

Final Report for LRIC cost based prices of minimum set of leased lines



October 2012, Skopje

Submitted comments regarding published Draft Report for LRIC cost based prices of minimum set of leased lines and AEC's answers

Dear all,

Agency for electronic communications (AEC) on 27.07.2012 opened public hearing for Draft Report for LRIC cost based prices of minimum set of leased lines. Due date for submission of the views and comments about proposed subject of public hearing from the interested parties was 27.08.2012. On the operators request AEC have extended the due date for submission of the comments until 15.09.2012 where Makedonski telekom submitted their views on published document.

AEC is thanking to the interested parties for submitted comments on published document. Below are presented submitted comments and AEC answers.

**Report for Agency for Electronic
Communications (AEC)**

**Report for LRIC cost based
prices of minimum set of
leased lines**

17.10.2012

1.1 Introduction

To be able to calculate the retail prices for the minimum set of leased lines, we propose to use a mark-up that will be applied to the wholesale prices of the minimum set of leased lines calculated in the model developed by Deloitte. To calculate the mark-up we have run a benchmarking exercise comparing retail and wholesale prices for the minimum set of leased lines in other European countries.

Methodology that was used for development of bottom-up LRIC model for wholesale leased line, services modelled and services definition are described in the published documents on AEC web page, refers to Wholesale Leased Lines, Duct Rental and Dark Fibre Inception Report from 07.03.2012 http://www.aek.mk/index.php?option=com_content&view=article&id=508&Itemid=221&lang=mk and Draft Model Reference Paper Wholesale Leased Lines, Duct Rental and Dark Fibre from 23.07.2012 http://www.aek.mk/index.php?option=com_content&view=article&id=609%3A-----dark-fibre&catid=46%3Ajavna-rasprava&Itemid=152&lang=mk. The Reader is referred to above mentioned Reports in order to gain a full understanding of the approach set out in this Draft Report for LRIC cost based prices of minimum set of leased lines. This Report will provide additional explanation for calculation of mark-up over the wholesale prices as a base for calculation of retail prices.

1.2 Background

Under Article 15 of the Universal Service Regulations¹, NRAs are required to consider the extent of competition in the provision of the minimum set of retail leased lines. That set has been defined in the Official Journal of the European Commission as analogue leased lines, and digital leased lines from 64 Kbit/s up to and including 2Mbit/s.

The Commission Recommendation of 11 February 2003 identified those product and service markets susceptible of ex ante regulation. The retail market for the minimum set of leased lines was identified as one of the markets, market 7.

“7. The minimum set of leased lines (which comprises the specified types of leased lines up to and including 2Mb/sec as referenced in Article 18 and Annex VII of the Universal Service Directive).

This market is referred to in Annex I(1) of the Framework Directive in respect of Article 16 of the Universal Service Directive (the provision of leased lines to end users).

A market analysis must be undertaken for the purposes of Article 18 of the Universal Service Directive which covers regulatory controls on the provision of the minimum set of leased lines.

In the Recommendation 2007/879/EC the retail market for the minimum set of leased lines is not listed anymore, therefore in most of the Western European markets is not regulated.

¹ European Communities (Electronic Communications Networks and Services) (Universal Service and Users' Rights) Regulations, 2003 (S.I. No. 308 of 2003)

MKT: Wholesale leased lines (terminating and trunk) are regulated, and with the latest draft report for calculation of minimum set of leased lines based on LRIC, are cost based. This is more than enough for competition development and there is no need for additional obligations for the retail services of MKT. Having in mind that EC in the recommendation 2007/879/EC withdraw market for minimum set of leased lines our opinion is that Bylaw for minimum set of leased lines should be withdraw.

