



On grounds of Decision no.113/2002 of the prime minister on the designation of the president of the National Regulatory Authority for Communications,

On grounds of the provisions of art.38(1), (3) and (5), art.34(3), as well as under art.46(1), p.11 of Government Emergency Ordinance no.79/2002 on the general regulatory framework for communications, approved, with amendments and completions, by Law no.591/2002, as well as of art.8(1) and art.13 of the Government Ordinance no.34/2002 on the access to the electronic communication networks and to the associated infrastructure, as well as their interconnection, approved, with amendments and completions, by Law no.527/2002,

Considering the provisions of art.7(1) of Decision no.124/2003 of the president of the National Regulatory Authority for Communications on the interconnection to the public mobile telephony network operated by "Orange România" – S.A. for call termination,

THE PRESIDENT OF THE NATIONAL REGULATORY AUTHORITY FOR COMMUNICATIONS

issues the present:

DECISION FOR APPROVING THE REGULATION ON THE REALISATION OF THE "TOP-DOWN" COSTING MODEL FOR THE CALCULATION OF THE LONG RUN INCREMENTAL COSTS BY "ORANGE ROMÂNIA" – S.A.

Art.1. – Hereby is approved the Regulation on the realization of the "top-down" costing model for the calculation of the long run incremental costs by "Orange România" – S.A., contained in the annex which is part of the present decision.

Art.2. – The present decision will be communicated to "Orange România" – S.A.

**PRESIDENT,
ION SMEEIANU**

Bucharest, 18 December 2003
No. 1383/EI

ANNEX

REGULATION ON THE REALISATION OF THE "TOP-DOWN" COSTING MODEL FOR THE CALCULATION OF THE LONG RUN INCREMENTAL COSTS BY "ORANGE ROMÂNIA" – S.A.

1. General provisions

1.1. The object of the regulation

The present regulation establishes the way in which "Orange România" – S.A., hereinafter referred to as *the Operator*, will realize the "top-down" costing model for the calculation of the long run average incremental costs, hereinafter referred to as *the costing model*, for the activities related to interconnection to *the Operator's* public mobile telephony network for call termination .

1.2. The purpose of the regulation

1.2.1. *The costing model* will determine the total and incremental costs with call termination for telephony services through the public mobile telephony network of the *Operator*, therefore allowing the use of the model results in the process of cost orientation of tariffs.

1.2.2. The structure and documentation of *the costing model* will be detailed and transparent enough, in order to allow:

a) the evaluation, checking and assessment of accounting data, principles, hypotheses, parameters and estimations used within the model, allowing the export of all information into an accessible format;

b) the deriving of interim and final results, through which *the Operator* will contribute to the calibration of a "bottom-up" costing model for the calculation of the long run incremental costs.

1.2.3. *The costing model* will be flexible enough in order to be reconciled with a "bottom-up" costing model for the calculation of the long run average incremental costs, developed by the National Regulatory Authority for Communications, hereinafter referred to as *ANRC*, for the purpose of deriving tariffs for the services provided by *the Operator* on those relevant specific markets on which it has been designated, by *ANRC*, as having significant market power, being imposed obligations for cost-orientation of tariffs. The "bottom-up" costing model to be realized by *ANRC* will be calibrated using the "top-down" costing model for calculation of the long run incremental costs developed by *the Operator*, in compliance with the present regulation.

1.2.4. If not otherwise provided, the terms used in the documentation of *the costing model* will have the meaning given to them by the legislation in force in the field of electronic communications and accounting.

