

Appendix A



**POST- AND TELECOM
ADMINISTRATION**

Market analysis

**Analysis of the retail market for access to the public
telephone network provided at a fixed location for
residential and non-residential customers**

(Market 1)

18 June 2013

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Summary and Conclusions

This document contains the Post and Telecom Administration (the PTA) analysis of the retail market for access to the public telephone network provided at a fixed location for residential and non-residential customers, which is Market 1 in the ESA Recommendation on the relevant market from 5 November, 2008.

A prior analysis of retail markets for public telephone network at a fixed location, along with a Decision on the designation of undertakings with significant market power and on the imposition of obligations was published at the end of 2008. That analysis examined six retail markets, i.e. the markets for access to the public telephone network at a fixed location, the markets for domestic telephone services and a fixed location, and the markets for international public telephone services at a fixed location on the one hand for non-residential and on the other hand for residential customers. These were Markets 1-6, according to the older ESA Recommendation on the relevant markets from 2004. The retail markets for public telephone services at a fixed location, previously Markets 3-6, are no longer specified in the ESA Recommendation and for this reason there will be a separate analysis, which will determine whether conditions still exist for the imposition of ex ante obligations on those markets. According to the ESA Recommendation on the relevant markets from 2008, the markets for access to public telephone networks provided at a fixed location (previously Markets 1 and 2) will be combined as one which now incorporates services both for residential and non-residential customers. This is Market 1 according to the ESA Recommendation from 2008 and is the subject of this analysis.

The PTA conclusion in the Administration's prior market analysis, from 5 December 2008, was to designate Siminn as having significant market power on the retail market for access to the public telephone network provided at a fixed location, which were then Markets 1 and 2. The PTA imposed the following obligations on Siminn at wholesale level for the relevant markets:

- Obligation on and carrier selection and pre-selection
- Obligation for wholesale access to interconnection to the public telephone network at fixed location
- Obligation for non-discrimination
- Obligation for transparency
- Obligation for accounting separation
- Obligation for price control
- Obligation for cost accounting

As the PTA considered that the objectives of the electronic communications legislation with respect to competition and consumer interests could be achieved on markets for public telephone services provided at a fixed location 1-6 with obligations at wholesale level on Markets 1 and 2 and with obligations at wholesale level on former markets, 8, 9, 10, 11 and 12, the Administration considered there to be no reason to apply obligations at retail level at this point in time.

The conclusion of the PTA market analysis on Market 1 2012/2013 is the following:

On Market 1 Siminn still has by far the largest market share. The Siminn share has dropped since the analysis of the market was made in 2008 from [80-85%]¹ in 2008 to [70-75%]² in 2011, by revenue. The Vodafone share was [15-20%]³ in 2011. There are now 4 other companies on the market, Tal, Símafélagið, Hringdu and Nova and their combined share is about 10%. It is the PTA's conclusion that Siminn still has significant market power on this market and that this will not change during the next 2 to 3 years.

The PTA intends to maintain the obligations on Siminn on Market 1 as follows:

- Obligation on carrier selection and pre-selection
- Obligation for wholesale access to interconnection to the public telephone network at fixed location
- Obligation for non-discrimination
- Obligation for transparency
- Obligation for accounting separation
- Obligation for price control
- Obligation for cost accounting

¹ Margins for confidentiality.

² Margins for confidentiality.

³ Margins for confidentiality.

1.0 Introduction

1.1 General

1. This document contains the Post and Telecom Administration (PTA) market analysis of the retail market for public telephone services provided at a fixed location for residential and non-residential customers (Market 1). The PTA published an analysis of this market, along with its Decision on obligations on undertakings with significant market power on 5 December 2008 (Markets 1 and 2 in the ESA Recommendation then in force on the relevant markets). It is assumed that market analyses will be repeated at regular intervals in order to monitor whether circumstances have changed on the markets. The PTA considers it now appropriate to review the previous analysis.

