

Brussels, 17 October 2023  
Case No: 90933  
Document No: 1404973

Amt für Kommunikation  
9490 Vaduz  
Principality of Liechtenstein

For the attention of:  
Dr. Rainer Schnepfleitner  
Director

Dear Dr. Schnepfleitner,

**Subject: LIE - Market 3a/2016 - Wholesale local access provided at a fixed location (market review)**

**Comments pursuant to Article 7(3) of Directive 2002/21/EC (Framework Directive)<sup>1</sup>**

## I. PROCEDURE

On 18 September 2023, the EFTA Surveillance Authority (“ESA”) received a notification of a draft national measure in the field of electronic communications pursuant to Article 7 of the Framework Directive from the Liechtenstein national regulatory authority, *Amt für Kommunikation* (“the AK”), concerning the market for wholesale local access provided at a fixed location in Liechtenstein<sup>2</sup>.

The notification became effective on the same day.

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<sup>1</sup> Directive 2002/21/EC of the European Parliament and of the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services, OJ L 108, 24.4.2002, p. 33 (as amended by Regulation (EC) No 717/2007, OJ L 171, 29.6.2007, p. 32 and Regulation (EC) No 544/2009, OJ L 167, 29.6.2009, p. 12), as referred to at point 5 cl of Annex XI to the EEA Agreement and as adapted to the Agreement by Protocol 1 (“the Framework Directive”). On 24 September 2021, the EEA Joint Committee adopted Decision (“JCD”) No 275/2021 incorporating Directive (EU) 2018/1972 of the European Parliament and of the Council of 11 December 2018 establishing the European Electronic Communications Code (Recast), as corrected by OJ L 334, 27.12.2019, p. 164 and OJ L 419, 11.12.2020, p. 36 (“the Code”), into the EEA Agreement. The Code will repeal, *inter alia*, the Framework Directive. However, until JCD No 275/2021 enters into force, the Framework Directive remains applicable.

<sup>2</sup> Corresponding to market 3a of the EFTA Surveillance Authority Recommendation of 11 May 2016 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*); adopted by Decision No 093/16/COL, OJ L 84, 30.3.2017, p. 7 (“2016 Recommendation”).

National consultation was carried out, pursuant to Article 6 of the Framework Directive, during the period 18 July to 28 August 2023.

On 6 October 2023, ESA sent a request for information to the AK (Doc No. 1402587), to which a reply was received on 10 October 2023 (Doc No. 1403991).

The period for consultation with ESA and the national regulatory authorities (“NRAs”) in the EEA States, pursuant to Article 7 of the Framework Directive, expires on 18 October 2023.

Pursuant to Article 7(3) of the Framework Directive, ESA and the EEA NRAs may make comments on notified draft measures to the NRA concerned.

## II. DESCRIPTION OF THE DRAFT MEASURE

### II.1. Background

ESA assessed the AK’s last full review of the wholesale local access market in 2009<sup>3</sup>. At the time, the AK defined a nationwide market consisting of the wholesale provision of physical access via shared or fully unbundled access to the twisted pair copper access network, to the cable television (CATV) access network, and to the optical fibre access network, including self-supply.

The AK designated Liechtensteinische Kraftwerke (“LKW”) as an operator with significant market power (“SMP”) and imposed a set of remedies. These included (i) the obligation to provide access to its network, (ii) non-discrimination, (iii) a transparency obligation, including the publication of a reference offer after approval by the AK, (iv) accounting separation; and (v) price control (specifically, cost-oriented prices, based on historic full cost accounting and benchmarking).

ESA had no comments on that notification.

In September 2014<sup>4</sup>, ESA was notified of and assessed a draft measure approving the cost accounting model of LKW as a first step in setting concrete cost-oriented prices for the provision of wholesale physical access and the necessary associated services. The AK underlined that the measure would approve only the structure and the system of LKW’s cost accounting model. The actual costs, revenues and the resulting rates would be subject to further assessment in a separate draft measure. In its comments letter, ESA underlined the importance of a timely enforcement of remedies and urged the AK not to accumulate further delays in this regard. Further, ESA urged the AK to provide, when notifying the resulting wholesale tariffs, a clear elaboration of each of the steps involved and the underlying principles, as well as of the details and suitability of the benchmarks taken into consideration.

