

Brussels, 16 December 2013
Case No: 74682
Event No: 691827

EFTA SURVEILLANCE
AUTHORITY

Amt für Kommunikation
9490 Vaduz
Principality of Liechtenstein

For the attention of:
Mr. Kurt Bühler
Director

Dear Mr. Bühler,

Subject: Case 74682 LIE - Wholesale market for physical access to network infrastructures for high-capacity transmission routes in the core network in Liechtenstein

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

I. PROCEDURE

On 15 November 2013, the EFTA Surveillance Authority (“the Authority”) registered a draft measure from the Liechtenstein national regulatory authority, *Amt für Kommunikation* (“the AK”), concerning the first review of the wholesale market for physical access to network infrastructure for high-capacity transmission routes in the core network in Liechtenstein.²

The notifications became effective on the same day. National consultation was carried out, pursuant to Article 6 of the Framework Directive, in the period from 24 April 2013 to 7 June 2013.

¹ 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 5cl of Annex XI to the EEA Agreement and as adapted to the Agreement by Protocol 1.

² This market is not included in the 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 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 communication networks and services), OJ C 156, 9.7.2009, p.18 (“Recommendation on relevant markets”).

On 28 November 2013, a request for information³ was sent to the AK and a response was received on 3 December 2013.

The period for consultation with the Authority and the national regulatory authorities (“NRAs”) in the EEA States under Article 7 of the Framework Directive expires on 16 December 2013.

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

II. DESCRIPTION OF THE DRAFT MEASURE

II.1. Background

In its analysis of the wholesale market for trunk segments of leased lines⁴ (as notified to and assessed by the Authority under Case No 72451), the AK informed the Authority that it envisaged the possibility of assigning unlit (dark) fibre in the core network to a separate wholesale market which was still to be defined. The Authority noted the AK’s intentions and urged the AK, in the event that it was to identify the existence of such a relevant market, to carry out a market analysis without delay.

Furthermore, the AK notes that, while it defined and examined the market for wholesale (physical) network infrastructure access at a fixed location in Liechtenstein⁵ in 2009 (as notified to and assessed by the Authority under Case No 65648), that market review concerned local access network infrastructure. The present analysis, however, concerns wholesale (physical) access to core network infrastructure in Liechtenstein.

II.2. Market definition

According to the AK, the wholesale market for physical access to network infrastructures for high-capacity transmission routes in the core network includes access to unlit or dark optical fibres in the core network⁶ or to an unbundled wavelength channel⁷ of a fibre-optic cable in the core network, i.e. it concerns wholesale physical access to passive core network infrastructure.

The AK is of the view that, based on pricing⁸ and functional/technical considerations, the wholesale market in question can be distinguished from the wholesale market for trunk

³ In accordance with Article 5(2) of the Framework Directive.

⁴ Corresponding to market 14 of the EFTA Surveillance Authority Recommendation (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 the Framework Directive, as incorporated into the Agreement on the European Economic Area. The wholesale market for trunk segments of leased lines is no longer included in the Recommendation on relevant markets.

⁵ Corresponding to market 4 of the Recommendation on relevant markets.

⁶ Where the unlit or unused optical fibres are located in the local access network, they are considered part of market 4. The proposed market definition in the notified draft measure covers those fibre-optic cables in the core network which run between optical distribution frames nationally or between an optical distribution frame located in Liechtenstein and one abroad, whereby in the latter case only the section of the line located in Liechtenstein would be allocated to the relevant market.

⁷ Unbundling wavelength channels based on wavelength division multiplexing (“WDM”) technology facilitates exclusive use of a single wavelength channel within a fibre-optic cable.

⁸ The AK notes that, since dark fibre is a key input for a leased line service, a small but significant price increase in the former would likely also lead to a price increase in the latter. On this basis, and taking account of switching costs associated with investments made in accessing dark fibre inputs, the AK does not anticipate substitution by purchasers of dark fibre to leased lines services in response to small price changes.

segments of leased lines on the demand side. In the case of dark fibre, the access seeker operates the necessary hardware and has flexibility to determine the technical parameters and quality of service. In contrast, a trunk segment of a leased line provides transparent transmission capacity and offers less flexibility regarding quality management and technical service parameters.

