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Fjarskiptastofa
Sudurlandsbraut 4
108 Reykjavik
Iceland

For the attention of:
Mr. Hrafnkell V. Gíslason
Managing Director

Dear Mr. Gíslason,

Subject: ISL – Market 14/2004 – Cost Analysis of Wholesale Prices for Optical Wavelengths (including the WACC)

Article 32(3) of Directive (EU) 2018/1972 ('the Code')¹: Comments

1 PROCEDURE

1. On 2 July 2026, the EFTA Surveillance Authority ('**ESA**') received a notification of a draft national measure in the field of electronic communications pursuant to Article 32(3) of the Code from the Icelandic national regulatory authority ('**NRA**'), Fjarskiptastofa ('**ECOI**'), concerning an amendment of the remedies on the market for wholesale trunk segments of leased lines in Iceland.² The notification also included an updated weighted average cost of capital ('**WACC**') for the year 2025 (Appendix I to the draft notification).

¹ Directive (EU) 2018/1972 of the European Parliament and of the Council of 11 December 2018 establishing the European Electronic Communications Code (OJ L 321, 17.12.2018, p. 36), as referred to at point 5c of Annex XI to the EEA Agreement and as adapted by Protocol 1 to that Agreement and by the sectoral adaptations contained in Annex XI to that Agreement.

² Corresponding to Market 14 of the Recommendation of the EFTA Surveillance Authority No 194/04/COL of 14 July 2004 on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services, as incorporated into the Agreement on the European Economic Area (OJ L 113, 27.4.2006, p. 18 and EEA Supplement No 21, 27.4.2006, p. 33) ('**the 2004 Recommendation**').

2. The notification became effective on the same day.
3. National consultation was carried out, pursuant to Article 23 of the Code, during the period from 6 May to 8 June 2026. ECOI received no comments from stakeholders.
4. Prior to the formal notification, on 22 June 2026, ESA sent a number of preliminary questions to ECOI. ECOI provided the requested information on 26 June 2026.³ Moreover, a call between ESA and ECOI took place on 1 July 2026 to further discuss some aspects of the notification. To the extent possible, ECOI took ESA's observations into account already in the draft notification.
5. The period for consultation with ESA, BEREC and other NRAs pursuant to Article 32(3) of the Code expires on 3 August 2026.

2 DESCRIPTION OF THE DRAFT MEASURE

2.1 BACKGROUND

6. ECOI last reviewed the Icelandic wholesale market for trunk segments of leased lines in its Decision no. 21/2015.⁴ ESA commented on that notification on 3 August 2015.⁵ Since then, ECOI has adopted a number of decisions relating to the remedies on former Market 14.⁶
7. At the time of the 2015 market analysis, ECOI defined the relevant geographic market as national, and the relevant product market as encompassing the following protocols and transmission media:
 - a. Protocols:
 - i. Asynchronous transfer mode (ATM);
 - ii. Pre-specified quality transmission with Internet protocol (for example IP-MPLS);
 - iii. Multiprotocol Label Switching – Transport Profile (MPLS-TP);
 - iv. Ethernet and Ethernet VLAN;
 - v. Synchronous Digital Hierarchy / Plesiochronous Digital Hierarchy (SDH/PDH); and
 - vi. Wavelength division multiplexing (WDM, CWDM and DWDM).

³ Doc. No. 1617964.

⁴ The regulator was called PTA at the time of the 2015 market analysis. For simplicity, ESA will refer to 'ECOI' throughout this letter, even with regard to events taking place when the old name was in use.

⁵ Case No [77596](#).

⁶ See, for example, Case No [82013](#), Case No [84271](#), Case No [86639](#), Case No [87557](#), Case No [90407](#) and Case No [91546](#).

- b. Transmission media:
 - i. Dark fibre (without endpoint devices);
 - ii. Copper (or other metal threads); and
 - iii. Wireless connection.
- 8. ECOI found that, although the market in question was no longer included in the list of markets susceptible to ex ante regulation, it met the case-by-case three-criteria test.⁷
- 9. ECOI designated Míla as operator having significant market power (SMP) on that market and imposed the following obligations upon that undertaking:
 - a. access;
 - b. non-discrimination;
 - c. transparency;
 - d. accounting separation;
 - e. price control; and
 - f. cost accounting.
- 10. Specifically for the price control obligation, ECOI required Míla to implement cost-oriented prices. The cost analysis underlying the pricing structure were to be based on historical costs accounting ('HCA') allocated to the relevant service on a fully-allocated cost ('FAC') basis. Míla was to review the existing tariffs on an annual basis, with new tariffs to be subject to ECOI's authorisation following ad-hoc national consultation and notification to ESA.
- 11. In its comments letter, ESA noted that the previous analysis of Market 14 dated back to 2007 and referred to persistent delays in ECOI's market analyses and enforcement of remedies. ESA urged ECOI to undertake a timely implementation of all remedies, as well as a timely analysis and notification of the next market review. ESA reiterated the comment on ECOI's delays in subsequent cases concerning amendments of remedies on this market.⁸