AEC: The obligation for provision of the minimum set of leased lines is based on article 50 in Law of electronic communications. In the article, it is said „when Agency determine based on market analysis that the market for provision of part of the minimum set of leased lines or the whole set is not effectively competitive, on the designated significant market operator can impose obligations for provision of part of the minimum set of leased lines or the whole set on equal and transparent conditions and/or based on costs“. The offer for provision of the minimum set of leased lines is submitted to AEC for approval based on article 10 of the Bylaw for provision of the minimum set of leased lines (Official Gazette of RM 112/2008) in 2008. AEC in 2010 make first analysis on the retail market where defined relevant market, designate MKT for significant market operator and impose relevant obligations. In March 2011 AEC made second analysis on the same market and conclude that market condition is not changed mainly regarding costs on relevant services and make a note „AEC according to Working Plan for 2011 will develop methodology for regulation of retail markets in cooperation with interested parties on separate public hearing“. Commission for protection of the competition in their opinion noted that „we support Agency in the development of the methodology for regulation of retail markets in cooperation with interested parties on separate public hearing“. In addition, having in mind that prices of relevant services AEC's opinion is that cost based prices is necessary obligation. For comparison, below is the table with prices for 2 Mbit/s leased line 2 km for countries in region taken from Enlargement countries monitoring Report 2- July 2012.

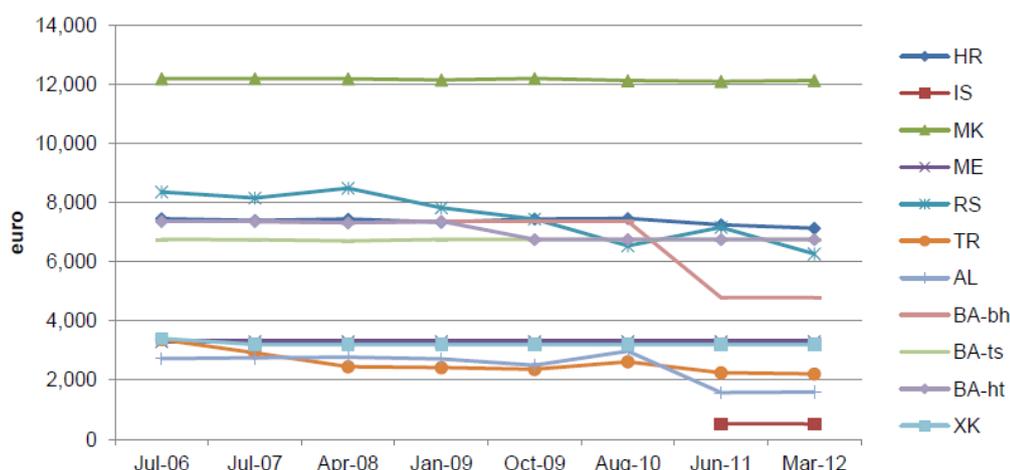


Figure N.1 – Annual retail prices for 2 km 2 Mbps leased lines

Malta In Malta wholesale and retail prices are regulated in absolute terms. The Maltese NRA (MCA) states that the minimum set of leased lines prices should reflect only efficiently incurred costs, therefore the MCA adopted a bottom-up cost modelling approach to calculate leased line prices to be charge by the SMP operator.⁵ MCA set the wholesale and the retail absolute prices to have an 11% mark-up between the two.

Bosnia and Herzegovina Bosnia and Herzegovina has adopted a price cap approach for the retail prices of the minimum set of leased lines.⁶ The Bosnian regulator (RAK) set a price cap in 2003 (partially amended in 2005) for each dominant operator in the retail and wholesale market: BH Telecom, Telekom Srpske and HT Mostar.

MKT: From the shown comparative analysis can be concluded that obligation for calculation of cost based prices there is only in Malta. Our opinion is that with this data for regulation from only one NRA comparison cannot be made. This is because other analysis shows withdraw of this retail regulation.

