ECOI
Electronic Communications
Office of Iceland

Decision no. xx/2023
Cost analysis of wholesale prices for copper local loops

Case no: 2021050041

29 March 2023

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1 Introduction

(1) Míla hf. (Míla) wholesale tariff for access to copper local loops and distribution frames here under discussion is fundamentally based on the obligations imposed on the company with the Decision of the Electronic Communications Office of Iceland (ECOI) no. 5/2021.

(2) The services covered by the Míla tariff belong to the wholesale market for local access provided at a fixed location (Market 3a), pursuant to the EFTA Surveillance Authority (ESA) recommendation from 2016.

(3) Cost analysis for copper local loops that Míla submitted on 31 May 2021, was received during the duration of Act no.69/2003 on the Post and Telecom Administration. That Act has now been replaced by Act no.75/2021 on the Electronic Communications Office of Iceland, which came into force on 1 July 2021.

(4) Pursuant to Act no. 75/2021, ECOI took over the statutory role of monitoring implementation of the Electronic Communications Act no. 81/2003 and no. 70/2022, which replaced older legislation on 1 September 2022. This entails among other things, supervision of the Míla tariff for Míla service on which such obligations have been imposed by the decisions of the Post and Telecom Administration (PTA) and ECOI.

(5) The ECOI generally assumes as grounds, that prior solutions of PTA represent precedent for administrative action by the ECOI, as they are implementation and interpretation of the same provisions of the Electronic Communications Act. One must also regard the decisions of the ECOI as a continuation of decisions of the PTA, among other things with respect to obligations that have been imposed on Míla.

(6) The preliminary ECOI draft to the decision on wholesale tariff for access to copper local loops and distribution frames was submitted to national consultation which lasted from 10 January until 9 February 2023. Comments were received from Síminn hf. and Sýn hf. ECOI sent the comments to Mila for a review. Síminn's and Sýn's comments in their entirety, along with Míla's response, can be found in Appendix II. In Appendix III, the main issues in Síminn's and Sýn's comments regarding ECOI's draft decision are indicated, Míla's answers are specified where applicable and then the ECOI's position on the subject matter. ECOI does not believe that the comments made in the national consultation call for changes to the draft decision on the cost analysis price of wholesale prices of copper local loops.

(7) The draft decision is now sent to the EFTA Surveillance Authority (ESA) and to other regulatory bodies in the EEA for consultation, see provision of paragraph 1 of article 28 of Act no. 75/2021 on the Electronic Communications Office of Iceland and Article 32 of the European Electronic Communications Code.

(8) The following sections cover the legal grounds, methodology and calculations that led to the ECOI conclusion. The text of the draft decision describes the intended ECOI position which can be subject to amendment until the final decision is made, among other things as a

result of comments from stakeholders. The wording of the draft should be read with this in mind.

2 ECOI Decision no. 5/2021

(9) With ECOI Decision no. 5/2021 dated 19 October 2021, ECOI designated Míla as a company with significant market power on the wholesale market for local access provided at a fixed location (Market 3a) and central access provided at a fixed location for mass-market products (Market 3b). Subsequent to the designation of Míla, the Administration imposed obligations on the company for price control of copper local loops and for bitstream over copper local loops.

(10) Síminn hf. and Míla appealed the decision to the Appellate Committee for Electronic Communications and Postal Affairs (ACECP) in case no. 3/2021. With the ACECP ruling dated 29 December 2022, Decision no. 5/2021 was amended in a specific manner, the Economic Replicability Test obligation was deleted from the ECOI's Decision as well as other obligations specifically related to Síminn's ownership of Míla. The amendments decided by ACECP did not relate to obligations on price control for access to copper local loops, to fibre-optic in street cabinets, to VULA on copper local loops and to facilities related to local access to copper local loops. On the other hand, ECOI is required to conduct a new market analysis and to subsequently decide whether and then how, obligations will be imposed on Míla in the light of changes to ownership of the undertaking and of other changes on the electronic communications market. ECOI is required to issue the new market analysis decision before 15 September 2023. ECOI has already started work on this analysis and plans to make a new market analysis decision prior to the prescribed deadline.

2.1 Obligations imposed with respect to access to copper local loops

(11) With authorisation of article 32 of the older Electronic Communications Act no. 81/2003[1] ECOI imposed an obligation on Míla for price control for wholesale access to the undertaking's copper access networks provided at a fixed location and to fibre-optic in street cabinets with related facilities. This obligation applies also to VULA service on Míla copper local loops. Pursuant to Paragraph 4 of Article 32 of the same Act it was prescribed that the tariff for the access in question provided through copper local loops should be cost-oriented. ECOI did not impose a price control obligation on Míla fibre-optic local loops.

(12) It was stated in the decision that the Míla cost analysis for access to copper local loops, to copper sub-loops and to fibre-optic to street cabinets, with associated facilities such as street cabinets, should be based on the following main criteria:

- The cost base shall be Míla historical costs (HCA) based on the preceding financial year of the relevant undertaking in each instance.

[1] A new Electronic Communications Act no. 70/2022, came into force on 1 September 2022.

- The methodology shall be based on allocating all costs to the service in question (FAC).
- Allocation of costs is based on accounting separation for local loop leasing, on Míla asset accounting system and on costs from Míla's accounting system where opex is booked in accounting records.
- Assessment of investment shall be based on the book value of operational equipment in Míla's asset accounts where the historical cost of investments is adjusted to price levels of the year being analysed in each instance.
- A depreciation methodology shall be used that reflects the value in use of an asset.
- The annuity method shall be used to calculate annual investment costs.
- When calculating unit prices, the average number for the year being analysed shall be used in each instance.
- The cost of the local loop network shall be captured, including share of joint costs, management, IT and senior management in accordance with accounting separation.
- The required rate of return used shall be based on weighted average cost of capital ($WACC_{real}$) from capital tied in assets used in connection with providing service where the risk premium reflects the risk related to operations on the relevant market.
- Funds tied in current assets to the amount of average inventory for operations and development of the access network shall be taken into account.
- Average unit cost for the whole country is calculated from allocated operational and investment costs divided by number of lines or their line equivalents.

(13) In the decision it was stated that ECOI intended to decrease the frequency of reviews of tariff, as prescribed in the last market analysis. In order to increase predictability and stability in local loop prices and to lessen the workload on the Administration and on Míla, it was specified that ECOI would decrease the total number of overall reviews of Míla tariff for local loops. Instead, the tariff would be updated annually (1 January each year) using index development less the annual efficiency requirement between those times when the tariff is reviewed with new financial information. In this connection, the reference shall be the consumer price index. The tariff should, all things being equal, be reviewed at 2-3 year intervals and with each decision on new wholesale prices, a period of notice shall be decided for Míla to submit a new cost analysis. When reviewing a tariff, a new annual efficiency requirement shall be decided at the same time.

(14) Pursuant to article 52 of the Electronic Communications Act no. 70/2022, ECOI can, when calculating costs, take into account operations of analogous service which is deemed to be efficiently operated. Then measures regarding recouped costs and methodology for pricing shall support the distribution of new and more powerful networks, of efficiency and sustainability of competition, and shall maximise benefits for end users. In this respect, ECOI is authorised to take into account the price on offer on comparable competition markets.

(15) In paragraph 2 of article 52 of the Act, it is furthermore specified that tariff decisions shall take into account advantages of predictable and stable wholesale price.

3 PTA Decision no. 8/2019

(16) With the above PTA Decision no. 8/2019 on review of Míla wholesale tariff for copper local loop lease, dated 16 April 2019, the PTA endorsed the Míla cost analysis for access to copper local loops (Market 4/2008), with the amendments made during processing of analyses by the Administration.

(17) PTA Decision no. 8/2019 is based on prior PTA decisions nos. 21/2014 and 5/2017. This was a revision of a Míla cost model, (which was endorsed in PTA Decision no. 5/2017), with figures from Míla accounting system for the year 2017. The PTA conclusion was that the monthly fee for access to copper local loops increased from ISK 1,406 to ISK 1,558 (11% increase), which is the current monthly fee for access to local loops. The setup fee for local loops remained unchanged at ISK 3,166 while access to distribution frame became ISK 1,223/month for each 100 lines.