In its response to the Authority's request for information, the AK noted that the wholesale market in question can also be distinguished from the wholesale market for trunk segments of leased lines on the supply side. Since separation of networks and services is in place in Liechtenstein,⁹ suppliers of wholesale trunk segments of leased lines would not have the relevant infrastructure and systems in place to switch readily and on a significant scale to providing physical access to core network infrastructure, such as to dark fibre in the core network.

In addition to physical access services provided externally to third parties, the AK intends to include physical access inputs supplied internally for own requirements (i.e. self-supply). In its reply to the Authority's request for information, the AK notes that as a general rule it considers self-supply part of the defined market on the basis that the opportunity to self supply would undermine the profitability of a 5-10% price increase by a hypothetical monopolist in the relevant market. However, the AK recognises that the inclusion of self-supply is only notional in its significance and does not have a material impact in the present market review as Liechtensteinische Kraftwerke ("LKW") does not currently use its infrastructure for self-supply for the purposes of any downstream services (i.e. it is not active on downstream wholesale or retail markets).

II.3. Geographic market definition

In light of the geographic scope of the core network which extends across Liechtenstein, as well as having regard to the small territory and to the homogeneous supply and demand conditions across the country, the AK defines the relevant geographic market as the entire national territory of Liechtenstein.

II.4. Evaluation of whether the wholesale market for physical access to infrastructure for high-capacity transmission routes in the core network in Liechtenstein is susceptible to *ex ante* regulation (the three-criteria test)

Pursuant to Article 2 of the Authority's Recommendation on relevant markets,¹⁰ three criteria must be cumulatively met in order for a market other than those set out in the Annex to that Recommendation to be considered susceptible to *ex ante* regulation:

- The presence of high and non-transitory structural, regulatory or legal barriers to entry.

⁹ On the basis of a consolidation agreement, the provision of network/infrastructure access and services was separated between Liechtensteinische Kraftwerke ("LKW") and Telecom Liechtenstein ("TLI") in 2007. LKW owns and operates all physical telecoms network infrastructure in Liechtenstein and offers access to the upstream physical network inputs (e.g. unbundled local loops, dark fibre and unbundled wavelength access). TLI offers "intelligent" or activated services in downstream markets (such as in the wholesale market for trunk segments of leased lines) on the basis of the physical infrastructure access inputs it procures at wholesale level from LKW. Both LKW and TLI are 100% State-owned.

¹⁰ See footnote 2 above for the full reference of the Recommendation on relevant markets.

- A market structure which does not tend towards effective competition within the relevant time horizon.
- The insufficiency of competition law alone to address the markets failure(s) concerned adequately.

With regard to the first criterion, the AK concludes that Liechtenstein is distinct to other EEA States, in that, apart from minor exceptions,¹¹ the AK has not observed any general duplication of high-capacity transmission routes in the core network by alternative operators. The sole operator with a national fibre-optic core network is LKW.¹²

According to the AK, this lack of alternative infrastructure is due to the low market potential and traffic volume and corresponding income available on these routes. Furthermore, the AK notes that high sunk costs represent persistent barriers to entry to this market. For these reasons, the AK also does not expect any duplication of the core network infrastructure or any tendency towards (self-sustaining) competition in the foreseeable future, i.e. it deems the second criterion to be met.

The AK notes further that, even though LKW is not currently active in related downstream markets and it guarantees upstream access to its core infrastructure under non-discriminatory conditions, LKW could potentially become active on the market for wholesale trunk segments of leased lines (which is further downstream and relies on inputs from the relevant wholesale physical core network infrastructure market being examined). As a consequence, the AK has identified possible incentives for anti-competitive behaviour, such as excessive pricing or margin squeeze. There is no relevant wholesale regulation applicable to physical core network infrastructure at present. Furthermore, according to the AK, the lack of an independent competition authority in Liechtenstein and the fact that any legal action in accordance with general EEA competition law has to be brought before the ordinary national courts (or the Authority), coupled with the likely need for ongoing and detailed intervention in cases involving competition problems on this market, implies that general competition law is inadequate for successfully countering potential competition problems. On this basis, the AK deems the third criterion to be met.

For the above reasons, the AK concludes that the three-criteria test is fulfilled with respect to the wholesale market for physical access to infrastructure for high-capacity transmission routes in the core network in Liechtenstein.

II.5. Assessment of significant market power (“SMP”)

The AK proposes to designate LKW as an operator with SMP on the relevant market. The criteria used by the AK in its assessment include: market shares, entry barriers (including control over infrastructure not easily duplicated, existence of economies of scale and scope, and sunk costs), absence of countervailing buyer power and general market behaviour.

