



Determination of 28.6.2001

ALTERATIONS TO BE INTRODUCED IN THE REFERENCE OFFER FOR LOCAL LOOP UNBUNDLING 2001

The initiation of a public survey on competition in local access on the 10th of July 2000 was a significant step towards the introduction of LLU in Portugal. Following the publication of the results of the said public survey and the ICP understanding of the situation on the 6th of November 2000, this Institute continued the wide-ranging discussion on this issue through the constitution of a Consultative Working Group, which held its first meeting on the 6th of December 2000, and the respective Working Teams, after considering the co-operation of the entities that had shown interest in the matter.

The regulatory framework applicable to the Offer for LLU was clarified with the coming into force on the 2nd of January 2001 of Regulation (EC) No 2887/00 of the European Parliament and the Council dated the 18th of December 2000 concerning the offer of unbundled local loop access.

In line with this and following a decision taken by the ICP on 06/11/00 which also defined the “Minimum elements to be included in the RUO (Reference Offer for Local Loop Unbundling), PT Comunicações, S.A. entity notified as holding significant market power in the fixed telephone networks and/or fixed telephone services market presented the ICP with a Reference Offer for Local Loop Unbundling on the 1st of March 2001, which was in fact updated and increased at a later date.

On 16/05/2001 the Board of Directors of the ICP approved an “ICP project decision referring to alterations to be introduced in the Reference Offer for Local Loop Unbundling 2001”, with interested parties being informed that they should submit their replies within a deadline of 10 days.

Considering that:

- a. Under the terms of article 4 of Regulation (EC) No 2887/00 of the European Parliament and the Council dated the 18th of December 2000 concerning the offer of unbundled local loop access, the ICP must ensure that prices for unbundled local loop access favour the establishing of loyal and sustainable competition;
- b. Under the terms of n° 3 of article 4 of the above-mentioned diploma, the ICP shall further be responsible for the non-discrimination, loyal competition, economic efficiency and interest of users;
- c. PT Comunicações, S.A. is the concessionaire of the basic telecommunications network and, as entity holding significant market power in the fixed telephone networks and/or fixed telephone services market, must respect the cost oriented prices guiding principle when fixing prices for unbundled local loop access services and connected resources under the terms of n° 3 of article 3 of the above-mentioned Regulation;
- d. In this context, cost oriented prices for services provided by PT Comunicações, S.A. will be checked by the audited cost system based on historic costs, additional

- information furnished by the operator, the analysis of the effects of the foreseeable evolution of productivity and costs and by taking current European Union practices into account;
- e. Even after the revision and additions presented by PT Comunicações, S.A., the RUO is still not complete;
 - f. The position of the different interested entities was heard during meetings of the Consultative Working Group and the respective Working Teams and with the comments produced on the PT Comunicações S.A., RUO. The DGCC was also heard over and above the contribution made by this entity within the scope of the working group;
 - g. Under the terms of article 100 and those following of the Administrative Procedures Code, the position of the different interested entities was heard in relation to the “ICP project decision referring to alterations to be introduced in the Reference Offer for Local Loop Unbundling 2001” and the comments received within the 10 days following its approval by the ICP Board of Directors.
 - h. In principle, the prices and conditions of the offer will have to be reviewed on an annual basis and taking experience acquired into consideration.

Under the terms of paragraph a) of nº 2 and nº 3 of article 4 of Regulation (EC) No 2887/00 of the European Parliament and the Council, the Board of Directors of the ICP decided:

- 1 to impose alterations to the RUO presented by PT Comunicações, S.A. contained in the document in Appendix A. These alterations should be integrated within a period of not more than ten days.
2. to recommend that PT Comunicações, S.A. take immediate precautions to allow for future alterations to be made to the offer in order to promoting growing progressiveness in the compatibility of the same with the evolution of market interests (Appendix B).

APPENDIX A

ALTERATIONS TO THE REFERENCE OFFER FOR LOCAL LOOP UNBUNDLING

I. LLU BENEFICIARIES

- 1 LLU is intended to contribute to the development of healthy competition and the multiplication of services offered to end users, constituting a complement to the infrastructures of telecommunication operators;

In the face of existing conditions only public telephone network operators are apt to explore local loop unbundling. But this should not impede the right of access of telecommunication service providers to public use of these infrastructures in support of their offer, expanding the range of user choices and adding even more potential to the provision of a service that really results in added value.