In December 2014<sup>5</sup>, the AK made a notification to ESA concerning, *inter alia*, market 4/2008. The AK notified rates for regulated products and services (local loop unbundling (“LLU”)), shared access, co-location, the CATV-Network and cable ducts, a Standard

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<sup>3</sup> Notified to and assessed by ESA under Case No [65648](#). At the time, the AK analysed the market for ‘wholesale (physical) network infrastructure access (including shared or fully unbundled access) at a fixed location’ in Liechtenstein, corresponding to market 4 of EFTA Surveillance Authority Recommendation of 5 November 2008 (Decision No 688/08/COL) on relevant product and service markets within the electronic communications sector susceptible to ex ante regulation in accordance with the Framework Directive, OJ C 156, 9.7.2009, p.18 (“the 2008 Recommendation”).

<sup>4</sup> Notified to and assessed by ESA under Case No [75908](#).

<sup>5</sup> Notified to and assessed by ESA under Case No [76506](#).

Offer (technical details) regarding LLU and shared access as well as a Standard Offer (technical details) regarding co-location. ESA commented on the significant delay between the market analysis notified in 2009 and the notification of remedies, thus reminding the AK of its obligation to regularly monitor the relevant market and enforce the regulatory remedies without undue delay in its future reviews.

## II.2. Market definition

### *Retail markets*

According to the AK, the retail markets for fixed telephony, broadband connections and leased lines in Liechtenstein are characterised by a high number of providers, notably 16 for broadband (see **Table 1** *Error! Reference source not found.*). The market share of the incumbent, Telecom Liechtenstein, has significantly and constantly declined in the years 2016-2022. For all three markets, regulated access to LKW's fixed network infrastructure is the basic prerequisite.

**Table 1: Market development in the fixed network**

Fixed network services	2016	2017	2018	2019	2020	2021	2022
Quantities as of 31 December							
<b>Broadband internet Retail market</b>							
Internet connections	15,918	16,230	16,712	17,173	18,050	18,550	19,189
Service providers	11	12	12	12	13	14	16
Market share Telecom Liechtenstein	72%	68%	66%	62%	59%	57%	54%
<b>Broadband Wholesale market</b>							
Wholesale broadband connections	787	858	752	710	714	774	n.a.
Service providers	3	4	4	4	5	4	4
<b>Telephone connection Retail market</b>							
Telephone lines	16,361	15,342	15,243	13,727	12,607	11,513	10,980
Service providers	4	5	5	8	9	9	10
Market share Telecom Liechtenstein	99%	97%	94%	88%	78%	72%	66%
<b>Telephone connection Wholesale market</b>							
Wholesale connections VoIP	140	523	992	1,886	2,570	3,184	3,538
Service providers with own VoIP infrastructure	1	1	1	3	3	3	3
<b>Leased line, data transmission Retail market</b>							
Service providers	12	15	14	13	12	12	12

Source: AK Notification, Table 1.