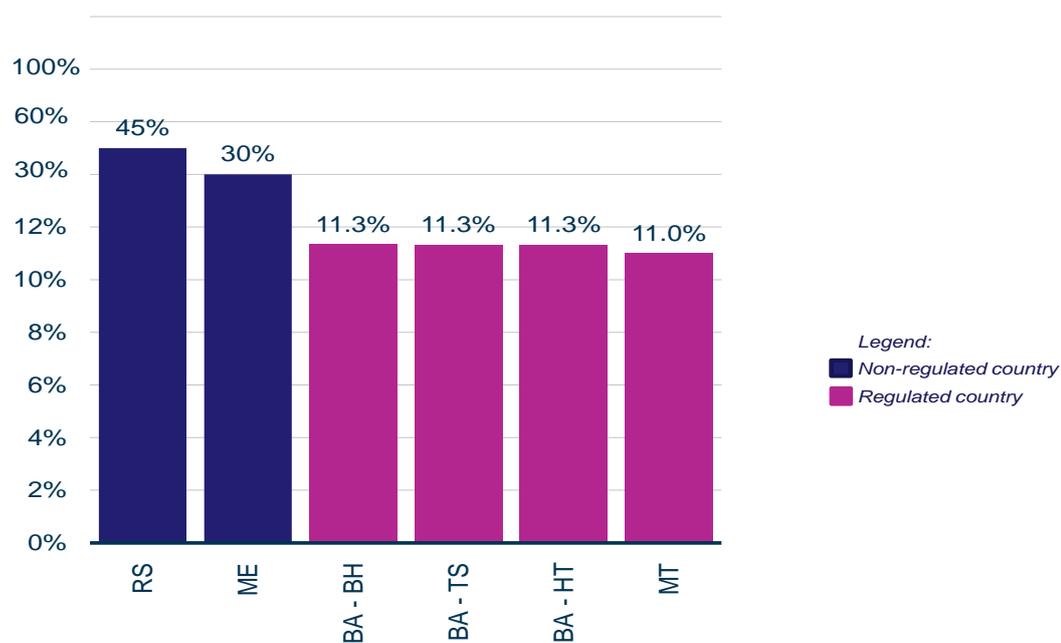
With the aim of calculating the mark up between retail and wholesale prices for the minimum set of leased lines we are going to do a benchmark of the 64Kbit/s leased lines for the 2 Km length for some countries where the current price is regulated such as Bosnia and Herzegovina and Malta and some other countries where the price is not regulated, Serbia and Montenegro, but the information is publicly available.

As shown below, the mark-up coefficient for the countries where both wholesale and retail prices are somehow regulated is around 11%. In countries where the prices are not regulated, such as Serbia and Montenegro, the mark-up between retail and wholesale prices are higher, between 30% to 45% but still in an acceptable range compared to higher capacity leased lines (see figure 2).

Figure 1: Mark-up for a 2 Km 64 kbit/s leased line [Source: Analysys Mason, 2012]

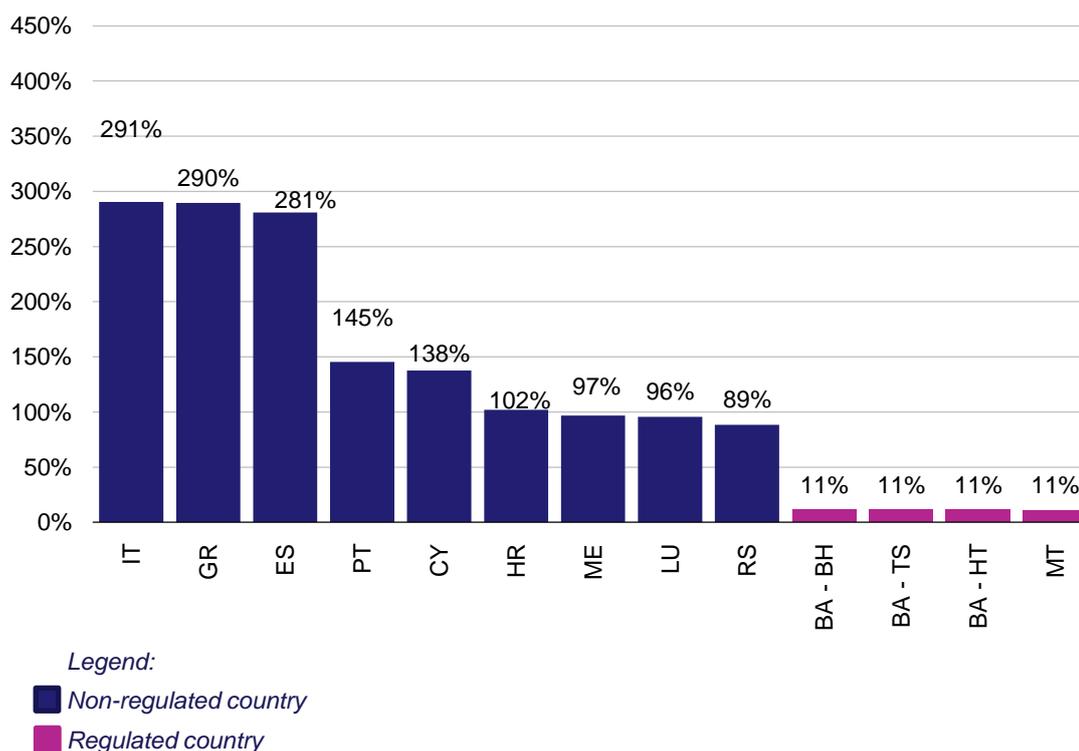
⁵ MCA - Local Leased Lines Pricing, Review – 2008: Report on Consultation and Decision, April 2008