¹¹ The only exception is the limited presence of some alternative infrastructure in the core network. In this respect, TV-COM AG (“TV-COM”) has a cable and optical fibre network which is limited to the area of the two municipalities of Eschen-Nendeln and Mauren-Schaanwald. UPC Cablecom GmbH (“UPC”) also has a very short optical fibre cable route (about 300 metres long) from the Swiss border to the Bendern industrial area for the supply of major clients located there.

¹² Since the transfer of TLI’s passive network infrastructure to LKW (see footnote 9 above), the latter has been the only undertaking with a national fibre-optic core network.

According to the estimated market shares (in terms of fibre-optic lines supplied externally and internally by undertakings with physical infrastructure for high-capacity transmission routes in the core network in Liechtenstein), LKW accounts for a 99.26% market share, while TV-COM AG (“TV-COM”) and UPC Cablecom GmbH (“UPC”) have a significantly lower presence with 0.41% and 0.33% respectively.

III. Regulatory remedies

The AK intends to impose the following obligations on LKW:

- access,
- price control,
- accounting separation,
- non-discrimination and publication of a reference offer,
- transparency.

As regards the proposed obligations, the AK has not received any concrete complaints in respect of wholesale access provided in the relevant market to date. However, the AK notes that several market participants expressed the view in the national consultation that wholesale access prices in the relevant market were currently high in Liechtenstein. The AK also confirms in its reply to the request for information that, while separation of networks and services is presently in place in Liechtenstein, LKW remains free in principle to enter related downstream (e.g. leased lines) markets and has sufficient ability and incentives to engage in potential discriminatory behaviour over the forthcoming regulatory period. According to the AK, taking account of recent (albeit unapproved) telecoms restructuring proposals, it is possible that the Principality of Liechtenstein, as the owner of LKW, could alter its business strategy over the forthcoming regulatory period which could reinforce the scope for potential discriminatory conduct in the relevant market.¹³ Furthermore, the AK notes that denial of access in respect of LKW’s upstream civil engineering infrastructure was previously reported.

In respect of the proposed access obligation, the AK proposes to oblige LKW to provide wholesale physical access to passive infrastructure in the core network, as well as to unbundled wavelength channels in the core network (if required for availability reasons). To further lower entry barriers, the AK also proposes to require LKW to provide access to supporting services such as to collocation, as well as to available civil engineering infrastructure in the core network (e.g. cable ducts, manholes, distribution points, etc.).

The AK also proposes to impose an external non-discrimination obligation on LKW in respect of the price and non-price parameters (e.g. quality) of all wholesale physical access services offered externally in the relevant market. Furthermore, an internal non-discrimination obligation is to apply to LKW in respect of access to the civil engineering infrastructure, as this is the only service which LKW offers to itself.¹⁴

¹³ For example, if the Government were to pursue a re-integration strategy such that LKW could potentially become active in downstream wholesale and retail markets.

¹⁴ The AK explains that an internal non-discrimination obligation is not required for other forms of access to LKW’s core physical network infrastructure, as LKW is not supplying any related downstream services to itself.

With regard to the price control obligation, the AK proposes that, for the purposes of determining cost-oriented prices for physical access to the core network infrastructure as well as to the civil engineering infrastructure, LKW should prepare its price model using historic full-cost accounting. To address the potential risk of LKW reporting inefficiently-incurred costs, the AK proposes to use benchmarking as a “corrective instrument”.¹⁵

IV. Comments

The Authority has examined the draft measure and has the following comments:

Strength of competitive constraints from alternative vertically-integrated competitors

The AK includes physical access inputs supplied both internally and externally in its proposed relevant market definition. As a general point, the Authority notes that to justify the inclusion of self-supply in the relevant market, it is necessary to show the existence of effective direct constraints¹⁶ or indirect constraints¹⁷ from such self-supplied inputs.

However, as regards competitive constraints from alternative vertically-integrated competitors in Liechtenstein, the AK notes the more local/regional nature of TV-COM and UPC’s networks. The AK further notes the low external wholesale supply available from these alternative providers,¹⁸ as well as its expectation of limited alternative (external and internal) supply options for wholesale customers over the relevant regulatory period.