4 Facts of the case

(18) With reference to the PTA Decisions nos. 21/2014, 8/2019 and 9/2019, Míla submitted a revision of cost analysis for markets 4 and 5, dated 31 May 2021. Míla cost analysis comprised a report that described criteria and methods that were used in the analysis of costs, along with three Excel files with cost calculations.

(19) It was stated in the Míla cost analysis that the undertaking had calculated price for copper local loops and related service on markets 4/2008 and 5/2008. Calculations are in all main respects in accordance with the methodology adopted by PTA in Decision no. 21/2014, on the designation of an undertaking with significant market power and on the imposition of obligations on markets for wholesale access to access networks at a fixed location (Market 4/2008) and on wholesale broadband access (Market 5/2008).

(20) It was then stated by Míla that the undertaking had, in this analysis, in all main respects used the criteria specified in the PTA Decision no. 21/2014 and the same methodology as in the cost analysis on which current tariffs were based. Míla had however not calculated the price for fibre-optic to street cabinets. Pursuant to Decision no. 21/2014, the PTA had imposed an obligation on Míla to submit cost analysis for fibre-optic to street cabinets. Míla had pointed out that fibre-optic to street cabinets was part of the Míla fibre-optic local loop system. Fibre-optic local loops were, according to the same decision, not subject to price control. Míla and the PTA did not agree as to whether fibre-optic to street cabinets should belong to Market 4/2008 or 6/2008. The PTA had defined them in Market 6/2008, but that market was not under discussion in this analysis.

(21) There is more detailed discussion on Míla cost analysis in the appropriate sections here below.

(22) In an ECOI email to Míla dated 21 October 2022, it was stated that since Míla had submitted the cost analysis, ECOI had, subsequent to market analysis of Markets 3a and 3b, published Decision no. 5/2021, dated 19 October 2021. This decision replaces PTA Decision no. 21/2014, which Míla refers to in its cost analysis. ECOI will therefore take Decision no. 5/2021 into account when processing this cost analysis.

(23) ECOI furthermore considered it necessary to revise cost figures in the cost analysis, and that they took into account cost figures for the year 2021. More specifically, ECOI requested that the revision of the cost analysis for wholesale access to copper local loops took the following into account:

- Opex should be for the year 2021.
- The overview of development of cost items for copper local loops should also include opex for the years 2018 and 2019.
- When calculating the indexed investment base for the copper system, the undertaking should take into account real figures up to and including the year 2021. Investments forecasts should not be taken into account, see section 10.7.5.4 in ECOI Decision no. 5/2021.

- When calculating annuity, $WACC_{real}$ for the year 2021 should be used.
- The number of line equivalents [2]should be on the basis of the average number of local loops in the year 2021.

(24) ECOI also specified in its letter with respect to Míla discussion on fibre-optic to street cabinets, that the situation today was that there was still a price obligation on this fibre-optic as it had been deployed among other things, to provide service over copper local loops. As before, Míla is however authorised to submit a special analysis of fibre-optic to street cabinets or together with the cost analysis of fibre-lines on Market 6/2008, so ECOI will not require that cost analysis of this service be submitted with cost analysis of copper local loop.

(25) On 4 November 2022, Míla submitted a revised cost analysis for copper local loops.

(26) In an ECOI email to Míla dated 11 November 2022, ECOI reiterated a request for opex for the years 2018 and 2019 for comparison, and that the average number of equivalents should be used as a reference instead of the number at the end of year. The Administration also specified that when calculating investment base, Míla was authorised to use as a reference the purchasing years 2003-2022, i.e. 20 years, as ECOI considered that, as the year 2022 was almost over, it would be possible to make a realistic forecast of investments. For this reason, ECOI requested real investments for the year 2022 up to the end of October and an estimate for November and December. ECOI also pointed out corrections required in the cost model with respect to indexation and costs for inventory. ECOI also raised objections to the tax for the funding of Universal Service being categorised as opex, as it was in fact a tax. ECOI finally raised objections to the development of costs for premises as they had not decreased in step with a decline in copper local loops.

(27) In Míla's reply to ECOI dated 6 December 2022, Míla pointed out that if the Universal Service tax should not belong to opex, then the lease price would need to be increased to the amount of the tax. Míla was furthermore strongly opposed to using the average number of line equivalents instead of the number at the end of the period, see further discussion in section 5.7 here below. Míla also provided further explanations of the development of costs for housing and proposed an approach for correction of housing costs, see further in section 5.3.

(28) In an ECOI email to Míla dated 13 December 2022, ECOI agreed to the Universal Service tax being calculated as a surcharge on the local loop fee. ECOI furthermore pointed out that if the Universal Service tax should change, then the surcharge should change, and if the Universal Service tax would discontinued then the surcharge should also be discontinued. With regards to the number of line equivalents, ECOI reiterated its position that when one considered opex for the whole year then it was normal to use the average number of equivalents over the year. ECOI on the other hand accepted that when considering

[2] The number of line equivalents is the same as number of copper lines in this analysis. The wording line equivalents comes from older cost analysis when sold units had different equivalents depending on the frequency range of the copper local loop.

investments, Míla was authorised to use the closing position for the year, see further in section 5.7 here below.

(29) On 19 December 2022, Míla submitted a revised analysis in accordance with ECOI instructions in an email dated 13 December 2022. Míla and ECOI subsequently corresponded with regards to minor corrections to the cost model and on 3 January 2023 Míla made its final revisions to the cost analysis.

5 ECOI conclusion on tariff for copper local loops

5.1 General

(30) In Sections 5.2 - 5.9 here below one can find the criteria and conclusions of ECOI on the cost analysis for copper local loops. There is discussion on the main aspects that ECOI considers important as criteria for the Administration's position when calculating a tariff for local loop leasing.

(31) The factors in question are the following:

- Weighted average cost of capital
- Opex
- Capex
- Setup and access charges
- Access to distribution frames
- Number of lines
- Calculation of lease price

(32) Each sub-section is structured with a description of the Míla cost analysis coming first and then followed by the position of the ECOI for each issue. In Section 5.9.4 the ECOI conclusion is then summarised before the wording of the decision is given.

(33) The ECOI conclusion is based on authority granted to the Administration in the Electronic Communications Act no. 70/2022 where reference is particularly made to article 52 of the Electronic Communications Act on price control and to ECOI Decision no. 5/2021 and the PTA Decision no. 8/2019, see discussion here above in sections 2 and 3.

(34) Míla has submitted a description of the company's cost accounting with calculations, along with a report from an independent auditor. Míla has also submitted an analysis of costs for access to copper local loops, along with further explanations at the request of ECOI.

(35) The ECOI conclusion is based on Míla cost analysis from 31 May 2021 with those amendments made to the Míla cost model which was submitted on 3 January 2023.

5.2 Weighted average cost of capital

5.2.1 Míla cost analysis

(36) Míla's report dated 31 May 2021 stated that ECOI took account of EC recommendations for calculating WACC (Weighted Average Cost of Capital) for the year 2020. In this instance, Míla raises no objections to the Administration's calculations, but however points out that the cost of debt in ECOI calculations was significantly lower than Míla was offered for recapitalisation at the beginning of 2021.

(37) In the revised cost analysis for the operational year 2021, Míla used WACC for the year 2021 in its calculations.

5.2.2 Position of ECOI

(38) The European Commission (EC) has issued a notice with recommendations for calculating capex for infrastructure (WACC Notice). The main purpose of these recommendations is to harmonise calculations of WACC and make them more accessible and predictable. ECOI plans to take these recommendations into account, where applicable.

(39) Appendix I contains discussion and ECOI conclusion on WACC for the year 2021. WACC calculations take into account the BEREC report dated 10 June 2021: Report on WACC parameter calculations according to the European Commission's WACC Notice (WACC parameters Report 2021), BoR (21) 86.

