Commission for
Communications Regulation

Consultation

Costing of universal service obligations: Principles and Methodologies

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All responses to this consultation should be clearly marked:- "Reference: Submission re ComReg 10/94" as indicated above, and sent by post, facsimile or e-mail to arrive, on or before 1pm, on Thursday, 20th January 2011, to:

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Please note that ComReg will publish all respondent's submissions with the Response to this Consultation, subject to the provisions of ComReg's Guidelines on the Treatment of Confidential Information – ComReg 05/24.

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Contents

1 Foreword 2
2 Executive Summary 3
3 Introduction 5
The USO 5
Overview of legislative framework for USO funding 6
4 Proposed approach for calculating USO net costs and revenues (excluding benefits of USO) 8
Introduction 8
Costing methodologies 11
Avoidable costs 15
USO revenue calculation 18
Efficiency adjustments 21
Approach to cost identification and allocation 26
Format of applications 32
5 Approach to calculation of benefits of USO 34
Brand Recognition 36
Ubiquity 39
Life Cycle 41
Marketing 43
6 Approach to determination of unfair burden 46
Introduction 46
Principles for assessing whether a burden is (un)fair 47
Methodology for evaluating an unfair burden 49
7 Procedure for requests for funding (2009/2010) 55
8 Treatment of confidential information 56
9 Submitting Comments 59
Appendix A –The Legislative Provisions 60
Appendix B – European Practice for assessing unfair burden 61
Appendix C – Consultation Questions 62
Appendix D – Glossary of Terms 64

1 Foreword

The European Communities (Electronic Communications Networks and Services) (Universal Service and Users' Rights) Regulations 2003, ("the Regulations"), provide that the Universal Service Provider ("USP") may submit a request for funding for the net cost of meeting the universal service obligation ("USO") and that the Commission for Communications Regulation ("ComReg") is obliged to assess such request.

ComReg's Strategy Statement (ComReg Document No. 10/47) stated that ComReg would seek to develop its approach to the costing and financing of the USO, taking account of the views of all stakeholders. There are a range of issues which must be considered when determining whether, or not, there may be an unfair burden associated with meeting a USO, including the methodology to be used in calculating a net cost (if any), how to estimate, and treat, any benefits associated with being the designated USP and how to assess any unfair burden.

This consultation document is intended to seek further views of stakeholders on a range of issues related to the costing of the USO. It follows ComReg's preliminary consultation (ComReg Document No. 10/77) on this subject. ComReg proposes to issue a Decision/Information Notice on this subject in April 2011.

Stakeholders should note that, in the event that ComReg determine that there was a net cost of meeting a USO, and separately that there was an unfair burden on the USP, it would then have to determine how a sharing mechanism would operate. ComReg has elicited the initial views of stakeholders on the establishment of a sharing mechanism (in ComReg Document No. 10/77) and plans to issue a formal consultation on the financing of any unfair burden associated with a USO in 2011, as appropriate.

Finally, ComReg requests that any stakeholders wishing to submit views on this consultation do so in writing by no later than 1pm on Thursday, 20 January 2011.

Mike Byrne
Commissioner
Commission for Communications Regulation

2 Executive Summary

The Regulations provide that the Universal Service Provider ("USP") may submit a request for funding for the net cost of meeting the Universal Service Obligation ("USO") and that ComReg is obliged to assess such an application.

The purpose of this consultation document is to provide all stakeholders with the opportunity to express their views on how the principles and methodologies of assessing the cost of meeting the USO by the USP[1] would be undertaken.

This formal consultation document is the first in a series of consultation documents and decisions to be issued by ComReg over the coming months that will address any such applications for funding in respect of the provision of the universal service and how the sharing mechanism, if any, might be established.

This consultation document is structured as follows:

- **Section 3:** Provides an overview of the scope of the current USO and an overview of the legislative framework under the Regulations for assessing applications for USO funding.

- **Section 4:** ComReg outlines its proposed approach to the calculation of the net cost. In this Section ComReg sets out the possible methodologies by which net costs could be identified and calculated including the identification of the associated revenues that must be considered. In addition to this, the issue of efficiency adjustments is considered and how they might be treated in any calculation of net costs. Finally, the minimum evidentiary standard required to assess any application is discussed and how the required information is to be presented.

- **Section 5:** ComReg discusses methodologies to calculate any benefits of being the USP including benefits derived from brand recognition, ubiquity, life cycle, and marketing. ComReg examines each of these benefits in detail and indicates how these have been identified and calculated in other European countries. The relevant European Commission documentation on the subject matter is also considered and referred to in detail.

- **Section 6:** ComReg outlines its proposed approach to the determination of unfair burden and reviews the relevant European regulatory practice on this subject. In this Section ComReg sets out a number of methodological steps to provide a structured, transparent, and robust framework for an unfair burden analysis as well as the requirement to consider any administrative burden that could arise from setting up of a mechanism to share any burden.

[1] eircom was designated the USP until 30 June 2012 – see ComReg Document No. 10/46.

- **Section 7:** In this Section, ComReg addresses the procedures for requests for universal service funding for the period 2009/10 and outlines a methodology for treating any such requests.

- **Section 8**: In this Section, ComReg outlines its proposals for how to treat confidential and commercial sensitive information in the context of this consultation process. ComReg is conscious of the need to place a premium on accuracy of records, transparency and detail of submission and in doing so recognises that this affects confidentiality claims.

3 Introduction

This section outlines the scope of the current USO and provides a brief overview of the legislative framework under the Regulations for assessing applications for USO funding.

The USO

3.1 Directive 2002/22/EC[2] ("the Directive") is intended to create a harmonised regulatory framework which secures the delivery of a universal service in the electronic communications sector. The universal service consists of the provision of a defined minimum set of services, to all end-users, at an affordable price. According to Article 1(1) of the Directive, one of its objectives is to ensure the availability, throughout the European Community, of good quality, publicly available services through effective competition and choice. The obligations which the USP (currently eircom) is subject to pursuant to the Regulations are as described below.

Provision of access at a fixed location

3.2 The USP must satisfy any reasonable request to provide connections to the public telephone network and access to publicly available telephone services. Any connection provided by the USP must be capable of supporting:

1. Local, national and international telephone calls.
2. Facsimile (fax) communications.
3. Data communications at data rates that are sufficient to permit functional internet access (the USP is currently required to adopt 28.8kbps as a reasonable minimum data rate).

3.3 The USP must consider all requests for connections as reasonable, if the expenditure involved in meeting the request is less than €7,000[3]. The cost to the applicant must not exceed the standard connection charge. Requests for connections which involve expenditure in excess of €7000 are to be considered reasonable if the applicant agrees to pay the standard connection charge, plus incremental costs above €7,000.

Directory Services and Directories

3.4 The USP must provide end-users with a comprehensive printed directory of subscribers, free-of-charge, and updated at least once a year. In addition, the USP must keep a record in the national directory database ("the NDD") of all subscribers of publicly available telephone services in the State (including those with fixed, personal and mobile numbers who have not refused to be included in that record) and must allow access to any information contained in such a record to any such other undertaking, or any person, in accordance with such terms and conditions to be approved by ComReg.

[2] Directive 2002/22/EC of the European Parliament and the Council of 7 March 2002 on universal service and users' rights relating to electronic communications networks and services.

[3] ComReg Document No.05/70.

Public pay telephones

3.5 The USP must ensure that public pay telephones are provided to meet the reasonable needs of end-users in terms of geographical coverage, number of telephones, and the quality of services.

3.6 Payphones that are covered under the USO are those available on the street, and in other public areas available to the public at all times (i.e. unrestricted access)[4].

Specific measures for users with disabilities

3.7 The USP must provide a dedicated section of its website, accessible from the homepage, with information on the services that it provides which are of particular interest to people with disabilities.

3.8 The USP must maintain a Code of Practice concerning the provision of services for people with disabilities and must periodically review and, where appropriate, amend the Code of Practice, in consultation with the National Disability Authority ("the NDA") and other representative bodies.

3.9 The USP must provide the specific services for users who are hearing impaired; users who are hearing and/or speech impaired; users with limited dexterity or mobility; users with restricted vision and users unable to use the phone book due to a disability.

Affordability

3.10 The Regulations require that the USP adheres to the principle of maintaining affordability for universal services and affordability is maintained through a number of measures, including within the price cap regime, an overall safeguard control on consumers bills and uniform tariffs.

3.11 It is worth noting that the current USP has also a number of other measures in place that are not the result of obligations placed upon it by the Regulations and are additional services and services outside the scope of its USO.

Overview of legislative framework for USO funding

3.12 As the Directive notes, ensuring universal service may involve the provision of some services to some end-users at prices (or other conditions) that depart from those resulting from normal market conditions.[5] The Directive therefore provides that Member States should, where necessary, establish mechanisms for financing the net cost of universal service obligations, in cases where it is demonstrated that the obligations can be provided only at a loss, or at a net cost which falls outside normal commercial standards.

3.13 The Regulations – which reflect the terms of the Directive, as interpreted by the EU Courts[6] - set out a clear framework in respect of USO costing:

1. Where the USP seeks to receive funding for the net costs of meeting the obligation concerned, it must submit to ComReg a written request for such funding (Regulation 11(1), together with supporting information ((Regulation 11(2).

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[4] ComReg Document 06/14.

[5] Recital 4.

[6] See Case C-389/08, *Base NV and Others v Ministerraad*, judgment of 6 October 2010, not yet reported. See also Case C-222/08 *Commission v Belgium*, judgment of 6 October 2010, raising similar issues.

2. ComReg shall then determine whether the USO in respect of which the application for funding is made "*may represent an unfair burden on the undertaking concerned*." (Regulation 11(3)).

3. Where ComReg determines that the USO may represent an unfair burden on the USP it shall calculate the net costs of its provision, based on (a) the net costs, taking into account any market benefit which accrues to the undertaking, or (b) where applicable, the net costs identified by a designation method in accordance with Regulation 7(3) (Regulation 11(4)). It is, therefore, clear from Regulations 11(3) and 11(4) that it is, in principle, open to ComReg to conclude that an unfair burden may not exist (e.g. where the USP has not discharged the USO in respect of which an application for funding is made) and, if such determination is made, there is no need to calculate the net cost.

4. Where ComReg determines that the USO may not represent an unfair burden it shall notify the USP of that determination, together with the reasons for the determination as soon as reasonably practicable after the determination is made.

5. Accounts or other information serving as the basis for the calculation of the net cost of an USO shall be audited or verified, either by ComReg or an independent body (Regulation 11(7). The results of the cost calculations, and the conclusions of any audit or verification, should normally by made public, subject to confidentiality considerations (Regulation 11(8).

4 Proposed approach for calculating USO net costs and revenues (excluding benefits of USO)

Introduction

4.1 eircom is currently designated as the USP until June 2012. ComReg does not rule out the possibility of seeking competitive tenders for the USO in the future. Introducing competition into the provision of universal service in this way could help ensure that universal service is provided by the operator(s) with the lowest costs, thereby minimising the contributions by all operators required to pay into any sharing mechanism.[7]

4.2 Regulation 11 of the Regulations makes provision for the calculation by ComReg of any net cost associated with the USO. The net cost calculation must be carried out in accordance with Schedule 2, Part A of the Regulations, which provides that:

> *"In undertaking a calculation exercise, the net cost of universal service obligations is to be calculated as the difference between the net cost for a designated undertaking of operating with the universal service obligations and operating without the universal service obligations…Due attention is to be given to correctly assessing the costs that any designated undertaking would have chosen to avoid had there been no universal service obligation. The net cost calculation should assess the benefits, including intangible benefits, to the universal service operator".*

4.3 ComReg notes that direct calculation of USO net costs is not the only way to evaluate the burden, if any, resulting from USO. Regulation 11(4) of the Regulations also makes provision for ComReg to calculate the costs of USO based on "*…where applicable, the net costs identified by a designation method in accordance with Regulation 7(3)."*

4.4 Regulation 7 (3) provides that:

> *"The designation methods adopted shall ensure that the obligations referred to in paragraph (1) are provided in a cost effective manner and may be used as a means of determining the net cost of the universal service obligation in accordance with Regulation 11."*

4.5 This Section sets out the possible methodologies by which net costs could be identified and calculated, and identifies the associated revenues that must be taken into account when calculating net costs. This Section also discusses the presentation and information requirements to be included by the USP if it makes an application for USO funding. Section 5 will explore the issue of identifying the benefits of being the USP.

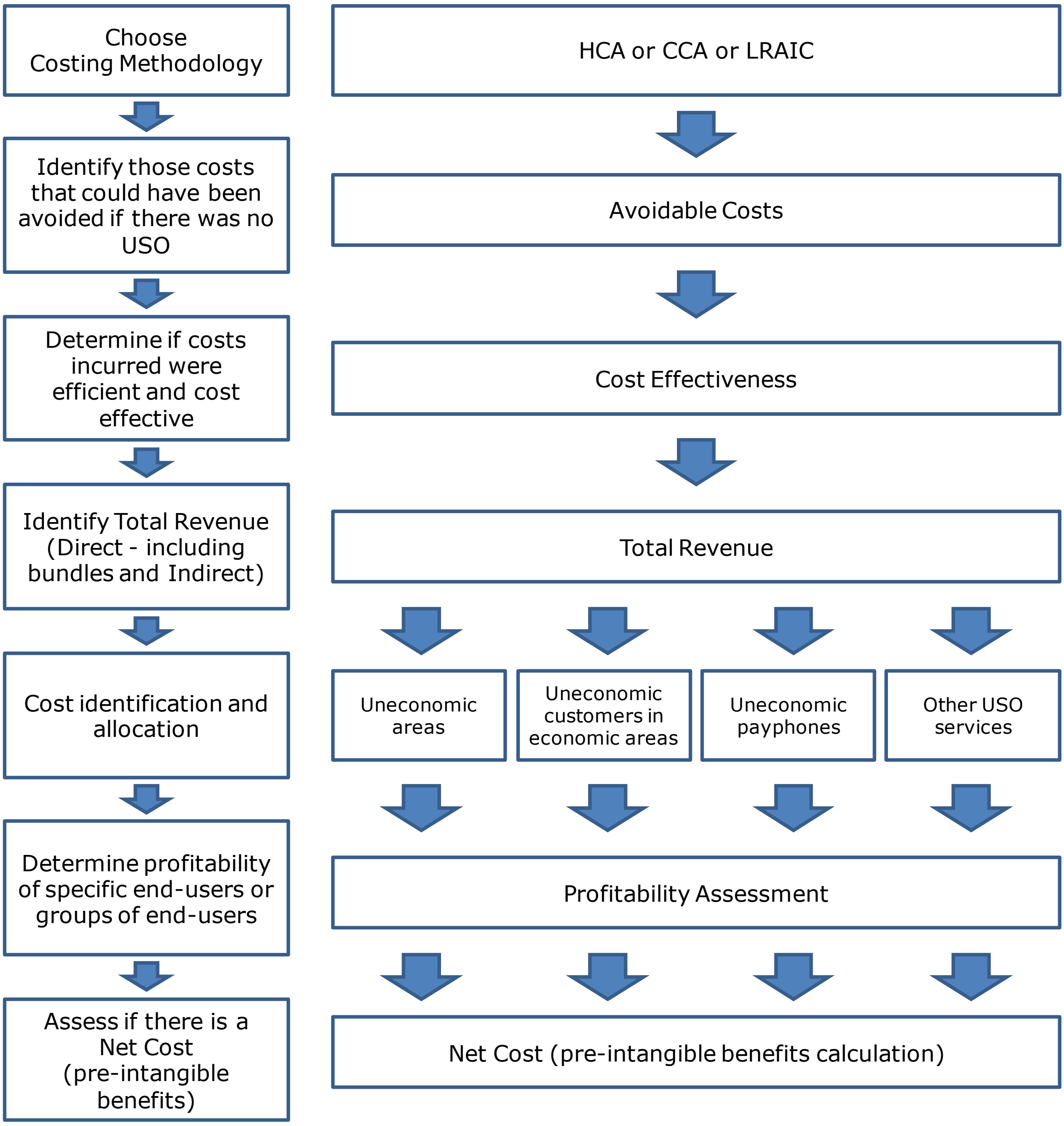
4.6 This Section is structured under the following headings:

- *Costing Methodologies*: ComReg's preliminary view on the various costing methodologies that may be used and on the most appropriate costing methodology.
- *Avoidable costs*: ComReg's preliminary view on the meaning of "avoidable costs", which is relevant in determining the USO's net cost.

[7] In theory, introduction of a competitive bidding process or pay-or-play policy for the provision of USO by OAOs is a good way to obtain a true net cost of universal service. The idea would be to elicit a USO cost from market participants through an auction mechanism. However, the suitability of these mechanisms for assigning USO depends on whether the area is served by an operator or not. There are also complexities in the implementation of such mechanisms and, therefore, it may be more appropriate to directly calculate a USO net cost.