1.3. Definitions

1.3.1. *costing model* – a costing model that uses information from *the Operator's* accounting records, in order to calculate the tariffs for the activities related to interconnection to *the Operator's* public mobile telephony network, for call termination, on the basis of long run

average incremental costs associated with these activities. Because it is based on information regarding recent performances of *the Operator*, which can reflect both efficiencies and inefficiencies, *the costing model* will include adjustments, in order to eliminate structural and operational inefficiencies of *the Operator*;

1.3.2. *long run average incremental cost*:

a) *long run* – the time period in which *the Operator* can realize capital investments or disinvestments, in order to increase or decrease its productive capacities. In the long run, all inputs, hence all costs, vary in response to a change in the volume or in the structure of production as a response to the evolution of the market demand;

b) *increment* – non-minimal and finite quantity of products or services provided by *the Operator*;

c) *incremental cost* – cost caused by the supplementary provision of a defined increment of services, or the cost saved when the defined increment of services is no longer provided;

d) *average incremental cost* – average cost obtained by dividing the incremental cost of each service, using a common cost driver (e.g. traffic), in the long run, the increment being represented by a large group of services. The incremental costs of the network which provides this group of services are divided by the entire traffic, thus resulting the average incremental cost. The average incremental cost supposes that intra-increment shared costs are attributed to services as well.

Within *the costing model*, the cost of services within an increment will include directly attributable costs and intra-increment shared costs. *The costing model* will also account for those costs common to several increments, in compliance with the provisions of the present regulation.

1.3.3. *directly attributable costs* – costs that can be directly and unambiguously allocated to a service or product provided by *the Operator*. Directly attributable costs are caused by the provision of a certain service within the increment.

1.3.4. *intra-increment shared costs* – costs of those inputs necessary to produce two or more services within the same increment, where it is not possible to directly and unambiguously identify the extent to which a specific service causes the cost. These costs will be allocated to products or services according to the most appropriate cost driver;

1.3.5. *common costs* – costs of those inputs necessary to produce one or more services in two or more increments and which cannot be distributed in a non-arbitrary manner to a certain increment, where it is not possible to identify the extent to which a specific increment causes the cost. These costs will be included in the calculation of the cost of services by use of a mark-up;

1.3.6. *cells* – physical areas in which the coverage area of a public mobile telephony network is divided, in which low-power transmitters (mobile handsets) use specific radio channels in order to realize mobile calls. Adjacent cells use different radio frequencies in order to avoid interferences, while non-adjacent cells reuse the same frequency, so that the capacity of the system is increased;

1.3.7. *base transmission station (BTS)* – public mobile telephony network element which transmits and receives the call from and to the mobile handset. It comprises radio transmission and signaling equipments and it consists of a few racks for electronic and energy equipment. The base transmission station is connected to antennas through a feeder cable;

1.3.8. *transceivers (TRX)* – radio transmission equipments incorporated in each sector of the public mobile telephony network, sub-part of each base transmission station, whose number mainly depends on the volume of traffic;

1.3.9. *base station controller (BSC)* – public mobile telephony network element which performs the management of the radio resources, acting both as concentrator and switch. This network element controls the inter-cell signal handovers for handsets, moving between base transceiver stations, the reallocation of frequencies among base transceiver stations and the power management of base transceiver stations and handsets within the coverage area;

1.3.10. *mobile switching centre (MSC)* – public mobile telephony network element in charge of location registration and the dynamic allocation of resources to coordinate call set-up. This network element routes calls within the network, searching and processing information from location registers. The mobile switching centre is connected to base station controllers, on one side, and to a public telephony network, on the other side;

1.3.11. *home location register (HLR)* – permanent database holding administrative information regarding all subscribers to the services provided through the public mobile telephony network, including information regarding the current location of each subscriber. The current subscribers' location is generally in the form of the address of the visitor location register at which the subscriber is currently registered;

1.3.12. *visitor location register (VLR)* – database which temporarily stores information about the users currently located in the cells associated with the mobile switching centre to which the visitor location register is attached. The visitor location register holds precise information as to the location of each handset within the area covered by the mobile switching centre.