(40) The ECOI conclusion is that WACC based on risk free real interest ($WACC_{real}$) for the year 2021 is 5.16%.

(41) Míla calculations in the cost model on which the ECOI conclusion is based allows for WACC calculated by ECOI for the year 2021.

(42) ECOI decides WACC annually and this was most recently calculated for the year 2021.

5.3 Operational costs (OPEX)

5.3.1 Míla cost analysis

(43) In the Míla cost analysis dated 31 May 2021 the following is stated with respect to opex of copper local loops[3]:

[3] Figures in this section have been revised according to the cost model dated 3 January 2023.

Table 5.1

	2017	2020	Change from 2017	2021	Change from 2021
Material	[...][4]	[...]	[...]	[...]	[...]
Transferred labour	[...]	[...]	[...]	[...]	[...]
Licence costs and opex	[...]	[...]	[...]	[...]	[...]
Purchased services	[...]	[...]	[...]	[...]	[...]
Other costs	[...]	[...]	[...]	[...]	[...]
Office costs	[...]	[...]	[...]	[...]	[...]
Travel costs	[...]	[...]	[...]	[...]	[...]
Housing costs	[...]	[...]	[...]	[...]	[...]
Vehicle costs	[...]	[...]	[...]	[...]	[...]
Computer and software costs	[...]	[...]	[...]	[...]	[...]
Written off lost claims	[...]	[...]	[...]	[...]	[...]
Senior management and support department costs	[...]	[...]	[...]	[...]	[...]
Costs pre-interest income tax and depreciation	[...]	[...]	[...]	[...]	[...]

(44) Míla pointed out that, as one can see in the table here above, opex has decreased significantly since 2017. The explanation for the decrease can be attributed to the fact that during this period, fibre-optic rollout was at full speed. Copper local loops have therefore declined steadily since the year 2017.

(45) Material, transferred labour, purchased services and vehicle costs decrease to a greater extent than the decline in local loops. Míla pointed out that it was foreseeable that the copper system would be decommissioned and Míla has decreased all operational maintenance where possible. In addition to this, Covid 19 had the effect that efforts were made to postpone all maintenance in order to reduce pressure on the system.

(46) It was stated by Míla that office costs decreased by about ISK [...] to ISK [...]. This decrease can be attributed to the fact that costs for marketing material had been charged to copper local loops, but there were now no such costs for copper local loops. Míla marketing material directed at local loops is now only for deployment of fibre-optic local loops.

(47) Costs for premises decreased however by only about [...]%[5]. The explanation of why costs for premises had decreased to a considerably lesser extent than other costs was, according to Míla, that distribution frames had not decreased in size to any significant degree, despite the decline, as increasing density and dismantling distribution frames entailed significant costs.

[4] Information in brackets in this document is confidential and have therefore been removed.

[5] Prior to adjustments made to costs for premises.

(48) On 11 November 2022, ECOI requested further information on the development of opex and on 6 December 2022, Míla submitted a revised cost model where a statement of opex for the years 2018 and 2019 was added.

Table 5.2

	2017	2018	2019	2020	Change from 2017	2021	Change from 2021
Material	[...]	[...]	[...]	[...]	[...]	[...]	[...]
Transferred labour	[...]	[...]	[...]	[...]	[...]	[...]	[...]
Licence costs and opex	[...]	[...]	[...]	[...]	[...]	[...]	[...]
Purchased services	[...]	[...]	[...]	[...]	[...]	[...]	[...]
Other costs	[...]	[...]	[...]	[...]	[...]	[...]	[...]
Office costs	[...]	[...]	[...]	[...]	[...]	[...]	[...]
Travel costs	[...]	[...]	[...]	[...]	[...]	[...]	[...]
Housing costs	[...]	[...]	[...]	[...]	[...]	[...]	[...]
Vehicle costs	[...]	[...]	[...]	[...]	[...]	[...]	[...]
Computer and software costs	[...]	[...]	[...]	[...]	[...]	[...]	[...]
Written off lost claims	[...]	[...]	[...]	[...]	[...]	[...]	[...]
Senior management and support department costs	[...]	[...]	[...]	[...]	[...]	[...]	[...]
Costs pre-interest income tax and depreciation	[...]	[...]	[...]	[...]	[...]	[...]	[...]

5.3.2 Position of ECOI

(49) Míla has submitted information on opex for the undertaking's copper local loops for the years 2020 and 2021 for comparison for the year 2017, which was the operational year on which the current price is based. In order to see the development of opex, ECOI also requested an overview of opex for the years 2018 and 2019. In its evaluations, ECOI uses the development of opex pursuant to information submitted by Míla and the prior Míla analysis. The ECOI also builds on data that shows accounting separation in Míla's operations in accordance with the obligation for accounting separation.

(50) In a letter to Míla, dated 11 November 2022, ECOI raised objections to development of the housing costs, as the cost per equivalent had almost doubled between 2017 and 2021, where the largest item in this cost was internal hosting. ECOI pointed out that copper local loops took a very large percentage of hosting costs for the access networks, particularly when one considered that leased copper local loops were now fewer than fibre local loops and other connections categorised under access networks that bear costs for hosting. Míla had stated that payment was being made for hosting on distribution frames, which in reality were not in use or at least not fully utilised. ECOI was authorised to reject costs resulting from inefficiency and considered that in this instance, copper local loops were being made to bear costs of this nature. ECOI considered it inappropriate to pay for space that distribution frames were not using (or that were larger than they needed to be) and proposed that these costs be reduced. Forward looking, it was clear that it was not possible to have fewer and fewer leased copper local loops bear the costs of inefficient utilisation of distribution frames. ECOI considered it

necessary to decide hosting costs in another manner, e.g. on the basis of cost per line equivalent.

(51) In its answer dated 6 December 2022, Míla stated that the undertaking considered it untenable to compare hosting costs for fibre-optic connected distribution frames with copper connected distribution frames, as the fibre-optic connected distribution frames took only a fraction of the space needed for copper local loops. Míla, could however agree that these costs were now proportionately very high. It would however be expensive to increase density in distribution frames in order to lower lease costs. It was appropriate to point out that if these costs were to be reduced, this would in fact mean that the lease costs for hosting would probably be correspondingly too low. If lease costs were to be reduced because of "inefficiency", then the cost of increasing density and dismantling of distribution frames would also need to be added. In addition to this, it would be necessary to add the increase in lease costs that came into force at the last end of year. Míla was however prepared to examine a reduction of these costs as a measure against "inefficiency". Míla believed that it was not correct to use line equivalents as a basis for calculations, as it was clear that lease costs did not decrease in direct proportion to a decline in the number of lines. There was, for example, always a need for a certain minimum space where a decline in the number of local loops did not necessarily entail a decrease in lease space, particularly in the smallest telephone exchanges, where minimum space always had to be rented. Míla collected rent for distribution frames (access to distribution frames), which was based on 100 line heads. Míla considered it more reasonable, if one were to take into account that a decline in local loops could lead to less leased space, to use revenue for access to distribution frames as a measure rather than direct reference to decline in local loops. Míla revenue in 2017, projected on the basis of the current tariff, would be ISK [...] while income for 2021 amounted to ISK [...]. The reduction for fewer connection heads on the distribution frame would thus be 32%. Premises costs for 2017 multiplied by 68% would be ISK [...], ISK ([...]*0.684). This would need to be multiplied by the average increase in hosting prices for distribution frames (15%). According to this methodology, the cost is ISK [...], see information in the revised Míla table for opex in section 5.3.1.

(52) ECOI accepts Míla's explanations and proposals for the correction of the housing costs. The following is the cost items that falls under housing costs in this cost analysis:

Table 5.3

Description	**Cost in ISK**
Cleaning and hygiene products	[...]
Garbage removal and container rental	[...]
House rent within a company	[...]
Internal hosting	[...]
Total	**[...]**
Correction	**[...]**
Used in calculations	**[...]**

(53) As can be seen the main part is what is called hosting within the company and is a charge for rental space in Míla's buildings according to Míla's tariff (ECOI's Decision no. 8/2021; Review of Mila wholesale tariff for hosting and electricity). Most of the charges are rental space for Míla's distributions frames and lease space in cable cellars.