### *Wholesale local access market (relevant market)*

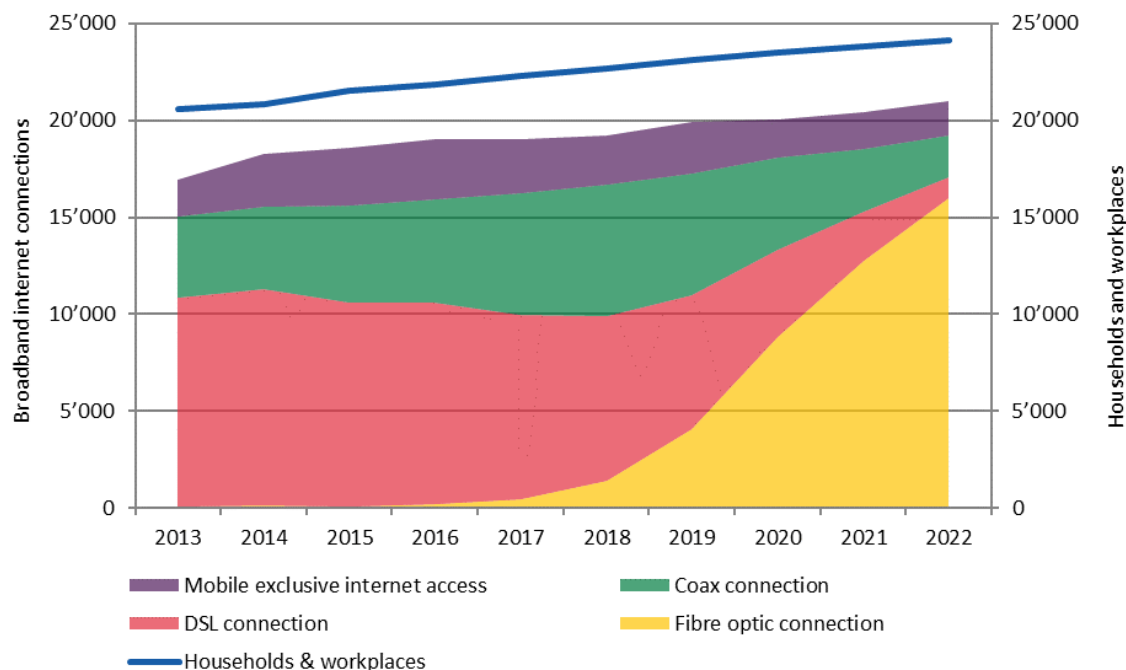
The AK defines a nationwide market for wholesale physical access to subscriber lines provided locally at fixed locations. The product scope is technologically neutral, i.e. it includes copper, fibre and coaxial cable.

In essence, the market definition does not change compared to the previous market review. However, an important development that has occurred since then is the roll-out of LKW's nationwide fibre network with point-to-point FTTB/H (fibre to the building/home) architecture, accompanied by the decommissioning of the legacy infrastructure, i.e. of both the twisted pair copper wire local loop and the coaxial cable local loop. Therefore, despite the technology-neutral approach, the AK considers that only access to unbundled fibre is relevant for the upcoming regulatory period, as it has completely replaced the legacy fixed network infrastructures.

Further, the AK finds that in Liechtenstein fixed/mobile substitution cannot be observed to an appreciable extent for the foreseeable future. In particular, as shown in **Figure 1**, during the period 2013-2022 fixed broadband internet access grew at approximately the

same rate as the number of households and workplaces. In contrast, mobile broadband access (data only subscriptions) remained relatively stable over this period.

**Figure 1: Development of broadband internet connections in the fixed network and of exclusive internet access in the mobile network compared to the development of households and workplaces**



Source: AK Notification, Figure 8.

In reply to ESA's request to further elaborate on fixed/mobile substitutability, the AK emphasised what it sees as a fundamental difference between mobile broadband and fibre broadband (in a point-to-point FTTB architecture). According to the AK, mobile broadband can be understood as a shared access resource for users, while fibre point-to-point broadband is an unshared fibre access. In practice, simultaneous high data demands of several users, e.g. IPTV-consumption, streaming of films, gaming, in the same mobile broadband radio cell might result in limited service quality and unsatisfactory experiences. Fixed broadband does not have this issue.

The AK does not exclude that fixed/mobile substitution patterns could develop in the future, notably based on 5G / 6G / further mobile network generations. However, the roll-out of 5G radio networks in Liechtenstein has begun only this year and there is no statistical data that would indicate fixed-mobile convergence. The AK explained that it has thoroughly analysed the situation at the beginning of the FTTB roll-out in 2017, when service providers migrated from the twisted pair copper wire (CHF 13.30 per month) to the fibre-optic local loop (CHF 18.00 per month), and 4G mobile access had just been implemented in Liechtenstein. Migrating from fixed to mobile access was an available option at the time, at least for Telecom Liechtenstein as it was both a fixed and a mobile network operator. Instead, the cost increase for fixed connections by CHF 4.70 per month did not lead to a migration to LTE/4G.