2. This document is based on a draft that was submitted for consultation with a letter dated 30 November 2012, where the Competition Authority, electronic communications undertakings and other stakeholders were offered to make observations on the market analysis. The Competition Authority and Siminn hf. sent in comments. The observations and the PTA position on the observations are covered in a special document (Appendix B). The market analysis was updated in accordance with the comments that were taken into account. On 14 May 2013, the PTA formally notified to the EFTA Surveillance Authority (ESA) of a draft decision on the above market, in accordance to Article 7 of Directive 2002/21/EC (Framework Directive). On 14 June 2013, the PTA received ESA's opinion on PTA's draft decision and analysis on Market 1. ESA made specific comments on the draft analysis and the draft obligations. The nature of the comments are not such that PTA cannot take a final decision on the matter. ESA's comments letter can be found in Appendix C to this decision.

3. ESA made comment on the inclusion of nomadic VoIP services in the relevant market. However, the Authority recognised, for the purpose of the presented draft measure, that the inclusion of the said service wouldn't impact on the particular regulatory outcome, inter alia due to its low usage and to the fact that nomadic VoIP services wouldn't fall under the scope of the imposed remedies. Therefore, the Authority didn't contest PTA's finding that the present market definition could be left open in respect of this particular service.

4. Moreover, ESA made comment on the PTA's need to notify price control related obligations under the Article 7 procedure. According to the draft decision, Siminn would initially be obliged to submit to the PTA its cost calculation based on fully-allocated historical costing approach. Afterwards, the PTA proposes to review and amend the model to avoid cost inefficiencies and finally it proposes to use the simple average of corresponding services in the EEA countries in a benchmarking cross-check. The Authority urged the PTA to provide further elaboration of each of these steps and their underlying principles when notifying the resulting wholesale tariffs in order to ensure transparency and predictability for other market players. Furthermore, in the absence of the detailed price control methodology in the present draft measure, the Authority reserved its right to examine the proposed methodology in further detail when it is actually notified under the Article 7 procedure.

5. Lastly, ESA made comments on timely enforcement and effectiveness of remedies. The Authority noted that Siminn would be obliged to submit the above-mentioned cost analysis within 6 months subsequent to the publication of the final adopted measure. In that regard, the Authority observed the late implementation of this remedy in the last market

review carried out by the PTA. For example, the wholesale tariff for Siminn was only finalised in 2011/2012, despite the price control remedy having been imposed by the PTA in 2008. Similarly, the single-billing service has only been on offer since the autumn of 2011, despite the relevant access obligation being in place since 2008. The Authority recalled, in the interests of pursuing a consistent policy across all EEA States and ensuring effective and targeted regulation, the importance of regulators enforcing remedies in a timely and effective manner following the conclusion of the underlying market analysis. The Authority further urged the PTA to ensure the effectiveness of the currently proposed remedies and that the terms and conditions of important access services, such as single-billing which has very low take-up, would be sufficiently effective to enable alternative operators to compete efficiently. In this context, the Authority reminded the PTA of its powers and obligations under the Regulatory Framework in the enforcement of remedies in case of a reluctant implementation on the part of the operator designated with significant market power.

1.2 Electronic communications legislation

6. The Electronic Communications Act no. 81/2003 introduced the EU Directive on electronic communications⁴ and one Directive on personal data protection in electronic communications.⁵ EU electronic communications legislation is intended to create a homogenous working environment for electronic communications undertakings in Europe, to limit barriers and create conditions for sustainable competition for the benefit of consumers.

7. Pursuant to Chapter V of The Electronic Communications Act the PTA is obliged to define certain electronic communications markets, both in terms of service and in terms of geographical scope, in accordance with the fundamental principles of competition law and the obligations pursuant to the European Economic Area (EEA) Agreement. Furthermore, the PTA is required to analyse the defined markets and determine whether they are prospectively competitive. If the PTA comes to the conclusion that there is effective competition in the relevant market – i.e. that no operator has significant market power – it is prohibited from imposing obligations on the operators in that market. If the Administration has previously imposed obligations on undertakings in the relevant market, these shall be withdrawn and no new obligations imposed. Should on the other hand, the PTA come to the conclusion that there is not active competition on the relevant market because one or more companies have significant market power, then the institution is obliged to designate them as having significant market power and to impose on them the appropriate obligations. According to Article 7 of the Act on the Post and Telecom Administration, the PTA is obliged to consult with ESA and with other electronic communications regulatory bodies in the EEA area on the

⁴ Directive of the European Parliament and Council no. 2002/19/EC from 7 March, 2002 on access to, and interconnection of, electronic communications networks and associated facilities (Access and Interconnection Directive).