The development of a secondary negotiation market of subscriber lines, consubstantiated by artificial arbitration opportunities and supported by the difference between an asset offered at cost-orientated prices and its future submission to market prices, may well not provide the market with efficient working conditions.

PT Comunicações, S.A., as concessionaire of the basic telephone network, is the legitimate owner of local loops, and all operators interested in LLU may only contract the respective services through this company.

- (i) LLU constitutes a complementary resource to networks that involve other infrastructures and are necessarily destined to provide end user services;
- (ii) Licensed operators of public telecommunication networks under the terms of Decree Law n° 381-A/97 dated December 30th (hereafter designated OLOs) may request LLU;
- (iii) All providers of telecommunication services for public use registered under the terms of Decree Law n° 381-A/97 dated December 30th may offer unbundled local loop services;
- (iv) OLOs may not under any circumstances concede local loop unbundling as received from PT Comunicações, S.A., i.e. without any resulting added value;
- (v) The transfer of an unbundled local loop from one OLO to another operator is prohibited. Thus, when a beneficiary has no further interest in exploring the same the respective contract with PT Comunicações, S.A. must be terminated, with the local loop reverting to PT Comunicações, S.A.

II. ELIGIBLE LOOPS AND REFUSAL OF REQUESTS

- 2 Under the terms of no 2 of article 3 of the Regulation (CE), requests for access to the local loop may only be refused on the basis of objective criteria related to technical feasibility or a need to maintain network integrity. From this point of view, local loops supported in metallic pairs [as defined in the Regulation (CE)] must be the object of LLU.
- 3 Taking into account the specific conditions associated with the temporary installation of local loops, taken as defined in the PT Comunicações, S.A. FTS price list (considering in this case the nature of the service), public pay phones (considering aspects related to the need to preserve the conditions of providing a universal service¹) and loops with active systems (in this case with special note of the possible disproportionate impact that the removal of these systems may imply for other users), these loops may be considered at present as an exception to the rule of eligibility of loops supported in metallic pairs.
- 4 Point nº 9 of the Regulation (CE) explains that the obligation to offer unbundled local loop access does not mean that notified operators have to install entirely new local network infrastructures specifically to satisfy the requests of beneficiaries.

In this context, it is understood that pairs that require the installation of missing sections in order to complete the loop (designated “non-active loops”) may also be eligible for LLU purposes as long as this does not prejudice the fulfilling of the aims of the universal service and those laid down in the network development plan. In this case PT Comunicações, S.A. may eventually present installation/transfer prices different from those applicable to active loops – with this entity indicating the reasons for any associated costs.

Thus the procedures associated with the service of local loop access must be completed in order to include the possibility of transferring these non-active loops when applicable.

III. TERMS AND DEFINITIONS

- 5 The terms and definitions presented in the RUO presented by PT Comunicações, S.A. must be harmonised with the definitions contained in the Regulation (CE), namely in the defining of:
 - (i) Local Loop;
 - (ii) Full Access (totally unbundled access to the local loop); and
 - (iii) Shared Access.
- 6 In the cases where the adoption of the definitions contained in the Regulation (CE) directly or indirectly result in alterations to the definitions of associated materials (e.g. exchange building), these latest definitions must be updated accordingly.

¹ See public consultation related to the “Supply of public pay phones by the Universal Service Provider”, at www.icp.pt/liberalizacao/cpp.html.

- 7 Network termination point and harmonised standard definitions must comply with those definitions foreseen in Decree-Law nº 192/00, dated August 18th.

IV. RELATIONSHIP BETWEEN PARTIES

- 8 The tests necessary to check the possibility of an OLO providing services through a certain local loop and identifying the respective debits may be initiated after the client has been informed of and approved the duration and conditions involved in the process. The OLO must provide PT Comunicações, S.A. with evidence of the subscriber's complete approval for the initiation of such tests in the form of a written declaration signed by the subscriber.

- 9 Without prejudice to the importance of checking the future compatibility and interoperability of services in order to identify the technical feasibility of providing a given service via a certain metallic pair, it is understood that a flexible approach should be used in relation to the responsibility for the execution of the same.