As with the legacy infrastructure, LKW is only active in the provision of physical access to subscriber lines (local loop fibre), core network fibre, cable ducts and all ancillary services to other service providers, whereas it does not provide further wholesale (e.g. bitstream) or retail electronic communications services.

Besides LKW, one additional operator, TV-COM, operates its own fixed infrastructure<sup>6</sup>. TV-COM's coaxial cable network, however, is limited to two municipalities and is only used for self-supply, i.e. TV-COM does not offer access to third parties. In other municipalities, TV-COM relies, just like any other operator, on access to LKW's network to provide downstream services. In the notified draft measure, the AK assesses the market situation in the municipalities where the networks of LKW and TV-COM overlap and finds that service providers relying on LKW were able to successfully penetrate the local market corresponding to the home network area of TV-COM (which in turn has lost a significant market share over the past years). On the one hand, LKW's wholesale services in this area are assumed to be equivalent to those in the rest of the country from the point of view of the access seekers; on the other hand, TV-COM's home network is not further taken into account in the market analysis.

### II.3. Finding of significant market power

The AK finds that LKW holds significant market power as it is effectively the sole supplier of passive infrastructure in the wholesale local access market.

**Table 2** below shows the number of unbundled local loop ("ULL") lines available to access seekers from 2015 to 2022. The top panel reports the number of ULL lines provided by LKW, while the bottom panel reports those provided by other suppliers.

The table shows that virtually all ULL lines are provided by LKW, with only a negligible fraction provided by other suppliers. LKW is indeed the sole provider of ULL lines with national coverage in Liechtenstein. The table also shows the rapid change in technology over the years, with ULL fibre optic lines increasing significantly while ULL twisted pair copper wire lines and ULL coaxial cable lines decreasing by similar amounts. Indeed, LKW replaced its legacy network with fibre optic in recent years, and it plans to have only fibre optic lines by the end of 2023.

According to the AK, the position enjoyed by LKW is due to insurmountable barriers to entry determined by the very high costs of building a network. The AK considers the network infrastructure as a natural monopoly, which therefore does not provide new entrants with a viable business case to invest in their own infrastructure.

Moreover, countervailing buyer power vis-à-vis LKW is low. This is because the only potential alternative provider of a passive infrastructure is TV-COM and its coaxial cable network. However, TV-COM is not a credible alternative to LKW because (i) its network only covers two municipalities and 1/4 of Liechtenstein's population, and (ii) it is currently not present in the wholesale local access market, as it uses its network to support its retail operations. Further, since access to LKW's infrastructure is an essential input for service providers, demand is quite inelastic to potential price changes by LKW.

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<sup>6</sup> For completeness, there are just a handful of fibre optic subscriber lines that are offered by other providers on the basis of their own network infrastructure.

**Table 2: Number of LKW's and Other suppliers' Unbundled Local Loops (ULL) lines, 2015-2022**

Access to ULL	2015	2016	2017	2018	2019	2020	2021	2022
Quantities as of 31 December								
<b>Liechtensteinische Kraftwerke</b>								
ULL twisted pair copper wire	20,591	19,209	18,256	15,677	13,091	7,894	4,253	1,750
ULL coax (homes connected)	13,422	13,624	13,780	13,904	14,008	11,318	7,459	4,490
ULL fibre optic	3,866	3,930	3,981	5,019	7,712	12,775	17,488	20,384
<b>Other suppliers</b>								
ULL twisted pair copper wire	0	0	0	0	0	0	0	0
ULL coax	0	0	0	0	0	0	0	0
ULL fibre optic	8	11	23	8	8	8	6	6

Source: AK Notification, Table 4.

### Competition problems

The AK identifies three main potential competition problems in the wholesale local access market:

1. **Excessive prices.** Due to its market position, LKW would have an incentive and the ability to charge high prices, likely reaching monopoly levels.
2. **Discriminatory strategies.** LKW might refuse to provide access to certain access seekers or apply different access/pricing conditions depending on the access seeker. These incentives may arise in particular due to the common ownership by the State of both LKW and Telecom Liechtenstein, the former incumbent and main operator active at retail level.
3. **LKW's market entry into the retail market.** In a potential scenario of market entry downstream, LKW may have the incentives to apply the discriminatory strategies mentioned in the previous point, as well as margin squeeze strategies.