While the Authority considers that the AK has not sufficiently demonstrated the likelihood of effective wholesale substitution (direct constraints) or retail substitution (indirect constraints) to alternative vertically-integrated operators, the Authority notes that the inclusion or exclusion of self-supply in the relevant market does not have any impact on the proposed SMP finding or on the proposed regulatory remedies in the present market review. If, however, the inclusion or exclusion of self-supply in the relevant market has a concrete impact on the

¹⁵ For the benchmarking comparison, when referring to prices of similar industries or services, the AK intends to take into account the costs prevailing in countries which have similarly-developed networks and comparable topography to Liechtenstein, with additional factors such as wages and price levels, settlement conditions or population density to be taken into account as appropriate. In its reply to the Authority’s request for information, the AK further explains that it proposes to investigate the amount of fibre in Liechtenstein and to compare it to the quantity structures in other countries. On this basis, the AK intends to derive an adjusted access price. The AK also confirms that the newly-calculated prices will be subject to consultation at EEA level under the Article 7 procedure.

¹⁶ Direct constraints refer, in the context of market definition, to the possibility of a vertically-integrated operator’s self-supply being used for direct (external) wholesale provision and a sufficient degree of wholesale purchases being diverted to that previously self-supplied capacity so as to constrain small but significant wholesale price changes by a hypothetical monopolist of the externally-supplied wholesale access services.

¹⁷ Indirect constraints refer, in the context of market definition, to a situation where the following conditions would pertain in response to a SSNIP (small but significant non-transitory increase in prices) by a hypothetical monopolist of externally-supplied wholesale access services: (i) ISPs would be forced to pass the hypothetical wholesale price increase on to their consumers at the retail level based *inter alia* on the wholesale/retail price ratio; (ii) there would be sufficient demand substitution at the retail level to retail services based on indirect constraints such as to render the wholesale price increase unprofitable; and (iii) the retail customers of the ISPs would not switch to a significant extent to the retail arm of the integrated hypothetical monopolist, in particular if the latter does not raise its own retail prices.

¹⁸ TV-COM supplied a total of 6 fibre-optic routes to external wholesale customers in 2012.

regulatory outcome at the time of the AK's next second-round review, the Authority would invite the AK to carefully weigh the impact of any direct or indirect constraints stemming from such self-supply on wholesale pricing for the regulatory period in question.

Forthcoming notification of updated price control under the Article 7 procedure

The Authority notes that the AK intends to use historic full-cost accounting for the purpose of determining cost-oriented prices and to subsequently carry out a benchmarking exercise as a "corrective instrument" in order to set wholesale tariffs for physical core network access.

Further, the Authority notes the AK's intention to consult on the proposed parameters and implementation of the price control methodology and on the resulting wholesale tariffs under the Article 7 procedure.

In this regard, the Authority urges the AK, when notifying the proposed implementation of the above multi-tiered methodology and the resulting wholesale tariffs, to provide a clear elaboration of each of the steps involved and the underlying principles, as well as of the details and suitability of the benchmarks (such as the relevant countries or industries) taken into consideration. In doing so, the AK should demonstrate how the proposed methodology meets the objectives of the EEA regulatory framework¹⁹ and ensures transparency and predictability for the market participants and interested parties for the forthcoming regulatory period.

V. Final remarks

On a procedural note, the Authority recalls that any future amendments to, or more detailed implementation of, the draft measures consulted on in the current notifications 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 NRAs and the Authority and may adopt the resulting draft measure and, where it does so, shall communicate it to the Authority.

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

Pursuant to Point 15 of the Procedural Recommendation,²⁰ the Authority will publish this document on its eCOM Online Notification Registry. The Authority does not consider the information contained herein to be confidential. The AK is invited to inform the Authority within three working days²¹ following receipt of this letter if it considers, in accordance

¹⁹ Pursuant to Article 8(4) of the Access Directive and Article 8 of the Framework Directive.

²⁰ 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 (the "Procedural Recommendation").

²¹ The request should be submitted through the eCOM Registry, marked for the attention of the eCOM Task Force.

with EEA and national rules on confidentiality, that this letter contains confidential information which you wish to have deleted prior to publication. The AK should give reasons for any such request.

Yours faithfully,



Bernhard Zaglmayer
Acting Director
Internal Market Affairs Directorate



Per Andreas Bjørgan
Director
Competition and State Aid Directorate