In this way the OLO has the chance to proceed with the respective tests after transference of the loop and id considered necessary, at the expense and risk of the OLO, thus unequivocally clarifying the situation and assuming the respective responsibility in relation to the client and guaranteeing that there will not be any side effects in terms of the normal provision of services to all other users.

- 10 LLU in the case of an active loop with full access results in the dissolution of the existing FTS contract with PT Comunicações, S.A. This means that in principle a third party may celebrate a new contract with the service provider. In relation to shared access, the holder of the contract with the service provider may also be a third party as long as the FTS subscriber gives authorisation.

- 11 Service providers that offer services supported by local loop unbundling must celebrate the respective contract with the end user, in compliance with the rules applicable to exploration.

- 12 In the case of shared access, the RUO must make provisions for consequences arising from the cessation of the contract between the user and PT Comunicações, S.A.

- 13 LLU constitutes an innovative service at national and international levels. At present and with the information available, the forecast for the demand for local loops by OLOs may be faced with growing difficulties. Therefore, and remembering that in principle PT Comunicações, S.A. may not immediately be able to incur additional costs due to the demand for a service which is much higher than expected, the obligation requiring the OLO to reimburse PT Comunicações, S.A. with any possible expenses incurred may be excessive. The existence of such a clause must be duly proven necessary and quantified and with PT Comunicações, S.A. also being aware of the principle of reciprocity.

- 14 The significant alterations foreseeable in the structure of the PT Comunicações, S.A. network that may cause problems for the services provided by providers offering services supported by LLU must be communicated with at least 12 months prior notice.

- 15 In relation to the existence of the PT Comunicações, S.A. DSL offer on the market, the information about conditions of access made available to entities of the PT Group must be, aware of the principle of non-discrimination, made available to OLOs on request, when such information is seen to be relevant to the operability of LLU and correlated services.

V. EQUIPMENT

- 16 Entities authorised to install transmission systems in local networks must promise to respect (i) the requirements of electromagnetic compatibility foreseen in the national and community framework and (ii) the technical specifications established in the Spectral Management Plan. In this way it will not be necessary to submit declarations of equipment compliance to PT Comunicações, S.A. beforehand. The installation of terminal equipment by the OLO must comply in particular with that laid down in Decree-Law n° 192/00 dated the 18th of August.
- 17 Support equipment available to OLOs must guarantee the minimum of disturbances so as not to affect the regular working order of the services provided by the PT Comunicações, S.A. network. Within this framework, the said equipment must be in line with the relevant standards and guarantee a reasonable maximum amount of disturbance in agreement with the parameters fixed for this purpose.

VI. CO-INSTALLATION OF EQUIPMENT

- 18 The RUO does not constitute a base for the fixing of rules to be observed in actions of inspection and supervision to be carried out by the ICP. Thus, point 4.2.3 of the RUO must be reformulated because, according to the Regulation Appendix (CE), reasonable conditions should be provided so that beneficiaries can visit locations that may be used for the co-installation of equipment or locations where co-installation has been refused for reasons of a lack of capacity.
- 19 The results of the public survey on local access competition referred to the fact that there was already an emerging market for the rental of space for co-installation in infrastructures held and operated by third parties in certain member States of the European Union. These offers permitted the installation of inter-connection points for various OLO to be joined in a centralised way, thus facilitating the availability of associated services such as the monitoring of performance and quality of service, supervision of the compatibility of the various types of equipment and security. As this market is still in the embryo stage in Portugal and considering that such solutions may be more economically advantageous than physical co-installation solutions, it is felt that remote co-installation should be an OLO option and not an alternative in the absence of conditions for the offer of physical co-installation.
- 20 The space destined for co-installation should not be used for ends other than those necessary for the functional operation of the specific loops in question and the services they support, with the equipment exclusively necessary to ensure the good working order of the services provided to end users served by loops connected to the exchange.
- 21 Should an OLO so wish, the respective metallic division in the network may be dispensed with, with the OLO assuming full responsibility for any future risks