AK considers that excessive pricing is the key competition problem justifying the need for market regulation. The other two potential competition problems are less likely to occur due to LKW's business model as an infrastructure company, the public strategy of the State, and the statutory provisions governing LKW's activities and function<sup>7</sup>. However, even those competition problems cannot be completely ruled out, especially if one takes into account the common State ownership of LKW and Telecom Liechtenstein, which in the AK's view further supports regulatory intervention.

### II.4. Regulatory remedies

To address the competition issues identified, the AK imposes the following obligations on LKW:

1. **Transparency:** LKW is required to publish a reference offer detailing the conditions and the parameters (both price and non-price) of its offerings. This

<sup>7</sup> Notably, LKW is required by law to grant access to all providers of electronic communications networks or services operating in Liechtenstein on a non-discriminatory basis and at fair and transparent prices. LKW is further required not to participate directly or indirectly in companies that provide services in the field of telecommunications. Furthermore, LKW is required to conduct all end-customer contacts via service providers and to direct its offers exclusively to providers of electronic communications.

obligation is auxiliary to other obligations, such as the non-discrimination obligation.

2. **Separate accounting:** LKW is required to keep separate accounting books relating to its different activities, and in particular separate accounting for its operations as a regulated SMP operator. This type of obligation allows the regulatory authority to keep an oversight over the SMP operator and is auxiliary to the non-discrimination and price control obligations.
3. **Access to network facilities and infrastructure:** LKW is required to provide access to ULL lines, as well as to services in central offices and to the core network. In continuation with the current regulation, LKW is further required to provide access to civil engineering assets, as this may be requested by individual access seekers on a case-by-case basis. Access obligations aim at preventing refusal to access or other forms of access restriction by the monopolist operator.
4. **Non-discrimination:** LKW is required to ensure equal treatment of access seekers in the provision of access to its network. Equal treatment encompasses both non-price elements, such as quality, and price. For the latter, the transparency obligation already requires LKW to publish a reference offer reporting the price to all access seekers. The AK additionally specifies that the reference offer should also report prices for ancillary services in central offices and the core network.
5. **Price control and cost accounting:** LKW is required to set its prices following the principle of cost-orientation, based on the methodology approved by the AK. Specifically, the AK adopted a cost model to estimate the cost-oriented price applying to LKW, given its operational costs and investment. The AK explains why it used a top-down cost model based on historical costs rather than a model based on the BU-LRIC+<sup>8</sup> methodology, as recommended by the European Commission. This is discussed further below. **Table 3** reports the regulated prices for the main services provided by LKW, based on AK's methodology.

**Table 3: Price list for main network services**

Service	Price
Local loop fibre, SLA 1	21.95 CHF/month
Core network fibre, SLA 1	0.48 CHF/m/year
Core network fibre pair, SLA 1	0.96 CHF/m/year
Central office – private room	25.00 CHF/m <sup>2</sup> /month
Central office - 1/1 rack	500.00 CHF/month
Central office - 1/2 rack	250.00 CHF/month
Central office - 1/3 rack	167.00 CHF/month
Central office – single height unit	11.00 CHF/month
Cable duct core network area	0.128 CHF/m/month
Cable duct local loop network	0.107xx CHF/m/month

Source: AK Notification, Section 1.

<sup>8</sup> Bottom-Up Long Run Incremental Cost plus, see “The recommended costing methodology” at para. 30 and ff. of the Commission Recommendation 2013/466/EU of 11 September 2013 on consistent non-discrimination obligations and costing methodologies to promote competition and enhance the broadband investment environment, OJ L 251, 21.9.2013, p. 13 (“Non-discrimination and Costing Recommendation”), available [here](#).