- *USO revenue calculation*: ComReg's preliminary view on how a USO's revenues are to be considered in determining the USO's net cost.
- *Efficiency adjustments*: ComReg's preliminary view on the type of efficiency adjustments that might be required in calculating the USO's net cost.
- *Approach to cost identification and allocation:* ComReg's preliminary view on how "net costs" could be identified and calculated, and
- *Fit for purpose format of an application:* ComReg's preliminary view on the minimum presentation and information requirements to be included by the USP in any application for USO funding.

Figure 1. Schematic overview of the Net Cost calculation (excluding benefits of being the USP)



Costing methodologies

4.7 Neither the Directive, nor the Regulations, prescribe a particular costing methodology to be used in the calculation of the net cost. That being the case, it is the responsibility of the NRA to determine which is most suitable under its own national conditions, while taking account of relevant methodologies used by other NRA's or other regulatory bodies in analogous circumstances. In Ireland therefore, the selection of the appropriate costing methodology is a task falling within the competency and discretion of ComReg.

4.8 In ComReg's preliminary consultation - call for input (ComReg Document No. 10/77), ComReg identified a number of potential costing methodologies for determining the net cost of providing the USO. The submissions received to ComReg Document No. 10/77 did not propose any additional, or alternative, costing methodologies.

4.9 There are a number of widely accepted basic methodologies that could be used for a USO net cost calculation, as illustrated by Figure 2 below.

Figure 2 – Basic methodologies for a USO net cost calculation

	Top-Down		Bottom-Up	
	Historic Costs	Current Costs	Historic Costs	Current Costs
Forward Looking	n/a	LRAIC	n/a	LRAIC
Fully Distributed Costs	HCA	CCA	n/a	n/a

4.10 The main costing methodology options are based on the following costing principles:

- Historic cost accounting ("HCA");
- Current cost accounting ("CCA"); and
- Long-run average incremental costs ("LRAIC").

4.11 Several countries, including France and Italy, use a HCA methodology. Others use either a CCA methodology (e.g. Spain) or a LRAIC methodology (e.g. United Kingdom).[8] The main costing methodologies are discussed separately below.

Historic Cost Accounting

4.12 The HCA approach is based directly upon the historical reported financial results of an operator for a given period (this is known as top-down data). The results from the HCA accounts should be directly reconcilable with the statutory financial statements of the operator, which should provide for greater transparency and ease of auditing.

4.13 The HCA methodology ensures that the operator recovers costs actually incurred in providing the products, services or associated facilities, plus a normal rate of return on its investment.

[8] Irrespective of which costing methodology is applied, in accordance with Regulation 11 (7) of the Regulations provides that: "[t]he accuracy of the accounts or other information or both, serving as the basis for the calculation of the net cost of an obligation shall be audited or verified, as appropriate, by the Regulator or by a body independent of the undertaking concerned and approved of by the Regulator". Regulation 7 (3) of the Regulations provides that: "[t]he designation methods adopted shall ensure that the obligations referred to in paragraph (1) are provided in a cost effective manner and may be used as a means of determining the net cost of the universal service obligation in accordance with Regulation 11".

4.14 A drawback of HCA is that historical accounts can reflect potential inefficiencies that result from past decisions taken by the operator. Furthermore, as the data is historic, it does not take into account either more efficient technology available at the time, or current technology developments that have since occurred.

4.15 Typically, there can be, either through the use of accounting software or accounts presentation, a lack of an accurate "see-through" position of the historic cost data contained within the HCA accounts, as costs have been fully allocated (i.e. it may be difficult to isolate common and joint costs from cost pools). Therefore, it is unlikely that the HCA methodology, in itself, will reveal the true cost that could be avoided if the USO did not exist.[9] If the HCA methodology is used, an appropriate set of allocation rules for costs will need to be developed.

Current Cost Accounting

4.16 The CCA methodology focuses on updating historic costs, relative to the existing reality of the market (i.e. current costs). The information is derived from the HCA accounts by valuing the non-fully depreciated assets using current costs instead of historic costs, with appropriate accounting for the consequent holding gains and losses and adjustments to depreciation charges as a result of revaluations.

4.17 Current costs can differ significantly from historic costs due to price changes and technological progress. For example, the price of property and the cost of trenches are likely to have increased significantly in the last decade, so that that the current costs for the copper local loop may be higher than the historic costs. Therefore, under the current cost approach, unlike the historic cost base, it is arguable that this would encourage operators' to invest (whether it is by the incumbent operator or other operators) as it values the depreciated assets as if the assets were bought at current day prices.

4.18 As the starting point for the methodology is based on the historic accounts, the CCA methodology is subject to the potential inherent legacy inefficiencies contained within the accounting data presented, and is limited to the format of the information of the accounts (i.e. the granularity of data, in particular, at a geographical level may be lacking).

4.19 In the context of a possible USO fund, CCA holding gains and losses may either unfairly recompense the USP for asset revaluations which are notional or penalise the USP by preventing it from recovering its historic (i.e. cash) cost.

4.20 The precise impact of the various holding gains and losses and depreciation adjustments can be complex and difficult to predict. As such, the use of the CCA accounting methodology may lead to uncertainty for all industry players.

Long Run Average Incremental Costs

4.21 The "LRAIC" costing methodology, or the "LRAIC plus" cost accounting methodology, both consider the efficient forward looking costs of providing a product or a service. Both methodologies make use of CCA accounting principles however they place particular emphasis on identifying the costs of a service which are incremental to it in the long run.

4.22 The "LRAIC plus" cost accounting methodology includes all of the average efficiently incurred variable and fixed costs that are directly attributable to the activity concerned,

[9] This issue is addressed more fully in paragraphs 4.37-4.46.

plus an apportionment of joint and common costs. "LRAIC plus" includes appropriate amounts of variable, fixed and common costs, which is the calculus faced by any operator when deciding to enter, or expand, in a market. "LRAIC plus" allows recovery of fixed and common costs, typically using an equi-proportionate mark-up ("EPMU"). The LRAIC cost accounting methodology does not include such a mark-up.

4.23 Traditionally, the choice for implementing a LRAIC or LRAIC plus costing methodology has either been based on Top-Down ("TD") data or Bottom-Up ("BU") data, or, in some cases, a mixture of the two (i.e. a hybrid approach). The choice of the most appropriate cost modelling approach can depend on a number of factors, including:

- the objectives of the exercise;
- the quality of the information available to carry out the exercise; and
- the level of co-operation from the USP and other stakeholders.

Top-Down Long Run Average Incremental Costs

4.24 In a TD LRAIC model, the source of information for estimating the costs of services is normally the costs actually incurred by the operator. These costs are amended to take account of forward looking costs that, hypothetically, would have been incurred by an efficient operator today. In particular, historic capital expenditure is re-valued to current cost in a manner similar to CCA accounting. This means that it shares many of the advantages and disadvantages of CCA accounting that are described above.

4.25 In principle, the long run incremental cost of the service in question is identified by analysing how costs behave as volumes change. In practice, allocation keys similar to Fully Allocated Costs ("FAC") are often used which can reduce the usefulness of the top down approach.

4.26 A drawback of the TD LRAIC methodology is that there may be some legacy issues by which the model is inevitably constrained in the analysis or, in other words, the TD approach is not, and cannot be converted into, a forward-looking approach. This can potentially yield inefficient results.

Bottom-Up Long Run Average Incremental Costs

4.27 By contrast, a BU LRAIC model is generally developed as an independent analytical cost model. The model calculates the cost for an efficient operator to "rebuild" the network (either by keeping some of the network topology (the "scorched node" approach), or without any constraints from the existing network topology (the "scorched earth" approach).

4.28 The use of a BU LRAIC cost model can also be associated with the modelling of a hypothetical new entrant to markets, such as broadband, where the regulatory objectives are to incentivise investment, promote competition, and ultimately improve consumer welfare through the success of the former two.[10]

4.29 In some cases, the two approaches (TD and BU LRAIC) are used in combination by operators and regulators and is commonly referred to as the hybrid approach.

[10] In other words, a "Buy v's Build" signal is sent to the marketplace to enable informed decisions on the efficient level of investment in alternative infrastructure.

Call for Input submissions

4.30 Some respondents to ComReg Document No. 10/77 favoured a LRAIC approach. One respondent stated that *"the over-riding principle in calculating the net cost of USO should be that the costs are based on the provision of an "efficient operator...This is probably best achieved through the use of a Bottom-Up LRIC approach".*

4.31 However, some respondents stated that the HCA method would be preferable, with one respondent stating that as "*…modernisation of networks in Ireland has not yet impacted the traditional eircom PSTN which forms part of the USO. It would therefore appear beneficial to continue the existing HCA accounting regime"*. Another respondent stated that while "*ComReg should consider the merits of Long Run Average Incremental Costs... [g]iven that the regulations provide that due attention should be given to the assessment of USP costs that the designated undertaking would have chosen not to incur in the absence of the USO, then it seems reasonable that the actual costs of provision as shown in the USP's accounts should be used in the costing model. However, it is also appropriate and necessary that some form of efficiency measure or benchmark is applied to ensure that the level of costs are in line with those of an efficient operator*".

4.32 ComReg is of the preliminary view that the CCA and LRAIC methodologies are more suited to a hypothetical approach and are better reflective of the conditions for a new entrant in the infrastructure market, rather than an established entrant.

4.33 The objective of a USO net cost calculation is to quantify the burden (if any) that is imposed on a USP, rather than to send a "Buy/Build' signal to the marketplace. The actual costs, suitably adjusted for efficiencies, are more likely to reflect the specific net cost incurred. As discussed in paragraph 4.12, the results of the HCA methodology should be relatively identifiable and would not rely on any assumptions regarding current valuation as required by the CCA and LRAIC methodologies.

4.34 ComReg believes that it is necessary to consider actual historic costing data adjusted for efficiencies, as appropriate, given that the objective of the exercise is to establish the effective costs of building and serving end-users, or groups of end-users, (i.e. uneconomic customers or uneconomic areas) where it is unlikely an operator would invest in the short to medium term.

4.35 Furthermore, the verification of actual costs (i.e. HCA methodology) adjusted for efficiencies ensures that any funding sought in relation to the USO should not exceed what is necessary, thus in principle avoiding the possibility of any payments conferring undue compensation.

ComReg's preliminary view

4.36 In determining a USO net cost calculation, ComReg is of the preliminary view that the HCA approach, properly adjusted for efficiencies, where appropriate, and having regard to the need to consider costs that could have been avoided by the USP if there had been no USO, in accordance with Regulation 7 (3) and Schedule 2 of the USO Regulations is the most appropriate methodology in determining the net cost.

Q. 1. Do you consider this HCA-based approach to be appropriate? Please provide reasons for your view.

Avoidable costs

4.37 Schedule 2 of the Regulations provides that:

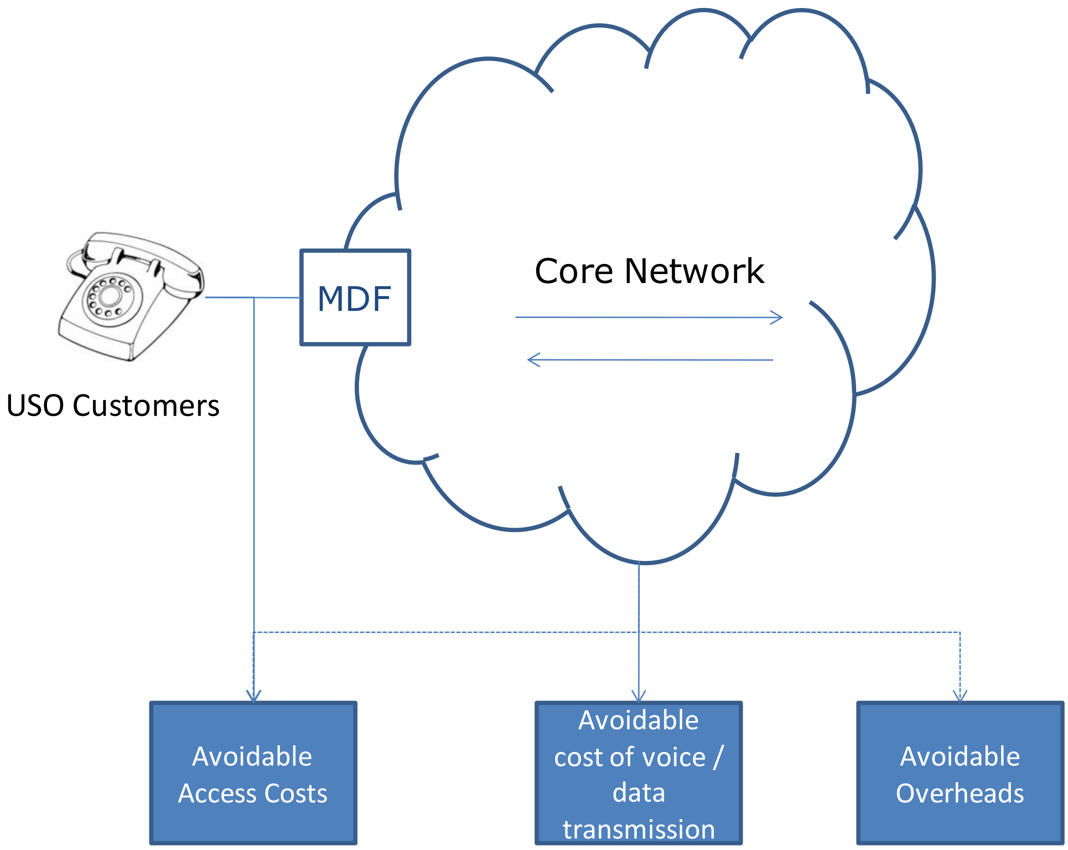
"*Due attention is to be given to correctly assessing the costs that any designated undertaking would have chosen to avoid had there been no universal service obligation*".

4.38 Avoidable costs relate to those costs that could be avoided if a USP was not required under a USO to provide a specific level of product or service. ComReg considers that the USO net costs should be calculated on the basis of investments and operating costs that could have been avoided if provision of services to end-users, or groups of end-users, was not required under a USO (i.e. "non-viable customers" which would not ordinarily be served by a commercial operator). ComReg considers that the "avoidable costs" principle applies to both operating costs and the fixed costs associated with capital equipment. For the avoidance of doubt, ComReg considers that it is only the portion of costs both capital and operational expenditure (be it fixed, variable or otherwise) that can be directly attributable/allocated to the service that could have been avoided which should be included in the net cost calculation.

4.39 In general, ComReg is of the preliminary view that the net cost calculation should identify:

- avoidable costs of access;
- avoidable costs of data or voice transmission; and
- avoidable overheads.

Figure 3. Avoidable costs overview



4.40 Costs of individual services/products can vary significantly, depending on the scope and type of costs to be taken into account. One of the fundamental drivers of the net cost calculation is the identification and classification of costs. A number of potential categories of costs, which are not mutually exclusive, exist including:

- Direct costs;
- Indirect costs;
- Common costs;
- Joint costs;
- Fixed costs;
- Variable costs; and
- Incremental costs.

4.41 In ComReg Decision No. D08/10[11], ComReg defined a number of cost categories such as direct, indirect and common costs. ComReg considers that these definitions are also appropriate in the calculation of net costs. These principles were agreed following consultation with industry regarding the most appropriate treatment in relation to the costs of the current USP. ComReg considers that joint, fixed, variable and incremental costs are all widely accepted definitions and represent categories of cost which industry are familiar with.[12]

4.42 ComReg believes that it is the nuances of these costs, and in particular, how these costs are allocated, with respect to the investments and operating costs that could have been avoided if provision of services to “non-viable customers” was not required, which will have a fundamental bearing on the quantum of the net cost calculation figure.

4.43 ComReg considers that potentially there are circumstances where costs, may need to be analysed further with respect to determining if it was indeed avoidable. For the purposes of a net cost calculation, where a cost is incurred in the provision of services to “non-viable customers” due attention must be given to *inter alia*:

a. The possibility that uneconomic customers upon original installation, may now have become viable customers (based on an appropriate Net Present Value calculation);

b. The possibility that uneconomic customers in the year of assessment may have been considered by the USP to be economic customers upon original installation, which would be deemed an unavoidable cost (based on an appropriate Net Present Value calculation;

c. The possibility that economic customers may be served using the infrastructure which was incurred for the provision of USO services to “non-viable customers” – in which case costs may become common or in the case of fixed costs related to physical infrastructure in part economic;

[11] ComReg Document No. 08/10 Response to Consultation Document No. 09/75 and Final Direction and Decision: Accounting Separation and Cost Accounting Review of eircom Limited.