- involved. When requested by an OLO, PT Comunicações, S.A. must, whenever possible, guarantee the continuity of the spaces of the modules destined for this same OLO.
- 22 As there is still no definite information available on the demand for space in PT Comunicações, S.A. installations for LLU purposes, and as there is the possibility of those OLOs who are well aware of their respective responsibilities in sharing the co-installation space, the ICP sees no reason to change the proposal presented by PT Comunicações, S.A. concerning the attribution of exchange space to OLOs at this moment in time. The ICP will however continue to accompany this issue along with the ULL Consultative Working Group or the forum that will follow. In any case the “contingency process” proposed by PT Comunicações, S.A. should be included within the bounds of the RUO.
 - 23 As a less important alteration, the minimum space available in the flowchart showing the rule for the attribution of exchange space should be 5 m².
 - 24 The revised RUO to be presented by PT Comunicações, S.A. within a period of 10 days must include the 40 exchanges considered by the OLOs as being of major priority. The 80 exchanges considered by the OLOs as being of major priority must be integrated progressively in the RUO by 01/10/01.
 - 25 The simultaneous functional operability of the LLU in a large number of exchanges will originate a considerable need for human and financial resources that may be in excess of total market demand. In this way, the progressive evolution of supply through the periodic attribution of exchanges in defined batches could constitute a reasonable compromise between LLU demand, the speed of dissemination of supply and the economic efficiency of resources used. The attribution of exchanges to OLOs should meet the priorities indicated by the latter and be done on at least a two-month basis in order to speed up the dissemination of supply and thus maximise the choice of operators and the aims of information inclusion.
 - 26 The revised RUO to be presented by PT Comunicações within a period of 10 days must establish conditions that permit the public offer of services based on the unbundled local loop in the three exchanges already open for trials (Lumiar, Laranjeiras and Foz).
 - 27 When the creation of spaces for the co-installation of OLO equipment implies additional investments that do not fit into the framework of normal development of PT Comunicações, S.A. activity, the specific costs incurred in such investments may be passed on to the operators as long as they are reasonable and justifiable, with PT Comunicações, S.A. providing OLOs with a complete and detailed costing of these investments in good time.
 - 28 Without prejudice to PT Comunicações, S.A. taking the steps necessary to ensure compliance with suitable standards of security in the access to their installations, it is felt that this entity should make access to the operators rooms more flexible so as not to create obstacles in the implementation of LLU. Expeditious and safe mechanisms should be provided for technicians or other OLO employees to enter and exit, to carry

out any installation work, tests or maintenance that may be necessary on co-installed equipment.

- 29 xDSL technologies are adaptable to the infrastructure, presenting a compromise between debit and distance. As it may not always be feasible to provide a remote co-installation site in certain situations within a 150-metre radius of the local PT Comunicações, S.A. exchange, this distance should be taken merely as an indication. Thus, the remote co-installation site may be located at distances greater than 150 metres as long as it is technically possible and compatible with the service to be provided.
- 30 Considering the need to ensure the highest possible level of suitability between supply and demand in the initial phase of LLU implementation and future technical conditioners arising from the use of high-capacity cables, the offer of external connection between the remote co-installation site and the local exchange must be complemented with lower capacity cables (in terms of the number of pairs available).
- 31 Without prejudice to the future revision of the minimum supply of leased lines, when considering the evolution of supply and market conditions PT Comunicações, S.A. must, in terms of the LLU, formulate an offer similar to the services actually provided on the wholesale market, namely in relation to the “PT ADSL Network” supply, in accordance with the principle of non-discrimination, namely for the connecting of co-installed equipment in the PT Comunicações, S.A. exchange and the installations of the OLO.

VII. QUALITY OF SERVICE AND DEADLINES FOR THE AVAILABILITY OF INFRASTRUCTURES

- 32 Considering the need for the effective operational functioning of LLU within the time limit compatible with that foreseen in the Regulation (CE) and market interests, which may not be totally compatible with certain measures fixed for the aims defined in Appendix II of the RUO, and without prejudice to a revaluation to be carried out later and which will take the situation of those operational procedures concluded into account:

(i) The following alterations have been determined:

INDICATORS FOR THE SERVICE OF LOCAL LOOP ACCESS	AIM	OCCURRENCE
VERIFICATION OF CLIENT INFORMATION AND ELIGIBILITY	3 wd	-
TRIALS AND TESTS	4 wd	-
SUPPLY DEADLINE	10 wd	95%
UNINSTALLATION DEADLINE	7 wd	95%
SHARED ACCESS TO FULL ACCESS TRANSFER DEADLINE	10 wd	95%

INDICATORS FOR THE SERVICE OF CO-INSTALLATION	AIM	OCCURRENCE
DEADLINE FOR SUPPLY OF THE OPERATORS ROOM	80 wd	95%
DEADLINE FOR SUPPLY OF THE EXISTING OPERATORS ROOM MODULES	40 wd	95%
DEADLINE FOR ENLARGEMENT OF INTERNAL CABLE (100 PAIRS)	6 wd	95%
DEADLINE FOR SUPPLY OF EXTERNAL CABLE (600 PAIRS)	40 wd	95%
DEADLINE FOR ENLARGEMENT OF EXTERNAL CABLE (600 PAIRS)	11 wd	95%

INDICATORS FOR THE SERVICE OF DELIVERING SIGNAL	AIM	OCCURRENCE	
SUPPLY DEADLINE	OPERATORS BOX TO BE INSTALLED	40 wd	95%
	OPERATORS BOX IN WORKING CONDITION	15 wd	95%

QUALITY OF SERVICE LEVELS	AIM	OCCURRENCE	
SERVICE – FULL ACCESS	IQSL1 – REPAIR DEADLINE	10 wd	90%
	IQSL2 – AVAILABILITY OF LOOP	99,5%	-
SERVICE – DELIVERY OF SIGNAL	IQSL3 – REPAIR DEADLINE	6 hours	95%

- (ii) PT Comunicações, S.A. must present reasonable deadlines for attending requests for access to those installations without automatic control during normal working hours, whether in situations of emergency or outside normal working hours.
 - (iii) In this initial phase PT Comunicações, S.A. must make 15 to 20 of the exchanges classified by the OLOs as being of major priority available within 60 days of completion of the operators’ request, including the making available of metal divisions (“cages”), internal cables, signal transportation service and any additional facilities necessary.
 - (iv) In this context, PT Comunicações, S.A. may also define on request other indicators and objectives adapted to the specific market needs available which may be agreed between the parties within the bounds of the SLAs.
- 33 The procedures for initialling the breakdown repair process, which must be in line with those defined in PRI 2001, must be sufficiently well expedited to avoid bureaucratic delays in the process of reporting breakdowns.
- 34 The level of indicators directly comparable to those defined for the FTS must necessarily be more favourable when provided within the terms of the LLU.

PT Comunicações, S.A. must accept notification of any existing breakdown, without prejudice to any non-subsequent consideration, as long as it is fully justified. The start of the breakdown must be counted from the moment it is reported by the respective OLO.

- 35 Considering that the ETSI is at present finalising a document (Final draft ETSI EG 201 949-2 v1.1.1) with the aim of establishing harmonised quality of service parameters, the quality of service indicators to be applied to the LLU may be revised to take into account the developments arising from the said document. PT Comunicações, S.A. still has to normalise the concepts and terms used in the definition of the said indicators.

- 36 The “minimum elements” established that non-discriminating SLA (*Service Level Agreements*) projects must be included in the RUO, representing a compromise by the notified operator in the sense of guaranteeing a certain quality of service level, integrating quality of service objectives and specifying the conditions aimed at ensuring the rigour and fulfilment of the said conditions. In this context, and also considering that laid down in point 10 of the Regulation (CE) and in point D.2 of the appendix to the same diploma, the PT Comunicações, S.A. offer must contemplate SLAs by integrating compensations for the inability to meet the deadlines in terms of supply requests.

