation stating that it is consistent with cost recovery are contradictory with the content of the text itself.

The text is implicitly but clearly against full cost recovery. This contradiction becomes evident from the observation that the only impact of the application of the Recommendation that is forecasted in the text is a decrease of retail usage prices. It does not mention any trade-off between this hypothetical decrease and possible increase of other retail prices.

It refuses to consider that the missing costs of the Termination must be re-allocated elsewhere. It therefore designs a price regulation, the expected practical consequences of which are incompatible with cost recovery.

Applying the draft Recommendation therefore leads to price regulation which goes beyond cost orientation as described by Article 13 of the Access Directive, and which is therefore outside the scope of the current framework.

Although the text is presented as a Recommendation, it is written as if NRAs had the obligation to implement it. It is written as if it had a binding power, as if it were a Regulation instead of a Recommendation. Therefore there is an inconsistency between its legal nature in the Framework – a Recommendation - and the way it is written – as a Regulation.

Detailed ETNO's comment on the text of the draft Recommendation

ETNO first develops its arguments concerning Recitals (1) to (22) pages 2 to 6 of the draft Recommendation.

ETNO then proposes modifications of indents (1) to (13) pages 7 to 8 "HEREBY RECOMMENDS" which result from the detailed arguments developed on the Recitals.

Finally ETNO considers that the Annex should be deleted from the draft Recommendation as its subject, relevant costs for TR price regulation, is already covered by existing texts which do not need to be modified.

Comments on the draft Recommendation Recitals

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Recital (3)

The text refers to "fundamental distortion between fixed and mobile markets" as if it were common knowledge. Rigorous analysis shows that the observation of facts does not support this statement. Differences between regulated fixed and mobile TR just reflects objective differences in costs structure between fixed and mobile networks.

The definition given by the draft Recommendation itself on the frontier between access and traffic (p.19 §5.1.2. of the Explanatory Note), which is at the point where there is no more dedicated resources for each subscriber and where traffic concentration on shared resources begins, leads consistently to the exclusion of the access fixed network costs from fixed termination relevant costs and to the inclusion of the radio access mobile network (and at the same time licence fees) in mobile termination relevant costs, because the radio access mobile network is shared capacity between subscribers and does not include any resource dedicated to individual subscribers.

As a rule of thumb, classical copper fixed coverage network costs are an order of magnitude higher than mobile coverage costs and mobile usage network costs are an order of magnitude higher than fixed usage costs. And fixed operators benefit from the revenue of the telephone line subscription which is not the case of mobile operators. Therefore it is logical that mobile TRs are roughly several times higher than fixed TRs.

It would be completely inefficient from a welfare point of view to cover the cost of the radio access mobile network by a subscription price, because subscription hardly leads to any radio access mobile network marginal costs: hence it would impose a significant marginal price to cover non

significant marginal network cost. On the contrary, it is efficient from a welfare point of view to cover the cost of the fixed access network by a subscription price, because fixed subscription leads to significant permanent resources allocation to fixed subscribers: the copper line and the subscriber electronic card.

It would also be inefficient from a welfare point of view to cover the coverage cost of the radio access mobile network by a subscription price because coverage mainly leads to extra incoming and outgoing traffic from existing subscribers and not to extra subscribers. On the contrary, it is efficient from a welfare point of view to cover the access cost of the fixed access network by a subscription price because the access cost primarily leads to extra subscribers.

Regulatory consequences of the above arguments stand when fixed and mobile services are separated markets, with limited direct competition and substitution between them. But there are now European countries where this regulatory hypothesis has become false and mobile services have become substitutes of fixed services. In that case, infrastructure based competition is actually in place and fixed incumbent do not have anymore Significant Market Power. Their services may be substituted by corresponding mobile services. Then corresponding access obligations on fixed incumbent should be dismantled and fixed incumbent operator should be given full freedom to compete with mobile operators.

Based on today's figures, it is not generally true that fixed customers subsidise mobile customers through fixed to mobile prices. It has to be assessed country by country. In some countries fixed to Mobile retail prices per minute paid by fixed subscribers are at similar levels than retail prices per minute paid by mobile subscribers when they call fixed subscribersⁱⁱ, which is consistent with the fact that fixed to mobile traffic and mobile to fixed traffic use the same fixed and mobile networks resources.