Directive of the European Parliament and Council no. 2002/20/EC, of 7 March 2002, on the authorisation of electronic communications networks and services (Authorisation Directive).

Directive of the European Parliament and Council no. 2002/21/EC 2002/21/EC, of 7 March 2002, on a common regulatory framework for electronic communications networks and services (Framework Directive).

Directive of the European Parliament and Council no. 2002/22/EC, of 7 March 2002, on universal service and users' rights relating to electronic communications networks and services (Universal Service Directive).

⁵ Directive of the European Parliament and Council no. 2002/58/EC, of 12 July 2002, concerning the processing of personal data and the protection of privacy in the electronic communications sector (Directive on privacy and electronic communications).

definition of markets, market analysis and on Decisions on obligations.

8. The European Commission has published Guidelines and a Recommendation for market analysis. On the one hand, these are Guidelines on market analysis and on assessment of significant market power⁶ and on the other hand, they are recommendations for the relevant markets.⁷ The EFTA Surveillance Authority (ESA) has issued analogous Guidelines⁸ (hereinafter called “the Guidelines,”) and a Recommendation⁹ (hereinafter called “the Recommendation”) and the PTA has made reference to the Guidelines and Recommendations from ESA and from the Commission when conducting its market analyses. In addition to this, the report of the European regulatory group of national regulatory authorities (ERG¹⁰) is used as a reference for obligations that may be imposed on electronic communications undertakings that have significant market power, for the purposes of enhancing competition¹¹, along with other reports from ERG and/or BEREC, which is the Body of European Regulators for Electronic Communications, which has taken over the role of the ERG.

9. In the existing Recommendation on the relevant market, seven electronic communications markets that the PTA is obliged to analyse have been defined, in accordance with current electronic communications legislation and with Iceland's obligations pursuant to the EEA agreement. Furthermore the electronic communications legislation prescribes that the PTA define these markets in accordance to circumstances that pertain in Iceland. In this connection it could be the case that the PTA market definitions would vary from those prescribed in the Recommendation. The PTA is also authorised to investigate all relevant electronic communications markets in connection with market analysis, regardless of whether or not they are listed in the Recommendation.

10. The Ministry of Communications has issued a Regulation on market analysis in the field of electronic communications, no. 741/2009, with the authority of Paragraph 3, of Articles 18 and 75 of the Electronic Communications Act. The Regulation covers the process

⁶ Commission Guidelines on market analysis and the assessment of significant market power under the Community regulatory framework for electronic networks and services, 2002/C 165/3.

⁷ Existing regulations are: Commission Recommendation of 17 December 2007 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 (notified under document no. C(2007) 5406) (2007/879/EC) and Explanatory Note; Commission Staff Working Document - Explanatory Note Accompanying document to the Commission Recommendation 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 (Second edition) {(C(2007) 5406)}

⁸ EFTA Surveillance Authority Guidelines of 14 July 2004 on market analysis and the assessment of significant market power under the regulatory framework for electronic communications networks and services referred to in Annex XI of the Agreement on the European Economic Area.

⁹ Existing regulations are: 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 communication networks and services), as adapted by Protocol I thereto and by the sectoral adaptations contained in Annex XI to that Agreement.

¹⁰ The abbreviation for “European Regulatory Group of National Regulatory Authorities”. Now the institution is called Body of European Regulators for Electronic Communications (BEREC).

¹¹ *Revised ERG Common Position on the approach to Appropriate remedies in the ECNS regulatory framework. Final Version May 2006. ERG (06) 33.* The document can be seen at: http://erg.eu.int/doc/meeting/erg_06_33_remedies_common_position_june_06.pdf

and the main criteria to be applied when defining electronic communications markets, analysing relevant markets, making Decisions on designation of an undertaking or undertakings as having significant market power and making Decisions on obligations according to the Electronic Communications Act no. 81/2003. The Regulation is based on the above specified EU instruments, Recommendations and Guidelines.

1.3 The PTA's execution of market analysis

11. As is stated in the PTA information brochure on market analysis¹², the implementation of market analysis can be divided into three stages:

- Define the relevant service markets and geographical markets.
- Analyse each of the defined markets, determine whether there is active competition on these markets and make a Decision on whether one can find one or more undertakings with significant market power in a market.
- Make a Decision on whether obligations shall be imposed, amended or withdrawn on undertakings with significant market power.