VIII. PRICES

37 Considering that:

- (i) Point 11 of the same piece of legislation foresees that “rules for pricing must allow the supplier of the local loop to cover the costs incurred and the obtaining of a reasonable profit margin in order to guarantee the long term development and modernisation of local access infrastructures” and “ they must also promote reasonable and sustainable competition without losing sight of the need for investment in alternative infrastructures as well as guaranteeing that there are no distortions in competition, namely the compression of margins between prices of wholesale services and retailing by the notified operator”;
- (ii) Current European practises and the principles defended within the bounds of the ORA Committee in the document “*Follow-up on facility sharing and collocation*”, which in particular shows that as the technical resources involved are similar, the prices charged for the monthly rental of the local loop, at least as far as narrowband lines are concerned, should in principle be coherent with the monthly cost of the subscriber line;
- (iii) The price levels associated with the offer of PT Comunicações, S.A. analogous services existing in the market have to be used as a reference for some RUO services;
- (iv) The costs relative to broadband access will be superior to those for narrowband access as they include maintenance and increased investment costs;
- (v) The results of the analysis made based on comments made by the various interested entities;

The prices applicable to those services provided within the bounds of the ROLU must, at most, be:

A. SERVICE OF FULL LOCAL LOOP ACCESS

INTERNAL CONNECTION	INSTALLATION	PER MONTH
Initial installation (100 pairs)	€3,155.40 (632.600\$)	€25.1 (4.480\$)
Amplification of 100 pairs (up to a maximum of 10 blocks of 100 pairs)	€1,422.07 (285.100\$)	€13.24 (2.205\$)
EXTERNAL CONNECTION	INSTALLATION	PER MONTH
Initial installation (600 pairs)	€21,457.29 (4.301.800\$)	€136.45 (22.100\$)
Amplification of 600 pairs (up to a maximum of 1200 pairs)	€13,417.66 (2.690.000\$)	€123.20 (20.800\$)
LOCAL LOOP	PRICES	
Verification of eligibility and qualification tests	€29.93 (6,000\$)	
Tests for provision of ISDN services – basic rate	€34.92 (7,000\$)	
Tests for provision of ISDN services – primary rate	€104.75 (2,000\$)	
Tests for provision of broadband services	€69.83 (14,000\$)	
Installation/transfer of the local loop	€82.80 (16.600\$)	
Monthly fee of local loop for provision of narrowband services (Analogous FTS and ISDN Basic rate)	€11.96 (2.398\$)	
Monthly fee of local loop for provision of broadband services	€13.78 (2.762\$)	
Intervention for undue report of breakdown	€44.89 (9,000\$)	

B. CO-INSTALLATION SERVICE

PHYSICAL CO-INSTALLATION OF MODULES	INSTALLATION	PER MONTH
5 m ² module	€4,468.48 (895.850\$)	€515.06 (103,260\$)
8 m ² module	€4,827.32 (967.790\$)	€821.37 (164.670\$)
DC POWER	Application of coefficient 1.5625 to KWh price of alternating current	
ACCESS CONTROL	PRICE	
With automatic control	To be defined case by case	
Without automatic control	€20.87 (4,185\$) per hour + €11.17 (2,240\$) dislocation	

38 PT Comunicações, S.A. must also present the following elements within a period of 10 days:

- (i) Duly justified price proposal for the services described in Appendix 12 of the RUO in 2.4 – Control Tests, 5.2 – Signal Transportation Service and 6 – Access to Information Service.

In relation to the services of Control Tests and Access to Information, the ICP will accompany this material in the light of market evolution, with PT Comunicações, S.A. presenting a detailed description of the service to be provided and what it covers;

- (ii) Justification for the price of uninstallation of the local loop, after which the ICP will evaluate the proposed price by the notified operator and, later on, a price revision;
- (iii) A duly justified price proposal applicable to the offer of external connection between the remote co-installation site and the local exchange with lower

capacity cable in the light of the present PT Comunicações, S.A. proposal (in terms of the number of pairs available);

and within 60 days, a duly justified price proposal for the Shared Access Service (in compliance with that indicated in point 10.a of the “Minimum Elements”).

IX. INTERRUPTION AND SUSPENSION OF THE SERVICE

- 39 Except in the case of duly justified exceptional conditions, and without prejudice to the execution of all actions that could minimize adverse impacts on the quality of service, any foreseeable interruptions of services must be communicated to the OLO as soon as possible. This procedure is also applicable to any future suspensions of the service.
- 40 The relevant conditions laid down in the Regulation for the Exploration of Public Telecommunication Networks (approved by Decree-Law n° 290-A/99 dated July 30th) shall also be applicable to this material, namely articles 15 to 17.