*BU-LRIC+ vs historical costs approaches*

The AK considers that its top-down cost model based on historical costs yields results comparable to those of a BU-LRIC+ model. The AK sees similarities between its approach and the main characteristics of a BU-LRIC+ approach. Notably:

- a) Due to separate accounting, only costs associated with LKW's electronic communications network<sup>9</sup> flow into the calculations, which can therefore be considered to be incremental.
- b) Fibre roll-out is recent and the majority of the total investment occurred within the last five years, so that the cost information can be considered current.
- c) LKW's fibre network was largely built into existing infrastructure (in particular, the costs of civil engineering infrastructure are only included in the calculation up to the residual value not yet depreciated) and construction was commissioned with tender procedures for the individual construction lots under market conditions. It can therefore be assumed that the fibre network has been efficiently constructed.

The AK further considers that the resources required for developing a BU-LRIC+ cost accounting model are not available to the AK and to LKW and that the application of the recommended methodology would therefore be disproportionate. In this respect, the AK refers to challenges associated with BU-LRIC+-based cost accounting systems. These include the very high time, personnel and cost expenditure associated with the execution of such a cost accounting model, both for the operator concerned and for the regulatory authority. Those challenges are even more pronounced in the specific context of Liechtenstein, where the costs and resources appear to be disproportionate relative to the size of the market, of the operators and of the regulator itself.

*WACC*

An important parameter affecting multiple parts of the AK's assessment and regulatory intervention, notably the price control regulation, is the weighted average cost of capital or WACC. The AK discusses its methodology for the computation of the WACC in an annex to the notification.

At the outset, the AK assesses that there is no need to add any Next Generation Access network (NGA) premia on the cost of capital in the WACC, with reference to point 25 of the NGA Recommendation<sup>10</sup>. This is due to the following reasons.

First, due to its monopolistic position, LKW has a clear view of the future demand for ULL lines from access seekers. Second, there are no additional planned investments, as the regulation will enter into force once LKW's fibre network has been completed. Hence, there is no uncertainty regarding the future costs. Third, LKW offers only passive infrastructure, which is not exposed to the rapid technological development in active equipment.

Consequently, there are no additional quantifiable risks for the SMP operator. The AK considers LKW's fibre network as equivalent to a "legacy network" for the purposes of the computation of the WACC. This means that no additional correction needs to be carried out over and above the standard computation of the WACC.

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<sup>9</sup> LKW also carries out other activities, notably in relation to the electricity network.

<sup>10</sup> Commission Recommendation 2010/572/EU of 20 September 2010 on regulated access to Next Generation Access Networks (NGA), OJ L 251, 25.9.2010, p. 35, available [here](#).



The AK's methodology is broadly in line with the European Commission's WACC Notice<sup>11</sup> and uses parameters from the BEREC's report of 2023<sup>12</sup>. There are, however, the following specificities in the AK's approach.

- To determine the appropriate risk-free-rate, the AK uses the interest rate of 10-year bonds of Switzerland. This is because Liechtenstein does not issue government bonds. The choice of Switzerland is due to the fact that (i) Liechtenstein uses the same currency (CHF), and (ii) LKW finances both equity and debt in CHF.
- The calculation of the risk-free-rate is carried out by computing the simple average between the 5-year average interest rate between April 2018 and March 2023, and the 6-month average interest rate between December 2022 and May 2023. This approach puts more weight on the interest rate in early 2023 compared to the period between 2018 and 2022. The objective is to better reflect the recent inflationary period worldwide, whose effects are expected to last for the next years. A similar approach was taken by the Spanish NRA in a case notified to the European Commission<sup>13</sup>.
- The AK uses LKW's books to determine the equity ratio and debt ratio (i.e. gearing), rather than using the data from a peer group, as provided by BEREC. The AK explains that using a peer group of European companies would not be appropriate in the case of Liechtenstein due to its taxation system. Liechtenstein's taxation favours the accumulation of equity rather than debt (via equity interest deduction), while the accumulation of debt is typically incentivised by the tax system in other European countries. In fact, the equity ratio of LKW is significantly higher compared to the average equity ratio of the peer group reported by BEREC.
- For consistency, LKW's equity and debt ratio are also used in the computation of the beta parameter affecting the equity risk premium.
- The AK's computation does not take taxes into account (while they are typically relevant for the computation of the equity risk), as LKW is subject to a negligible tax rate which would not meaningfully affect the computation of the WACC.