(54) The ECOI conclusion is therefore that the costs used by Míla as a basis for the calculation of opex for Míla copper local loops in the year 2021 (having taken into account the reduction in housing costs) totalled ISK [...] which is a [...]% reduction from opex in 2017. During the same period, average equivalents decreased by about 53%.

(55) For comparison, the average consumer price index increased between the years 2017 and 2021 by about 14% and the wages index by about 18% for the same period.

(56) ECOI raises no objections to the above specified Míla calculations and conclusion on reduction of opex.

(57) ECOI considers it right to take into account the development of opex per equivalent where there is a significant reduction in the number of copper local loops. The following table shows opex by equivalent for the years 2017, 2020 and 2021:

Table 5.4

	2017	2020	2021	Change from 2017
Material	[...]	[...]	[...]	[...]
Transferred labour	[...]	[...]	[...]	[...]
Licence costs and opex	[...]	[...]	[...]	[...]
Purchased services	[...]	[...]	[...]	[...]
Other costs	[...]	[...]	[...]	[...]
Office costs	[...]	[...]	[...]	[...]
Travel costs	[...]	[...]	[...]	[...]
Housing costs	[...]	[...]	[...]	[...]
Vehicle costs	[...]	[...]	[...]	[...]
Computer and software costs	[...]	[...]	[...]	[...]
Written off lost costs	[...]	[...]	[...]	[...]
Senior management and support department costs	[...]	[...]	[...]	[...]
Costs pre-interest income tax and depreciation	[...]	[...]	[...]	[...]

(58) As can be seen from the table, there is a decrease in total opex per equivalent but it varies how these costs have developed. Costs for premises have increased most, by about [...]% but as stated here above there are specific explanations for this. Without the corrections made at the demand of ECOI, the increase in premises costs would have been [...]%.

(59) ECOI raises no further objections to Míla opex which means that the opex for calculation of the local loop fee is therefore ISK [...].

5.4 Investment costs (CAPEX)

5.4.1 Míla cost analysis

(60) In the Míla cost analysis dated 31 May 2021 it is stated with respect to Míla capex that the historical investment costs for local loops are indexed in the same manner as in previous analyses. Investments in distribution frames and in copper local loops are indexed from the year 2002 using the building cost index. The useful life of these investments is up to 20 years.

(61) The following table shows a statement of investments in the copper system at nominal price:[6]

Table 5.5

Year of purchase	User lines	VDSL - copper	Machines and equipment	Distribution frames	NMS	Total
2021	[...]					[...]
2020	[...]	[...]	[...]			[...]
2019	[...]	[...]	[...]			[...]
2018	[...]	[...]	[...]			[...]
2017	[...]	[...]	[...]			[...]
2016	[...]	[...]	[...]			[...]
2015	[...]	[...]	[...]			[...]
2014	[...]	[...]	[...]			[...]
2013	[...]	[...]	[...]			[...]
2012	[...]	[...]	[...]	[...]		[...]
2011	[...]	[...]	[...]	[...]		[...]
2010	[...]	[...]	[...]	[...]	[...]	[...]
2009	[...]		[...]	[...]	[...]	[...]
2008	[...]		[...]	[...]	[...]	[...]
2007	[...]		[...]	[...]	[...]	[...]
2006	[...]		[...]	[...]	[...]	[...]
2005	[...]		[...]	[...]	[...]	[...]
2004	[...]			[...]	[...]	[...]
2003	[...]			[...]	[...]	[...]
2002	[...]			[...]	[...]	[...]
2001	[...]			[...]	[...]	[...]
2000	[...]				[...]	[...]
1999	[...]				[...]	[...]
1998	[...]				[...]	[...]
1997	[...]				[...]	[...]
1996	[...]				[...]	[...]
1995	[...]					[...]
1994	[...]					[...]

[6] Figures in this section have been revised according to the cost model dated 3 January 2023.

(62) In an ECOI mail to Míla dated 21 October 2022, ECOI required that calculation of the investment base would be according to purchase years 2003-2022, which is 20 years, as ECOI considered that, as the year 2022 was almost over, it was unlikely that there would be discrepancies in the Míla schedule for investments in that year. For this reason, ECOI requested real investments for the year 2022 up to the end of October and an estimate for November and December. In Míla's reply dated 6 December 2022, it was stated that investments in the year 2022 until October were ISK [...] and that Míla planned to use the figure of ISK [...] for the whole year, but subsequently agreed in an email dated 7 December 2022 to use the amount ISK [...].

(63) Here below is a statement of indexed historical investment cost for the copper system and calculations of annuity for copper local loops and distribution frames.

Table 5.6

Base index	Year of purchase	Copper	VDSL - copper	Machines and equipment	Distribution frames	Total	Useful life/copper and distribution frames	Annuity, copper and distribution frames
	2022	[...]	[...]	[...]	[...]	[...]	9	[...]
777.9	2021	[...]	[...]	[...]	[...]	[...]	10	[...]
743.0	2020	[...]	[...]	[...]	[...]	[...]	11	[...]
725.5	2019	[...]	[...]	[...]	[...]	[...]	12	[...]
696.7	2018	[...]	[...]	[...]	[...]	[...]	13	[...]
663.9	2017	[...]	[...]	[...]	[...]	[...]	14	[...]
652.8	2016	[...]	[...]	[...]	[...]	[...]	15	[...]
628.0	2015	[...]	[...]	[...]	[...]	[...]	16	[...]
602.3	2014	[...]	[...]	[...]	[...]	[...]	17	[...]
593.2	2013	[...]	[...]	[...]	[...]	[...]	18	[...]
573.1	2012	[...]	[...]	[...]	[...]	[...]	19	[...]
539.4	2011	[...]	[...]	[...]	[...]	[...]	20	[...]
508.5	2010	[...]	[...]	[...]	[...]	[...]	20	[...]
488.9	2009	[...]	[...]	[...]	[...]	[...]	20	[...]
428.8	2008	[...]	[...]	[...]	[...]	[...]	20	[...]
371.6	2007	[...]	[...]	[...]	[...]	[...]	20	[...]
339.7	2006	[...]	[...]	[...]	[...]	[...]	20	[...]
313.9	2005	[...]	[...]	[...]	[...]	[...]	20	[...]
297.9	2004	[...]	[...]	[...]	[...]	[...]	20	[...]
285.9	2003	[...]	[...]	[...]	[...]	[...]	20	[...]
	Base	[...]	[...]	[...]	[...]	[...]	20	[...]
	Total	[...]						

(64) In the Míla cost analysis dated 31 May 2021, Míla stated that it was foreseeable that the undertaking's copper system would be decommissioned over the coming 10 years. Míla therefore considered it reasonable that annual capital costs from 2012 should be based on the system being finally decommissioned in the year 2031. In this manner, useful life of

investments in 2012 would be 19 years and would then decrease such that useful life of investments in 2022 would be 9 years. Míla considered it necessary to apply this methodology as investments would otherwise not achieve the profitability they should generate. All Míla investments in copper would be essential maintenance investments.

(65) Annual capital costs are calculated in the same manner as in previous analyses. A useful life of 9-20 years is used for the copper system and for distribution frames and 10 years useful life for technical equipment. A useful life of 8 years is used for investments related to the introduction of fibre-optic. There have been no investments in use of microwave in recent years, and for this reason there was no historical cost calculated for them. Weighted average cost of capital (WACC) was calculated at 5.16% for the operational year 2021.

(66) According to the above, Míla annuity was as follows:

Table 5.7

Investments	Indexed historical cost	Useful life	Annuity
Copper and distribution frames.....	[...]	10 to 20	[...]
VDSL, copper.....	[...]	8	[...]
Equipment.....	[...]	10	[...]
	[...]		[...]