APPENDIX B

RECOMMENDATIONS FOR THE REFERENCE LOCAL LOOP UNBUNDLING OFFER

I. VIRTUAL CO-INSTALLATION

- 1 Paying special attention to LLU discussions in the Consultative Working Group, the complexity of factors involved in virtual co-installation means that it is generically felt at this time as an alternative solution where physical and remote co-installation are not feasible.
- 2 Considering the evolution of the supply conditions, and especially if the market shows interest, the RUO should develop in order to contemplate this alternative offer, when feasible, in line with that laid down in the Regulation (CE). It would be the case, for example, if in certain infrastructures there were a lack of suitable conditions for the offer of physical or remote co-installation.

II. ACCESS TO INTERMEDIATE POINTS IN THE ACCESS NETWORK

- 3 With the development of VDSL technology there could be a growing market interest in access to intermediate points in the access network. Therefore, in order to accommodate a possible future demand for this type of access, PT Comunicações, S.A. should make a survey of the conditions in which the RUO could evolve to facilitate local loop access through intermediate points in the access network, in line with that established in the Regulation (CE), especially in cases where the loop is not totally eligible for reasons of a technical nature (namely, in situations where there are active systems or hybrid solutions based on metal pairs and optic fibre in the local loop).

III. SPECTRUM MANAGEMENT IN THE ACCESS NETWORK

- 4 The aim of the spectrum management in access network transmission systems is to optimise the use of metal cables through the technologies and services in operation or to be introduced in the future. The approach developed by PT Comunicações, S.A. will, in principle, be reasonable in an initial phase of LLU implementation. But, depending on the conditions of demand for LLU, user interest and technological evolution, it may be advisable to revise the proposed method and/or change to another method also based on the definition of a frequencies plan in the access network.
- 5 Provisions should also be made for the reformulation of the methodology subjacent to the determining of the maximum number of systems per cable, with special consideration for the potency reduction mechanisms applicable (e.g. power back-off and power cutback).
- 6 In cases identified in which certain accesses supported in systems considered “pollutant” (e.g. HDB3) are conditioning or restricting the introduction of broadband

technologies in the local access network, PT Comunicações, S.A. must make provisions for the substitution of the said accesses, with the costs incurred in such substitution being shared proportionately by the beneficiaries.

IV. ACCESS TO INFORMATION

- 7 Furthermore, in order to make the operability of LLU more flexible, provisions should also be made for the development of an information system associated with the PT Comunicações, S.A. network data (e.g. verification of eligibility, length of local loop from MDF to client installations), available for consultation by the OLOs, within the bounds of the LLU.
- 8 Considering that the OLO should, *a priori*, have information that will allow him to analyse the feasibility of providing LLU services, it is recommended that the minimum amount of information necessary for the launching of the process foreseen in the RUO be unbundled by MDF for those exchanges available for LLU.
- 9 It is further recommended that PT Comunicações, S.A. includes, within the minimum information distributed to the OLOs, unbundling information by MDF (i) the total number of loops in use and being explored, (ii) the existence of optic fibre branches in specific parts of the access network and (iii) the number of active systems.
- 10 Accounting for the fact that the present methodology defined in the RUO is based on a plan of occupation of cables it is recommended that PT Comunicações, S.A. release periodic and sufficiently detailed information about the occupation of primary cables by broadband systems so that the OLO can identify the areas present in the offer in which occupation is near or superior to the plan defined for a certain system.
- 11 As a certain installed infrastructure (e.g. TEDS/TKVD cables) may condition the terms of the offer of broadband services, PT Comunicações, S.A. must provide the ICP and OLOs with as much information as possible (by MDF, for the group of MDFs available for LLU) about the respective possible limitations.

V. CO-INSTALLATION OF EQUIPMENT AND ACCESS TO EXCHANGES

- 12 As there is a need to encourage incentives that result in the reduction of costs associated with the implementation of LLU, it is felt that if the different OLOs show enough interest, the sharing of co-installation space by operators should always be accepted whenever possible and as long as the respective responsibilities are defined.
- 13 The application of the price for the management of personnel access to installations must be duly justified and take into account the principle of causality and cost coherence. In particular, should PT Comunicações, S.A. install new systems for access with automatic control, such costs may be reflected in the prices of space adaptation.