The statement of Recital (3) "... thus continuing to translate into high, albeit decreasing, prices for end-customers." is untrue as a general statement. TRs do not globally lead to higher retail prices for customers as a whole, as it is a zero sum game for operators taken as a whole. Therefore it does not add to the costs that the industry as a whole needs to recover from its customers.

So decreasing TR levels would not result into a general decrease of customer prices. But it would lead to economic transfers between categories of customers: low TRs would advantage customers making more calls than they receive calls, who are generally high value customers, at the expense of customers receiving more calls than they make calls, who are generally low value customers.

Recital (7)

The sentence "High termination prices are ultimately recovered through higher call charges for end users" is incomplete, as high termination prices

also results in lower retail subscription or terminal prices for end users. So lowering TRs would result into transfers between groups of customers and would not result into a global decrease of retail prices.

The sentence "Further potential competition problems include cross-subsidisation between operators" is wrong. The commonplace that the difference in size between operators and the differences of on-net / off-net ratio would imply structural interconnection imbalance is false. The only possible source of structural interconnection imbalance between operators is the difference in the type of customers which are selected by each operator. High value and high usage customers in average make more calls than they receive calls. Low value and low usage customers in average receive more calls than they make calls. Therefore operators which have a higher than average proportion of high value customers, tend to have a negative TR balance [Ref.]. But this is their strategic choice and this cost is compensated by the benefit of having high value customers. So the general level of TR does not lead to competition problem between fixed and between mobile operators. What leads to competition problems is asymmetric TR as rightly explained in the draft recommendation and its explanatory note.

Recital (7) should be completed in order to extend clearly the recommendation of symmetric FTRs to countries where co-exist several regional incumbents, provided that they face similar exogenous geographical and demographical conditions.

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Recital (8)

The Commission should consider the statement: "NRAs take the utmost account of the desirability of making regulations technologically neutral" and therefore, should avoid trying to impose as a reference technology pure NGN. This is making the assumption that the industry is ready for large scale roll-out, something which the industry would view to the contrary, in particular to serve analogue lines.

In the sentence: "In order to achieve these objectives, the regulated termination rates should be brought down to the costs of an efficient operator" the word "down" wrongly assumes that the current cost of an efficient operator would be systematically below the historical cost of a real operator. It is true that when the rate of technical progress minus the rate of inflation rate is positive, the gross value of assets is lower in current costs than in historical costs. But it is also true that the yearly economical depreciation of an expensive but old historical asset may well be lower than the yearly economical depreciation of a cheap but new current asset.

When correctly calculated and when the rate of technical progress is constant, the economic depreciation formulae is independent of the age of the asset. Economically depreciating historical assets or current assets should therefore lead to the same result.

Recitals (9 - 10)

The sentence “In a competitive environment, operators would compete on the basis of current costs and would not be compensated for costs which have been incurred through inefficiencies. Historic cost figures therefore need to be adjusted into current cost figures to reflect the costs of an efficient operator employing modern technology” is quite awkward.

First, the issue of whether or not operators are economically efficient, which may have appeared relevant ten years ago when historic operators switched from monopoly to competition, is now outdated. Now, no one seriously doubts that operators perform efficiently. Therefore, even if it is important from a technical point of view to differentiate between historical costs and current costs, it is inappropriate to consider the use of current cost as a mean to meet a regulatory policy objective of finding lower figures.

Second, the draft Recommendation should explicitly mention that the characterisation of an efficient operator should correspond to the most efficient operator which actually exists, not to an operator which cannot exist in practice. In this respect, if changing all existing assets for new ones every year was actually an efficient cost strategy for an undertaking, as the draft recommendation seems to indicate then such a strategy would be observed in the real world. As it is not observed and has never been observed neither in the economic communications industry nor in any other industry, we believe that in terms of efficiency, the real world is right. The draft Recommendation statements about what is an efficient operator are therefore wrong.

As already mentioned in our comment on point (8) the emphasis put by the draft Recommendation on evaluating asset with current costs instead of historic costs in the hope to obtain lower cost figures is somewhat strange. Current or replacement costs when they are correctly calculated, may be a relevant cost reference of an efficient operator, but it does not generally leads to lower results than historic costs. If theoretical conditions are met, economic depreciation of old and of new assets leads to the same result. In practice, however, as mentioned above, economic depreciation of historical assets often leads to lower values than economic depreciation of current assets.