2. Description of *the costing model*

2.1. Steps in developing *the costing model*

2.1.1. Deriving homogeneous cost categories

2.1.1.1. The first step in developing *the costing model* is to group costs that have similar characteristics into individual cost categories, hereinafter referred to as homogenous cost categories. In order to derive homogenous cost categories, *the Operator's* management accounts can be used.

2.1.1.2. Within this step, *the Operator* will perform the following actions:

- a) capturing of the accounting information from the accounting records;
- b) determining cost drivers and identifying homogenous cost categories;
- c) fixed asset valuation at current costs using the concept of "replacement cost";
- d) deriving annualisation costs of fixed assets and reflecting them within the homogenous cost categories;
- e) assessing *Operator's* network design, in order to identify optimization possibilities;
- f) adjustment of operating costs, in order to eliminate the supplementary costs of inefficient use of the network.

2.1.2. The identification and quantification of the level of usage of the homogenous cost categories by the modeled increments

The second step in developing *the costing model* consists in identifying the extent to which the increments and the services associated to modeled increments use various homogenous cost categories. Within this step, directly attributable costs will be directly allocated to increments and to associated network elements, while cost drivers corresponding to each homogeneous cost category will be used for the allocation of indirectly attributable costs.

Routing tables identifying the relationships between the costs of network elements and the costs of services, will be used in order to identify the costs of services included in the increments.

2.1.3. Deriving of cost-volume relationships

2.1.3.1. The third step consists mainly in deriving cost-volume relationships (CVRs), which show the way in which costs change in relation to a change in volumes of the provided service. Deriving cost-volume relationships will depend on the cost category to which they refer to. Depending on the cost category, the cost-volume relationships will be estimated using technical-economic models, simulations realized by engineering experts, regression analysis or an analysis of the processes which are at the basis of various activities.

2.1.3.2. The cost –volume relationships are useful for the determination of incremental costs, as well as for the determination of those costs common between increments. The incremental costs of services are derived by adding or excluding an increment of services and by identifying the effect of this change upon the total costs using cost-volume relationships. Cost-volume relationships can also help estimate the effects determined by the forecasted changes in the volume of demand on the level of costs.

2.1.4. The allocation of common costs

The fourth step in developing *the costing model* consists in establishing a mechanism for the allocation of costs common to increments and services. Usually, this allocation is realized by adding a mark-up for common costs to the incremental costs.

2.2. The development of *the costing model*

2.2.1. The development of the *costing model* will follow all the steps mentioned at par. 2.1. and will allow the derivation of interim and final results, necessary for the estimation of the long run average incremental costs, for the presentation of these costs at different aggregation levels, as well as for their use in the reconciliation process.

2.2.2. *The costing model* will be accompanied by a detailed documentation.

2.2.3. *The costing model* documentation will include, supplementary analyses and calculations regarding routing factors, asset lives, cost of capital, share of overhead and indirect costs included in the individual interconnection products, forecasts of expected demand and expansion rate, statements regarding network and equipment optimization, as well as any other information necessary for the assessment and the evaluation of *the costing model*.

2.2.4. *The costing model* documentation will be sufficiently detailed to allow full understanding of the model's content, the evaluation principles, as well as of the hypotheses and procedures used by the model.

2.3 Level of detail of *the costing model*

2.3.1. The *Operator* will limit the level of aggregation of costs, for the *costing model* to provide a detailed breakdown of costs, in order to allow the validation of the accuracy and completeness of the model, as well as the comparative analysis within the reconciliation with

the bottom-up model for calculation of long run incremental costs. The *costing model* will allow the *Operator* to export cost information from the costing model at such a level of detail so to provide breakdowns of costs according to their nature and homogeneity, for each network element. These breakdowns of costs could be traceable to primary accounting records, in order to allow the assessment of the accuracy and completeness of the information included in *the costing model*.

2.3.2. *The costing model* documentation will include a breakdown of the cost categories it uses, together with the associated cost drivers. Each cost category will be homogeneous and characterized by a single cost driver. *The costing model* will be flexible with respect to the content and number of homogenous cost categories, in order to allow changing them within the reconciliation process.