### III. COMMENTS

ESA has examined the notified draft measure and has the following comments:

#### **Need to monitor developments concerning fixed/mobile substitutability**

Fixed-mobile convergence/substitution is an important development observed in many EEA countries.

ESA takes note of the AK's explanations and data on which the AK relies to exclude a finding of fixed/mobile substitutability in Liechtenstein.

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<sup>11</sup> 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 (2019/C 375/01), OJ C 375, 6.11.2019, p. 1, available [here](#).

<sup>12</sup> BEREC Report on WACC parameter calculations according to the European Commission's WACC Notice of 6th November 2019 (WACC parameters Report 2023), BoR (23) 90, available [here](#).

<sup>13</sup> See the Commission's comment letter in Case ES/2022/2419, available [here](#).

In particular, ESA notes that the relatively early stage of 5G rollout in Liechtenstein, referred to by the AK, is likely to significantly affect the AK's findings. ESA further agrees with the AK that technical differences, which in turn can result in diverging quality of service (also taking into account the point-to-point architecture in LKW's fibre network) are important elements to consider when assessing fixed/mobile substitutability.

That being said, ESA invites the AK to closely monitor developments in this area, notably technical progress in mobile technologies (5G, 6G, etc.) and solutions in Liechtenstein, demand patterns, pricing and convergent offers by service operators. In case significant developments emerge, which are liable to affect the AK's findings on the market definition, ESA calls on the AK to promptly reassess the market, in close consultation with ESA.

### **Appropriate costing methodology for access prices**

ESA notes that the AK uses a top-down accounting model based on historical costs to calculate access prices.

ESA understands the AK's reasoning underpinning its proposal to deviate from the methodology recommended in the Commission's Non-discrimination and Costing Recommendation to set NGA wholesale access prices, i.e. a BU-LRIC+ model with current cost accounting.

In particular, ESA recognises that the use of a BU-LRIC+ model would entail challenges in terms of time, staff and other costs which appear disproportionate when considering the size of the Liechtenstein market and the resources available to the regulator and to the regulated operator. In addition, ESA takes note of the AK's arguments aimed at showing a convergence between the characteristics and the outcome of the top-down historical costs model used by the AK and those of a BU-LRIC+ model (summarised in section II.4 above).

Furthermore, although the AK does not specifically refer to it, point 40 of the Non-discrimination and Costing Recommendation provides for the possibility of applying alternative costing methodologies, when the methodology already used by an NRA meets the objectives in recitals 25 to 28 as well as the following criteria: (i) if not modelling an NGA network, it should reflect a gradual shift from a copper network to an NGA network; (ii) it should apply an asset valuation method that takes into account that certain civil infrastructure assets would not be replicated in the competitive process; (iii) it should be accompanied by documented projections of copper network prices showing that they will not fluctuate significantly and therefore will remain stable over a long time period and that the alternative methodology meets the objective of regulatory transparency and predictability as well as the need to ensure price stability; and (iv) it should require only minimal modifications with respect to the costing methodology already in place in that Member State in order to meet the first three criteria.

While some of the criteria do not appear to be relevant in view of the completed decommissioning of legacy networks and of the transition to fibre, as well as the market situation in Liechtenstein (in particular, the concerns related to the stability of copper prices and to sending an appropriate 'build-or-buy' signal), ESA invites the AK to consider refining its justification underpinning the choice of the top-down historical costs model by including reference to the abovementioned point 40 of the Recommendation, where appropriate.

More generally, having in mind the specific circumstances referred to by the AK, ESA does not object to the AK's proposal to depart from the recommended methodology. However, ESA wishes to emphasise that it will continue to look closely at any deviation

from the recommended costing methodology, in Liechtenstein or in the other States, which should always be properly justified.

### **Adjustment to the risk-free rate used in the WACC computation**

As explained above, the AK computes the risk-free rate by taking the arithmetic average between a 5-year average interest rate series (April 2018-March 2023), and the most recent 6-month average interest rate series available (December 2022-May 2023).

While ESA appreciates the need to take into account the recent inflationary period which significantly increased interest rates on government bonds worldwide, the approach of the AK appears too simplistic and may lead to inaccuracies. It is also unclear why the two time series overlap to a large extent, which makes the resulting computation confusing.