[12] A number of these definitions are detailed in: “Regulatory Accounting Guide - Telecommunication Development Bureau, International Telecommunication Union, March 2009”.

d. The engineering rules; in which case it may have been best practice to incur these costs irrespective of the "viability" of customers or area;[13]

e. With respect to tenders attained, where end-users or groups of end users either through un-occupancy or otherwise, have become "un-viable", ComReg considers that as the end-user or group of end-users would have potentially been served by other operators (indicated by a competitive tender process) are not avoidable and therefore should not be included in the net cost calculation.

4.44 In relation the appropriate Net Present Value calculation to be applied to customers that have become uneconomic in the year of assessment, ComReg considers that it is important to assess the life cycle benefits of customers as set out in the approach to the calculation of benefits for the USO in Section 5.

ComReg's preliminary view

4.45 ComReg is of the preliminary view that the USO net costs should be calculated on the basis of "all" investments and "all" operating costs that could have been avoided if the provision of services to "non-viable customers" by the operator was not required under a USO.[14]

4.46 ComReg's preliminary view is that the fixed common costs and joint costs, with respect to the provision of services over the access and core networks, should not be included as avoidable costs. ComReg considers that the USP would not reduce its fixed common and joint costs if it were not required to provide connections to customers in uneconomic areas, or uneconomic customers in economic areas as these costs are also generated by serving economic customers and economic areas. These costs could only be reduced if the USP ceased entirely the activity that generates these costs (i.e. reducing the output of a single activity will not reduce costs as they are fixed; only by reducing/ceasing the output of all activities will reduce these costs).

4.47 ComReg, however, has an open mind on the issue of avoidable costs issue and will take into account the views of interested parties.

Q. 2. How in your view, should capital expenditure invested by the USP in the past, in respect of potentially uneconomic USO elements/services, be treated for the purposes of a correct identification of the avoidable costs in the net cost calculation? What, in your view, are the appropriate principles for cost recovery in this regard?

[13] In circumstances, for example where there is a significantly remote customer, that would not ordinarily have been served by a commercial operator could be considered allowable as avoidable for the purposes of net cost calculation. However, in circumstances for connecting housing estates etc, best practice dictated by engineering rules would imply that all the houses in the estate would be pre-wired for connection. Should certain customers/end-users now prove "un-viable" in the estate, ComReg considers that such costs should not be considered as avoidable and therefore should not be included in the net cost calculation.

[14] It is only the portion of costs both capital and operational expenditure (be it fixed, variable or otherwise) that can be directly attributable / allocated to the USO service and which could have been avoided which should be included in the net cost calculation.

USO revenue calculation

4.48 There are a number of revenues associated with the provision of a USO, which can be identified as direct revenues (e.g. one-off connection revenues, access rental revenues and call revenues paid by customers) and indirect revenues (e.g. termination minutes), which need to be taken into account when calculating net costs.

Direct Revenues

4.49 Direct revenues are revenues directly invoiced to a customer for the services provided directly by the USP or to an OAO (who is indirectly providing the service to the customer) availing of the USP's wholesale services. Direct revenues can generally be categorised as revenues associated with access (e.g. line rental), calls (e.g. local, national, mobile, international, directory enquiries ("DQ") and premium rate services) and complementary services, such as, broadband services, monitored home alarm services[15], etc. Direct revenues for services delivered by an OAO availing of USP's wholesale revenues will include *inter alia* wholesale access (single billing wholesale line rental ("SB-WLR"), wholesale calls and complementary wholesale services such as Bitstream and Local Loop Unbundling ("LLU") etc.

4.50 Where services are delivered as a bundled product (e.g. line rental plus calls plus broadband) the revenues of the entire bundle should be included plus the revenues generated outside the bundle (e.g. calls outside the bundle).

4.51 ComReg understands that, usually, one off-connection charges correspond to a one-off operating charge in the accounting system (i.e. the cost associated with establishing the connection). ComReg considers that it would appear reasonable to incorporate the one-off connection charge incurred in the relevant financial year under review for a USO funding application.

4.52 ComReg Decision No. D09/05 specified that subscribers, who request a connection which requires more than €7,000 expenditure for the corresponding line, must support the exceeding costs which this generates direct revenues for the USP. ComReg Decision No. D09/05 stated that:

> "*The USP will be required to consider all requests for connections as reasonable if the expenditure involved in meeting the request is less than €7,000 and the cost to the applicant shall not exceed the standard connection charge. Requests for connections which involve expenditure in excess of €7,000 are to be considered reasonable if applicant agrees to pay standard connection charge plus incremental costs above €7,000*".[16]

[15] http://www.phonewatch.ie/index.php?act=main

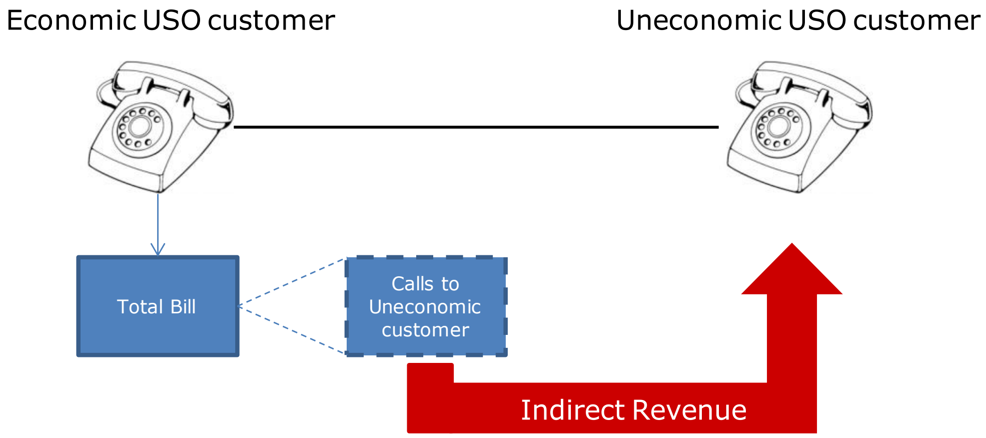
[16] Extract from ComReg Document 10/46, section 6.2.1, where eircom was re-designated as a USP.

Indirect Revenues

4.53 Indirect revenues which are to be included in the net costs calculation, are revenues which are not invoiced directly to a customer for the services provided by the USP or to an OAO availing of USP's wholesale services. Indirect revenues will generally incorporate revenues in relation to the receiving party pays or through wholesale interconnection services where an OAO pays. Indirect revenues where the receiving party pays will include for example non-geographic numbers (e.g. 1800, 1850 and 1890 numbers). Wholesale interconnection revenues incorporate fixed termination and transit services as a result of inbound calls from another fixed / mobile networks, where an OAO is invoiced for terminating and transiting a call on the USP network.

4.54 In addition to the tangible benefits outlined above there are other indirect benefits such as network externalities which include for example ubiquity and these are discussed in Section 5.

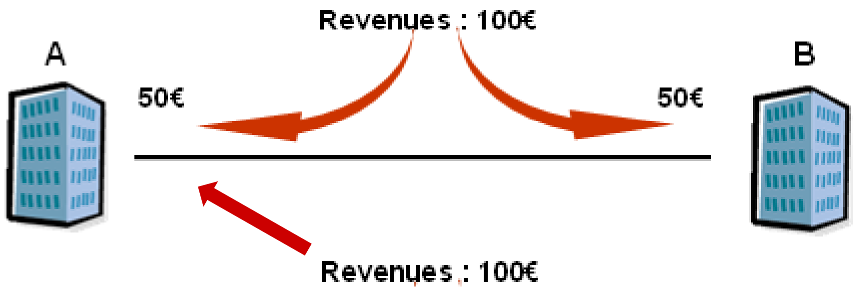
Figure 4: Illustrative example of an Indirect Revenue



4.55 The USP also generates indirect revenues through the provision of "leased lines"[17] (retail and wholesale). The USP may provide a leased line where the A end customer premises (e.g. a sub-office) is located in an uneconomic area and the B end customer premises (e.g. a head office) is located in an economically viable area. This raises an issue regarding the allocation of the revenues associated with that leased line. One option is to apportion 50% of the revenue associated to the A end customer premises (i.e. the uneconomic area) and 50% to the B end customer premises (i.e. economically viable area). Another option is to allocate 100% of the revenues to the A end (i.e. the uneconomic area). This is illustrated by Figure 5 below.

[17] The term "leased lines" refers to fixed, permanent telecommunications connections providing broadly symmetric capacity between two points. A leased line is permanent, in that capacity is available between the two fixed points and generally used to provide dedicated connectivity for business customers.

Figure 5: Illustrative example of the allocation options for "leased lines"



4.56 ComReg proposes that, for a leased line connecting a customer's premises in an uneconomic area, all revenues should be allocated to the uneconomic line. This is similar to the concept of the avoidable cost approach, where the USP would no longer receive any revenue from such a leased line if it would cease to serve the uneconomic line.

4.57 ComReg considers that replacement call revenues should be incorporated under indirect revenues. Replacement call revenues refer to the fact that a disconnected customer would still generate revenue for the operator through "replacement calls" i.e. through the use of the telephone of a relative, a friend, at work. The levels of replacement calls would need to estimated for the USP's fixed line network and a consideration for mobile call substitution would also be required.

ComReg's preliminary view

4.58 ComReg is of the preliminary view that the USO revenues should be calculated on the basis of both the direct and indirect revenues that an operator would forego as a result of ceasing to provide services to "non-viable customers." ComReg, however, has an open mind on this issue and will take into account the views of all consultees.

Q. 3. Do you agree or disagree with the approach proposed above? Please provide reasons for your view.

Q. 4. Do you consider the issue of replacement calls to be a material issue? If so, please explain your reasoning. What measurement / methodology do you consider appropriate that would provide a fair reflective measure of such revenues? Please provide reasons for your view.

Q. 5. Are there other revenues related to the "non-viable" customers lines, not mentioned above (either direct or indirect), which you consider relevant and that should be included in the net cost calculation? If so, please explain and provide examples.

Efficiency adjustments

4.59 The Directive reiterates the importance of efficient costs and creating incentives for efficiency in USO provision:

4.59.1 Article 8(2) of the Directive states that:

"*When Member States designate undertakings in part or all of the national territory as having universal service obligations, they shall do so using an efficient, objective, transparent and non-discriminatory designation mechanism, whereby no undertaking is a priori excluded from being designated. Such designation methods shall ensure that universal service is provided in a cost-effective manner and may be used as a means of determining the net cost of the universal service obligation in accordance with Article 12.*' (emphasis added)

4.59.2 Annex IV to the Directive makes clear that NRAs "*are to consider all means to ensure appropriate incentives for undertakings (designated or not) to provide universal service obligations cost efficiently*." (emphasis added)

4.59.3 The same principle is expressed in Recital 14 of the Directive which states that "*it is important that universal service obligations are fulfilled in the most efficient fashion so that users generally pay prices that correspond to efficient cost provision.*"(emphasis added)

4.60 Accordingly, ComReg considers that an efficiency adjustment, as appropriate, is one approach to provide a forward-looking incentive for the USP to meet its USO in the most efficient and cost effective manner.[18] It provides a further safeguard that any funding sought in relation to the USO would not exceed what is necessary and would not compensate a USP for past decisions which could be considered inefficient.

4.61 Where a net cost is identified, an additional analysis of the costs must be completed in order to assess whether the USP incurred the actual costs in the most efficient way available at the time and, if this was not the case, whether this would have reduced the costs incurred. ComReg considers that efficiency adjustments can broadly be considered under following headings:

- Capital expenditure ("CAPEX");
- Operating expenditure ("OPEX");
- Inter-relationship between CAPEX and OPEX; and
- Overheads.

4.62 Each of these cost categories are discussed separately below:

CAPEX

4.63 In ComReg Decision No. D09/65[19], ComReg outlined a number of principles regarding how costs should be capitalised. ComReg considers that these principles are also appropriate in the context of the assessment of the net cost of the USO, as the Decision relates to the

[18] As noted in paragraphs 4.1 to 4.3, post 30 June 2012, a competitive bidding process or pay-or-play policy for the provision of future designation of the USO by OAOs may be an alternative way to obtain a true net cost of universal service.

[19] ComReg Consultation Document No. 09/65 Response to Consultation Document 09/11 and Final Decision - Review of the Regulatory Asset Lives of eircom Limited

regulatory asset lives of the current USP and how the costs of the respective assets should be capitalised.

4.64 In response to ComReg's Document No. 10/77 one respondent raised the issue in respect of using a wireless technology over copper-based technology to provide the USO. eircom, as the designated USP provider, predominantly availed of the use of a copper-based technology. ComReg understands however, that in a number of limited instances, due to certain factors such as topography and geographic location, eircom availed of wireless technology (e.g. the Black Valley in county Kerry).[20]

4.65 The Regulations provide that the objective of the USO is to ensure that basic telephone services are available at an affordable price and specified quality, irrespective of geographic location. The USP has the choice to provide the USO based on the most efficient technology available to it. In ComReg Document No. 05/70[21] ComReg stated that it: "*anticipates that the least cost option technology available would be utilised when providing a connection provided that the connection is capable of allowing access to all elements of telephony services – voice, fax and data.*"

4.66 As discussed in paragraph 4.33, ComReg considers that given that the objective of the USO net cost calculation is to establish the costs of building and serving uneconomic areas and not whether or not this service could *now* be delivered more efficiently, the question of using a wireless technology is somewhat irrelevant. However, ComReg notes that in assessing the CAPEX and related OPEX incurred, it will need to be decided whether the technology used was indeed the most cost effective at the time, and whether any subsequent upgrades etc. also meet this criteria (i.e. whether it was cost effective that subsequent upgrades to the network were based on the pre-existing technology that was in-situ).

OPEX

4.67 As discussed in paragraph 4.59, it is imperative that actual costs were incurred in the most efficient and cost effective way and, if this was not the case, whether this would have reduced the costs incurred.

4.68 In ComReg Consultation Document No. 08/37[22] ComReg set out legally binding performance targets with respect to connections, fault rate occurrence and fault repair times. These performance targets were set with reference to what the minimum level of service should be and with reference to the applicable international data available. The USP should be able to separately identify, the efficient cost incurred as part of normal business, including the costs incurred in delivering an acceptable level of service[23] to achieve the USO targets, from its historic accounts. However, it is important that only the *efficient* operational costs associated with the maintenance of the access network are included in the net cost calculation.

4.69 If segmented data is not available, a question arises with respect to the inclusion or exclusion of any capital cost and operating costs to meet the USO performance targets.

[20] http://business.eircom.net/SME/faq/105377451/

[21] See ComReg document 05/70. D9/05, Decision Instrument, section 4.3.2, published 7 September 2005.

[22] ComReg Consultation Document No. 08/37. Decision Notice D02/08 - Response to Consultation on eircom's Universal Service Obligation - Quality of Service Performance Targets, published 28 May 2008.

[23] Universal Service Regulation, SI 308 2003, section 3.

The line fault index ("LFI") is a significant driver for the allocation of operational costs associated with the maintenance of the access network. For the avoidance of doubt, the term LFI has the same meaning as fault rate occurrence ("FRO") and is construed within the context of ComReg Document No. 08/37. In determining the efficient level of operating costs relevant to a USO net cost calculation, ComReg proposes that it is necessary to consider the difference in the level of operating costs based on an "efficient LFI" in a particular year and the operating costs incurred by eircom in a particular year as a result of its obligation to meet its USO performance targets that should ordinarily have been met. A question then arises as to what constitutes an efficient LFI.

4.70 ComReg Document 10/10[24] set, for the purposes of LLU, pricing a maximum LFI of 8% (derived by a BU-LRAIC model). ComReg noted in Consultation Document 10/10 that the current level of LFI of the existing eircom network of between 15% and 20% is not appropriate for the purposes of LLU pricing as the LLU model was based on a new network.. ComReg, in Consultation Document 10/10, suggested that it was reasonable and proper to conclude that a maximum LFI of 8% is appropriate, given that the modelled network relates to that of an efficient network (based on underground and overhead infrastructure) that had invested appropriate amounts in the renewal of the network over time. However, for the purposes of the net cost calculation in the USO context, ComReg proposes that it is eircom's *actual* network that should be considered. Accordingly, for the purposes of the net cost calculation in the USO context, ComReg proposes that the calculation of the efficient cost of maintenance of eircom's actual network should be based on a LFI of 12.5%.

Inter-relationship between Capital expenditure and Operational Expenditure

4.71 The issue of efficiency / cost effectiveness raises an important consideration regarding the correlation between CAPEX and OPEX.

4.72 It is arguable that because of an inefficient CAPEX programme through, for example, the "sweating of assets" (i.e. delay in CAPEX), that ongoing operational expenditure would be higher due to higher maintenance costs and potential higher cost of fault repair.