12. Work on this analysis commenced at the beginning of 2012. Last 7 February questionnaires were sent to parties to the market. Answers to the questionnaires are used in this analysis, but they have been processed in such a manner that the answers cannot be traced to individual parties. The Administration has collected information, among other things regular statistical information, and has had informal communications with parties to the market. Statistics, among other things on the fixed line markets, are collected from all parties to the market at six monthly intervals. In addition to this, the PTA collects and registers information on all changes to tariffs as they take place.

13. The first draft of the market analysis was presented to the Competition Authority and to stakeholders by letter dated 30 November 2012 and they were offered to make comments. The PTA has processed the comments received and reports them in a separate document (Appendix B). The market analysis was updated in accordance with the comments that were taken into account. The market analysis and draft decision with respect to obligations on the relevant markets are now sent to the EFTA Surveillance Authority (ESA) for consultation, see Paragraph 1 of Article 7 of Act no. 69/2003 on the Post and Telecom Administration. Should ESA make no comments on the market analysis and on the draft PTA Decision then the Decision will be notified to the companies in question.

1.4 On market analysis

1.4.1 General

14. According to Article 16 of the Electronic Communications Act no. 81/2003, as amended, the PTA shall define service or goods markets and geographical markets in accordance with the main principles of competition law and with obligations according to the EEA Agreement. As has been stated it is necessary for the PTA to evaluate whether markets, as defined in the Recommendation, harmonise with Icelandic circumstances. Both the service

¹² The PTA information brochure on market analysis. Last updated in August 2009.
[http://www.pfs.is/upload/files/Kynningarrit_um_markaðsgreiningu_ágúst_2009\(1\).pdf](http://www.pfs.is/upload/files/Kynningarrit_um_markaðsgreiningu_ágúst_2009(1).pdf)

and geographical market must be defined before it is possible to assess whether market conditions are such that they are susceptible to the imposition of ex-ante obligations.

1.4.2 Demarcation of product and service markets

15. In Article 4 of the Competition Act no. 44/2005 a market is defined as a sales area for a product and substitute product and/or a sales area for a service and substitute service. Substitutable products and services are defined as products or services that can, wholly or to a significant extent, take the place of other products or services, not only on the basis of the objective characteristics of the product in question, the purchaser's intended use of them, and their price, but also with respect to competition requirements and/or conditions relating to supply and demand. Products that can compete with one another are therefore called substitutable products, and each market consists of products that are mutually substitutable. Products that can be substituted for one another only to a limited extent are not considered to belong to the same market.

16. Substitutability is assessed from two points of view. First, how readily customers believe that one product can be a substitute for another (demand-side substitutability). Second, how easily a competitor of a given undertaking can adapt his production so that his product falls within the market to which a product of the given undertaking belongs (supply-side substitutability).¹³ Demand-side substitutability is considered to be the basis of the market definition, while supply-side substitutability is less meaningful and is often related instead to an assessment of potential competition.

1.4.3 Demarcation of the geographical market

17. When a service market has been defined, its geographical dimension must be defined. The main rule is that it is based on the scope of the electronic communications network and the legislative jurisdiction of the regulatory framework that applies to it. Geographical demarcation is also based on an assessment of substitutability of the product or service in question, on the supply side and on the demand side. The geographic market is the area where products or services are offered on sufficiently homogeneous competitive terms. In assessing demand-side substitutability, it is appropriate to consider customers' preferences and geographical purchasing patterns. On the basis of this, it is possible to define markets as local, regional, national, or transnational; i.e., extending to more than one country. If a market is considered to extend to more than one country, NRA's collaborate on the market definition together with the European Commission and ESA, if appropriate.

18. Two factors are important in defining geographical markets: price and network coverage. If a telecommunications network is distributed over the whole country, then this is an indication that the geographical scope should be the whole country. If the distribution of the network is regional and there is no overlapping of regions, this is an indication that the geographical scope should be regional. If prices are the same for the entire country, this indicates that the geographical scope should be national. If prices differ according to region, this is a strong indication that supply- and demand-side substitutability do not exist and that the regions in question are distinct geographical markets.¹⁴

¹³ See further Paragraph 39 in the Guidelines and the Explanatory Memorandum the EU Commission Recommendation, Chapter 3.1.