5.4.2 Position of ECOI

(67) In the ECOI Decision no. 5/2021 it is stated that when evaluating investments, the book price of operational assets in Míla's asset accounting system should be used where historical cost is indexed to the year being analysed in each instance.

(68) Historical costs are based on Míla investments for the years 2003-2022, while investments for 2022 are mostly based on real investment and on a projection for investments during the last months of the year.

(69) The changes in annual investments shown in table 5.6 reflects the story of Míla investments in the access network. Míla started to apply fibre instead of copper in new buildings around 2006 and then started investments in DSL in 2010, which were at its peak in 2015. In 2016 Míla started the roll-out of fibre and after that the number of copper lines have been decreasing steadily.

(70) The investments in street cabinets are partly allocated to fibre local loops and partly to copper local loops as this investment enhances the value of the copper local loop itself making them qualified for VDSL service.

(71) Even after Míla stopped applying copper in new buildings after 2006, that was mainly in new areas and in copper areas most changes and maintenance were done by applying/replacing copper in copper areas. It can be said that these investments were maintenance investments. In some cases, it was necessary to replace the copper lines because

of their poor conditions or there were constructions that called for changes in the path of the copper lines.

(72) After 2016 when Míla starts the roll-out of fibre, gradually the maintenance of copper is done by applying fibre instead if possible, but it is still necessary to maintain the copper in some copper areas. As Míla's fibre becomes available the need for maintenance of the copper becomes less important because of fewer connections and if a fibre from Míla is available the user is switched to fibre in case of fault.

(73) The roll-out of fibre is on-going and now it is clear that the plan is to decommission the copper network at least before 2031 and even before that time. It can therefore be expected that Míla will try to minimize maintenance as much as possible.

(74) Indexed historical cost is ISK [...]. The building cost index is used for indexation of the investment as this index is considered to best reflect price development for large investments in civil works.

(75) If table 5.5 is compared with table 5.6 it can be seen how the investments in copper and distribution frames older than 20 years are deleted from the asset base. The lifetime of the investment in VDSL – copper is 8 years and hence investments older than 8 years have been deleted from the invest base as they are considered fully depreciated, the same applies to Equipment but with a 10 year lifetime. Other categories such as microwave equipment and NMS that were included in older cost analysis have been deleted from the asset base since they have been fully depreciated. Fully depreciated assets are therefore not included in the asset base.

(76) In table 5.6 the annuity for copper and distribution frames is calculated in the last column using the lifetime and the WACC. In table 5.7 the annuity for the VDSL copper and Equipment is then calculated and the sum of the annuity for copper and distribution frame is indicated.

(77) As can be seen in table 5.6 the investments in 2003-2006 are high in comparison with later investments. Because of the long lifetime expected at that time these investments still constitute a large part of the investment base today.

(78) ECOI raises no objections to Míla's procedures for the above specified calculations of historical investment costs, as they are in accordance with the ECOI obligation to this effect.

(79) Míla asked for a change to the useful life of investments in copper local loops and distribution frames. ECOI does not object to this change in light of the expected decommissioning of the copper system. In order for Míla to recover its investment cost, this change is necessary in ECOI's opinion.

5.5 Setup charges

5.5.1 Míla cost analysis

(80) In the Míla cost analysis dated 31 May 2021, it is stated that Míla decided to discontinue to charge setup fees for copper local loops. Míla says that the undertakings customers had been requesting that the setup fee be discontinued in order to increase transparency in their charges. For this reason setup fees in the analysis are not deducted from total costs when calculating the lease price. This has the effect that the monthly charge is ISK 31 higher than it would have been otherwise.

5.5.2 Position of ECOI

(81) In prior cost analyses, estimated annual revenue from setup fees are deducted from costs used in the calculation of the monthly charges. The cost of connecting a new local loop has therefore not been specifically analysed. The analysis of costs is therefore not being changed, but rather the structure of the tariff and how costs are recovered.

(82) ECOI considers that the changes in presentation of the tariff will increase transparency and simplify the tariff. It is also appropriate to take into consideration that leased copper local loops are in steady decline as they are increasingly replaced by fibre-optic local loops and it is therefore normal to consider whether to maintain a setup fee for local loops that the consumer may potentially replace in the near future, given Míla's policy on decommissioning copper local loops. ECOI therefore does not object to this change in the tariff and as previously stated, this does not have an impact on the cost of the local loop system as a whole.

5.6 Access to distribution frame

5.6.1 Míla cost analysis

(83) Míla states that in accordance with prior cost analysis, it is expected that the fee for access to distribution frame will increase in the same proportion as the monthly fee for local loops.

5.6.2 Position of ECOI

(84) The main costs in access to the distribution frame are the rental fee for space in facilities, labour cost and material. In PTA Decision no. 5/2017 it was decided to change the methodology for deciding the fee for access to distribution frame so that the fee for access to distribution frame would increase in the same proportion as the monthly fee for local loops. The above is therefore in accordance with prior Míla procedure which has already been endorsed by ECOI. The Administration therefore raises no objections to access to distribution frame increasing in the same proportion as the price for local loops.

(85) To calculate the fee for access to the distribution frame, first the monthly fee for access to the local loop is calculated from the total annual costs. The fee for the access to the distribution frame is then set by using same percentage increase in prices. The calculated revenues expected for this service (including the increase in fees) are then deducted from the total annual cost and the monthly fee for the access to copper loop calculated again. These

calculations are iterated until the percentage increase in the copper price does not change between iterations.

5.7 Number of line equivalents

5.7.1 Míla cost analysis

(86) It is stated in the Míla cost analysis dated 31 May 2021 that the number of line equivalents is based on the number of local loops (2 wire) in December 2020 and in the revised cost analysis for the year 2021 Míla use the number of line equivalents as of December 2021. Míla pointed out that since 2017, the number of lines in use has decreased significantly.

(87) According to the Míla cost analysis dated 21 December 2022, the number of line equivalents was [...] in December 2021, while the average number of line equivalents for the year 2021, was [...].

5.7.2 Position of ECOI

(88) According to the ECOI Decision no. 5/2021, when deciding unit prices, the average number for the year being analysed shall be used in each instance.

(89) The number of line equivalents is the same as number of copper lines in this cost analysis. The wording line equivalents comes from older cost analysis when sold units had different equivalents depending on the frequency range of the copper local loop.

(90) In an ECOI email to Míla dated 21 October 2022, ECOI requested among other things that the average number of equivalents should be used instead of the number at end of year and this ECOI requirement was reiterated in an email on 11 November 2022.

(91) In an answer from Míla on 6 December 2022, it was stated by Míla that this ECOI requirement came as a surprise to the undertaking. The procedure of using the end of period number instead of the average number had been used since at least the year 2013, and Míla referred, in this respect, to the PTA decisions nos. 15/2013 and 5/2017.

(92) Míla also pointed out that in on ECOI decision on market analysis of Market 3a, the following was stated (article 1766):

"Average unit cost for the whole country is calculated from allocated operational and investment costs divided by number of lines or their line equivalents."

(93) This wording was precisely the same as the wording used in the PTA Decision no. 21/2014, and in cost analysis subsequent to Decision 21/2014, ECOI had authorised Míla to use the end of year number.

(94) In addition to this, the following (article 1769) appears in market analysis of Market 3a:

"As can be seen in the figure, the increase in monthly prices for Míla copper local loops, endorsed by the PTA, has been below price levels and has not followed development of prices

for fibre-optic local loops. In the opinion of the PTA, a monthly price of copper local loops that is too low could lead to decelerating the uptake of fibre-optic local loops and it is thus no less important for this to be monitored than to prevent excessive pricing"... "It would be better if Míla was able to collect its costs with local loop charges from those who use the service than to apply for an allocation from the universal services fund which is funded by electronic communications companies, as the situation is today."