4.73 Potentially a "Two-Stage" test is required. The first stage is to consider whether the costs have been incurred in the most efficient way. The second is to assess whether any efficiencies could have been achieved through a more efficient life-cycle management of assets. A potential indicator of such a relationship may be highlighted by the analysis of historical CAPEX, OPEX and LFI. This may be of particular relevance if a USP has been designated for consecutive periods, and may highlight the one-off "bullet" or "catch-up" CAPEX anomalies in a given year.

4.74 ComReg believes that there are a number of potential options with respect to the treatment of the additional OPEX, if the investment is indeed a one-off "catch-up" investment and welcomes respondents' views on the matter:

a. Disallow in total or an appropriate proportion of the costs associated with meeting the USO performance targets to be included in the net cost calculation;

b. Allow the costs associated with meeting the USO performance targets to be included in the net cost calculation, but write them off over the remaining useful economic life of the asset(s) (consistent with ComReg Consultation Document No. 09/65

[24] Response to consultation and final decision D01/10. Response to Consultation Documents No. 09/39 and 09/62. Local Loop Unbundling ("LLU") and Sub Loop Unbundling ("SLU") Maximum Monthly Rental Charges, published 9 February 2010

Response to Consultation Document 09/11 and Final Decision - Review of the Regulatory Asset Lives of eircom Limited);

c. Allow the costs associated with meeting the USO performance targets to be included in the net cost calculation, but capitalise them over the remaining duration of the USP's designation;

d. Allow the costs associated with meeting the USO performance targets to be included in the net cost calculation, but capitalise them over the period of under-investment and the remaining duration of the USP's designation. (i.e. a portion would be disallowed, as it would relate to previous years);

e. Allow the costs associated with meeting the USO performance targets to be included in the net cost calculation, but capitalise them over the period of under-investment (i.e. the allocation would simulate the investment that should have taken place over the under-investment period). For example, if it demonstrated that there was a period of five years of under-investment, then the "catch-up" investment would be apportioned over the five years of under-investment.

4.75 If the USP is directed to recover the additional capital cost and operating costs to meet the USO performance targets over a period greater than the remaining duration of the USP's designation, the USP could argue that it would not be able to recover its costs should it not be re-designated as a USO. ComReg considers that, a possible remedy for such circumstances could be through the creation of a delayed payment scheme or sinking fund. This would facilitate the net cost (in circumstances of an unfair burden) to be recovered in excess of the remaining period of the remaining duration of the USP's designation (as appropriate), irrespective of whether the provider is designated the USP in consecutive designation periods. ComReg is interested in seeking the views of interested parties on this issue.

Overheads

4.76 ComReg believes that the efficiently incurred overhead costs should be identified in a clear and transparent manner and the costs should be identified as being either direct, indirect or common costs, consistent with the definitions set out in ComReg Decision No. D07/10.[25]

4.77 ComReg believes that it is important to understand the true avoidable costs associated with the provision of the USO. For example, the USP may incur costs associated with rent and rates for a head office building, for exchanges etc, which would most likely be incurred regardless of whether a USO is provided or not.

4.78 ComReg considers that in this context, the accounting information must be presented in a clear and concise format so as to allow ComReg to assess these costs.

ComReg's preliminary view

4.79 ComReg is of the preliminary view that the avoidable costs included in the net cost calculation, are those reflecting the provision of the USO which a commercial operator would have not ordinarily have provided, where these were incurred in the most efficient way. For the avoidance of doubt, these relate to avoidable CAPEX, OPEX and overheads. ComReg, however, will take into account the views of all consultees on this issue.

Q. 6. What are your views regarding the potential treatment of "catch-up" investment (which may include CAPEX and OPEX)?

Q. 7. What do you consider the most equitable allocation option is for "catch-up" investment? Do you have a preferred or alterative methodology that you wish to propose? If so, please explain in detail your reasoning.

Q. 8. What are your views regarding the potential creation of a delayed payment scheme or sinking fund to account for circumstances where the USP is directed to recover the net cost (as appropriate and as determined by ComReg) over a period greater than the remaining duration of the USP designation? Please provide reasons for your view.

[25] ComReg Decision D07/10, Document 10/67. Response to Consultation Document No. 09/75 and Final Direction and Decision: Accounting Separation and Cost Accounting Review of eircom Limited, published 31 August 2010.

Approach to cost identification and allocation

4.80 The USO consists of the provision of a defined set of services to end-users at an affordable price. Schedule 2, Part A of the Regulations provides that costs arising from uneconomic USO services provided by a USP, as well as groups of end-users that the USP is required to serve on an uneconomic basis, should be included in the net cost calculation.

4.81 The Body of European Regulators for Electronic Communication ("BEREC") in its report entitled "*Universal Service – reflections for the future*"[26] referred to Annex IV in the Directive which provides further technical details on the calculation method. It identified that calculations should be based upon the costs attributable to specific end-users / group of end-users who can only be served at a loss or under cost conditions falling outside normal commercial standards, e.g. those which would not be served by an undertaking operating without the USO.

4.82 Furthermore, there are service elements which can only be provided at a loss, or under cost conditions falling outside normal commercial standards, e.g. *access to emergency services, provision of public pay phones, provision of certain services or equipment for disabled people, etc.* Therefore, one of the important considerations in determining the USO net cost is the ability to assess and identify how costs / revenues vary on an area-by-area basis (or on a customer-by-customer basis), how these vary across end-users (or groups of end-users), that would not be served by a commercial operator.

4.83 As discussed in paragraph 4.36, ComReg's preliminary view is that the HCA accounts of the USP should initially be used to assess whether a net cost exists. ComReg also proposes that where a net cost exists, that a further review for efficiencies/cost effectiveness be carried out. ComReg notes that the existence and quantum of a net cost may alter between that recorded in the HCA accounts and that derived after taking account of potential cost effectiveness adjustments, profitability and see-through avoided net costs adjustments (i.e. allocation of costs) in relation to those services.

4.84 The HCA financial information will only be available at an aggregated level (as it is difficult to record actual operating and capital costs for each address in Ireland). ComReg considers that it may be necessary to build an allocation key in order to disaggregate the HCA costing information on a geographical basis (i.e. by areas and by customers in areas). ComReg considers that this could potentially be calculated by means of an appropriate modelling tool.

4.85 A similar tool was developed in the past in relation to eircom's access network for determining the cost of provision of local loop unbundling ("LLU") in Ireland.[27] ComReg developed the independent efficient operator BU-LRAIC model (hereafter the "Copper Access Model") of the copper access network in Ireland to assist it in determining maximum LLU and sub loop unbundling ("SLU") monthly rental charges. The model uses a "scorched node" approach which to a large extent reflects eircom's actual network topography. The deployment of roads throughout the country was mapped using Navteq[28] maps. An Post's GeoDirectory[29] was also used, creating "housing areas"

[26] Ref: BoR (10) 35, published in June2010.

[27] The details on the background to the LLU modelling approach and ComReg's determinations regarding the model inputs, assumptions and costing and pricing approach are set out in ComReg Document No. 10/10. Response to Consultations & Final Decision D01/10: Local Loop Unbundling (LLU) and Sub-Loop Unbundling (SLU) Maximum Monthly Rental Charges, published 9 February 2010.

[28] www.navteq.com

(i.e. urban areas and housing estates) and "isolated areas" (i.e. hamlets and one-off housing), which includes the geo-coded database of the position of all of the buildings in Ireland. The creation of housing areas / isolated areas and the calculation of length of roads and numbers of buildings is a suitable and accurate method to assess the deployment of infrastructure, and it provides a reasonable estimation of the length of roads and the number of buildings throughout the country (i.e. a high level of geographic granularity).

4.86 ComReg considers that the use of such a model could make an important contribution in the assessment of the cost of (a) uneconomic areas, (b) uneconomic customers in economic areas and (c) the provision of uneconomic payphones.

4.87 The component services and their potential interaction and extrapolation in conjunction with a modelling tool is discussed separately under the following headings:

a. Uneconomic areas;

b. Uneconomic customers in economic areas; and

c. Uneconomic payphones.

Uneconomic areas

4.88 ComReg considers that an uneconomic area can be determined by identifying local exchange areas where avoidable costs are greater than total revenues foregone, incorporating the benefits of being the USP. ComReg is of the preliminary view that it is appropriate to base the definition of an uneconomic area on the network structure, since the principle of avoidable costs is largely determined by the ability to remove parts of the network. (Or in other words, identify those parts of the network that the USP would have chosen not to build or continue to serve in the absence of the USO).

4.89 Therefore, ComReg considers that it is reasonable to use local exchange / Main Distribution Frame ("MDF") areas, since these are the areas for which the most disaggregated level of data and revenue is available. ComReg is of the preliminary view that the access costs per area should be extracted from the Copper Access Model in order to generate the allocation key to be applied to the HCA costs which is only available at present in total at a national level.

4.90 ComReg proposes that the HCA costs, including adjustments for efficiency (where appropriate), should be used to calculate the access costs (i.e. capital costs and operating costs including general and administration ("G&A") costs). As discussed in paragraph 4.85, ComReg proposes that the Copper Access Model could be used to allocate costs on an area-by-area basis. It is ComReg's preliminary view that these costs should be converted to distance and non-distance sensitive categories and, with the availability of line volume data, this should allow for the calculation of distance sensitive cost per line per kilometre per exchange and non-distance sensitive costs per line per exchange.

4.91 ComReg is of the preliminary view that the core network costs are comprised of the call related (per call) conveyance costs and the duration related (per minute) conveyance and non-conveyance retail service costs.

[29] www.geodirectory.ie

Uneconomic customers in economic areas

4.92 ComReg believes that customer revenue can be identified by customers based on the universal account number ("UAN's"). As discussed in paragraph 4.48, customer revenues include both direct revenues (e.g. revenue generated from outgoing calls etc.) and indirect revenues (e.g. revenue generated from incoming calls etc.).

4.93 The approach for identifying the net cost of the USO for uneconomic customers in economic areas is identical as to that outlined for measuring the cost for uneconomic areas.

4.94 ComReg considers that all uneconomic areas identified, must be removed from the calculation in order to avoid double counting.

4.95 ComReg recognises that consumer consumption patterns may change over time; this is commonly known as the "life cycle effects" of consumers.[30] ComReg considers that it would be inappropriate to include the avoidable costs of customers who were recognised as uneconomic customers upon the original installation and subsequently have now become viable customers. The main reason for excluding this element is based on the fact that with the increased number of housing developments in recent years, the access network has been further utilised and economies of scope have been created.

4.96 For the avoidance of doubt, it is only those customers, as discussed in 4.38, which would not ordinarily have been served by a commercial operator that should be included in the net cost calculation.

4.97 ComReg is of the preliminary view that, where a net cost is determined for uneconomic customers in economic areas, that a further assessment of avoidable costs may need to be considered. In particular, ComReg considers that it may be difficult in practice to assess uneconomic lines without a detailed assessment of, for example, the engineering rules of how one would deploy a network in a housing area. From an operational perspective, it may be difficult to determine that such costs would have been indeed been avoidable. If, indeed, these costs are determined unavoidable, these costs would not be included in the net cost calculation.[31] ComReg, however, has an open mind on this issue and will take into account the views of all consultees.

4.98 Similar to the approach proposed above in relation to the uneconomic areas, ComReg is of the preliminary view that the core network costs should be comprised of the call related (per call) conveyance costs and the duration related (per minute) conveyance and non-conveyance retail service costs. This is illustrated in Figure 6 below.

[30] The concept of the consumer "Life Cycle effect" is outlined in detail in paragraphs 5.33-5.34.

[31] Supra n 13.

Figure 6: Model to estimate the net cost of USO arising from uneconomic area and uneconomic customers in economic areas

	Model to estimate the net cost of USO arising from each uneconomic area (a) / uneconomic customers in economic areas (b)
	Avoidable Costs (calculated as follows)
+	Access cost, cost per line times the relevant number of lines
+	Core Network cost, costs per call/minute times the relevant numbers of calls/minutes, for each call type
+	Other Costs associated with the provision of supplementary services
	Total Revenues (calculated as follows)
-	Retail revenue from Access, Outgoing Calls and Supplementary Services
-	Wholesale revenue from Access, Outgoing Calls and Supplemetary Services
-	Revenue from incoming calls (non-geographical numbers, etc)
-	Revenue from Wholesale Interconnect Services as a result of incoming calls (termination, transit, etc)
-	Revenue from other Services (incl. Leased Lines)
-	Net revenue from Replacement Calls
=	**Net Cost of (a)/(b)**

Q. 9. What are your views regarding the treatment of uneconomic customers in economic areas and what do you consider to be the most appropriate methodology that could identify the avoidable cost in relation to uneconomic lines in economic areas? Please provide reasoning to support your views.

Uneconomic payphones

4.99 In order to determine the net cost of uneconomic public payphones, ComReg considers that consideration should be given to the total avoidable cost minus the total revenues foregone. The benefits to eircom as the USP in providing this service is discussed in section 6.

4.100 ComReg's preliminary view is that each public payphone is connected to a single exchange site; the access cost for a payphone is the same access cost as that of any line at the exchange site on which it is connected. ComReg therefore considers that the avoidable access costs should be calculated as an estimate per line at the exchange site to which the public payphone is connected..

4.101 ComReg is of the preliminary view that it is important that all access costs associated with public payphones within uneconomic areas are excluded to avoid a double count.

Figure 7: Model to estimate the net cost of USO arising from uneconomic public payphones

	Model to estimate the net cost of USO arising from each uneconomic public Payphone (c)
	Avoidable Costs (calculated as follows)
+	Access cost, cost per line at the local exchange site
+	Core Network cost, costs per call/minute times the relevant numbers of calls/minutes, for each call type
+	Payphone-specific costs (maintenance,cleaning, coin collection, etc.)
	Total Revenues (calculated as follows)
-	Revenue from Outgoing Calls
=	**Net Cost (c)**

The identification and calculation of other USO costs

Directory Services and directories

4.102 ComReg is of the preliminary view that the financial cost of the provision of directory services and directories should be determined by calculating the total avoidable cost minus total revenues of this service. The benefit of providing directory service and directories is discussed in section 5.

Specific services for disabled users

4.103 ComReg is of the preliminary view that the financial net cost of the provision of specific services for disabled users, as a result of the USO designation which are in addition to the cost associated with the standard minimum level of service to disabled users (which are incurred by all operators), should be determined by calculating total avoidable cost minus total revenues foregone. The following two factors should be considered as part of the calculation:

- The avoidable cost should include the cost associated with the provision of special services (e.g. minicom relay services, free directory enquiries, etc) and specialised equipment (e.g. restricted vision phones, Inductive couplers, etc *minus* the total revenue from Calls, payphone access charge, shared revenues, etc
- The benefit of providing these types of services is discussed in Section 5.

ComReg's preliminary view

4.104 ComReg is of the preliminary view that the financial cost of serving uneconomic customers can be determined by taking account of the total avoidable costs *minus* the total revenues foregone for uneconomic customers in economic areas, while incorporating the benefits to eircom of being the USP.

4.105 ComReg is of the preliminary view that where a net cost is determined for uneconomic customers in economic areas that a further assessment of aggregate profitability per local exchange / MDF area must be determined. Where an aggregate profitability is determined, these customers are to be excluded from the net cost calculation.

4.106 ComReg is also of the preliminary view that where costs are shared between services in an area that has a mix of economic and uneconomic lines it is important that the indirect costs associated with the various services can be identified.

4.107 ComReg, however, has an open mind on these issues and will take into account the views of all consultees.

Call for Input submissions

4.108 One respondent in response to ComReg Document No. 10/77 stated that: *"ComReg explicitly stated in its Decision that eircom would have recourse to recover the additional costs of the rural loops by way of a USO fund"* and that "*ComReg must therefore take account of the unrecovered costs arising from the LLU Pricing Decision in the establishment of a USO fund"*.

4.109 For the avoidance of doubt, ComReg wishes to clarify its position as outlined in ComReg Decision D01/10. The revised maximum LLU monthly rental charge, set out in ComReg Decision D01/10, is not a nationally de-averaged price, but a national price for areas where OAOs are likely to consider it economically and commercially feasible for unbundling. The revised maximum LLU monthly rental charge allows eircom to recover the costs associated with exchanges that OAOs are likely to consider economically and commercially feasible for unbundling, during the price control period for LLU.

4.110 In ComReg Decision D01/10, ComReg stated that it was of the view that the issues regarding USO funding must be addressed separately and a decision on LLU pricing was not the appropriate forum for conducting such a review. ComReg also concluded that the issue of USO funding was outside of the scope of the LLU pricing review and would be reviewed by ComReg as part of a separate work-stream. ComReg remains of the view that there is no relationship between *the treatment of LLU pricing and the provision of USO*; both have to be assessed independently, on their own merits. For clarity, the use of the Copper Access Model (which was the tool used to determine LLU pricing) as discussed in paragraphs 5.75 and 5.76, is proposed only to be used in the current context of the USO as a basis of allocation of the costs of the access network.