2.3.3. A list of standard network elements to be used by *the Operator* in building up *the costing model* will be defined in *the costing model* documentation.

2.3.4. The structure of *the costing model* will allow the identification and changing of the treatment of each cost category, as well as the adjustment of main parameters, in order to optimize the model. *The costing model* will also allow the identification and adjustment of model inputs and assumptions, in order to eliminate the supplementary costs generated by the structural and operational inefficiencies of *the Operator*.

3. Modeled services and increments

3.1. Services modeled

The costing model will be used primarily for the calculation of the interconnection services costs for call termination at mobile points. However, in order to provide sufficient accuracy in the allocation of costs and to ensure reconciliation with the bottom-up model developed by ANRC, *the costing model* will be developed to calculate, as a minimum, the costs of the following services:

- a) subscriptions;
- b) traffic within own network;
- c) outgoing traffic to national PSTN networks;
- d) outgoing traffic to other national public mobile telephony networks;
- e) outgoing traffic to international networks (fixed or mobile);
- f) incoming traffic from national PSTN networks;
- g) incoming traffic from other national public mobile telephony networks;
- h) incoming traffic from international networks (fixed or mobile);
- i) SMS;
- j) GPRS.

3.2. Modeled increments

In order to calculate the costs of the services mentioned at point 3.1. using *the costing model*, *the Operator* will use two large increments:

- a) subscribers increment;
- b) traffic increment.

3.2.1. Subscribers increment

Subscribers increment will include those network-related costs that are driven solely by the number of subscribers, assuming a constant output of the various traffic-related services produced by the network. On this basis, the subscribers increment includes the costs of SIM (Subscriber Identity Module) cards, the costs with handsets subsidies, the costs associated to AuC (Authentication Centre), as well as those associated to EIR (Equipment Identification Register). The subscribers increment will also include the costs of the subscriber driven part of the VLR and HLR, marketing costs related to customer acquisition, as well as a part of billing costs.

3.2.2. Traffic increment

The traffic increment will include those costs related to the network's transmission and switching capacity (including voice, SMS and GPRS). The costs related to minimum capacity deployment necessary to provide coverage area¹ will also be included in the traffic increment. The other costs associated to the provision of coverage area, independent to capacity, such as the costs of acquiring, preparing and/or leasing the number of sites needed to meet the coverage requirements and the costs associated to the network management system, comprise a distinct category, and will be applied a common treatment. These costs are common costs between subscribers and traffic increments and will be treated in accordance with the provisions under par 10.1. Therefore, most network costs (with some exceptions, such as HLR which scales with both traffic and subscribers increments), such as the costs of base transmission station, base station controller, mobile switching centre and the costs of core transmission, will be included within the traffic increment.

4. Fixed assets valuation

4.1. Current cost accounting

4.1.1. Within *the costing model*, assets will be evaluated at current costs, using the net replacement cost method.

4.1.2. *The Operator* will include in the model documentation a detailed description of methods used for restating assets' values on a current costs basis, for purposes of including their value in *the costing model*.

4.2. Replacement cost

4.2.1. Replacement cost measures the cost of replacing the existing asset with another asset of similar performance characteristics. Within *the costing model*, gross asset values will be evaluated using the gross replacement cost method, calculated either at the current market value of the assets, or at the value of a modern asset, equivalent from the point of view of their capacity and functionality, hereinafter referred to as modern equivalent assets.

¹ Ensuring a particular coverage area implies that a minimum transmission capacity has to be installed. Due to the effect of modularity, the level of the minimum transmission capacity which is installed may be unjustified by the current level of traffic. This situation is usually met in rural locations.