⁶ RAK – Pravilo 20 0 utvrñivanju grani,nih cijena iznajmljenih linija u Bosi i Hercegovini, December 2003



As shown below, the mark-up calculated for higher-capacity leased lines products, such as 2Mbit, is not significant except for regulated countries where it is around 11% as for lower capacity leased lines.

Figure 2: Mark-up for a 2km 2 Mbit/s leased line [Source: Analysys Mason, 2012]



1.4 Conclusion

Based on the data provided in the previous sections to estimate the retail prices for the minimum set of leased lines in Macedonia we consider appropriated to add an 11% mark up to the wholesale prices of the minimum set of leased lines calculated by the LRIC model developed by Deloitte.

MKT: Again as in the previous comment, we suggest withdrawn of the obligation for minimum set of leased lines. Regarding that, mark up should be defined separately for every operator, and MKT is anyway obliged to provide retail margins for all its products which it has referent offer or referent offer on wholesale level, in this case referent offer for wholesale leased lines. Also, with proposal for mark up and incompatibility with the Bylaw for minimum set of leased lines where it is clearly stated that prices should be cost based. Additionally, we challenge the selective way for country choice used for benchmark. Namely, Bosna and Hercegovina still don't have access agreement with EC and based on that electronic communication market should not be input for comparison.

But, if besides our comments AEC's opinion is that regulation of minimum set of leased lines is necessary in RM it should be done with a method that would give enough space for proper actions of the alternative operators and from the other side would allow flexibility in creation of Maktels retail offers. From those reasons besides proposed mark up determined with benchmark from several countries where there is no calculation based on costs, Makedonski Telekom AD Skopje suggests mark up in a range of minimal and maximal level from 11 to 30%. With that, incumbent operator would have possibility to create its retail price policy (standard prices, discounts for big customers and also loyalty

discounts) and at the same time not to effect other players on the market. The Maktel's calculation shows that mark up for retail leased lines is around 19,66% and it is determined by the amount of leased lines, general costs, costs for employees, time frame of the contracts, maintaining costs and other factors which is additional argument that mark up with minimal and maximal level is more appropriate method of regulation of retail leased lines, as was the case with most European countries where minimal set of leased lines was regulated.

AEC: AEC's opinion for the first part of the comment (regulation of minimum set of leased lines is not necessary in RM) is elaborated in the answers of the first comment. Refers to the second part of the comment where Maktel states that with proposed mark up based on benchmark there is a question of contradictory of the model and incompatibility with the Bylaw for minimum set of leased lines where it is clearly stated that prices should be cost based AEC partially agrees with the arguments. As stated in the Draft Report, AEC proposed for the calculation of minimum set of leased lines use a mark-up that will be applied to the wholesale prices which are calculated in the cost based model developed by Deloitte, based on LRIC methodology. Having that argument in mind, AEC considers that given comment that calculated costs are not cost based is not appropriate and argued. AEC is agreed with the elaboration that operator's retail costs should be considered when determining the mark up on the wholesale prices of the relevant services. AEC considers data for retail costs of Makedonski Telekom which according to the article 105 from Law of electronic communications are submitted as confidential data to AEC and are not published in this document and decide that mark up on wholesale prices when calculating retail prices should be maximum 20%. It is comparative with the method of calculation of „d component“ in the „Report for methodology for margin squeeze model used for electronic communication market in RM“, published in July 2012 where Maktel's opinion on question no. 27 is that they are agreed that retail costs „d component“ are calculated as mark up. AEC considers that this figure of maximum 20% as mark up on wholesale prices when calculating retail prices of relevant services will cover all retail costs that occur at the operator for the purpose of provision of leased lines on retail basis.