Format of applications

ComReg proposes that a request for USO must accord with the Regulations and the principles and methodologies that will ultimately be determined on foot of this consultation. In this regard ComReg proposes that:

1. Applications made by the USP must be based on annual information which coincides with the USP's financial year.
2. Applications for USO funding must contain information which represents to the best knowledge of the directors a true and fair view and must be signed off by the Board of Directors of the USP.
3. Applications made should be in accordance to Regulation 11 (7) which states that "[t]he accuracy of the accounts or other information or both, serving as the basis for the calculation of the net cost of an obligation shall be audited or verified, as appropriate, by the Regulator or by a body independent of the undertaking concerned and approved of by the Regulator". All financial information must be provided with an appropriate audit opinion.
4. Applications made by the USP must be supported by calculations in an MS Excel or MS Access format.
5. Any models supplied in support of an application for USO funding must be transparent: there must be no hard-coded cells and all numbers should be set out so that there is an audit trail present. The models supplied must be set out in a clear and transparent manner, showing the separate calculations for each component (i.e. uneconomic areas, uneconomic customers, the provision of public pay telephones and specific services for disabled users). The calculations supplied should clearly set out the capital costs, operating costs, overheads etc (including G&A costs) and the methods adopted for the allocation of costs which are not directly related to the provision of the USO.
6. Applications should, with reference to the supporting model, clearly identify those customers or groups of customers (i.e. area), using a net present value cost calculations or similar methodology, that in the absence of the USO, the provision of the service would not have been provided to that customer or groups of customers (i.e. area).
7. Due to the importance of any decision made, there may be a requirement to make certain key data / workings publicly available. This is discussed in the Confidentiality Section 9.
8. The model provided must be supported by comprehensive documentation, clearly setting out and explaining all inputs (both financial and otherwise), efficiency adjustments applied, engineering rules applied, cost allocation methodologies employed, depreciation methodologies applied and assumptions made.
9. Sampling may be used for certain aspects of the modelling of net cost. Where sampling is used, samples must be sufficiently representative of the population being sampled. Any application of a sampling methodology by the USP must accord with ComReg Decision D07/10.[32].

[32] ComReg Decision D07/10, Document 10/67. Response to Consultation Document No. 09/75 and Final Direction and Decision: Accounting Separation and Cost Accounting Review of eircom Limited, published 31 August 2010.

10. Where a provider has been designated USP for consecutive periods, a year-on-year investment profile (since the original first year of its USP designation), between CAPEX and OPEX relevant to the USO differentiating between installations and upgrades, must be provided.
11. The application must, where otherwise relevant, accord with ComReg Decision No. D07/10 with respect to accounting separation.
12. The calculation of the benefits of the USO must be completed by an external expert, independent of the USP (See Section 5).

5 Approach to calculation of benefits of USO

5.1 This section focuses on a methodology to evaluate the benefits, in accordance with Regulation 11 of the Regulations. Schedule 2, Part A of the Regulations provides that the net cost calculation should assess the Benefits[33], accruing to the USP. In addition. Recital 20 of the Directive specifies that:

> *"Taking into account intangible benefits means that an estimate in monetary terms, of the indirect benefits that an undertaking derives by virtue of its position as provider of universal service, should be deducted from the direct net cost of universal service obligations in order to determine the overall cost burden."*

5.2 Neither the Regulations nor the Directive offer any further detailed guidance on the concept of "benefit" for purposes of the USO. Further, the EU Courts have confirmed NRAs' broad discretion in regard to the concept of an "unfair burden." In the recent *Base* case,[34] the EU Court of Justice held as follows:

5.2.1 The Directive is not exhaustive or, even, prescriptive, as to what the NRA should take into account in determining whether an unfair burden may exist: "*...it is not apparent...that the Community legislature itself intended to prescribe the conditions in which those authorities are to consider, as a preliminary matter, that/whether the provision of universal service may represent an unfair burden*" (para. 36).

5.2.2 The mere existence of some net cost caused by the USO does not automatically give rise to an "unfair" burden: one must consider the circumstances of the undertaking subject to it. Thus, "*...the unfair burden which must be found to exist by the [NRA] before any compensation is paid is a burden which, for each undertaking concerned, is excessive in view of the undertaking's ability to bear it, account being taken of all the undertaking's own characteristics, in particular the quality of its equipment, its economic and financial situation and its market share*" (para. 42).

5.2.3 In the absence of specific rules in the Directive, "*it falls to the [NRA] to lay down general and objective criteria which make it possible to determine the thresholds beyond which...a burden may be regarded as unfair*." (para 43) This assessment must, however, be based on the circumstances of the USP.

5.2.4 The assessment of the "unfair" "*requires a specific examination both of the net cost which provision of that service represents for each operator concerned and of all the characteristics particular to each operator, such as the quality of its equipment, its economic and financial situation and its market share*." (para. 51)

5.3 Accordingly, in the absence of more specific guidance in the Regulations, the Directive, or case law in relation to what market benefits must be taken in to account, ComReg is afforded discretion in identifying the relevant market benefits, and how it should treat

[33] The Benefits as outlined are understood to mean any market or intangible benefit accruing to the USP as a consequence of being the designated USP.

[34] See Case C-389/08, *Base NV and Others v Ministerraad*, judgment of 6 October 2010, not yet reported. Seealso Case C-222/08 *Commission v Belgium*, judgment of 6 October 2010, raising similar issues.

them. Naturally however, this discretion ought to be exercised reasonably; it must include relevant considerations and exclude irrelevant ones, and its assessment must take into account the views of potentially affected stakeholders and other interested parties.

5.4 In addition to potential costs incurred in providing a USO, a USP may also benefit in certain ways from the universal service provision. Absent a USO, an operator may still choose to supply uneconomic areas/customers: the key consideration under the Regulations and the Directive is that no rational profit-maximising operator would chose to offer the USO on the terms designated. For example, because unprofitable customers/areas may become profitable in the future or because withdrawing the provision could conceivably harm the reputation of the company and any benefit associated with the USO may be consequently reduced.[35]

5.5 A Communication from the European Commission *(Com 96-608*),[36] highlights the key categories of market benefits associated with being a USP as:

- Enhanced Brand Recognition (vis-à-vis competitors).
- Ubiquity.
- Life Cycle value of particular customers or groups of customers.
- Marketing.

5.6 Respondents to ComReg Document No. 10/77 were in broad agreement that there are benefits associated with being designated a USP and they agreed with the categories of benefits outlined. A number of respondents believe the benefits of eircom's incumbent status, scale, scope and externalities re-enforce the benefits of the USO and hence minimise the burden on eircom. A number of respondents also noted that consideration should also be given to avoid double-counting for example because some of the potential benefits listed in ComReg document 10/77may overlap, e.g. goodwill may be similar to brand recognition and ubiquity. ComReg acknowledges that there may be some overlap between categories of benefits, for example, between the benefits that are captured within brand recognition and marketing, as well as, the benefits captured by ubiquity and life-cycle effects.

5.7 One respondent noted it is important to understand the distinction between benefits which arise because an operator has large scale, and wide geographic dispersion, and those which arise from the imposition of USO. ComReg recognises that some benefits may arise as a result of market dominance, and not as a consequence of the USP designation. In that regard, only benefits resulting from the designation as a USP should be included in the net cost calculation (i.e. any benefits rising from the fact the USP is a large, dominant player in the market should be excluded from the calculations).

5.8 Some respondents to the preliminary consultation commented that the benefits gained from being a USP outweigh the costs.[37] While all the benefits of being a USP may not be precisely quantifiable, it should be possible to establish accurate estimates for those

[35] For example, in Germany the incumbent Deutsche Telekom has been providing the Universal Service on a "voluntary" basis.

[36] Communication from the Commission on "Assessment Criteria for National Schemes for the Costing and Financing of Universal Service in telecommunications and Guidelines for the Member States on Operation of such Schemes", 27 Nov 1996.

[37] ComReg notes that it is the case in the UK where universal service net cost is thought to be negative.

benefits. The European Commission highlights that the basis of both the calculations and the assumptions underlying the valuation of the benefits should be clearly set out.[38]

5.9 ComReg recognises that the definition, and estimation, of the benefits accruing to a USP may be approached in various ways, through a range of alternative methodologies. The benefits outlined above vary in significance and the values which have been calculated for these benefits vary across countries. In the EU (in countries where USO costs have been calculated, and the market benefits estimated) brand recognition is often recognised as the most important benefit.

5.10 Market benefits represent positive effects on a USP of providing the USO which have not been accounted for in the costing methodology. Once the value of these benefits has been determined, it is deducted from the cost of the USO. In this context, each of the key benefits together with potential approaches to estimating the value of the benefit and other NRA approaches are set out below.

Brand Recognition

5.11 A significant benefit attributable to being a USP derives, in principle, from brand recognition, corporate reputation and goodwill. The respondents to the preliminary consultation, in general, believed the brand recognition benefit to the USP to be substantial, with one respondent citing that the value of the USP's brand benefit is clearly demonstrated by the brand's extensive use when branching into other market segments, such as, eircom mobile and e-mobile.

5.12 It is appropriate that ComReg has proper regard to the practice of other NRAs. Brand recognition is often the largest benefit identified by other NRAs when assessing market benefits. Table 1 below outlines the values of brand recognition of the USP in various EU countries:

[38] Communication 96-608 provides that *"A valuation should be placed on the intangible benefits of being the provider of universal service obligations for the operator concerned….. Any such valuation must, however, clearly identify the basis for calculation and any assumptions made."*

Table 1. Brand recognition and total benefits of the USP in various EU countries

		Brand Recognition (m)	Total Benefits (m)	Brand recognition as % of total benefits
France[39]	2008	€18.3	€18.4	99%
Italy[40]	2003	€15.3	€20.2	76%
Spain[41]	2008	€5.8	€9.5	61%
UK[42]	2003/04	£50-52	£59-64	78-88%

5.13 This category of benefit arises because the USP's brand and customer perception is enhanced through the provision of the universal service. A USP benefits from the prominence of its logo, which is widely displayed (for example on phone bills and telephone directories), and from the positive reputation it has among its various stakeholders, such as customers and employees, as a result of being a USP. One respondent to the preliminary consultation believes the USO has helped eircom establish their brand and reputation.

5.14 As potential new customers are aware that the USP can supply them with a service regardless of their location they are more likely to purchase services from the USP than its competitors. In addition, a USP's positive reputation means existing customers are more likely to remain its customer. Therefore, it is probable that a USP gains and retains more customers than it would in the absence of a USO. Brand loyalty may translate into a degree of market power which a USP might not otherwise have (i.e. a USP may gain greater margins from loyal consumers). In addition, brand loyalty may reduce the advertising and marketing costs that the USP would otherwise have to incur to achieve the same effect and customers are more likely to be aware of the USP.

5.15 ComReg notes that countries vary in the way they assess payphone advertising benefits; countries such as France and Italy include payphone advertising benefits as a brand benefit, whereas in the UK it is considered a marketing benefit. This must be taken into consideration when comparing the values set out in table 1 above.

Estimating the Brand Recognition benefit

5.16 One respondent to the preliminary consultation suggested that an approach to valuing the brand benefit is to determine what proportion of the total advertising budget is spent on leveraging the USP's activity relating to servicing uneconomic areas or users.

5.17 There are a number of possible approaches to determine the value of brand enhancement of being the USP. For example:

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[39] ARCEP Decision n° 2010-0448.

[40] http://www.agcom.it/default.aspx?DocID=1577 and http://www2.agcom.it/provv/d_22_06_CIR/Relazione%20finale%20EE%20USO%202003.pdf

[41] AEM 2010/1738, October 2010

[42] Ofcom "Review of the Universal Service Obligation" Statement. 14 March 2006 http://stakeholders.ofcom.org.uk/binaries/consultations/uso/statement/statement.pdf

- Estimating brand recognition through valuation multiples implicit in a USP's transaction price. Under this approach, the benefit of brand recognition could be inferred from the price paid by investors for the transaction relative to a measure of either the USP's turnover or its profits. However, as with any approach to estimate brand recognition, as a result of the difficulties delineating the impact of the intangible assets, there are some limitations associated with this methodology. For example, it may not be possible to distinguish clearly between the impact of the different value drivers on the transaction; therefore, the multiple may not represent a reliable indicator of the valuation.

- Identification of cash flows generated by brand recognition, corporate reputation and goodwill. If the cash flows could be separately identified, the value of these benefits could be estimated by capitalising the associated cash flows using a discounted cash flow technique ("DCF"). However, some limitations with such a technique are that it is often difficult to identify and allocate the relevant costs, and the estimates are also likely to be sensitive to the length of time over which the assets are capitalised.

- Depreciated replacement cost ("DRC") approach. This would involve estimating the benefit of brand recognition as the cost of rebranding a similar-sized telecoms company. Under this approach, the value of intangible assets, such as brand, is typically estimated as the cost of a similar asset that delivers equivalent benefits. Common drawbacks of such a methodology are that often only historical data is available on the relevant costs, which may not provide a reliable indicator of brand value over the period under consideration.

- Primary research/survey data, which measures the degree to which customers are more loyal to a USP, could be used to calculate the contribution of the USO to the brand value.

- Regression techniques, using sample data on, for example, age, income, presence of competing providers and testing whether spending is influenced by awareness of the USP and/or ascertaining potential savings in advertising and promotion by being a USP.

5.18 Various methodologies are adopted by other NRAs throughout Europe to evaluate brand recognition, amongst others, they include, primary research/surveys, statistical methods, or a valuation using a percentage of overall marketing and advertising spend:

- In Italy, using survey data AGCOM estimates the percentage of profitable area customers that stay with Telecom Italia because of its universal service activities**.**

- In France, ARCEP's method is based on an econometric estimation of the price a customer is willing to pay before switching to another provider. The price reflects branding associated with universal service, customers' inertia and branding independent of USOs.

- In the UK, Ofcom expressed brand loyalty in terms of advertising revenues, and valued the benefit as 20% of BT's retail marketing and sales expenditures.

- Brand recognition related to a USO has been estimated on the basis of overall brand value of a USP in Spain. CMT uses the estimation of the European Brand Institute as the value of the Telefonica brand and allocates a part of it to universal service as a market benefit. This is evaluated as a ratio of universal service revenues to group revenues. To estimate a benefit from this value, CMT applies Telefonica's WACC to the part of the brand value allocated to the Universal Service

5.19 ComReg may use one or, a combination of the above range of approaches to estimate a USP's brand benefit value, as appropriate. Accordingly, ComReg may employ a direct approach using primary research/survey data to determine brand value. A comparison of that approach to a valuation approach may be appropriate to ensure a robust estimate of the brand value across approaches. Furthermore, it is possible that the USP may have undertaken research in order to establish the value of its brand, and should such data be available ComReg could use this to estimate the brand benefit value.

5.20 It would then be necessary to determine the proportion of this value that would be attributable to USO. In general, the effect of increased sales is not limited to uneconomic areas/lines and hence, the total brand benefit value, if any, should be attributed (or at least in proportion to economic lines) in a USO net cost calculation.

Ubiquity

5.21 By virtue of being the USP, the operator has a presence throughout the country. The USP has, therefore, the potential to leverage this universal coverage in dealings with customers. Particular ways in which ubiquity could arise are, for example:

- When customers move from an uneconomic area to an economic area they are likely to retain their USP provider.
- The ability to market the organisation to business customers as being able to serve them in any location in Ireland.

5.22 Ubiquity provides an advantage to the USP as all customers know this operator provides services in all areas. Where a customer moves from an uneconomic area to an economic one, that customer is more likely to remain a customer of the USP even though there are alternative providers in the area. The benefit is, therefore, more advantageous where customers move into an area where there is competition between suppliers, as a proportion of customers will not be aware of the existence of competing suppliers. It is this potential source of ubiquity benefits on which attention is usually focused.[43]

5.23 In addition to the specific benefits of ubiquity for the USP, the USP will draw a proportionate share of the overall economic benefits of the sector associated with the positive network externalities arising from universal connectivity.

Estimating the ubiquity benefit

5.24 The ubiquity benefit is linked to migration flows from uneconomic areas to economic areas; therefore, an approach which determines migration flows from uneconomic to economic areas could be used to estimate the ubiquity benefit accruing to the USP. ComReg notes that the ubiquity benefits evaluation by NRAs is, in general, based on this principle. Table 2 below outlines the ubiquity value of the USP in some EU countries.

[43] ComReg noted previously the potential similarities to the life cycle benefit discussed below. However, ubiquity benefits arise from spatial changes of the consumer base whereas life cycle benefits mainly arise from changes of consumption patterns over time.