(95) As stated by Míla and by ECOI in article 1769, lease prices need to take into account the most realistic status, i.e. lease price should suffice to collect for future leasing (present time), which means that the calculated price needs to reflect the number that purchase the service. Míla had often pointed out that historical cost, for example, and the number of units are not always descriptive of the future lease price. This particularly applies when there are significant changes to the number of units as was the case with copper local loops. The current lease price came into force on 1.6.2019 and since then prices (consumer price index) have increased by about 19%. If one used the average number of local loops as a base, the increase would only be 10%. One could furthermore point out that the price for copper would be lower than for fibre-optic local loops, even if one calculated on the basis of the number of local loops in December 2021, and as stated in article 1,769 referred to here above, the Administration had some concerns that too low a price for copper could have the effect of lessening uptake of fibre-optic local loops.

(96) In the light of the above, Míla wishes to use the number at end of year 2021 and not the average number, as has been done for at least the last 10 years, as there being nothing to indicate that the average number was a better measure of price for local loops than the end of year number, quite the contrary.

(97) In an ECOI email to Míla dated 13 December 2022, ECOI pointed out with respect to Míla's reference to article 1,766 in Decision no. 5/2021, that one had to look at the paragraph as a whole where in item 7 it states: *"When deciding unit prices, one shall use the average number in the year , which is being analysed in each instance."*

(98) It is clearly stated there that the average number in the year which is being analysed should be used. The Míla's references to former practise dated prior to ECOI Decision no. 5/2021, which means that one is required to apply the text that appears in the Decision.

(99) With respect to the Míla discussion on too low prices for local loop lease, ECOI points out that when this is viewed in the context of the adjustments to the investment base, then there was a similar conclusion as had been in the Míla analysis before these changes were made to the cost model.

(100) ECOI pointed out that one could assume that with a decrease in sold units, opex would decrease, which means that the conclusion would be distorted by using the number of units at end of year when costs are accrued over the whole year. For this reason, ECOI considers it appropriate to use the average number of sold units for the year that is being analysed in each instance. It was however the case with respect to capex for local loops that capex for the year being analysed had limited significance when one considers total investments in the copper local loop system. ECOI could therefore agree with the Míla view with respect to capex and

accepts that when calculating unit price, the position at end of the period would be used as a base. When making such calculations, ECOI considered it appropriate that a deduction for revenue should be divided in the same proportion as the division between opex and annual capex.

(101) The conclusion is thus that when deciding unit prices, the number of line equivalents at the end of December 2021, which were [...] should be used when the share of investment cost is calculated but the average number of line equivalents for 2021, which were [...] should be used when calculating the share of opex.

5.8 Calculation of lease price

5.8.1 Míla cost analysis

(102) The conclusion of the Míla calculations, based on the most recent revision of the Míla cost model from 31 May 2021[7], is that total costs for the undertaking's copper system, having deducted revenue from distribution frames and other one-off costs, is as follows:

Table 5.8

	2014	2016	2017	2020	2021
Annual capital cost.....	[...]	[...]	[...]	[...]	[...]
Opex.....	[...]	[...]	[...]	[...]	[...]
Inventory cost.....	[...]	[...]	[...]	[...]	[...]
Deduction for access to distribution frame.	[...]	[...]	[...]	[...]	[...]
Deduction for setup fees.....	[...]	[...]	[...]	0	0
Deduction for other revenue.....	[...]	[...]	[...]	[...]	[...]
	[...]	[...]	[...]	[...]	[...]

(103) Míla stated in the cost analysis that when costs for material and consumables for operation of the copper system were taken into account, this should be based on the average inventory level at end of year for 2020 and 2021, multiplied by cost of capital. The average inventory level was ISK [...] and capex for inventory was ISK [...] in 2021.

(104) Total costs for 2021 for calculating the monthly fee amounted to ISK [...].

(105) According to the Míla conclusion, the monthly fee for copper local loops is ISK 1,976 to which 0.1% Universal Service tax is added which makes the total price ISK 1,978. The increase is therefore just under 27%, while the increase without taking discontinuation of the setup fee into account, was on the other hand, 25%.

[7] Figures in this section have been revised according to the cost model dated 3 January 2023.

(106) The monthly lease price for access to distribution frame also increased by about 27%, from ISK 1,223 for each 100 lines to ISK 1,553.

5.8.2 Position of ECOI

(107) The ECOI position is based on the revised cost model submitted by Míla on 3 January 2023 and is based fundamentally on the Administration's Decision no. 5/2021.

(108) The main criteria of the updated Míla cost model are as follows:

- Opex is based on booked costs for the year 2021.
- Investments for 2003 to 2021 were indexed using the building cost index to the average price level of 2021. Investments for 2022 are estimated on the basis of real investments during the first nine months of the year.
- The number of line equivalents at the end of December 2021, which were [...] is used when the share of investments is calculated but the average number of line equivalents for 2021, which were [...] should be used when calculating share of opex.
- Weighted average cost of capital (WACC) for 2021 is assessed at 5.16%.

(109) The following table shows calculations of local loop price:

Table 5.9

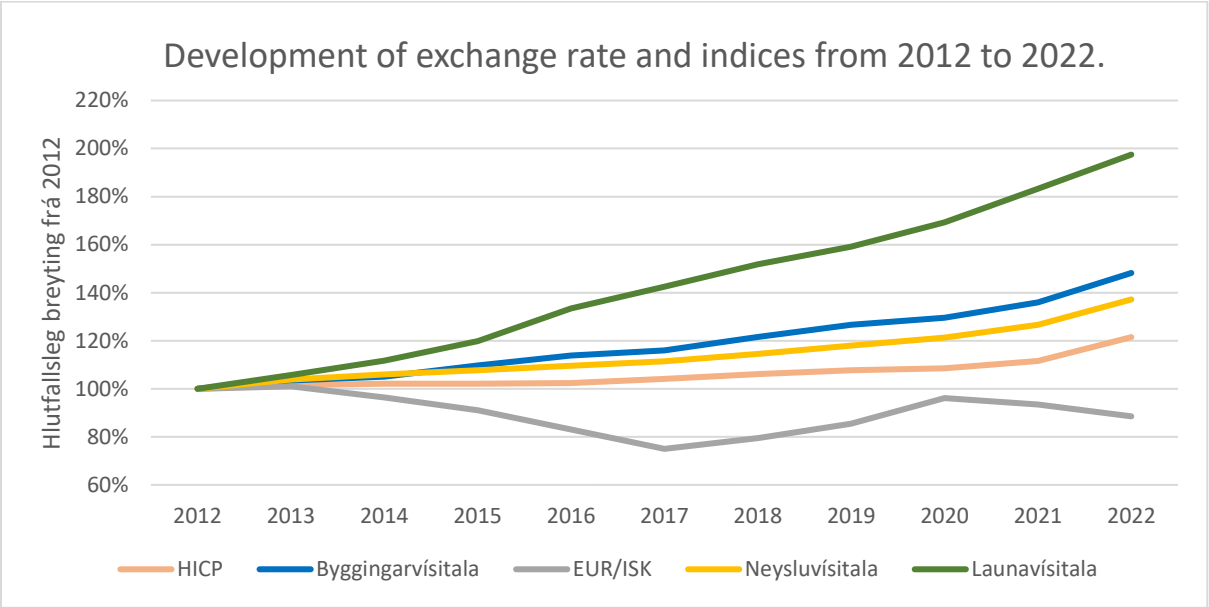
	Annuity	Opex
Costs	[...]	[...]
Share in total costs	68%	32%
Deduction for access to distribution frame	[...]	[...]
Deduction for setup fees	0	0
Deduction for other revenue	[...]	[...]
Total	[...]	[...]

	Annuity	Opex
Quantity of line equivalents	[...]	[...]
Price per month	1,382	594
Total	**1,976**	
Equalisation fee	2	
Local loop fee per month	**1,978**	

(110) The conclusion of calculations of monthly lease of copper local loops totals ISK 1,978, which amounts to a 27% increase from the current price which was based on opex figures for the year 2017. From 2017 to 2021[8] the building cost index has increased by about 17%, the consumer price index by about 14% and the wages index by about 29%.