An alternative approach could have been to use one time series of interest rates over time, weighting the months in such a way that the latest period would be given increasingly more weight. Effectively, this is what the AK's approach does in practice, but in a less clear and coherent manner than following the above alternative approach.

ESA is not suggesting to the AK to change its computation. However, it encourages the AK to approach ESA at an earlier stage whenever such methodological questions arise to agree on the best way to address them.

### **Need to carry out periodic market reviews**

Pursuant to Article 16(1) of the Framework Directive<sup>14</sup>, NRAs shall carry out an analysis of the relevant markets as soon as possible after any updating of the recommendation on relevant product and service markets.

The AK notified the last market analysis in 2009 and the corresponding remedies in 2014<sup>15</sup>. Since then, ESA has adopted the 2016 Recommendation (see footnote 2).

In its comments on the two remedies notifications from 2014, ESA drew the AK's attention to the importance of timely enforcement and effectiveness of remedies.

Beyond the considerations in its previous comments letters, ESA wishes to emphasise strongly that a time gap of around 14 years between market analyses, and a gap of over 7 years since the 2016 Recommendation, risks to seriously undermine the objectives of the regulatory framework, notably the development of an internal market and more specifically the need to ensure effective competition on the relevant markets and to provide market players with certainty as to regulatory conditions. Further, regular reviews are necessary to ensure that obligations are (or continue to be) based on the nature of the problem identified, proportionate and justified, in line with Article 8(4) of the Access Directive<sup>16</sup>.

In conclusion, ESA urges the AK to regularly review markets and the applicable remedies, ensuring that no further delays will occur in the future. ESA further notes that, once applicable, the revised regulatory framework introduced by the Code will include

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<sup>14</sup> In the original text as incorporated in the EEA Agreement (see footnote 1).

<sup>15</sup> See section II.1.

<sup>16</sup> Directive 2002/19/EC of the European Parliament and of the Council of 7 March 2002 on access to, and interconnection of, electronic communications networks and associated facilities ("the Access Directive"), OJ L 108, 24.4.2002, p. 7, as referred to at point 5 cj of Annex XI to the EEA Agreement and as adapted to the Agreement by Protocol 1.

more stringent provisions on the timing of market reviews and on the review of obligations<sup>17</sup>.

#### IV. FINAL REMARKS

On a procedural note, ESA recalls that any future amendments to, or more detailed implementation of, the draft remedies consulted on in the current notification will require re-notification in accordance with Article 7(3) of the Framework Directive.

Pursuant to Article 7(5) of the Framework Directive, the AK shall take the utmost account of comments of other regulatory authorities and ESA. It may adopt the resulting draft measure and, when it does so, shall communicate it to ESA.

ESA's position on the current notification is without prejudice to any position ESA may take in respect of other notified draft measures.

Pursuant to Point 15 of the Procedural Recommendation<sup>18</sup>, ESA will publish this document on its eCOM Online Notification Registry. ESA does not consider the information contained herein to be confidential. You are invited to inform ESA within three working days<sup>19</sup> 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 deleted prior to publication. You should give reasons for any such request.

Yours sincerely,

Filip Ragolle  
Deputy Director for Competition and Regulation  
Competition and State Aid Directorate

*This document has been electronically authenticated by Filip Ragolle.*

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<sup>17</sup> In particular, once JCD No 275/2021 enters into force, the EEA EFTA States will need to comply with Article 67(5) of the Code, which stipulates that NRAs should, as a rule, review relevant markets at least every five years. Moreover, Article 68 contains detailed provisions on the imposition, amendment or withdrawal of obligations.

<sup>18</sup> EFTA Surveillance Authority Recommendation of 2 December 2009 on notifications, time limits and consultations provided for in Article 7 of the Act referred to at point 5cl of Annex XI to the Agreement on the European Economic Area (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, OJ C 302, 13.10.2011, p. 12, and available [here](#) ("the Procedural Recommendation").

<sup>19</sup> The request should be submitted through the eCOM Registry, marked for the attention of the eCOM Task Force.