4.2.2. If the replacement cost is evaluated using assets existing on the market, which make use of the same technology as the assets evaluated, then the replacement cost will be the actual market value of these assets. Any adjustment (indexation) of this value will be accompanied by supporting documents. In case this type of valuation is applied, the model documentation will also describe the relationships between assets prices and quantities bought. In order to identify the actual market value, *the Operator* will take into account all the commercial discounts it can expect to benefit from, while buying these assets.

4.2.3. If the replacement cost is evaluated using modern equivalent assets, then it will be adjusted in order to reflect the differences between existing assets and modern equivalent assets, as for quality, productivity and asset lives. Operating costs of *the Operator* will be adjusted in order to reflect the operating costs associated with modern equivalent assets. Differences in operating costs can appear due to differences in the costs of maintenance and network management, as well as in the indirect costs associated with modern equivalent assets.

4.2.4. In each case, the asset existing on the market, which is the basis for the valuation process, will be capable to sustain the provision of the same services as the evaluated asset, at least in the same qualitative parameters and at the lowest cost possible. The market is considered to be the international market for electronic communications equipments.

4.2.5. When using the concept of modern equivalent assets, one will consider a predictable period of time, during which the existing mature technologies would not be replaced by other technologies (for example, in the case of voice services, the 2G technology will maintain its applicability in most cases). In this respect, a period of time of three years can be considered adequate for determining the value of the modern equivalent assets.

4.2.6. In cases when the usage of the method under par 4.2.1. would be difficult, the approximation of the gross replacement cost could be realized by indexation of the historical gross values, only if the differences between the values resulted from this method and those obtained using the method under par. 4.2.1. would be insignificant. Usage of the indexation method on historical gross values will be justified by the *Operator* within the documentation of the *costing model*, distinctively for each category of assets.

4.3. Annualisation costs

4.3.1. Criteria for determining annualisation costs

4.3.1.1. Annualisation charges are calculated as the sum of the annual capital cost and depreciation.

4.3.1.2. The annual cost of capital is calculated as the mean capital employed in the equipment across the accounting period, multiplied by the weighted average cost of capital. The mean capital employed in the equipment across the financial exercise is calculated as the arithmetic average between the gross values of the fixed asset from the beginning and respectively, the end of the financial exercise.

4.3.1.3. The following principles will be observed when choosing the most appropriate method for deriving annualisation costs:

a) *accuracy principle* – an accurate annualisation charge will have a depreciation profile which accurately reflects the expected levels of and forecasted changes in the replacement cost, operating costs, output levels and asset productivity;

b) *consistency principle* – consistency requires that annualisation charges will be set in such a way that there are no arbitrage opportunities available for purchasing assets with regard the acquisition date;

c) *tractability principle* – tractability means that there is sufficient information for *the Operator* to apply the chosen approach in an appropriate way.

4.3.2. Economic depreciation

4.3.2.1. Theoretically, economic depreciation is the optimal annualisation method which observes the accuracy and consistency principles. The disadvantage of this method consists in the lack of information needed in order to apply it. Consequently, for practical reasons, several alternative methods for deriving annualisation costs can be used (linear depreciation, accelerated depreciation, regressive depreciation and annuity method).

4.3.2.2. Economic depreciation can be calculated as the estimated net present value of cash flows generated by an asset for the remaining lifetime at the end of a given year less the estimated net present value of cash flows at the beginning of the year.

4.3.2.3. The net present value depends on a variety of factors, such as: current and future output demand, the asset's output, operating costs, the asset's life and the cost of capital. The depreciation profile will depend on how the factors determining an asset's NPV are expected to change over time.

4.3.2.4. Within *the costing model*, *the Operator* will use either economic depreciation or an alternative method, depending on which best approximates indicative estimates of economic depreciation.

4.3.2.5. *The Operator* will keep a distinct recording for fully depreciated assets in use, according to its statutory accounting, which will contain all the information necessary for the identification and calculation of the extent of these assets by asset class and vintage.