2.2 CURRENT NOTIFICATION

- 12. The current notification relates to Míla's offering of Dense Wavelength Division Multiplexing ('DWDM'), a fibre-optic transmission technique capable of transmitting multiple light wavelengths through an optical fibre, thereby

⁷ Namely: (a) high and non-transitory structural, legal or regulatory barriers to entry are present; (b) there is a market structure which does not tend towards effective competition within the relevant time horizon, having regard to the state of infrastructure-based competition and other sources of competition behind the barriers to entry; and (c) competition law alone is insufficient to adequately address the identified market failure(s).

⁸ See, notably, ESA's comments letter in Case No. [87557](#) and in Case No. [91546](#).

significantly increasing its transmission capacity.⁹ DWDM belongs to the market for wholesale trunk segments of leased lines defined by ECOI.¹⁰

13. The notification includes an updated version of the cost analysis assessed in ECOI's decision 1/2024 of 9 February 2024 and reviewed by ESA under Case No 91546.¹¹ Because the cost analysis at that time was largely based on assumptions regarding the demand, already in that decision ECOI envisaged for Míla to update the cost analysis using actual data.
14. The present notification relates to Míla's updated costs. Similar to Case No 91546, the current cost analysis is based on the following inputs, which will be described in turn below:
 - a. WACC;
 - b. Operating Costs ('**OPEX**');
 - c. Capital Expenditure ('**CAPEX**');
 - d. Setup Charges;
 - e. Line equivalents; and
 - f. Deduction due to revenue.
15. **WACC.** In Appendix I to the draft decision, ECOI includes an update to its WACC computation for the year 2025. ECOI broadly follows the methodology described in the European Commission's Notice on the calculation of the cost of capital ('**WACC Notice**')¹² and uses the parameters provided by BEREC,¹³ including the average equity beta from the peer group. The main specificity of ECOI's computation concerns the *real* risk-free rate ('**RFR**'). Iceland issues indexed Government bonds which by their very nature are not affected by inflation. ECOI uses the yields from these indexed bonds to compute the *real* RFR (1.50%). At the same time, it uses the yields of non-indexed Government bonds to compute the *nominal* RFR (5.26%). The difference between the two provides an estimate for the inflation in Iceland.
16. In its cost analysis, Míla used the *nominal* WACC computed by ECOI (8.97%).
17. **OPEX.** Míla provided updated figures for their OPEX based on their actual operations. These include the costs of fibre-optic leasing, as well as costs relating to labour, hosting, electricity, monitoring, service contracts with the equipment manufacturer and other costs.

⁹ For a more detailed description of DWDM, please see [here](#).

¹⁰ See section 2.1 above.

¹¹ See fn. 8 above.

¹² Communication from the Commission – Commission Notice on the calculation of the cost of capital for legacy infrastructure in the context of the Commission's review of national notifications in the EU electronic communications sector, OJ C 375, 6.11.2019, p. 1, [here](#).

¹³ See [BEREC 2025 WACC parameters report](#).

18. ECOI accepts Míla's OPEX figures and notes that the operating costs have increased compared to the previous cost analysis, which is due to an expansion in Míla's operations.
19. **CAPEX.** Míla's CAPEX corresponds to the equipment costs and the installation costs. Míla based its figures on actual investments in the network since 2021. Míla estimated that 75% of the investment costs are attributable to DWDM because certain investments related to older systems and other tasks. Similar to the previous cost analysis, Míla assumed an expected service life of the DWDM equipment of 10 years.
20. ECOI accepts Míla's estimation of CAPEX.
21. **Setup charges.** Míla proposes to maintain the setup charges at the same level of the previous cost analysis, that is ISK 96,386. Further, it deducts the setup charges from the operating costs, in such a way that they are excluded from the computation of the monthly service price (as they are one-off).
22. ECOI accepts Míla's proposed setup charges.
23. **Line equivalent.** Míla's prices and costs for optic waves increase with the connection's distance and with the data transfer speed. A convenient way to scale prices consistently with these two variables is by designing a base unit (i.e. a line equivalent) with 1 km distance and 1 Gbps speed, with its associated costs. The prices of Míla's other offers with varying amounts of distance and speed are then calculated as multiples of the line equivalent.
24. The number of line equivalents needs to change with the two variables (i.e. the distance of the connection and the data transfer speed) according to some function. Similarly to the previous cost analysis, Míla suggested using the power function for both variables, with an exponent of 0.35 for speed and 0.4 for distance. This means that the number of line equivalents increases as both speed and distance grow, but at an increasingly lower rate. For example, for a distance of 1 km, the number of line equivalents is 1 for 1 Gbps, and 5.01 for 100 Gbps. The relation between distance and speed is multiplicative.¹⁴
25. Furthermore, Míla proposed to include a new offer of 400 Gbps of speed (with the relevant number of equivalent associated to it), as it has observed an increase in demand for higher capacity transmission.
26. ECOI has no comments on Míla's methodology and considers the inclusion of a category for 400 Gbps speed as a natural development of the market. ECOI notes that the exponent of 0.35 for speed is appropriate as this parameter ranged between 0.35 and 0.45 in previous cost analyses. ECOI further notes that using a higher exponent for distance compared to speed is also appropriate, as the costs are more dependent on distance than on speed.