Table 2. Ubiquity value of the USP in various EU countries.

		Ubiquity	As % of total benefits
France[44]	2008	0	0%
Italy[45]	2003	0	0%
Spain[46]	2008	€2.8m	30%
UK[47]	2003/04	insignificant	0%

5.25 Ofcom determined that the benefit from ubiquity only exists where customers move from uneconomic areas to economic areas. As only 1% of the population live in uneconomic areas, the ubiquity benefit due to the USO was found likely to be small.

5.26 CMT used the number of households moving from towns of less than 10,000 inhabitants to towns of greater than 10,000 inhabitants as a proxy. CMT determined that 68,000 lines would result in ubiquity benefit for the year 2008.

5.27 One respondent to the preliminary consultation stated that, by comparing the number of customers served using USO and who remain with the incumbent after moving and no longer requiring USO, with the number of customers using the incumbent's services, and who do not require USO to obtain services, could help to determine the size of the benefit.

5.28 ComReg will consider the appropriateness of the approaches in the Irish context. Alternatively, ComReg may, using the following steps:

- Assess the number of customers who have moved from uneconomic areas to economic areas.("migration flows")
- Assess the number of these customers who have selected the USP as the provider of telecommunications services, either through subscriptions or carrier selection.
- Compare that proportion with the level of USP market share in economic areas. The difference is likely to be caused by ubiquity.

5.29 Migration flows could be determined using survey data or through publicly available data sources such as the Central Statistics Office Regional Population Projections. Once migration flows have been determined, the number of those customers who would remain with the USP, following a move, would need to be estimated. This could be estimated using survey data, and once this has been determined, the ubiquity benefit can then be estimated.

5.30 Another approach would involve estimating the number of customers moving house who are not aware of the existence of competitors, thereby determining which of these households would have chosen an alternative operator had they been aware of them and calculating the per line net contribution to profit.

[44] See Footnote 39

[45] See Footnote 40

[46] See Footnote 41

[47] See Footnote 42

5.31 In addition, ComReg would consider the allocation of costs by area to estimate ubiquity benefits, if any. In this context, the costs associated with uneconomic areas will need to be clearly delineated from this associated with economic areas. This is likely to involve the allocation of significant common costs. This issue is addressed in Section 4 above in the context of a net cost calculation.

5.32 In relation to the calculation of the share of the network externalities benefits referenced at 5.23 this could be done by reference to the overall volume and value of share of calls on the Irish network and eircom's market share thereof. Alternatively, the profitability assessment at section 6 below might be taken as a proxy indicator of eircom's share of these wider economic benefits.

Life Cycle

5.33 In general, a life cycle benefit arises from the assumption that a proportion of lines which are currently uneconomic, whether in uneconomic areas or serving uneconomic customers, are likely to become profitable in the future. For this to be a potential commercial benefit to a USP, there needs to be a likelihood that the USP will continue to serve these customers when they become profitable, due to increased revenues or decreased costs.

5.34 ComReg notes the distinction between life cycle benefits and ubiquity. Both benefits are estimated from the same starting point: the proportion of uneconomic lines that may become profitable in the future, and therefore it is important to avoid double-counting the benefits. Life cycle benefits mainly arise from changes of consumption patterns or in the monthly fee over time (and not from spatial changes of the customer base). Life cycle effects account for usage of phone services over time - for example, when looking at individual customers, usage by a family may increase as the family matures (e.g. as children become teenagers they may use the telephone more, or as income increases phone usage may also increase).

Estimating the Life Cycle benefit

5.35 Concerning life cycle value, the starting point is customers/areas which are currently uneconomic. As only a percentage of these uneconomic customers/ areas will remain unprofitable over a chosen time period and some customers may switch to another supplier the size of this benefit may be small relative to other benefits, such as enhanced brand recognition or marketing. As set out in paragraph 4.95, ComReg considers customers that have become profitable should be excluded from the net cost calculation.

5.36 In order to determine the life cycle benefit, Ofcom estimated;

- the number of "loss making" customers and their net costs.
- the proportion of those likely to become profitable subsequently.
- the net present value of such profits; and
- the proportion of such subscribers whom the USP would keep

5.37 The following table sets out the value of the life cycle benefits calculated in various EU countries.

Table 3. Life Cycle Benefits in various EU countries:

		Life Cycle	As % of total benefits
France[48]	2008	0	0%
Italy[49]	2003	0	0%
Spain[50]	2008	0	0%
UK[51]	2003/04	£0-1m	0-2%

5.38 Life cycle effects can be classified into two categories, the first relating to non-moving households and the second due to change in usage due to new occupants. It would be appropriate to take account of factors that might affect the likelihood that customers would continue to be served by the USP later on. These include latency and loyalty effects when an area becomes economic (if ever) and the range of service providers that a customer might have through, for example, pre-selection capabilities.

5.39 It may be beneficial also to consider other assumptions around the proportion of lines that may change from being uneconomic to economic. For example, household telephony spend would need to be linked to characteristics which vary over time, such as the age profile of the occupants of the premises. For social aspects associated with a USO (i.e. social tariffs or DSFRA scheme), the possibility that a consumer switches provider before he/she becomes profitable or that there is a change in occupant could be considered, as appropriate.

5.40 For these reasons, it may be important to determine an appropriate lifetime when determining whether the area or customer will become profitable or not. For example, in Belgium, BIPT considers future revenues on a 3 year period, while Ofcom as well as ARCEP[52] consider customers that will become profitable in 5 years.

5.41 Information on areas/customers which are currently uneconomic and which may become profitable in the future and those which would not, would need to be obtained to estimate the effect of life cycle benefit, if any. Therefore, the ability of a USP to provide such data will likely impact on ComReg's ability to accurately estimate the value of this benefit.

5.42 In circumstances where a net cost in the year of assessment is established for uneconomic end-users (as discussed in Section 4), it may be necessary to undertake a net present value / profitability assessment to ensure there is no over-recovery of costs (i.e. the end-user may become profitable over time). ComReg welcomes the views of interested partied on how such a calculation would be identified and carried out, in particular, as the information needed to provide such calculations may not be available on a fully transparent granular basis from the historic accounts.

[48] See Footnote 39

[49] See Footnote 40

[50] See Footnote 41

[51] See Footnote 42

[52] ARCEP Decision n° 2010-0448

Marketing

5.43 Marketing benefit describes types of benefits which may arise from being the USP, for example, potential commercial benefits relating to usage data and benefits from advertising, in particular, on public payphones.

5.44 In principle, a USP has superior access to telephone usage data. Knowledge of this information may mean that there is less need for a USP to conduct market research if new products are being considered. The benefit includes the knowledge and understanding of customer calling patterns, use of this data when entering other markets and the value to the USP if it can sell the data (for example to mail marketing companies). The importance of this benefit may be greater when commercial use of the address database is considered, as data for uneconomic areas may be of interest to other companies for marketing purposes. The universal service benefit arises from additional data relating to uneconomic customers.

5.45 However, ComReg notes that these benefits may be due to the fact that the incumbent operator is a large, dominant player and this is unlikely to change substantially if the operator withdrew service from uneconomic areas/customers. In addition, careful consideration would need to be given to the potential risk for benefits to be double counted.[53]

5.46 Another type of marketing benefit which may arise is associated with advertising and logo display on uneconomic payphones and WIFI hotspots. Only the advertising benefit of uneconomic payphones and WIFI hotspots can be regarded as a USO benefit.

Estimating the Marketing benefit

5.47 As set out above only the benefit concerning uneconomic customers should be considered when estimating the marketing benefit related to usage data. It can be argued that, if the USP chooses not to serve these customers, there would be no additional loss of benefit from the loss of this usage data for the purpose of selling telephone services to these customers.

5.48 Data protection laws in Ireland mean that the USP cannot sell data to marketing companies and, therefore, cannot benefit from access to this data. Therefore, the benefit relating to usage data may be less significant relative to other potential market benefits. However, ComReg proposes to include a calculation which determines the potential benefit related to uneconomic payphones and WIFI hot spot usage (i.e. the benefit relating to advertising and logo display on uneconomic payphones and WIFI hotspots). In this context, ComReg could use an approach similar to that used by Ofcom.

[53] WIK (1997) suggest that, while usage data provides a substantial benefit to the incumbent network operator, the benefit is predominantly related to being a large national operator and would prevail even if the incumbent withdrew service from uneconomic areas, customers and payphones. WIK, therefore, argued that this benefit was unimportant. However, at that time, the benefits did not include the “use of customer database”, and the importance of this benefit may, therefore, increase.

Table 4. Marketing benefits to the USP in various EU countries

		Marketing	As % of total benefits
France[54]	2008	negligible	0%
Italy[55]	2003	€4.8m	24%
Spain[56]	2008	€0.8m	9%
UK[57]	2003/04	£9-11m	14-19%

5.49 ARCEP determined the benefits derived from the customer database by assessing the benefit from selling other products to customers in uneconomic areas, even if parameters are roughly estimated. As set out in paragraph 5.15, ARCEP valued payphone benefits as part of overall brand recognition benefits whereas Ofcom included this benefit as a marketing benefit.

5.50 Ofcom took two potential elements into account when assessing the marketing benefit of each uneconomic payphone, Ofcom firstly considered corporate branding, or logo display, to represent a form of advertising benefit. Secondly, Ofcom considered that the value of income from advertisements on kiosks should be included in the profitability of a payphone that is provided as a result of the USO. Ofcom assumed only 50% of uneconomic payphones were suitable for advertising because of location and vandalism.

5.51 Adopting an approach similar to that used by Ofcom, would entail determining the income from advertisements on uneconomic public payphones and using this to estimate the benefit gained from the logo display and any advertising on such public payphones. However, estimating the marketing benefit for uneconomic payphones involves establishing the number of uneconomic payphones which have an advertising value. ComReg would need to determine which of the uneconomic payphones were suitable for inclusion in the calculation. ComReg would expect that a USP would be able to supply the relevant information.

5.52 ComReg, however, has an open mind on these issues and will take into account the views of all consultees.

[54] See Footnote 39

[55] See Footnote 40

[56] See Footnote 41

[57] See Footnote42

Q. 10. How would you propose that the Net Present Value of uneconomic end-users is assessed to ensure there is no over-recovery of costs over the average lifetime of those particular customers identified? Please provide reasons to support your view.

Q. 11. Do respondents believe each of the benefits listed above are pertinent to the net cost calculation in Ireland? Please provide reasons to support your view.

Q. 12. What method or combination of methods for calculating the individual benefits do respondents consider to be the most appropriate? Please provide reasons to support your view.

Q. 13. What data (and from what sources) will ComReg require to most accurately estimate the benefits? Please provide reasons to support your view.

6 Approach to determination of unfair burden

Introduction

6.1 A decision to establish a sharing mechanism would require a finding that there is a verified direct net cost (as per section 4) for the USP associated with the USO, and, that it represents an unfair burden on the USP. A determination of what constitutes an "unfair" burden is therefore also fundamental to the process of determining whether, or not, a sharing mechanism should be established.

6.2 While the existence of an unfair burden constitutes a precondition for setting up a sharing mechanism in Ireland (and in most Member States), the concept of unfair burden is not defined in the Directive or the Regulations. Neither do they prescribe how the NRA should determine whether an unfair burden exists or does not exist. What constitutes an unfair burden is a matter that under the Directive has been left to the discretion of the NRA and this has been confirmed by the recent case of *Commission v Belgium* where the European Court of Justice ("the ECJ") stated as follows:

> *"…it is not apparent either from Article 12 (1) or from any other provision of the directive that the Community legislature itself intended to prescribe the conditions in which those authorities are to consider, as a preliminary matter, that the provision of universal service may represent an unfair burden… In the absence of any specific provision in this regard in Directive 2002/22, it falls to the national regulatory authority to lay down general and objective criteria which make it possible to determine the thresholds beyond which – taking account of the characteristics mentioned in the preceding paragraph – a burden may be regarded as unfair."*[58]

6.3 In *Commission v Belgium*, the ECJ went on to say that the assessment of "unfair":

> *"…requires a specific examination both of the net cost which provision of that service represents for each operator concerned and of all the characteristics particular to each operator, such as the quality of its equipment, its economic and financial situation and its market share."*[59]

6.4 ComReg may undertake a regulatory assessment and, on the basis of sufficient information, determine whether, or not, a USO represents an unfair burden on the undertaking concerned.[60]

6.5 The analysis of a potential unfair burden is conducted once a net cost of USO, after deducting any benefits,[61] exists in meeting a USO (referred to as "positive" net cost).[62]

[58] Case C-222/08 *Commission v Belgium*, judgment of 6 October 2010. See paragraphs 44 and 50.

[59] See paragraph 51.

[60] Regulation 11 (3) of the Regulations provides "The Regulator shall, on the basis of such information, including information supplied pursuant to paragraph (2), as it considers sufficient to enable a determination under this paragraph to be made, determine whether an obligation referred to in paragraph (1) may represent an unfair burden on the undertaking concerned."

[61] Please refer to Section 5 above for the proposed methodology to calculate benefits accruing to a USP in the provision of USO.

Indeed, the existence of a net cost does not assume the existence of an unfair burden: a loss making situation is a burden, but it is not necessarily an *unfair* one. This point was also confirmed in *Commission v Belgium* where the ECJ held as follows:

> " *In that regard, it is apparent from recital 21 in the preamble to Directive 2002/22 that the Community legislature intended to link the mechanisms for the recovery of net costs which an undertaking may incur as a result of the provision of universal service to the existence of an unfair burden on that undertaking. <u>In that context, in concluding that the net cost of universal service does not necessarily represent an unfair burden for all the undertakings concerned, it intended to exclude the possibility that any net costs of universal service provision automatically give rise to a right to compensation</u>. In those circumstances, the unfair burden which must be found to exist by the national regulatory authority before any compensation is paid is a burden which, for each undertaking concerned, is excessive in view of the undertaking's ability to bear it, account being taken of all the undertaking's own characteristics, in particular the quality of its equipment, its economic and financial situation and its market share"*[63]

6.6 The extent to which an unfair burden arises is contingent not only on the existence of a positive net cost but also whether or not this positive net cost, if any, impedes the USP from competing on a fair basis with the rest of the industry. Therefore, a finding of a positive net cost does not automatically give rise to an unfair burden.

Principles for assessing whether a burden is (un)fair

6.7 Annex IV, Part A of the Directive provides principles for a calculation of a USO net cost, with the Directive specifying that the cost of USO should be net of any benefits accruing to the USP. However, the methodology to be used is not specified in the Directive, nor is any guidance given on the interpretation of unfair burden.

6.8 The following conditions are necessary for the USO to represent an unfair burden (i.e. the criteria for (un)fairness) on a USP:

1. There must be a verifiable direct net cost for the USP.

2. The benefits accrued by the USP must not outweigh the net cost (i.e. a positive net cost for the USP exists).

3. This positive net cost is material compared to administrative costs associated with a sharing mechanism and generates a significant competitive disadvantage for a USP.

6.9 Therefore, benefits accruing to a USP must be considered in determining the net cost of USO for the purpose of concluding whether or not there is an unfair burden. The NRA

[62] Of course, unfairness requires as a necessary (but not sufficient) condition that the net cost of USO is positive. For the avoidance of doubt, in the remaining of this Section 6, "positive net cost" means that there exists a net cost pursuant to a direct USO net cost calculation as per Section 4 and deducting any market benefits calculated in accordance to Section 5.

[63] See paragraph 42 (emphasis added).

would have to evaluate whether a positive USO net cost exists, taking into account the benefits, accruing to the USP.

6.10 ComReg proposes that it may determine, on the basis of audited costs of the USO, that USO financing is not required, either because: (i) it does not justify the administrative costs of a specific financing scheme, or (ii) the positive net cost does not represent an unfair burden for the operator(s) concerned.[64] Thus, there may be circumstances where there is a positive USO net cost for the USP but the USO is not considered an unfair burden. One case may be where the positive net cost is relatively small, such that the cost of establishing a sharing mechanism would be disproportionate to the net transfers towards the USP.

6.11 The Directive requires Member States to implement universal service in a manner that is cost effective and minimises market distortion (i.e. to preserve competitive neutrality). Recital 3 of the Directive provides that:

> *"....obligations will not be regarded as anti-competitive per se, provided they are administered in a transparent, non-discriminatory and competitively neutral manner and are not more burdensome than necessary for the kind of universal service defined by the member."*

6.12 Annex IV, Part B of the Directive specifies *"....that the transfers result in the least distortion to competition and to user demand."* Having the least distortion to competition would require any sharing mechanism to be established only in a manner consistent with the EC Treaty's Rules on State Aids.[65] The European Commission has identified the risk of market distortion brought by a USO calculation and establishment of a sharing mechanism.[66] The European Commission has emphasised that a sharing mechanism should only serve to recover the net cost incurred by a USP and in a competitively neutral manner.[67]

6.13 ComReg has reviewed (see Annex B) European regulatory approaches to the assessment of whether a USO is an unfair burden, both in EU countries that have established a sharing mechanism, and in those countries that have decided not to establish such a mechanism. It is recognised that, since market liberalisation and the introduction of competition, European consumers have benefited from lower prices and a wider choice of services, while there has been relatively little overall recourse to USO funding.