4.4. Cost of capital

4.4.1. Within *the costing model*, the cost of capital will be determined based on weighted average cost of capital (WACC). The cost of equity will be determined using the capital asset pricing method (CAPM).

4.4.2. The documentation of *the costing model* will contain a detailed description of the methodology for the calculation of the cost of capital, including a presentation of the assumptions and the parameters underlying the calculation.

5. Network design and optimization

The development of *the costing model* implies deciding upon major strategic options regarding the technology to be used and the network architecture, while the forward-looking character of the model implies the use of optimum technological solutions, which ensure maximum efficiency of the *Operator's* activities.

5.1. Technology

5.1.1. The *costing model* will reflect an efficient 2G mobile network operator, which uses efficient technologies to produce the same set of outputs he is currently producing. Because the *costing model* is used to determine the costs for call termination for telephony services in the public mobile telephony network, the costs associated to services related to the 3G technologies

(used mainly for the provision of data transmission services) provided by *the Operator* will, in principle, be excluded from *the costing model*.

5.1.2. In case the *Operator* includes certain costs specific to 3G technologies in the structure of costs for call termination for telephony services, these costs will be distinctively disclosed. The documentation of *the costing model* will describe the procedure used for the allocation of these costs and will present the motivation for choosing the type of treatment.

5.2. Network architecture

5.2.1. The optimization of *the Operator's* network will be based on the basic elements in the existing network infrastructure, which will be adjusted in order to eliminate the structural inefficiencies, on the basis of a scorched node approach.

5.2.2. *The costing model* will retain the actual number of base stations and switch sites currently deployed by *the Operator*. *The Operator* will eliminate the excess capacity as compared to the actual (and forecast) level of demand, accounting for the objective conditions which may lead to excess capacity (modularity, growth, quality and security of services etc.).

5.2.3. *The costing model* will be flexible enough to allow adjustments of *the Operator's* network elements by increasing capacity of existing elements, by cell splitting, by adding spectrum or by using an optimum combination of spectrum and cells.

6. Treatment of operating expenses²

6.1. *The costing model* will examine operating expenses at a sufficiently disaggregated level, in order to ensure that they are assigned to the correct increment.

6.2. Operating expenses can comprise the following categories: transport, accommodation, finance, research and development, computing, human resources, general management and indirect interconnection costs.

6.3. *The costing model* will use the information regarding the operating expenses from the statutory accounts of the *Operator*. The information will be adjusted in order to exclude the costs generated by the inefficiency of *the Operator's* activity. Reasons for inefficient operating expenses are:

- a) use of assets which cause higher operating expenses than those caused by using *modern equivalent assets*;
- b) existence of inefficient operational processes and procedures;
- c) existence of other excessive expenses (labour, materials, services etc.), even when using efficient technologies and processes.

6.4. The current costs assets valuation (using replacement costs) excludes the inefficient costs generated by the reasons under par. 6.3. a), based on the procedures stated under par 4.2. *The Operator* will identify and exclude the effects of inefficiency generated by the factors at par 6.3. b). and c). either by using international benchmark or by developing theoretical cost models which value the efficient level of operating expenses. The model documentation will provide supporting information regarding the level of operating expenses and evidence that the operating expenses are based on efficient operating practices and technologies, pointing out the nature and level of each adjustment made in order to exclude the expenses generated by the inefficient activities of the *Operator*.

² Excluding depreciation costs

7. The cost allocation process

7.1. Principles of cost allocation

7.1.1. *The costing model* will allocate costs observing the following principles:

- a) *the principle of cost causation* – costs will be allocated to services or cost categories in accordance with the services or activities which caused the costs to be incurred;
- b) *the principle of objectivity* – the allocation bases will be objective and not intended to favour a product or service provided by *the Operator*;
- c) *the principle of transparency* – the cost allocation methodology described within the *costing model*, will be transparent.

7.1.2. The process of cost allocation assumes both deriving cost drivers for each homogenous cost category and elaborating the routing table for identifying the relationships between costs of network elements and costs of services.