¹⁴ The number of line equivalents is further multiplied by the number of connections in the cases where there are more than 1.

27. **Deductions due to revenue.** Estimated revenue from port fees is deducted from the total cost basis before the price per line equivalent is computed.
28. The port fees are in accordance with the following schedule:¹⁵

Figure 1: Monthly fees per Port Gigabit Ethernet (GbE, equivalent to Gbps)

Port GbE	Factor	Monthly fee
1	1.00	3,600
10	2.50	9,000
25	3.60	12,960
100	6.25	22,500
400	10.85	39,063

Source: ECOI draft decision, Table 6.10.

29. In addition to the port fees, revenues from the contract with Farice for Míla's Alien Wavelength service and Sync service are deducted from the total cost before monthly prices are calculated.
30. ECOI accepts these deductions in Míla's computations.
31. **Final prices.** Based on the above, Míla computed a monthly fee per line equivalent (i.e. 1 Gbps and 1km) of **ISK 11,163**, which is somewhat higher than the fee of ISK 10,291 set in the previous cost analysis. This amount is then scaled by the number of line equivalents, resulting in the following fee schedule.

Figure 2: Monthly price schedule per Míla's optical waves lease by distance and data transmission speed, excluding port fees

Distance in km	1Gb/s	10Gb/s	25Gb/s	100Gb/s	400Gb/s
25	ISK 40,453	ISK 90,564	ISK 124,805	ISK 202,747	ISK 329,363
50	ISK 53,378	ISK 119,499	ISK 164,682	ISK 267,526	ISK 434,597
100	ISK 70,433	ISK 157,681	ISK 217,299	ISK 353,003	ISK 573,455
200	ISK 92,937	ISK 208,061	ISK 286,727	ISK 465,790	ISK 756,678
300	ISK 109,302	ISK 244,696	ISK 337,214	ISK 547,806	ISK 889,913
400	ISK 122,632	ISK 274,538	ISK 378,339	ISK 614,613	ISK 998,442

Source: ECOI draft decision, Table 6.16.

32. The price of two ports per data transmission is added to each of the monthly fees, resulting in this monthly fee schedule for Míla's optical waves offering:

¹⁵ After the monthly prices are calculated the port fees are added back, see Figure 3 below.

Figure 3: Monthly price schedule per Míla's optical waves lease by distance and data transmission speed, including port fees for two ports

Distance in km	1Gb/s	10Gb/s	25Gb/s	100Gb/s	400Gb/s
25	ISK 47,653	ISK 108,564	ISK 150,725	ISK 247,747	ISK 407,489
50	ISK 60,578	ISK 137,499	ISK 190,602	ISK 312,526	ISK 512,723
100	ISK 77,633	ISK 175,681	ISK 243,219	ISK 398,003	ISK 651,581
200	ISK 100,137	ISK 226,061	ISK 312,647	ISK 510,790	ISK 834,804
300	ISK 116,502	ISK 262,696	ISK 363,134	ISK 592,806	ISK 968,039
400	ISK 129,832	ISK 292,538	ISK 404,259	ISK 659,613	ISK 1,076,568

Source: ECOI draft decision, p. 25.

33. Finally, as mentioned above, the setup fee is ISK 96,386.
34. ECOI accepts these computations and results.

3 COMMENTS

35. ESA has examined the notified draft measure and has the following comments.

Methodology for the estimation of the equity beta in the WACC computation

36. For the computation of the WACC, ECOI is sourcing the equity beta directly from the BEREC report, as the average equity beta of the peer group of telecoms companies (0.63).¹⁶
37. The WACC Notice, however, explains that a more appropriate methodology to estimate the equity beta is to re-lever the asset beta using the gearing.¹⁷ Taking the parameters from the BEREC report, this would result in an equity beta of 0.59.
38. ESA recognises that the difference between the equity betas derived from the two methodologies is very small and will have no significant impact on the cost analysis. Nevertheless, having in mind the WACC Notice's objective of aligning approaches across EEA NRAs, ESA invites ECOI to adopt the methodology recommended in the Notice.