Therefore the hope expressed by the draft Recommendation to find systematically lower results as a consequence using current costs instead of historic costs can only be explained by misconceptions on how economic depreciation of current assets should be calculated. It is likely because technical basic errors are unfortunately commonplace when “efficient networks” are modelled for regulatory purposes. Examples of such errors are:

- Modelling a network configuration which would not work in reality: the only valuable proof that a network configuration actually works is

to observe it in operation, at a sufficient scale to be sure that it could be generalised to entire networks without meeting scalability problems. And only when network configurations are observed in operations may their costs be estimated with any degree of reliability. Before, new technologies performances and costs are pure hypothesis. So only network configurations which have been observed in operations may be taken as references to estimate current costs. This is by no means the case of pure NGN networks. Therefore pure NGN technology cannot be taken as a reference until it has been proved in the field for analog lines.

- Modelling a network configuration which does not provide the wholesale and retail services that the real network provides:
 - even assuming that pure NGN networks were operational, it does not mean that such networks provide all the retail and wholesale services that operators have the regulatory obligation to provide: retail services as defined by the Universal Service Directive (analogue and ISDN) wholesale services as defined by the Access Directive (interconnection at all network nodes where interconnection is technically feasible, in particular at all PSTN local switches). When the price of an interconnection service is subject to cost orientation, it obviously means that the price of a service is oriented to the cost of the same service, not to the cost of a different interconnection service, for instance to the cost of a service having different interconnection points or different interconnection interfaces. In particular as regulatory obligations imposes interconnection at all PSTN local switches with TDM interfaces, the relevant cost must include all these interconnection points and all these interfaces.
 - concerning mobile services, the enduring coexistence of 2G and 3G handsets implies that the efficient operator must be able to provide 2G and 3G (retail and termination) services and therefore operate a mixed 2G/3G network.
- The efficiency concept should take into account that a telecommunication network typically produces a whole set of services. A network provides telephone access and traffic, broadband access, leased lines, etc... If telephone traffic was provided through pure NGN networks and if interconnection points were redefined accordingly, then all the cost of the TDM infrastructure which is still necessary to provide full fledged classical leased lines would have to be allocated to leased lines. Cost allocation to broadband access and backhaul would also be significantly modified. In other word the concept of "current cost" must not be analysed for each service in isolation, but for all the services provided by the real network. Then the optimal network is the network which minimise the global cost for producing all services, not the network which minimise the production cost of a single service. The draft recommendation fails to mention this essential point.
- An error to be avoided is to assume that the assets of the "efficient operator" is at the same time new, to be build in new technology, and

old, to be as amortised than the real network: as if a realistic “efficient operator” could build with today’s technology several years ago. For correct calculations, either the network is made of today’s technology and therefore it is new and not amortised, or it is amortised and then it is made of older technology. Therefore, it needs to be assured that there is consistency between the costing standard (e.g. current costs) and corresponding assumptions regarding the depreciation profile. There is a strong rationale to assume that assets installed today at current or replacement prices are being at the beginning of their lifetime.

- It cannot be accepted that theoretical current costs models are not only used for the estimation of capital and depreciation but also for operating expenditures. Three strong reasons strictly oppose the use of theoretical current costs for operating expenditures:
 - A first practical reason to refuse such regulatory reference is because it is impossible to reach any kind of reliability when current cost or bottom-up modelling are used for network running cost: e.g. how could activity based costing approaches be implemented?
 - A second reason is that there is a link between assets valuation and the corresponding operating expenditure. Hence, if theoretical “current costs” operating expenditure were used, then an additional term should be added to the economical depreciation of the corresponding asset. This additional term would compensate the difference between actual operating expenditure and theoretical operating expenditure.
 - It is therefore useless to go through complicated and arbitrary calculations to finally reach the same result.

- The recommendation seemingly lacks to recognize realities in network planning and network engineering. Even the most efficient operator needs to provide spare capacities as to deal with statistical uncertainties with respect to anticipated traffic volumes. Building a network according to volumes expected only for a certain point in time is as unrealistic as re-configuring the network e.g. each year according to variations in terms of traffic volume. Therefore, a real network operator that would do in practice what the draft Recommendation considers as efficient, that is taking each year the static minimal cost configuration able to carry the forecasted demand of that year, would be an extremely inefficient operator in reality.