7.1.3. The *Operator* could use its own cost allocation procedures already implemented in its cost accounting system, as long as the principles of cost allocation and the other requirements included in the present regulation are observed.

7.1.4. The model documentation will include the detailed methodology regarding the allocation of costs of activities to products and/or services, including a description of the cost drivers and on how the model assumes they affect operating expenses for each activity.

7.2. Deriving cost drivers and measuring volumes

7.2.1. Within the allocation process, indirectly attributable costs will be apportioned to network elements using cost drivers. Using cost drivers, the costing model will determine the extent to which increments, services and network elements generate a specific category of operating expenses. In this way, homogenous cost categories are allocated to increments, services or network elements, depending on the volume of the associated cost driver.

7.2.2. The model documentation will include the description of the cost drivers associated with each homogeneous cost category and the methods used for measuring their volumes.

7.3. Routing tables

7.3.1. The routing tables identify the relationships between the costs of network elements and the costs of services. The routing factors identify the usage of network components by the services provided by *the Operator*, identifying the average frequency with which services use different network elements within standard routing patterns, as well as the average probability for the use of these standard routing patterns. The mentioned information is grouped in the routing tables.

7.3.2. *The costing model* will identify the routing factors for each service or, in their absence, a consistent alternative measure of how each service uses the network.

7.3.3. *The costing model* will identify routing tables for the standard network elements modeled by the *Operator*.

8. Deriving the incremental costs of modeled services

Incremental costs are derived by adding or excluding an increment of services and by identifying the effect on homogenous cost categories, using cost–volume relationships.

Incremental costs will be calculated separately for each of the homogenous cost categories. In each case, it is necessary to measure the volume of the cost driver associated with an increment for that cost category and, on the basis of the estimated cost–volume relationships, either the reduction in cost if that increment were no longer provided or the increase in cost if that increment were provided in surplus will be derived.

8.1. Cost–volume relationships

8.1.1. Cost–volume relationships represent the base for the estimation of the incremental and common costs. Cost–volume relationships are derived after determining the level of usage and show the way in which costs change in relation to a change in the volumes of the cost drivers. *The costing model* will estimate cost–volume relationships for each homogenous cost category.

8.1.2. Cost–volume relationships can be estimated either by developing engineering models, by consulting with experts or by using regression analysis. The appropriate approach depends primarily on the types of costs being examined.

8.1.3. The documentation of the *costing model* will explain how the cost–volume relationship was calculated for each homogenous cost category, including a description on how CVRs have been derived, their shape and their cost driver. When *the Operator* uses other data than those from his own accounts in order to estimate CVRs, the documentation of the *costing model* will provide consolidated statements of these data as well as details for the sources of these data.

8.1.4. Where a class of assets has multiple cost drivers, separate cost-volume relationships will be developed for each of the cost drivers.

8.2. Assigning costs to services

8.2.1. Having determined the incremental cost, the next step is to calculate the costs of each of the services within an increment. The costs of these services are determined by complete allocation of the costs of the increment between the services that are included in that increment. In this way, the total costs assigned to various services within the increment will correspond with the total cost of that increment.

8.2.2. In case of intra-increment shared costs, where the allocation between services cannot be realized by identifying the cost volume generated by each service, another weighting factor will be used (such as Mbit/s).

9. Audit of Costing Model

9.1. The results of *the costing model* will be analyzed by ANRC during the process of reconciliation with the “bottom-up” costing model for the calculation of the long run average incremental costs. The *Operator* has the obligation to provide, at a sufficiently disaggregated level, all the information necessary for the verification and evaluation of the results of the *costing model*.

9.2. In case the information provided by the *Operator* under the conditions of par. 9.1. do not allow a proper assessment of the accuracy of the results of the *costing model* in accordance with the provisions of the present regulation, the *costing model* will be subject to an independent audit, in compliance with the legislation in force and with the national and international audit standards. The object and conditions of the audit will be established by *ANRC*.