This 11% should cover all the retail costs that the operator should bear to provide the leased lines on a retail basis, such as:

- Marketing and sales costs
- Billing and collection costs
- Payroll costs
- Operator services costs
- Directory services costs

Costs defined in the table below, represent the wholesale prices of leased lines, which correspond to the structure and definition of the WLL product agreed with AEC and in detail described in Reports, mentioned in point 1.1 of this document.

Since new product structure takes into account physical distance between, users and SMP operator are require to calculate the sum of costs. The relation of cost according related to distance is presented below in the separate table and graphs for each bandwidth.

MKT: We suggest for imposition of obligation for the user in the service request to submit coordinates of the points that wants to connect. That would affect on the accuracy of the data and awareness of the user for the fees that would be subject of invoicing lately. This would be also comment of the public hearing for Bylaw for minimum set of leased lines.

AEC: In the offer for provision of minimum set of leased lines, approved by AEC, in annex 3: Request for provision of leased lines from the minimum set of leased lines data for address of the installation of point A and point B are included. AEC's opinion is that those data is necessary for the calculation of fee for relevant service, listed in the request.

Total wholesale product cost is calculated from results as follows:

Since the monthly costs for rent of wholesale leased lines is both circuit and length related this is taken into consideration when calculating the final price for both terminating and trunk segments of the leased lines. In this view, the model determines circuit related costs and length related increment costs (per meter or kilometre of length) for the border lengths (300m, 3km and greater than 3 km for terminating segment, which is 50 km and 200 km for trunk segment).

If the actual length of wholesale leased line exceeds the border lengths than the pertaining cost should be determined by taking into consideration both circuit and the length related costs of the next border length.

Total cost of terminating segment is calculated by adding the circuit related cost and by multiplying the length of the line by the determined length increment for the same border length.

Total cost = border length circuit related cost + length of leased line* incremental cost of the same border length related cost

For example, if the length of terminating segment is 2,5 km, than the costs are calculated as follows:

- The length of the leased line exceeds the minimum of 300 m, but it is below the next border level of 3 km. Therefore, the relevant boarder length is 3 km.
- Costs of 2,5 km is therefore the circuit related costs of 3 km increased by the 2500 m times the increment cost per 100 m of the 3 km length related cost.

Total cost = 3 km circuit related cost + 2,5 km incremental cost for 3 km*

Furthermore, if the actual leased line length is above 3 km, than the next border length is greater than 3 km. The stated means that the cost for length of above 3 km should be the total of circuit related cost of greater than 3 km and increment cost for length related greater than 3 km. For example, if the actual leased line is 5 km in length, than the total cost is as follows:

$$\text{Total cost} = \text{greater than 3 km circuit related cost} + 5 \text{ km} * \text{incremental cost for greater than 3 km}$$

Finally, when it comes to the trunk segment of the leased lines, the minimum border length is set at 50 km. This means that when calculating the trunk segment costs of all leased lines below 50 km in length, both circuit and length related costs of 50 km will be the starting point. Again, the total cost is calculated using the formula stated under point.

For example, if the trunk segment is of 10 km length, its related cost will be calculated as stated below:

$$\text{Total cost} = 50 \text{ km circuit related cost} + 10 \text{ km} * \text{increment cost for 50 km}$$

For all trunk leased line segment above 50 km, the border line of 200 km will be the relevant point for calculating both circuit and length related costs.