In short, regulators deem as efficient, and build their modelling on the observation of the efficient operations of networks by real operators.

So expectations expressed by the draft Recommendations concerning the use of bottom-up models and of current costs appear to indicate that the objective of these choices is not to improve the economic relevance of regulatory costing, but to increase the level of discretion of regulators.

Recital (11)

When recommending taking NGN as the reference technology of an efficient operator, the draft Recommendation forgets that regulators must be technology neutral in their approach and should not impose specific technologies to the industry.

Recital (12)

In an industry with fixed costs, pricing at incremental costs is not sustainable as it does not allow fixed costs to be recovered. The real economic issue is what products should be priced above incremental costs in order to cover these fixed costs. Economic theory indicates that service prices that should be above incremental costs, in order to cover fixed costs, should concern products for which the volumes are less price sensitive than other services.

The sentence "Therefore, it is justified to apply a pure LRIC approach whereby the relevant increment is the wholesale call termination service and which includes only avoidable costs." is an unsubstantiated claim. The draft Recommendation fails to prove that termination is more price sensitive than other services and therefore should not be allocated fixed costs.

For instance, in the specific case of MTR, what services should be priced over incremental costs in order to cover the fixed costs which are not covered by MTR?

- should it be mobile Internet service? This would be awkward as the Commission itself has indicated that the development of mobile Internet service is a European priority and the success of the new service is very price sensitive. Allocating excluded costs to the mobile data services would therefore hamper this development.
- should it be voice retail outgoing traffic? This would be impossible because wholesale termination and retail outgoing traffic are substitutes through call-back mechanisms which can easily be implemented on an industrial basis. To explain, if outgoing calls are more costly than incoming calls there is a business case to apply a call-back mechanism on every outgoing call – thereby benefiting from the lower termination charge. The cost remains un-recovered as a result of this arbitrage.
- should it be a mobile subscription for mobile voice service? This would be (a) economically inefficient because it would impose a marginal price for subscription when this is hardly any corresponding marginal network cost (b) very damaging for the large proportion of customers which currently pay small invoices for their mobile services.
- should it be by introducing a retail price on voice termination, that is introducing Receiver Party Pays? It would decrease the economic

efficiency of the system as it would transfer costs to be covered from one customer (the calling party) with a high marginal value of the termination service, to another customer (the receiving party) with a low (or nil or negative) marginal value of the termination service: customer satisfaction and social welfare would decrease as a result of this transfer.

Recital (13)

The sentence: "Then, it may be appropriate to attribute traffic-related costs firstly to other services (e.g. call origination, SMS, MMS, broadband, leased lines, etc.) with wholesale voice call termination being the final service to be taken into account." is an arbitrary statement. Indeed, there is no evidence or underlying analysis showing that this would be the correct way to allocate fixed cost in order to maximise social welfare.

The preceding remark also applies to the sentence: "As a consequence, cost accounting based on a LRIC approach for wholesale call termination services in fixed and mobile markets should allow the recovery only of costs which would be avoided if a wholesale call termination service was no longer provided to third parties". This sentence also calls for another remark: wholesale termination service is not a consistent increment by itself, because it cannot exist without outgoing calls somewhere else in another network. Therefore terminations calls cannot exist without outgoing calls. The only service increment which would make sense, as opposed to the one proposed by the draft Recommendation, is voice traffic as a whole.

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Recital (14)

This recital as well as other sections in the draft Recommendation about call externalities could be seen as an attempt to justify or "cover" what would result in below-cost regulation of termination rates. If call externalities were significant market characteristics, they would have been identified and exploited already by the marketing services of Mobile operators. All attempts to do so in the past have failed which means that the call externality theory does not match with the actual experience of European customers. From a more analytical perspective, there are strong arguments against the very existence of significant positive call externalities:

- First, call externalities may often be negative, as not all phone calls are welcome, either per se, or for questions of timing. Introducing RPP will encourage the development of telephone spam, with negative impact on customers.

- Second, when considering Business to Consumer calls, there are special services pricing schemes, for instance 08XX type of services, which already allow for the full internalisation of any call externalities.
- Third, when considering Consumer to Consumer calls, individual calls are not relevant for call externalities, because calls do not exist in isolation, but as part of continuous telephonic relationships between two private parties. Conventions taken by the two parties about who calls who allow to fine tune call externalities is a much more subtle, relevant and in the end efficient way to account for call externalities than an RPP system.