¹⁴ Definition of the geographical dimensional of markets is discussed in Chapter 2.2.2 of the ESA Guidelines and also in the COMMISSION NOTICE on the definition of the relevant market for the purposes of Community

1.4.4 Conditions for being able to define other markets

19. The PTA can define other markets than those specified in the ESA Recommendation, for example, because of special circumstances in this country. In such cases there shall be consultation with ESA. When defining other markets, the following conditions need to be fulfilled to enable the imposition of obligations:

- The market shows high and non-transitory barriers to entry.
- Market structures do not tend towards effective competition in a relevant time horizon.
- Application of competition law alone does not adequately abolish obstacles and strengthen competition.

The above conditions, in the opinion of the EU Commission and of the ESA, generally exist in the EEA on the service markets here being examined.

2.0 Definition of the relevant markets

2.1 Definition of service markets in the PTA market analysis from 2008

20. In its analysis from 2008 the PTA based its definition of markets for access to public telephone services provided at a fixed location on the ESA Recommendation for the markets in question from the year 2004. The PTA considered there to be no reason to deviate from the definitions in the Recommendation, but a further definition was presented in the PTA analysis, which was as follows:

Market 1: *Access to public telephone services provided at a fixed location for residential customers*

This market includes any kind of connection with an electronic communications network that provides fixed line access to public telephone services for residential customers, regardless of the electronic communications infrastructure or technology on which the access is based. This means that the market in question is not limited to analogue (PSTN) and digital (ISDN) access to the copper local loop, but it includes access for residential customers to public telephone networks at fixed location and to other access networks with a fixed network connection point (which includes access to broadband networks with the assistance of a variety of technical solutions).

Market 2: *Access to the public telephone services provided at a fixed location for non-residential customers*

This market includes any kind of connection with an electronic communications network that provides fixed line access to public telephone services for non-residential customers, regardless of the electronic communications infrastructure or technology on which the access is based. This means that the market in question is not limited to analogue (PSTN) and digital (ISDN) access to the copper local loop, but it includes access for non-residential customers to public telephone networks and fixed location and to other access networks with a fixed network connection point (which includes access to broadband networks with the assistance of a variety of technical solutions).

21. The definitions for Markets 1 and 2 were identical with the exception that on the one hand there were connections for residential customers and on the other hand, for non-residential customers.

2.2 Definition in current Recommendations from ESA and from the EU Commission

22. The current ESA Recommendation on the markets in question from the year 2008 is based on an analogous Recommendation from the EU Commission from 2007, and for this reason, it is appropriate to take into account the Explanatory Note that accompanied the Commission's Recommendation where there is a detailed description of how to demarcate and define the markets in the Recommendation. In the Explanatory Note to the EU Commission's Recommendation there is discussion on retail public telephone services provided at fixed locations.¹⁵ There it is stated that access to public telephone services provided at a fixed location networks and services can be provided in a number of ways. The most common method today is to use the traditional voice telephony network with the copper

¹⁵ Explanatory Note bls. 21-23.

local loop. Other possible ways are for example, through television, cable systems, mobile phone systems that have been adapted for use with fixed connections and other wireless networks. High-speed connections can carry telephone traffic but users would in general, not switch to high-speed connections for the sole purpose of gaining access to public telephony at a fixed location. Users switch first and foremost to high-speed connections in order to have access to faster Internet services. Many users that gain access to high-speed connections also retain a low speed connection, which is used for fixed line telephony, which indicates that these two services are considered as complementary to each other rather than being substitute services. Regulatory bodies are nevertheless encouraged to examine increasing substitutability with respect to future developments.

23. The Commission considers that users that choose to have only a low speed connection have little or no need for Internet access and are thus not likely to react to minor price increases by switching to high-speed connections. With this in mind, one can conclude that high-speed connections are not a substitute service for low speed connections and thus they do not belong to the same market.

24. At locations where many users are situated close to each other, such as in large companies, it is possible to use leased lines to connect to the public telephone network provided at a fixed location. Leased lines are however not considered to be substitute services for traditional low speed connections for public telephone services provided at a fixed location.