The results for air distance LL are as follows:

Table 3: Wholesale leased lines [Source: Draft Model Reference Paper Wholesale Leased Lines, Duct Rental and Dark Fibre from 23.07.2012]

Service	MKD
64 kbit lease line terminating segment – 300 m	2.583
64 kbit lease line terminating segment – up to 3 km	2.539
64 kbit lease line terminating segment – up to 3 km increment 100 m	11
64 kbit lease line terminating segment - greater than 3 km	2.546
64 kbit lease line terminating segment - - greater than 3 km increment 1 km	91
64 kbit lease line trunk segment - 50 km	1.515
64 kbit lease line trunk segment - 50 km increment 1 km	4

64 kbit lease line trunk segment - 200 km	3.031
64 kbit lease line trunk segment - 200 km increment 10 km	10
<hr/>	
2 Mbit lease line terminating segment - 300 m	10.015
2 Mbit lease line terminating segment – up to 3 km	9.930
2 Mbit lease line terminating segment – up to 3 km increment 100 m	22
2 Mbit lease line terminating segment - - greater than 3 km	10.175
2 Mbit lease line terminating segment - - greater than 3 km increment 1 km	154
<hr/>	
2 Mbit lease line trunk segment - 50 km	6.982
2 Mbit lease line trunk segment - 50 km increment 1 km	9
2 Mbit lease line trunk segment - 200 km	12.301
2 Mbit lease line trunk segment - 200 km increment 10 km	24
<hr/>	
lease line trunk	

Additionally, since new product structure for wholesale leased lines takes into account physical distance between, users and SMP operator are required to calculate also the sum of costs for retail level. The same methodology described above applies and for calculation of retail prices of 64 kbit/s and 2 Mbit/s, but with adding of mark-up of 11% that covers retail cost.

In table below, you can find examples of calculation of retail leased lines prices for 64 kbit/s and 2 Mbit/s.

Table 2: Example of calculation of retail prices for minimum set of leased lines with applied maximum figure of 20%

	air distance [in km]			cost structure	WLL price	mark-up	retail price	
	P-to-P leased line structure	terminating segment #1	trunk segment					terminating segment #2
64kbps/s	2 * terminating segments	2	0	2,9	Up to 3 km circuit related cost + 20 * incremental cost for up to 3 km + up to 3 km circuit related cost + 29 * incremental cost for up to 3 km	5,617.00 MKD	20.00%	6,740.00 MKD
	2 * terminating segments	7	0	8	Greater than 3 km circuit related cost + 7 * incremental cost for greater than 3 km + greater than 3 km circuit related cost + 8 * incremental cost for greater than 3 km	6,457.00 MKD	20.00%	7,748,00 MKD
	2 * terminating + 1 * trunk segments	5	110	5	greater than 3 km circuit related cost + 5 * incremental cost for greater than 3 km + 200 km circuit related cost + 11 * incremental cost for 200 km + greater than 3 km circuit related cost + 5 * incremental cost for greater than 3 km	9,143.00 MKD	20.00%	10,971.00 MKD

	air distance [in km]			cost structure	WLL price	mark-up	retail price	
	P-to-P leased line structure	terminating segment #1	trunk segment					terminating segment #2
2 Mbps/s	2 * terminating segments	2	0	2,9	Up to 3 km circuit related cost + 20 * incremental cost for up to 3 km + up to 3 km circuit related cost + 29 * incremental cost for up to 3 km	20,938.00 MKD	20.00%	25,126.00 MKD
	2 * terminating segments	7	0	8	greater than 3 km circuit related cost + 7 * incremental cost for greater than 3 km + greater than 3 km circuit related cost + 8 * incremental cost for greater than 3 km	22,660.00 MKD	20.00%	27,192.00 MKD
	2 * terminating + 1 * trunk segments	5	110	5	greater than 3 km circuit related cost + 5 * incremental cost for greater than 3 km + 200 km circuit related cost + 11 * incremental cost for 200 km + greater than 3 km circuit related cost + 5 * incremental cost for greater than 3 km	34,455.00 MKD	20.00%	41,346.00 MKD

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