[8] Which is the operational year on which this cost analysis is based.

(111) The following graph shows the development of exchange rate and indices since 2012[9]:



Source: ECOI

(112) The wages index has increased significantly in recent years, which particularly impacts on Míla opex. The building cost index has also significantly increased from 2021 to 2022, and as local loop prices come into force in 2023, one must take into account that the increase in building cost index from 2017 until 2022 is 28%, which is in excess of the increase of local loop prices that the conclusion of the cost model returned. The current domestic price came into effect on June 1, 2019. If the increase in the building cost index is calculated from that date to January 2023, the increase is 23%, while the wage index increased by 31%. As stated above, the increase in the local loop price without the effect of the cancellation of the setup fees was 25% which should be considered when making this comparison.

(113) In the light of the above the ECOI makes no objections to the Míla cost analysis.

5.9 Conclusion of ECOI

(114) ECOI has reviewed Míla parameters and calculations for opex, annual return on investments, setup fees, line equivalents and calculation of lease price for local loops, pursuant to the Míla cost analysis dated 31 May 2021. The cost analysis was revised on a number of occasions, and the most recent revision was submitted on 3 January 2023.

(115) In accordance with the discussion in sections 5.1-5.8 here above on the parameters for Míla calculations for copper local loops, ECOI has reviewed Míla conclusion on the monthly fee for access to local loops and distribution frames.

[9] In the graph, Byggingavísitala is the building price index, Neysluvísitala is the consumer price index and Launavísitala is the wage index.

(116) The conclusion of the Míla calculations on the monthly lease for copper local loops is ISK 1,978, which represents a 27% increase. The monthly lease price for access to distribution frames also increased by about 27%, from ISK 1,223 for each 100 lines to ISK 1,553.

5.9.1 Price range pursuant to Recommendation from the EU Commission

(117) In prior ECOI decisions on tariff for access to copper local loops, the Administration examined development of indices and the price range as defined in EU Commission recommendations on the implementation of harmonised non-discrimination obligations and cost analysis methodologies in order to increase competition and strengthen investments in the next generation of access networks[10].

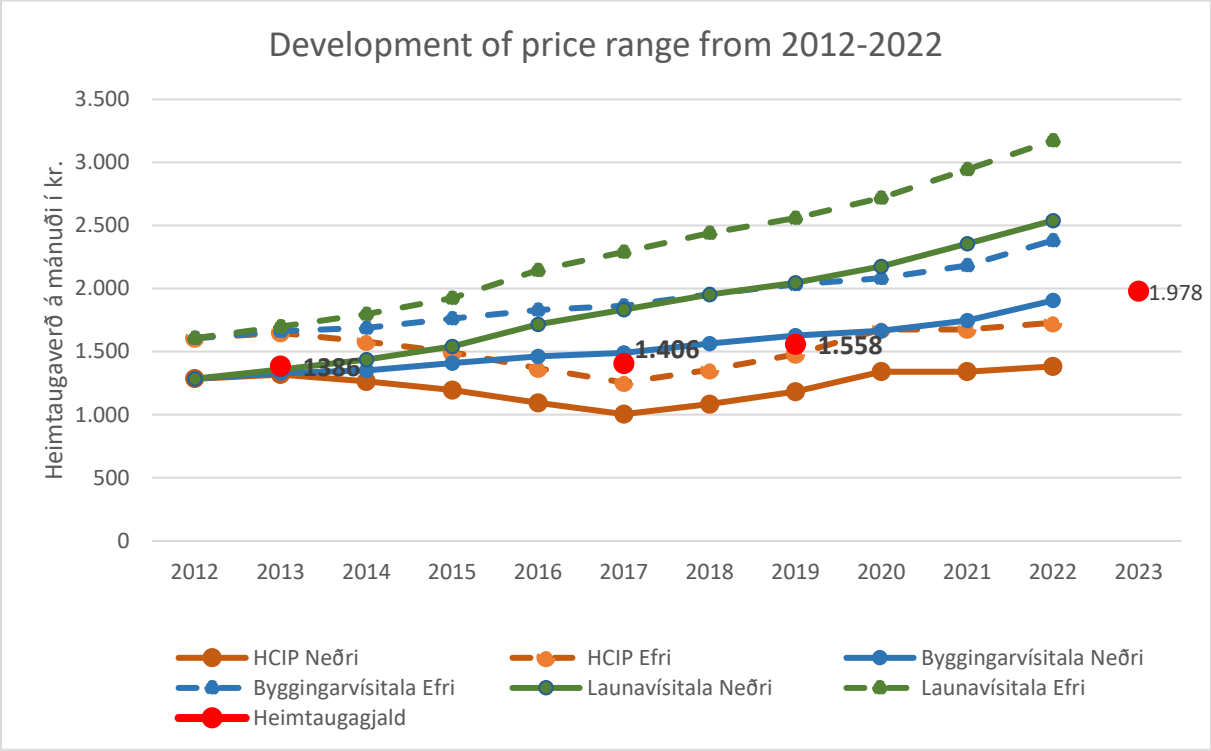
(118) The price range specified in the recommendation was € 8-10 given 2012 price level which corresponded to the range from ISK 1,286 to ISK 1,607 given the average exchange rate for the year 2012.

(119) ECOI has now revised calculations of the price range presented in PTA Decision no. 8/2019. In order to index the price range to the year 2022 the ECOI uses the Harmonised Index of Consumer Prices (HICP)[11] and the average exchange rate of the Euro for 2022. According to this the price range indexed to the year 2022 is € 9.72 to € 12.15 or ISK 1,383 to ISK 1,729.

(120) The local loop price was within the price range when this was first taken into account. Neither now nor in 2019 or 2017, is the local loop price within this range. If the price range € 8 to € 10 as presented in 2012 is however converted to ISK on the basis of the ISK exchange rate in 2012 and then indexed with the building cost index until the year 2022, the price range would be ISK 1,906 to ISK 2,382. If one used the wages index instead of the building cost index, the price range would be ISK 2,539 to ISK 3,174. The development of these price ranges depending on how they are calculated can be seen in the graph here below:

[10] Commission recommendations of 11.9.2013 on consistent non-discrimination obligations and costing methodologies to promote competition and enhance the broadband investment environment.

[11] Information on HICP can be found on the Eurostat site (http://ec.europa.eu/eurostat).



Source: ECOI

(121) The graph above shows HCIP high (IS:HCIP Efri) and HCIP low (IS:HCIP Neðri) (upper and lower bounds) revised with HCIP in Euro and converted to ISK using the average exchange rate of each year. The building price index high (IS: Byggingarvísitala Efri) and building price index low (IS: Byggingarvísitala Neðri) show the price range, as it was in ISK in the year 2012, indexed with the average index of each year. The same applies to the wages index high (IS: Launavísitala Efri) and wages index low (IS: Launavísitala Neðri) except that in that case, the price range is indexed with the wages index. The local loop fee[12] is then specified in the year in which it came into force.

(122) The new monthly fee of ISK 1,978 which comes into force in 2023, is just above the lower price range bound, calculated on the basis of the building cost index (from 2022) and considerably below the lower bound of the price range, calculated according to the wages index. The monthly fee for unbundled access to the copper local loop was calculated at ISK 1,558 for the operational year 2017[13]. With the conclusion from the cost model for monthly fee of ISK 1,978, the local loop fee has increased by about 27%.

5.9.2 Comparison with Fibre-optic local loops

(123) Fibre local loops are offered in competition with copper local loops at many locations in the country and it is therefore normal to take into account their monthly price in order to

[12] When calculating the local loop price in 2013, there were varying prices for unbundled access and access to the upper and lower frequency ranges but the price specified was for unbundled access.