6.14 In principle, a USP could be compensated for a USO if, as a result of a USO, it is placed in a situation of real competitive disadvantage in the market. In these circumstances, a USO may constitute an unfair burden for a USP, and symmetrically, its competitors may enjoy a competitive advantage on the relevant market that might affect competition and/or innovation. On the other hand, if a USP continues to dominate the competitive outcome in the market, despite having a USO (its competitors not being subject to a USO) it may be that a USO is not an unfair burden.

[64] Communications Committee 2006 (COCOM06-21), "Arrangements in place for universal service financing", Working Document, 14 June, 2006.

[65] According to Recital (18) of the Directive "It is important to ensure that the net cost of universal service obligations is properly calculated and that any financing is undertaken with minimum distortion to the market and to undertakings, and is compatible with the provisions of Articles 87 and 88 of the Treaty."

[66] See the European Commission's Implementation Reports 1999, 2000 and 2002.

[67] See for example, the European Commission's 11th and 12th Implementation Reports: "However, any compensation must involve only related specific net cost and be recovered in a competition-neutral way."

6.15 ComReg's view, consistent with recent case law, is that the existence of a positive net cost resulting from a USO cannot automatically give rise to an unfair burden. However, it is possible that an unfair burden will exist when a USO results in a positive net cost for a USP, that this positive net cost is not relatively small with respect to administrative costs of a sharing mechanism, and in particular where this positive net cost significantly modifies market equilibrium and deteriorates a USP's market position.

Methodology for evaluating an unfair burden

6.16 An assessment of whether a USO constitutes an unfair burden should take account of the market situation in the context where a sharing mechanism is established, compared to where a positive net cost is borne by a USP alone. ComReg notes the view of one respondent that, to support an unfair burden claim, a USP would have to demonstrate in a robust and verifiable manner that there is material difference in its performance with the USO relative to the situation where it did not have such an obligation. ComReg proposes to evaluate the extent to which a positive net cost might be an unfair burden, against objective criteria, developed as a result of this consultation, and taking account of the circumstances faced by the USP and its rivals, the relevant EU approaches, economic theory and best regulatory practice.

6.17 ComReg envisages three methodological steps to consider whether, or not, a USO positive net cost represents an unfair burden:

1. If the positive net cost is relatively small, assess whether or not the cost of establishing a sharing mechanism would be disproportionate to the net transfers to a USP;

2. If the positive net cost is not relatively small, assess whether or not this net cost materially undermines a USP's profitability and/or ability to earn a fair rate of return on its capital employed; and

3. If the positive net cost undermines a USP's profitability, assess whether or not such a net cost materially impacts a USP's ability to compete on equal terms with competitors going forward.

Step 1: Administrative Costs Assessment

6.18 In view that an establishment of a sharing mechanism must consider the principles of transparency, least market distortion, non-discrimination and proportionality, ComReg proposes to assess the positive net cost, if any, compared to the potential administrative costs of establishing and implementing a sharing mechanism. In these circumstances, it is probable that there will be regulatory costs and these may be significant. Therefore, it would be relevant to consider these regulatory costs alongside a positive net cost calculation in accordance with Section 4.

6.19 ComReg, however, has an open mind on this issue and will take into account the views of all consultees.

Q. 14. Do you agree with ComReg's view that where a positive net cost is relatively small, ComReg should assess whether or not the costs of establishing and implementing a sharing mechanism would be disproportionate to the net transfers to the USP to decide on the existence of an unfair burden? Please provide reasons to support your view.

Step 2: Assessment of the USP's Financial Position

6.20 ComReg proposes to put into perspective a positive net cost prior to undertaking a detailed analysis of the market position of the USP and of market developments generally. If it is apparent that a positive net cost is relatively small, when compared to a USP's profits and revenue base, and that the competition that a USP is facing is not sufficiently broad to constitute a risk of market distortion (i.e. "cream-skimming"), it may be appropriate to focus solely on an evaluation of profitability for assessing any unfair burden.

6.21 Once a positive net cost has been determined, in accordance with Annex IV, Part A of the Directive, and based on a methodology established following this consultation,[68] ComReg proposes to conduct, as appropriate, an evaluation as to whether this positive net cost represents an unfair burden on the USP from a *profitability* point of view. The objective of that evaluation would be for ComReg to be reasonably certain that the USO is not undermining the profitability of a USP in the prevailing market circumstances. If, for example, there is a positive net cost, it is probable that a cross-subsidy would be required which may represent a call on a USP's profits. On the other hand, if there is no positive net cost, taking into account the benefits, no USO cross-subsidy would be required.

6.22 In order to examine the circumstances under which a USO becomes an unfair burden, ComReg proposes to assess the significance of a positive net cost, if any, compared to a USP's revenues and profits/profitability. This approach may guide ComReg's consideration of whether the ratio between a positive net cost of providing USO, if any, and the revenues and/or the profitability of a USP is such that the USO could be considered as part of the business plan of a USP (in these circumstances a positive USO net cost may be considered fair) or an unfair burden. In view that any sharing mechanism would only relate to the financing of USO, a USP should, in principle, explicitly declare those areas or groups of customers or those services which it would not serve but for the USO.[69]

6.23 One respondent to the call for input to ComReg document *10/77* highlighted that threshold values should be set for key indicators assessing unfair burden in advance of any USO net cost calculation. As stated above, it may be objective and appropriate to apply criteria to determine the possibility of an unfair burden to some measure of profits/profitability. In principle, thresholds (in absolute terms) could be identified to assess the materiality of a positive net cost relative to a USP's profits/ profitability. For example:

- When the burden exceeds a given share of the profits;

[68] If there is a negative net cost after taking into account the benefits, it is axiomatic that there can be no unfair burden.

[69] European Commission (1996), "Communication from the Commission on Assessment Criteria for National Schemes for the Costing and Financing of Universal Service in telecommunications and Guidelines for the Member States on Operation of such Schemes", 27 November 1996.

- When the burden prevents a reasonably efficient USP from making a reasonable profit; and
- When the profits of a reasonably efficient USP are lower due to a positive net cost.

6.24 However, a static impression of a USP's revenues and profitability alone may not fully inform a view on whether or not a positive net cost can continue to be borne by a USP alone in a generally liberalised sector. Therefore, ComReg proposes that the criteria would focus on 'changes in' values and relatively less on absolute values using a broad range of criteria, for example:

- Changes in profitability, including an understanding of where a USP generates most of its profits over time;
- Changes in accounting profits and related financial measures (e.g., EBITDA analysis); and
- Changes in direct USO net cost, if any, over time
- Estimates of average level of cross-subsidy between classes of more or less separately accounted for services, and changes in these over time.

6.25 A profitability analysis may be complemented by a competitive distortions assessment, as appropriate.

Step 2: Competitive Distortions Assessment

6.26 Once a positive net cost is determined (and if it is considered to be material pursuant to administrative costs of a sharing mechanism and/or the profitability analysis), ComReg would evaluate whether this positive net cost is considered to impose a competitive disadvantage on a USP using a broad range of criteria such as:

- Changes in prices over time;
- Changes in market share and/or changes in related markets; and
- Market entry barriers.

6.27 ComReg proposes that these criteria would also focus on "changes in" values in view of the dynamic impact that a USO may have on a USP and to understand any potential risk of market distortion. For example, the requirement to charge a uniform price across Ireland could, in theory, lead to "cherry picking" by rivals and a scenario where unit costs rise and the universal service cannot continue to be borne by a USP alone. A spiral effect could occur, in theory, because of a misalignment of costs and prices caused by a uniform pricing constraint, making it attractive for competitors to enter where this misalignment is most pronounced. In these circumstances, a USP's competitive position may be undermined. Therefore, a rationale for funding a USO through an internal subsidy may be considered diminished in a scenario of increasing competition and market decline (e.g., decreasing revenues in the fixed network business). However, the risk of this occurring would depend, amongst others, on:

- The extent to which costs vary according to routes within the network;
- The ease by which entrants can gain market share;
- The extent to which this drives an increase in a USP's unit costs; and
- Whether an increase in price leads to further losses in services.

6.28 On the other hand, it could be argued that there should be no requirement to establish a sharing mechanism if the service – taking efficiency into account – has an economic profit overall. This would potentially allow a USP to cross-subsidise within the product or service and, for example, a dominant market position in the provision of local telephony services would allow a USP to remain competitive even when a sharing mechanism is not in place. Thus, in certain circumstances a USP may have sufficient market power, at least in the short term, to allow it to recover losses, if any, incurred on a USO by increasing the prices for other services/customers above a competitive level.

6.29 A review of competition in relevant markets would identify the extent to which a USP is subject to competition in low cost and in perceived high-cost areas.[70] A disparity in the competition environment among these two categories of areas may suggest an unfair burden and would be a prerequisite for its existence. To the extent that market power or dominance exists, indicating that competition is not yet effective, a determination of an unfair burden may be less likely if a USP can use its dominant position to recover any cost from customers, although price regulation may inhibit its ability to do so.

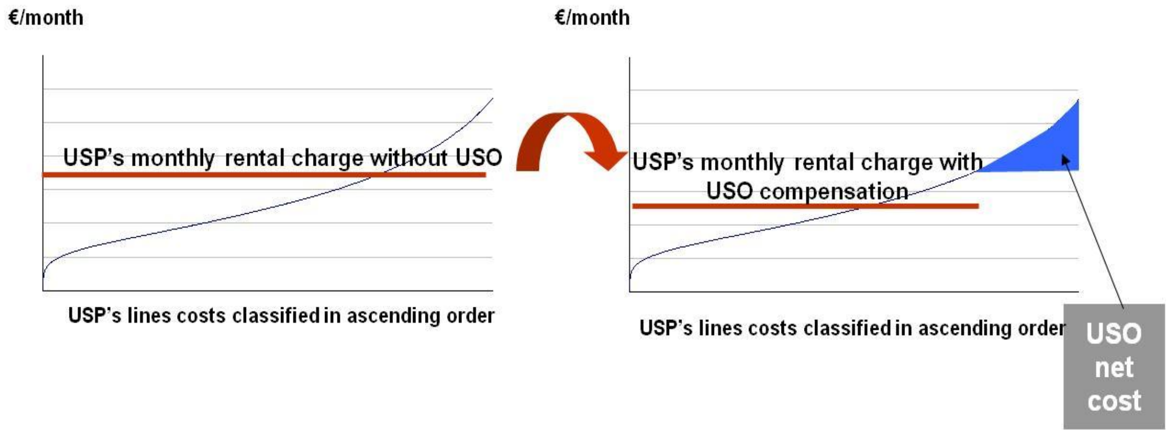
6.30 For these reasons, it would seem appropriate to assess how the range of USO, other electronic communications regulations, pricing policies and evolving competition, affect each other, at least in so far as they impact on the issue of universal service. It is arguable that with retail narrowband access prices rebalanced to cover the cost of USP's retail customer access network, it could result in any net cost figure for uneconomic areas, or customers, decreasing substantially. Thus, an examination of whether a USO represents an unfair burden may also need to take account of the interaction with, for example, the retail price control noting that the line rental pricing has been calculated on the basis of providing an efficient network. A conservative price cap may sustain a cross-subsidy: for example, losses on uneconomic local loops are offset by pricing above a competitive level for local loops for other areas.

6.31 In addition, it is relevant to consider the potential for a (partial) double recovery of USO net cost. For example, Figure 8 below illustrates a risk of double-counting with the monthly rental charge.[71]

[70] Article 16 of the Directive requires a market analysis of certain relevant retail markets including an assessment of market power.

[71] Figure 8 represents a typical distribution of a USP's line costs, where the lowest line costs typically correspond to economic areas (left of the curve) and the highest line costs to uneconomic areas (right of the curve). As monthly rental charges are generally nationally averaged, the horizontal red line represents the average unit costs of the local loop that have to be recovered through the monthly rental charge.

Figure 8: Monthly rental charge without USO v with USO compensation



6.32 A USP's monthly rental charge should cover all costs of the local loop. On the other hand, in the presence of a USO, it is probable that average costs per line to be recovered at a national level would be higher, compared to a situation without a USO, as uneconomic areas have to be served. Notwithstanding this, where a USO sharing mechanism is established for uneconomic areas (i.e. positive net cost areas), it would be necessary to establish whether or not the monthly rental charge of the USP would be lower. It is possible that the average unit cost to be covered by the monthly rental charge would be lower. Taking into account any net transfers to a USP which could potentially substitute for internal cross subsidies from economic to uneconomic areas, if any, would avoid, therefore, a potential (partial) double recovery of costs. Therefore, the potential impact on the level of the USP's monthly rental charge should be assessed.

Conclusion

6.33 In addition to the information on a USP's revenue and profits/profitability, there is a range of other dynamic indicators which may also inform the USP's ability to sustain a USO in the foreseeable future. A cumulative impression provided by the range of static and dynamic criteria presented above, could indicate the extent to which a positive net cost, if any, might be an unfair burden.

6.34 If a USP's positive net cost is not likely to be accommodated within a USP's profitability, and there are sufficient markets within which there is effective competition (or competition that is sufficiently broad to suggest a real risk of market distortion through "cherry picking"), it is ComReg's preliminary view that an unfair burden may be established, as the USP is impeded in its ability to fairly compete in the market with the industry.

6.35 If ComReg identifies that the USO represents an unfair burden on a USP, ComReg would assess and consult on a sharing mechanism to fund that unfair burden, as appropriate.

6.36 ComReg, however, has an open mind on these issues and will take into account the views of all consultees.

Q. 15. Do you agree with ComReg's proposed approach (profitability and competition assessments) to decide on the existence of an unfair burden on a USP?

Q. 16. Do you consider that the identified range of profitability and competition criteria are objective and appropriate for assessing the issue of unfair burden? Are there other criteria that should also be considered?

Q. 17. Do you agree with ComReg that a cumulative impression of static and dynamic criteria is more appropriate than adopting a particular quantitative threshold for key criteria to assess unfair burden? Please provide reasons to support your view.

7 Procedure for requests for funding (2009/2010)

7.1 The purpose of this section is to record the procedures in place for requests for USO funding and to seek the views of interested parties in relation to the procedures for any request for USO funding for the period 1 July 2009 to 30 June 2010.

7.2 The Regulations do not specify when a USP must submit a request for funding.

7.3 ComReg 07/39 determined that, in the event that the USP wished to make a request for USO funding, any such request should be submitted on an annual basis, within one month of the publication of relevant audited separated accounts, but no later than six months following the end of the USP's financial period. ComReg is of the view that these procedures are appropriate and do not require amendment.

7.4 However, ComReg notes that, following this consultation process, a decision on the principles and methodologies with respect to the costing of the USO will be published in April 2011. It is anticipated that this decision will provide clarity and guidance on key aspects of a USO funding request. ComReg is of the preliminary view that, in relation to the period 1 July 2009 to 30 June 2010, any request for funding, together with supporting information that is sufficient to support its request, should be submitted to ComReg by 31 August 2011.

Q. 18. Do you agree with ComReg's preliminary view that, in relation to the period 1 July 2009 to 30 June 2010, any request for funding, together with supporting information that is sufficient to support its request, should be submitted to ComReg by 31 August 2011. If not, please provide reasons to support your view.

8 Treatment of confidential information

8.1 ComReg's policy with respect to the treatment of confidential or commercially sensitive information is set out in ComReg 05/24. ComReg is of the view that the USO Regulations place a premium on accuracy of records, transparency and submission of detail and that this affects confidentiality claims also.

8.2 It is clear that ComReg needs to have available to it such supporting information as it reasonably requires to establish the principles, and methodologies, for assessing the possibility of an unfair burden on a USP. Equally, it needs to have available to it such information to complete an assessment of any USO funding application that it may receive from a USP.

8.3 It is likely, if not probable, that some of the information sought by ComReg, or volunteered by stakeholders, at different stages, will be considered confidential, commercially sensitive and/or price sensitive by such stakeholders.

8.4 In general, ComReg has a legal duty to maintain the confidentiality of information that it receives from stakeholders when such information is designated by them as confidential or commercially sensitive. However, at the same time the duty to protect the confidentiality/commercial sensitivity of information needs to be carefully balanced with the following:

(i) the need for transparency and the need to allow ComReg to impart meaningful and, as far as practicable, comprehensive information to all stakeholders and the wider public

(ii) ComReg's need to safeguard the stakeholder's right to reply, in accordance with fair procedures, and

(iii) ComReg's need to give adequate and intelligible reasons for its views and ultimately, the decisions it makes.