10. General Costing Issues

10.1. Treatment of common costs

10.1.1. In order to derive the fully allocated costs of services (LRAIC+), a mark-up for will be added to the incremental costs. Equal-proportionate mark-up method (EPMU) is the widely accepted method for the allocation of common costs. According to this method, common costs are allocated in direct proportion with the incremental costs of each service. The documentation of the *costing model* will describe and justify the method chosen for the allocation of common costs.

10.1.2. *The costing model* will identify, within the costs for modeled services, the allocated common costs and will be flexible enough to allow the change of treatment applied for the allocation of common costs.

10.2. Treatment of non-network retail expenses

Since the traffic for call termination originated in other networks does not generate non-network retail expenses nor does it provide direct benefits to calling parties from other networks, these expenses will not be included in the cost of call termination. Therefore, costs generated by handset subsidies, dealer incentives, sales and marketing or customer services will not be included in the cost of call termination (although some of them will be included in the traffic increment).

10.3. Treatment of spectrum fees

Provided that spectrum fees are charged independently as to traffic load and to the number of subscribers, this cost will be treated as common between subscribers and traffic increments and will be recovered in accordance with the provisions under par. 10.1.

10.4. Costs excluded from the *costing model*

Extraordinary and restructuring costs will be excluded from *the costing model*. These costs will be presented separately within the documentation of *the costing model*.

11. Functionality of *the costing model*

11.1. Transparency

11.1.1. *The costing model* will meet the following conditions:

a) will indicate how it is related and how it can be reconciled with the primary accounting documents and the statutory financial statements;

b) the model documentation will provide indications regarding the information sources (both internal and external) and the ways in which the information has been collected and used within the model;

c) will allow identification of the assumptions and variables used in order to obtain forecasted growth rates, routing factors, volumes, asset lives, utilization rates, replacement costs etc.

11.1.2. *The Operator* will ensure the availability of information regarding the costs associated with increments and components at the disaggregation level of homogenous cost category, for *the costing model* to be revised. *The Operator* will disclose, upon request from *ANRC*, supplementary information regarding each cost category, until the disaggregation level of primary accounting data.

11.1.3. *The costing model* will identify and highlight those costs which can be directly attributed to services. Intra-increment shared costs will be allocated to various services at the most disaggregated level possible (homogenous cost category is the most disaggregated level). Allocation methods used within this process will be clearly identified within the *costing model*.

11.2. Major outputs of *the costing model*

11.2.1. The documentation of the *costing model* will describe the method used to determine the costs of increments and the costs of associated services. *The costing model* will disclose the costs of services provided on the relevant specific markets on which *the Operator* has been designated, by *ANRC*, as having significant market power, and for which the obligation of cost orientation has been imposed. *The costing model* will also be able to disclose the costs of other services as defined under par. 3.1.

11.2.2. *The costing model* will also be able to show the costs of capital and operating expenses for each network element, as well as the routing factors for each service it provides.

11.2.3. *The costing model* will disclose within the cost structures, the proportion of intra-increment shared costs as well as the proportion of common costs.

12. Final provisions

12.1. Until 31st of March 2004, *the Operator* will submit to *ANRC* the documentation of the *costing model*, which will contain at least the specifications requested by the present regulation.

12.2. Until 1st of July 2004, the *Operator* will develop and implement *the costing model* in accordance with the provisions of the present regulation.

12.3. Failure to comply with the deadline stipulated under par.12.2, the tariffs for the services provided by the *Operator* on the specific relevant markets on which it has been designated, by *ANRC*, as having significant power, being imposed cost orientation of tariffs, will be calculated on the basis of the bottom-up model results, developed by *ANRC*. The so-determined tariffs will be revised, as the case may be, following the conclusion of the reconciliation process between the bottom-up model and the *costing model*.