[13] The local loop fee came into force in 2019.

make an assessment of the conclusion on monthly price for copper local loops. The Míla monthly fee for fibre local loops is ISK 2,315 in the Capital City Area and in Akureyri, but is ISK 2,730 in the countryside[14]. As the Míla fibre-optic system is based on GPON, these local loops are in the vast majority of cases, not sold without bitstream, which means that it is not certain that the monthly fee for the local loops gives a true picture of the real price of such local loops. Nor are fibre-optic local loops from Ljósleiðarinn sold without bitstream and their monthly price is ISK 2,973. Tengir however offers fibre-optic local loops without bitstream and the monthly price from Tengir is ISK 2,702.[15] ECOI conducted a price survey of monthly fees for fibre-optic local loops in countryside networks in March 2021, which showed that the average price there was ISK 2,476, with the highest price being ISK 2,900. At this point in time, ECOI does not have newer information on these prices and has commenced work on collecting them in connection with market analysis of this market.

(124) It is clear from this comparison that the monthly price for copper local loops in wholesale will, despite this increase, be somewhat lower than the monthly fee for fibre-optic local loops. It is normal for there to be some difference in price between copper and fibre-optic local loops, as the fibre-optic local loops can offer greater speed than copper local loops and are considered to be a higher quality product. In the opinion of ECOI, a monthly price of copper local loops that is too low could contribute to decelerating the uptake of fibre-optic local loops and it is thus no less important for this to be monitored than to prevent excessive pricing.

(125) Having taken the above into account, ECOI raises no objections to the price increase for copper local loops according to the Míla cost analysis. It is unlikely that this increase will be passed on fully to consumers, as there is no distinction made between copper and fibre-optic local loops in retail pricing of most electronic communications undertakings.

5.9.3 Duration of local loop prices

(126) In paragraph 1,770 in section 10.7.5.4 of Appendix A to the ECOI Decision no. 5/2021, the following is stated:

"In order to increase predictability and stability in local loop prices and to lessen the workload on the Administration and on Míla, the PTA decreases the number of overall reviews of Míla tariff for local loops. Instead, the PTA tariff will be updated annually (1 January each year) using index development less the annual efficiency requirement between those times when the tariff is reviewed with new financial information. The PTA considers it appropriate to use the building index in this connection. The tariff shall, all things being equal, be reviewed at 2-3 year intervals and with each decision on new wholesale prices, a period of notice shall be decided for Míla to submit a new cost analysis. When reviewing a tariff, a new annual efficiency requirement shall be decided at the same time."

(127) According to the above, the local loop price should increase on 1 January 2024, in accordance with index increase less the efficiency requirement. It is on the other hand clear

[14] In discussion in this section, all prices are given ex VAT.

[15] Setup fees are not taken to into account in this comparison.

that before this happens, ECOI will review whether there is a need to maintain an obligation for price control on Míla and will decide a more detailed elaboration of that obligation, should there be one. For this reason, ECOI considers it appropriate to delay a decision on how local loop prices will be changed and whether ECOI will be involved in those changes, until the planned ECOI market analysis, decision. Local loop price and the price for access to distribution frames will therefore apply until a decision is made otherwise in the next ECOI market analysis decision, or will be changed with a specific ECOI decision. In light of the above ECOI has not calculated the annual efficiency requirement.

5.9.4 Summarised conclusion

(128) With the PTA Decision no. 21/2014 and ECOI Decision no. 5/2021, an obligation was imposed on Míla for price control of wholesale access to copper local loops provided at a fixed location, along with access to bitstream over copper local loops and related facilities. It was prescribed that the tariff for the access provided through copper local loops should be cost-oriented, given specific conditions.

(129) The Míla tariff for copper local loops and related facilities was most recently decided, with PTA Decision no. 8/2019.

(130) Míla submitted a cost analysis dated 31 May 2021 which took into account PTA Decision no. 21/2014, on the designation of an undertaking with significant market power and on the imposition of obligations on markets for wholesale access to access networks at a fixed location (Market 4/2008) and on wholesale broadband access (Market 5/2008).

(131) With ECOI Decision no. 5/2021 dated 19 October 2021, ECOI designated Míla as a company with significant market power on the wholesale market for local access provided at a fixed location (Market 3a) and central access provided at a fixed location for mass-market products (Market 3b). This decision replaced the PTA Decision no. 21/2014 and the ECOI conclusion is therefore based on ECOI Decision no. 5/2021.

(132) Míla cost analysis was revised on a number of occasions during case procedure, most recently on 3 January 2023, and the ECOI conclusion is based on that revision.

(133) The main criteria of the updated Míla cost model are as follows:

- Opex is based on booked costs for the year 2021.
- Investments for 2003 to 2021 were indexed using the building cost index to the average price level of 2021. Investments for 2022 are estimated on the basis of real investments during the first nine months of the year.
- The number of line equivalents at the end of December 2021, which were [...] is used when the share of investments is calculated but the average number of line equivalents for 2021, which were [...] was used when calculating share of opex.
- Weighted average cost of capital (WACC) for 2021 is assessed at 5.16%.

(134) In accordance with the criteria discussed here above, the ECOI conclusion is to endorse the monthly fee for access to the copper local loops as ISK 1,978 ex VAT, which represents an

increase of about 27%. Access to distribution frame will be ISK 1,553 per month for each 100 lines. One-off fees for copper local loops are discontinued.

(135) ECOI endorses the discontinuation of setup fees and considers that the changes in presentation of the tariff will increase transparency and simplify the tariff. This has the impact that the monthly fee will be ISK 31 higher than it would otherwise have been, as revenues from the setup fee are no longer deducted from total costs.

(136) Unit cost for copper local loops has increased significantly in recent months. The increase can particularly be attributed to a rapid decline in the use of the copper system, to an increase in procurements and to salaries costs. The wages index has increased significantly in recent years, which particularly impacts Míla opex. The building cost index has also significantly increased from recent years, and as local loop prices come into force in 2023, one must take into account that the increase in building cost index from 2017 until 2022 is 28%, which is in excess of the increase of local loop prices that the conclusion of the cost model returned.

The Decision

1. **ECOI endorses the cost analysis submitted by Míla hf., dated 31 May 2021, with those amendments made to the Míla hf. cost model, the most recent amendments having been made on 3 January 2023.**

2. **According to the conclusion of the cost analysis, the monthly fee for access to copper local loops is ISK 1,976 to which 0.1% Universal Service tax is added which makes the total price ISK 1,978 per month. If the Universal Service tax changes, the total fee shall change accordingly. The monthly fee is not affected by usage of the local loop or by whether access is in a telephone exchange or street cabinet. Access to distribution frame will be ISK 1,553 per month for each 100 lines.**

3. **Setup fee for local loops is discontinued.**

4. **Prices are ex VAT.**

5. **The tariff comes into force xx. xx 2023 provided that Míla hf. has issued notification on the entry into force with the required notice. The new Míla hf., tariff shall be part of the company's reference offer for open access to local loops with the coming into force of the above specified price changes.**

6. **This Decision can be appealed to the Appellate Committee for Electronic Communications and Postal Affairs see Article 20 of Act no. 75/2021 on the ECOI. The appeal shall have reached the Appellate Committee within four weeks from the time that the party in question became aware of the decision of the ECOI. Costs for an appeal are according to Paragraph 5 of Article 20 of the same Act, and in addition to this there is a special appeal charge to the amount of ISK 150,000 to be paid pursuant to Article 6 of Regulation no. 36/2009 on the Appellate Committee for Electronic Communications and Postal Affairs. Pursuant to Act no. 75/2021 on the ECOI, a party can also refer a decision from the ECOI directly to the courts without the case being first put to the Appellate Committee. Such cases shall be brought within three months from the time that the party in question received information about the Administration's decision. Appeal does not postpone the legal impact of decisions by the Administration. Appeal direct to the courts hinders the Appellate Committee being authorised to take a case for processing.**

Reykjavík, XX XX 2023.

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Appendix I: Weighted average cost of capital (WACC)
Appendix II: Comments from national consultation and Míla's response
Appendix III: Main views of parties to national consultation and the position of the ECOI