Having said this, the following sentence in the Recital: “However, for the purposes of this Recommendation, it is proposed that the avoidable costs of providing the wholesale call termination service can be recovered via the wholesale charge” is misleading. The statement seems to assume that the draft Recommendation does recommend that termination rates should cover fully allocated cost, including a fair share of fixed common and joint costs. This is not the case, however, as fixed, joint and common cost, normally allocated to the termination service, are excluded from coverage through the wholesale price. Such costs will have to be recovered from retail prices which implies that operators may have to the introduce RPP or other compensatory retail charges.

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Recital (19)

If the consultation process on the draft Recommendation eventually results in the adoption of the proposed disruptive regulation of termination rates, a long enough transition period would be needed to adapt business models. The recommendation should leave room for adjustments towards longer glide paths on a national basis. This is especially needed to account for cost differences.

This does not apply to symmetry which is to be introduced since some time already (also in accordance with ERG Common Position) and which should apply in all European countries as early as is legally feasible.

Recital (20)

As explained in the preceding lines, ETNO does not consider that the methodology explained in the draft Recommendation can lead to efficient outcome, neither for European customers nor for European industry. Therefore, figures resulting from the application of this methodology by some NRAs should not be considered as a benchmark for other NRAs.

Recital (21)

In the sentence:

“In order to identify and improve possible shortcomings of the bottom-up model, such as information asymmetry, the NRA may compare the results of the bottom-up modelling approach with those resulting from a corresponding top-down model which uses audited data.”

Therefore ‘may’ has to be replaced by the ‘must’ for the reasons explained above about the absolute need to stick to observed networks in order to have reliable cost models.

Modifications of “HEREBY RECOMMENDS”

ETNO’s comments on page 7-8 “HEREBY RECOMMENDS:” do not re-explain the arguments developed above, but just state what should be kept, what should be deleted and what should be modified in indents (1) to (13) in these pages:

Indent (1): no change

Indent (2): modified as follows

“It is recommended that the evaluation of efficient costs is based on current costs and the use of a bottom-up modelling approach reconciled with top-down models using long run average incremental costs (LRAIC) as the relevant cost methodology.

Indent (3): modified as follows

“The cost model should be based on proven and efficient technologies available at the time when termination rate regulation applies. These technologies must be able to provided the services actually provided on the market such as traffic from and to analogue, ISDN and VoBB fixed lines, interconnection at all actual interconnection location, and traffic for and two 2G and 3G mobile customers. In particular, this implies that the access part of mobile networks should also be based on a combination of 2G and 3G telephony.

Indent (4): delete

Indent (5): delete

Indent (6): no change

Indent (7): no change

Indent (8): modified

Part of the text “To the extend that additional spectrum acquired to provide wholesale call termination is included in the cost model” should be deleted

Indent (9): modified

“NRA must compare the results of the bottom-up modelling approach with those of a top-down model which uses audited data with a view to verifying and improving the robustness of the results.”

Indent (10): modified

The sentence “... Asymmetries that are currently applied should be phased out by that date ...” should be replaced by “... Asymmetries that are currently applied should be phased out as soon as legally feasible⁴...”

Indent (11): delete

Indent (12) and (13): no change

Deletion of the Annex

The two Annex should be deleted as reference texts on how to calculate Long Run Average Incremental Costs already exist and do not need to be modified.

⁴ Eircom is of the view that the duration of the transition period should be determined at national level rather than being tied to an arbitrary date as proposed in the draft Recommendation.

Detailed ETNO's comment on the text of the draft Explanatory Note

ETNO's arguments already developed as comments to the draft Recommendation are not repeated, just referenced to, in this section. Only specific statements of the Explanatory Note necessitating specific comments from ETNO are developed.

p. 4, 2nd indent, last sentence:

"Furthermore, the absolute level of termination rates remains high in a number of Member States, thus continuing to translate into high, albeit decreasing, price for end-customers." This statement is not true: see comments on Recitals (3) and (7) of draft Rec.

p. 6, Last two indents, about supposed inconsistency of MTR and FTR regulation and fixed – mobile cross-subsidy.