Need to address the market review delays as soon as possible

39. ESA reiterates the comment addressed to ECOI in its letter of 7 February 2024 in Case No 91546, as well as on previous occasions.¹⁸
40. With that comment, ESA drew ECOI's attention to the significant and repeated delays in reviewing Market 14, a market that moreover has not been listed

¹⁶ See p. 41 of the BEREC report referenced in fn. 13 above.

¹⁷ See section 5.2 of the WACC Notice, read in conjunction with pp. 84-86 of the [Commission Staff Working Document](#) ('SWD') accompanying the WACC Notice. Cf. the abovementioned BEREC report, pp. 34-35.

¹⁸ As described in section 2.1 above, the last market analysis dates back to 2015.

among those susceptible to ex ante regulation since ESA's 2008 Recommendation on Relevant Markets.¹⁹

41. It is regrettable to note that the delay since ECOI's latest review of the market in question has meanwhile grown to 11 years.²⁰ As ESA has already conveyed to ECOI through the regular cooperation dialogue between the two institutions, it is of the utmost importance to remedy this delay as soon as possible. ESA refers in particular to Art. 67(5)-(6) of the Code, which provides for a maximum of five years between market reviews and for stringent provisions in case of delays.²¹ As mentioned in ESA's past comments, conducting regular market reviews is necessary in order to ensure that the market definition, the SMP designation and any existing obligations are up-to-date and reflect the actual needs of the market given its competitive environment.²²
42. Against this background, ESA welcomes the reassurances recently received from ECOI that a new market analysis for Market 14 is underway. Accordingly, ESA expects to see progress within the shortest delay and is determined to closely follow up developments concerning the review of this market.

4 FINAL REMARKS

43. On a procedural note, ESA recalls that any future amendments to, or more detailed implementation of, the draft measure consulted on in the current notification will require re-notification in accordance with Article 32(3) of the Code.
44. Pursuant to Article 32(8) of the Code, ECOI shall take the utmost account of comments of other NRAs, BEREC and ESA. It may adopt the resulting draft measure and, where it does so, shall communicate it to ESA. Pursuant to Article 32(9) of the Code, ECOI shall communicate to ESA and to BEREC all adopted final measures which fall under points (a) and (b) of Article 32(3).
45. ESA's position on the current notification is without prejudice to any position ESA may take in respect of other notified draft measures.

¹⁹ EFTA Surveillance Authority Recommendation of 5 November 2008 on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with the Act referred to at point 5cl of Annex XI to the EEA Agreement (Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services), as adapted by Protocol 1 thereto and by the sectoral adaptations contained in Annex XI to that Agreement (OJ C 156, 9.7.2009, p. 18 and EEA Supplement No 36, 9.7.2009, p. 1) ('**the 2008 Recommendation**').

²⁰ See para. 6 above.

²¹ See also recital 177 of the Code.

²² See art. 68(4) of the Code, whereby obligations imposed on SMP operators should be based on the nature of the problem identified in the market analysis, proportionate, justified and imposed following the internal market consultation procedures.

46. Pursuant to Point 6 of the Procedural Recommendation,²³ ESA will publish this document on its eCom Online Notification Registry. You are invited to inform ESA within three working days following receipt of this letter if you consider, in accordance with EEA and national rules on confidentiality, that this letter contains confidential information which you wish to have redacted prior to publication.²⁴ You should give reasons for any such request. In the absence of confidentiality claims received within the above deadline, ESA will publish this document in full.

Yours sincerely,

Filip Ragolle

Deputy Director for Competition and Regulation

Competition and State Aid Directorate

This document has been electronically authenticated by Filip Ragolle.

²³ EFTA Surveillance Authority Decision No 102/25/COL of 2 July 2025 – EFTA Surveillance Authority Recommendation on the form, content, time limits and level of detail to be given in notifications under the procedures set in Article 32 of the Act referred to at point 5c of Annex XI to the EEA Agreement (Directive (EU) 2018/1972 of the European Parliament and of the Council of 11 December 2018 establishing the European Electronic Communications Code), as adapted by Protocol 1 to the EEA Agreement and by the sectoral adaptations contained in Annex XI to that Agreement [2025/2407] (OJ L 2025/2407, 27.11.2025 and EEA Supplement No 74, 27.11.2025, p. 1) ('**the Procedural Recommendation**').

²⁴ The request should be submitted through the eCom Registry, marked for the attention of the eCom Task Force.