8.5 ComReg's views and its decisions will be informed by its stakeholders. In many cases, ComReg will be able to attribute stakeholder's views and data to them and to reflect those views in its published documents. It may be possible to simply redact certain portions of information, or the identity of the stakeholder, in order to protect confidentiality or commercial sensitivity while, at the same time, ensuring transparent information and debate.

8.6 In some cases, however, the position may not be as straightforward. Certain stakeholders may have legitimate interests in being aware of the views and data of *other* stakeholders and afforded the opportunity to comment on such views and data.

8.7 As a starting point, ComReg suggests that stakeholders should carefully consider what information should properly be designated by them as being confidential/commercially sensitive.

8.8 Stakeholders may wish to submit both confidential and non-confidential versions of responses. In the case of responses that are marked as confidential/commercially sensitive, ComReg would encourage stakeholders to explain why certain information is considered confidential, or commercially sensitive. ComReg would also encourage stakeholders to properly *distinguish between* information that they consider confidential, and information that they consider to be commercially sensitive.

8.9 If a stakeholder submits information and expresses the view that it is confidential, or commercially sensitive, ComReg may require the stakeholder to provide a detailed justification for this view. In particular, ComReg may require such justification where a stakeholder asserts "blanket confidentiality" over the entirety of a submission.

8.10 There may be circumstances where ComReg believes that it is necessary to disclose certain confidential or commercially sensitive information. Under Regulation 21 of the European Communities (Electronic Communications Networks and Services) (Framework) Regulations 2003, and Regulation 12 (10) of the Universal Service Regulations, ComReg has a duty to maintain and accept as confidential any information provided by an undertaking expressed by it to be confidential, *"…except where [ComReg] has good reason to consider otherwise."*

8.11 There may be circumstances where ComReg has good reason *not* to maintain, or accept, the confidentiality of information expressed to be such. In such circumstances, ComReg may need to evaluate such information in order to determine whether it should properly and reasonably be considered confidential or commercially sensitive. If on a reasonable view, and according to established legal norms, ComReg determines that the information is not confidential or commercially sensitive, ComReg may decide to disclose all, or part, of that information. If ComReg determines that, on a reasonable view, the information *is* confidential or commercially sensitive, there may still be good reasons for full, or partial, disclosure of that information.

8.12 Disclosure may involve publication in a published ComReg document, or the giving of access to a stakeholder(s), where there is a good reason for doing so. In general, ComReg would note that there would need to be compelling reasons for the "publication" of designated confidential information, and exceptional reasons for the publication of designated commercially sensitive information.

8.13 However, in certain instances, it is ComReg's view that the right to reply, transparency requirements and fair procedures may justify the provision of access (limited disclosure) to confidential or commercially sensitive information to a stakeholder or stakeholders, but not wider disclosure or publication. In such cases, ComReg suggests that the rights of all stakeholders could be properly vindicated by the establishment of a "confidentiality ring". Under such an arrangement, only third party advisers (e.g. external experts such as economists, accountants) of the stakeholder would be granted access to review data/information on behalf of the stakeholder. However, those stakeholders would not be granted direct access. Any indirect, third party access would have to be provided under strict rules and confidentiality obligations.

Q. 19. Please provide any general comments or observations that you may have in relation to the above.

Q. 20. Please provide particular comments in relation to the type of information that is likely to be (reasonably) considered confidential or commercially sensitive.

Q. 21. Please provide your views in relation to the establishment of a “confidentiality ring” in certain instances.

9 Submitting Comments

The consultation period will run from Tuesday, 30 November 2010 to Thursday, 20 January 2011, during which the Commission welcomes written comments on any of the issues raised in this paper. It is requested that comments be referenced to the relevant question numbers from this document.

Having analysed and considered the comments received, ComReg will publish a response to consultation and decision in April 2011.

In order to promote further openness and transparency, ComReg will publish all respondent's submissions to this consultation, subject to the provisions of ComReg's Guidelines on the Treatment of Confidential Information – ComReg 05/24. We would request that electronic submissions be submitted in an unprotected format so that they can be appended into the ComReg submissions document for publishing electronically.

Appendix A –The Legislative Provisions

The principal legislation governing the area of universal service is set out in:

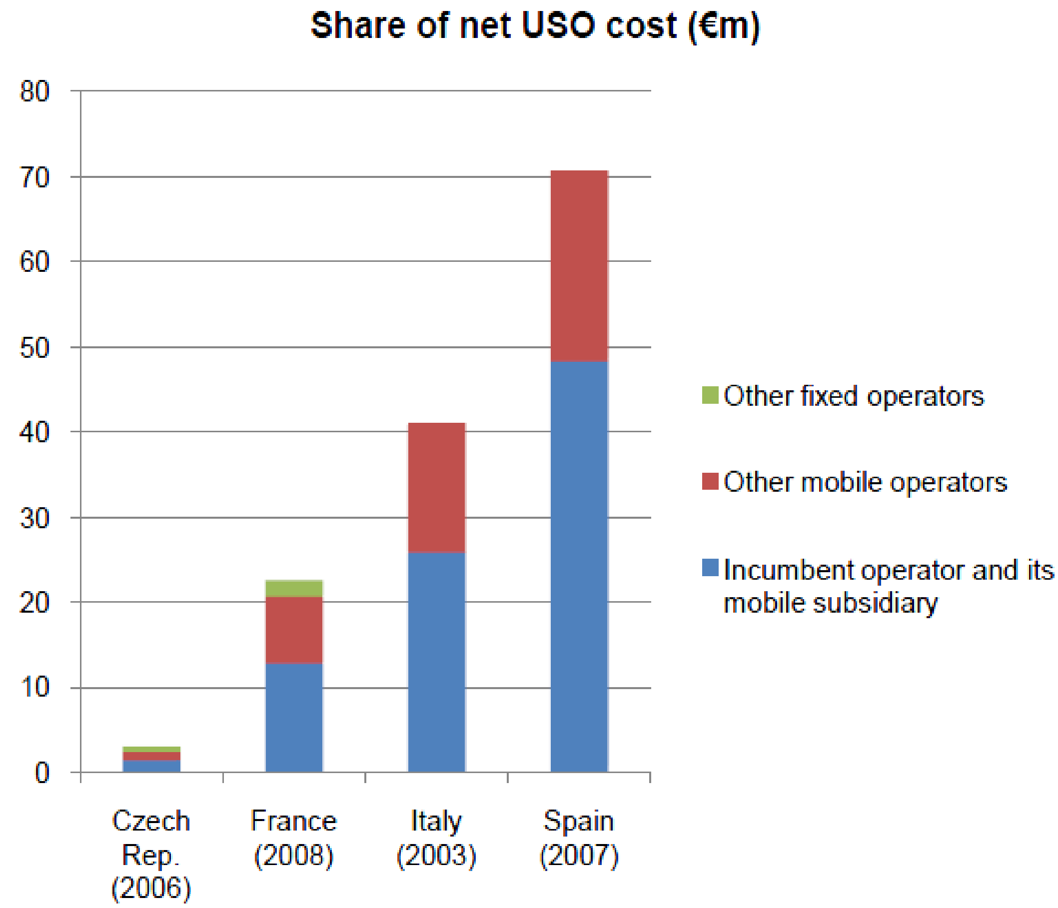
1. European Communities (Electronic Communications Network and Services) (Universal Service and Users’ Rights) Regulations, S.I.308 of 2003.

2. Directive 2002/22/EC of the European Parliament and of the Council of 7 March 2002 on universal service and users’ rights relating to electronic communications networks and services (Universal Service Directive).

Appendix B – European Practice for assessing unfair burden

Defining and evaluating an unfair burden is complex and should take into account the specific national market environment. At present, USO funds have been activated in seven Member States and, in effect, as Table 1 illustrates, four USPs are compensated.

Table 1 – Cullen International research (2010)



In France (2008) and Italy (2003), having determined a positive net cost of USO, taking into account the benefits, the NRAs have concluded that it results in an unfair burden. Conditions 1 and 2 of paragraph 6.8 above would appear to have been met.

On the other hand, in the UK, market benefits are greater than the net cost of USO. OFCOM directly concludes, therefore, that designated operators do not bear an unfair burden when providing USO. Conditions 1 and 2 of paragraph 6.8 above are not met.

In Spain, the NRA determined (in 2000, 2001 and 2002) that the net cost of USO was positive, after benefits. However, the NRA did not conclude that there was an unfair burden on the USP. Such a decision was based on the analysis of several parameters defining market developments and competition conditions (e.g. USP market share, ARPU, the level of EBITDA compared to its competitors and annual profitability). For these particular years, condition 3 of paragraph 6.8 above was not met.

For the years 2003, 2004 and 2005, the NRA modified its analysis and determined an unfair burden for the USP. In this regard, the NRA underlined the significant loss of market share of the USP since 2002, the importance of fixed-mobile substitution and the degradation of financial ratios. In these subsequent years, the three conditions of paragraph 6.8 above were met.

However, ComReg also notes that an unfair burden has not been established in the majority of member states and, therefore, all conditions of paragraph 6.8 above would not appear to have been met.

Appendix C – Consultation Questions

List of Questions

Q. 1. Do you consider this HCA-based approach to be appropriate? Please provide reasons for your view. 14

Q. 2. How in your view, should capital expenditure invested by the USP in the past, in respect of potentially uneconomic USO elements/services, be treated for the purposes of a correct identification of the avoidable costs in the net cost calculation? What, in your view, are the appropriate principles for cost recovery in this regard? 17

Q. 3. Do you agree or disagree with the approach proposed above? Please provide reasons for your view. 20

Q. 4. Do you consider the issue of replacement calls to be a material issue? If so, please explain your reasoning. What measurement / methodology do you consider appropriate that would provide a fair reflective measure of such revenues? Please provide reasons for your view. 20

Q. 5. Are there other revenues related to the "non-viable" customers lines, not mentioned above (either direct or indirect), which you consider relevant and that should be included in the net cost calculation? If so, please explain and provide examples. 20

Q. 6. What are your views regarding the potential treatment of "catch-up" investment (which may include CAPEX and OPEX)? 25

Q. 7. What do you consider the most equitable allocation option is for "catch-up" investment? Do you have a preferred or alterative methodology that you wish to propose? If so, please explain in detail your reasoning. 25

Q. 8. What are your views regarding the potential creation of a delayed payment scheme or sinking fund to account for circumstances where the USP is directed to recover the net cost (as appropriate and as determined by ComReg) over a period greater than the remaining duration of the USP designation? Please provide reasons for your view. 25

Q. 9. What are your views regarding the treatment of uneconomic customers in economic areas and what do you consider to be the most appropriate methodology that could identify the avoidable cost in relation to uneconomic lines in economic areas? Please provide reasoning to support your views. 29

Q. 10. How would you propose that the Net Present Value of uneconomic end-users is assessed to ensure there is no over-recovery of costs over the average lifetime of those particular customers identified? Please provide reasons to support your view. 45

Q. 11. Do respondents believe each of the benefits listed above are pertinent to the net cost calculation in Ireland? Please provide reasons to support your view. 45

Q. 12. What method or combination of methods for calculating the individual benefits do respondents consider to be the most appropriate? Please provide reasons to support your view. 45

Q. 13. What data (and from what sources) will ComReg require to most accurately estimate the benefits? Please provide reasons to support your view. 45

Q. 14. Do you agree with ComReg's view that where a positive net cost is relatively small, ComReg should assess whether or not the costs of establishing and implementing a sharing mechanism would be disproportionate to the net transfers to the USP to decide on the existence of an unfair burden? Please provide reasons to support your view. 50

Q. 15. Do you agree with ComReg's proposed approach (profitability and competition assessments) to decide on the existence of an unfair burden on a USP? 54

Q. 16. Do you consider that the identified range of profitability and competition criteria are objective and appropriate for assessing the issue of unfair burden? Are there other criteria that should also be considered? 54

Q. 17. Do you agree with ComReg that a cumulative impression of static and dynamic criteria is more appropriate than adopting a particular quantitative threshold for key criteria to assess unfair burden? Please provide reasons to support your view. 54

Q. 18. Do you agree with ComReg's preliminary view that, in relation to the period 1 July 2009 to 30 June 2010, any request for funding, together with supporting information that is sufficient to support its request, should be submitted to ComReg by 31 August 2011. If not, please provide reasons to support your view. 55

Q. 19. Please provide any general comments or observations that you may have in relation to the above. 58

Q. 20. Please provide particular comments in relation to the type of information that is likely to be (reasonably) considered confidential or commercially sensitive. 58

Q. 21. Please provide your views in relation to the establishment of a "confidentiality ring" in certain instances. 58

Appendix D – Glossary of Terms

Acronym	Full Title	Description
ARCEP	L'Autorité de Régulation des Communications Électronique et des Postes	National regulatory agency for France.
AGCOM	Autorità per le Garanzie nelle Comunicazioni	National regulatory agency for Italy.
BOTTOM-UP MODEL	Bottom up model	Forward looking model to estimate the cost of constructing a new efficient network.
BEREC	Body of European Regulators for European Communications.	
BU LRAIC	Bottom up long run average incremental cost	A hypothetical cost modelling methodology which considers the efficient forward looking costs of providing a product or a service by an efficient operator.
CAPEX	Capital Expenditure	Amount spent to acquire or upgrade productive assets (such as buildings, machinery and equipment, vehicles) to increase the capacity or efficiency of a firm for more than one accounting period. Also called capital spending.
CCA	Current cost accounting	A system of valuing assets based on their replacement cost rather than their cost when purchased or produced.
CMT	Comisión del Mercado de las Telecomunicationes	National regulatory agency for Spain .
COMMON COSTS		Refer to costs which are common to all services/products.
DCF	Discounted Cash Flow	Value of the anticipated revenue stream from an investment as at today or on any given date.
DIRECT COSTS		refer to those costs which can be directly attributable to a service/produ
DRC	Depreciated replacement cost	The depreciation cost of a similar asset that delivers equivalent benefits
EBITDA	Earnings before interest, taxation, depreciation and amortisation	This figure measures a company's annual earnings before the subtraction of interest payments, taxes, depreciation, and amortization
ECJ	European Court of Justice	
FIXED COSTS		Costs that do not vary with production or sales e.g. rent
G&A COSTS	General and administration costs	Costs typically associated with the administration tasks of running a business.

HCA	Historical Cost Accounting	A system where assets are valued at their original cost, less accumulated depreciation
INCREMENTAL COSTS		Increase or decrease in the total cost of a production-run, from making one additional unit of an item.
INDIRECT COSTS		Costs that cannot be directly attributed and therefore need to be apportioned between a number of services/products on the basis of an appropriate cost driver.
LEASED LINES		Refers to fixed, permanent telecommunications connections providing broadly symmetric capacity between two points. A leased line is permanent, in that capacity is available between the two fixed points and generally used to provide dedicated connectivity for business customers.
LFI/FRO	Line Fault Index/Fault Rate Occurrence	Line faults per 100 lines as set in ComReg D02/08
LLU	Local Loop Unbundling	The regulatory process of allowing multiple telecommunications operators use of connections from the incumbents telephone exchange's to the customer's premises.
LRAIC	Long run average incremental cost	Costing methodology. This methodology makes use of CCA accounting principles but place particular emphasis on identifying the costs of a service which are incremental to it in the long run.
MDF	Main Distribution Frames	Also known as local exchange areas.
NDD	National Directory Database	A central record which holds all telephone numbers contained in public phone books or available through directory enquiries.
NRA	National regulatory agency	A state or government agency which regulates businesses in the public interest.
OAOS	Other Alternative Operators	Operators, other than the incumbent, providing telecommunication services.
OFCOM	Office of Communications	National regulatory agency for the United Kingdom.
OPEX	Operating expenditure	A company's expenses related to the production of its goods and services.
Scorched earth	Scorched earth	A model that is based on an ideal network topology and not the existing network topology of the operator.
Scorched node	Scorched node	A model that takes as its starting point the existing network topology of the operator.
TD-LRAIC	Top Down Long Run Average Incremental Cost	Cost modelling methodology taking data directly from the accounting system of an operator. The data is then amended to take

		account of forward looking costs that, hypothetically, would have been incurred by an efficient operator today.
TD	Top down Modelling	Cost modelling methodology taking data directly from the accounting system of an operator to construct an operator's network.
USO	Universal Service Obligation	A defined minimum set of services, to all end-users, at an affordable price.
USP	Universal Service Provider	An undertaking designated as having the universal service obligations.
VARIABLE COSTS		Costs that vary with production or sales e.g. repair and maintenance costs.
WIFI		A wireless-technology brand owned by the Wi-Fi Alliance, promotes standards with the aim of improving the interoperability of wireless local area network products.