These statements are not true: see comments on Recital (3) of draft Rec.

p.7. §2.2. 2nd indent about supposed interconnection imbalances between operators that would supposedly result from the difference in size of network operators or on-net/off-net price differentiation.

Such imbalances just do not exist. Only customer profile voluntary selection by operators may lead to interconnection imbalance: see comments on Recital (7) of draft Rec.

p.8. §3.1.2. Last indent on LRIC the fact that current cost are supposed to lead to lower figures than historic costs.

This analysis and this anticipation are wrong when considering actual practice: see comments on Recitals (8), (9) and (10) of draft Rec.

p.9 §3.1.2. First indent on how to value spectrum licences.

The only meaningful "market" value of spectrum is the value that is actually needed to be or to get on the mobile market. This only objective measurement of such value is the observation of reality. For obvious legal reasons of non discrimination between market players new licences could not be proposed under significantly different economic conditions than existing ones. So historic values are the only robust and objective reference for spectrum value.

p.9 §3.1.3. 2nd indent of the paragraph about late entry:

It should also be noted that late entry is generally not an exogenous constraint, but often a voluntary decision from the undertaking which adds to the argument against any asymmetry.

p. 12 and 13 §4.1.

Statements about the relative levels of historic and current costs and about the supposed 'efficient' characteristics of bottom-up models as opposed to supposed 'inefficient' characteristics of top-down models are at best superficial and some are technically false. Moreover they address the issue of whether or not operators are efficient which is now obsolete in terms of be a regulatory priority ten years after the end of monopoly times. See comments on Recital (9), (10) and (11) of draft Rec.

p. 14 2nd indent on the definition of marginal costs and of incremental costs. The definitions stated in the Explanatory Note are wrong. This worrying as it shows the level of confusion in the elaboration of this Explanatory Note. The marginal cost of a service is the cost of producing one extra unit of the service, when incremental cost of a service is the extra cost of producing all the considered service in addition to the other services produced by the undertaking. Both marginal costs and incremental costs may be short term or long term costs depending on whether only the short or also the long term consequence of the extra production are taking into account.

p. 14 from “The main advantage of low interconnection ...” to end of page 15.

The reasoning about efficiency in this section is flawed. Given that fixed costs have to be covered anyway, setting termination rates closer to their marginal cost implies that the price of other services will have to increase to levels that are higher than marginal costs. Thus, nothing will be gained in terms of overall efficiency and the result is likely to be negative for the welfare as the draft Recommendation does not take into account the demand characteristics.

The reasoning about cross-subsidies and traffic imbalance are not based on the correct premises: there are no more fixed-mobile subsidies and the sizes of networks have no impact on interconnection imbalances [Ref.].

Furthermore, the EC comment is identifying cross-subsidies if any as per se anti-competitive operations while article 11. (1) Access Directive only prohibits abusive cross-subsidies.

The reasoning about the development of flat-rate tariffs fails to consider that with flat-rate schemes, market segmentation and low price schemes will be reduced. Low usage customers will see their price increasing significantly.

The paragraph on call externalities assumes such externalities exist although there is no evidence to support this hypothesis, and both empirical data and theoretical analysis tend to conclude that either they do not exist or they are very small. Moreover, contrary to what it pretends, the draft Recommendation if applied will let no choice to operators but to impose RPP to their customers.

See Comments on Recitals (12), (13) and (14) of the draft Rec.

p. 17

First indent.

Again, the idea that differences in size between networks will per se imply interconnection traffic imbalance may be very common, but it is none the less wrong. The volume of traffic from network A to network B is related to the number of customers of A, to the number of customers of B, and to the affinities between them, exactly like the volume of traffic from network B to network A.. Therefore, volume from A to B and from B to A have all reasons to be equivalentⁱⁱⁱ. More precisely, if the profile of customers are similar between A and B, interconnection volumes are balanced whatever

the respective size of the two networks⁵. The profile of customers results from individual operators' marketing choices not from external factors. As for the competition issues related to possible on-net / off-net price differentiation schemes, these are questions relevant for ex post competition law, not for ex ante regulation.

Fourth indent

References to spectrum secondary market are premature, as secondary markets are not operational for the considered frequencies and services. Again, the Recommendation must refer to market realities that exist during the period covered by the proposed Recommendation. It should not be based on speculative thoughts about what could exist in some undefined future. In several EU countries secondary markets for spectrum cannot be envisaged as being operational within the timeframe considered by the Recommendation (i.e. in the period between 2009 and 2013).

p. 18

Chapter 5. End of the introduction paragraph. Last sentence about the increasing competition between fixed and mobile services.

To the extent the Commission believes that fixed and mobile service are now substitutes competing one with one another, the relevant market definition for fixed origination and fixed access services should be modified accordingly. Competitive pressure of mobile services should be fully acknowledged by regulation.

§ 5.1.1.

All these paragraphs on pure NGN as the reference technology should be amended for the reasons explained in the comments of Recital (9), (10) and (11) of the draft Rec.

p. 19

First indent about the relevance of FTTX as a modern equivalent asset for the local loop.

This paragraph is an example of result-driven interpretation of the concept of Modern Equivalent Asset used in the draft Recommendation. While it tries to find reasons not to take account of operational and proven FTTx technologies as a basis for MEA calculation, it does not hesitate to consider hypothetical and unproven NGN Core technologies as the basis for MEA calculation of the core network.

§ 5.1.2.

Second and third indent of the paragraph

As mentioned above, termination service in isolation cannot be considered as an increment, as its existence presupposes the simultaneous existence of outgoing traffics. The only consistent and meaningful service increment is therefore voice traffic as a whole.

Fourth indent of the paragraph

ETNO agrees with the first sentence: "The default demarcation point between traffic- and non-traffic-related costs is typically where the first point of traffic concentration occurs" This definition obviously applies to all networks, fixed and mobile. In mobile networks, the first point of traffic concentration is when the radio signal leaves the customer's handset and goes from the handset to the closest antenna. Therefore, according to very definition of the draft Recommendation, all the radio access of mobile networks must be included in traffic related costs.

p.20

Last indent of § 5.1.2.

There is no economic justification whatsoever in the document for the order that is recommended to allocate fixed joint and common costs. The only relevant economic rationale for fixed cost allocation between services is the analysis of demand characteristics of each service, taking into account substitution effects between services. This has not been analysed in the proposed text. In the absence of serious analysis of demand characteristics, the only reasonable way to allocated fixed costs is to stick to fully allocated costs.

p. 20-21 § 5.2.1. on the choice of NGN technology

This paragraph is not agreeable. See comments on recitals (9), (10), (11) of the draft Rec.

p. 21-22 § 5.2.2. on the definition of the increment

This paragraph is not agreeable. See comments on recitals (12) and (13) of the draft Rec.

p.22-23 § 5.2.4. on network externalities

The paragraph rightly explains that integrating a mark-up on TR to account for network externalities depends on a number of conditions. The fact that these conditions are fulfilled may be evaluated by each NRA on its national market. Therefore, the possibility to consider network externalities should remain at the discretion of NRAs.

p. 23 § 5.2.5. on implication of the recommended approach for MTR

The paragraph is a first step in a possible impact assessment as regards the proposed approach on MTRs. However, it fails to complete the analysis and consider the damaging impact it would have on the majority of mobile subscribers, the development of new mobile services and the international position of the European industry.

p. 25 § 6.1.2. 3 first indent of the negative impacts of bill and keep

ETNO agrees on this paragraph. Bill and Keep also encourages the development of spam. However, all these negative effects against the introduction of bill and keep also exist for exactly the same reasons when the cost allocation method leads to uneven prices between termination traffic and outgoing traffic, which precisely what the draft Recommendation recommends.

p. 25-26 § 6.1.4. on RPP

On call externalities and RPP, see comments on recitals (14) of the draft Rec.

p. 26 §6.2. Migration to IP interconnection

This entire section is technically wrong (there is confusion between layer 3 and layer 7 interconnections) and cannot be accepted from regulatory authorities. See comments on recitals (9), (10), (12), (13).

ⁱ A recent comprehensive survey of this literature can be found in Ref. : "Jullien, Bruno and Rey, Patrick "Notes on the Economics of Termination Charge", IDEI Report n°6, September 2008.

ⁱⁱ This is the case for instance in France where average price per minute is the same for fixed to mobile and for mobile to fixed traffics.

ⁱⁱⁱ Developments on the fact that differences in network sizes are not per se sources of traffic imbalances can be found in Ref. : "Jullien, Bruno and Rey, Patrick "Notes on the Economics of Termination Charge", IDEI Report n°6, September 2008