25. In the initial Recommendation from the Commission on the relevant markets from the year 2003 a distinction was made between connections for residential customers on the one hand and for non-residential customers on the other. Market analyses that have been submitted to the Commission, have on the other hand, demonstrated that the conditions for access to public telephone services provided at a fixed location for these two customer groups in most of the member states of the EU are not materially different from each other. Electronic communications undertakings do not in general make a great distinction between the offer of services to residential or non-residential customers, and nor do they maintain clear separation in the registration of such customers, which makes it difficult to collect distinct information on these groups of customers.

26. From the supply side, it should be relatively easy for electronic communications undertakings that serve one of the groups to adapt its offer in such a manner that it would apply to the other group, as the production factors used in the services are analogous for both groups. With this in mind, the Commission proposes that one market should be defined for (narrowband) access to public telephone services provided at a fixed location for residential and non-residential customers, instead of two distinct markets. Regulatory authorities in individual states could however decide in the light of local circumstances to subdivide this market into distinct parts.

27. The Commission considers that, despite the fact that access to public telephone networks provided at a fixed location is often sold in one bundle, it is easy for the user to switch service providers for telephone calls, that is to say, by using carrier selection or pre-selection. For this reason telephone calls are not considered to belong to the same market as access to public telephone services provided at a fixed location

28. In the Explanatory Note and in the Recommendation from the Commission and in the

ESA Recommendation the relevant market is defined in the following manner:

Access to the public telephone network at a fixed location for residential and non-residential customers.

2.3 The PTA definition of the relevant service markets

2.3.1 General

29. In this section the PTA will define markets for access to public telephone services provided at a fixed location for residential and non-residential customers in accordance with the ESA Recommendation. The PTA agrees in the main with the definition in the Recommendation and of the delineation with respect to other services. There are however some issues that The PTA considers necessary to examine more closely and it is also necessary to examine the markets from an Icelandic perspective.

30. In its analysis of Markets 1-6, which was published in its final form on 5 December 2008, the PTA defined markets for access to public telephone services provided at a fixed location for residential and non-residential customers (Markets 1 and 2). This definition is based on the definition in the ESA Recommendation that was then in force, taking into consideration the Explanatory Note to the EU Commission Recommendation. The PTA considers that the definition in the current Recommendation applies in fundamental respects in this country, as it is very analogous to the definition in the older Recommendation on which the PTA based its last analysis, except with respect to the fact that now there is no distinction between services for residential and non-residential customers. In the following chapters certain factors related to the delineation of the market are examined and the services belonging to the relevant market are described in more detail.

2.3.2 Distinction between residential and non-residential customers

31. In the PTA analysis of the market from 2008 it was stated that in reality there is no clear distinction between voice telephony services provided to residential customers on the one hand and to non-residential on the other, regardless of whether this is access to a public telephone network (via telephone subscription), or to public telephone services (telephone traffic). Households and businesses can both purchase basic telephone subscriptions (PSTN¹⁶ or ISDN¹⁷ 2B-D) and telephone service at a conventional price and on conventional terms. However, some services in this market, such as ISDN 30B+D telephone service are intended solely for non-residential use. The PTA considered it difficult to define a clear and unambiguous line of demarcation between markets with respect to residential and non-residential customers and considered that this would lead to specific deviation limits in the division of the market. Nevertheless, the PTA decided to define two distinct markets for access, as was done in the ESA Recommendation from 2004 and this was justified by the fact

¹⁶ Public Switched Telephone Network – traditional circuit switched public telephone service with one voice channel per connection.

¹⁷ Integrated Services Digital Network – telephone service with more than one voice line per connection. It is possible to have 2 voice lines on the basic connection and up to 30 voice lines in a backbone connection to companies. ISDN enables the use of a connection simultaneously for voice and data transfer through a dial-up connection.

that marketing and discount offers were distinct and in addition to this, larger companies required custom-made telephone solutions.

32. The PTA can except the arguments provided in the Explanatory Note to the current EU Commission Recommendation that in general there is not such a difference in content and conditions for the services in question for residential customers on the one hand, and non-residential on the other that would justify maintaining the distinction that was prescribed in the Commission's Recommendation from 2003 and in the ESA Recommendation from 2004. The PTA considers that the circumstances in this country are not unlike those in other EEA states to the extent that there would be a reason to deviate from the current ESA Recommendation.

33. In addition to this one can mention that there is clear supply-side substitutability between these groups as the electronic communications undertakings that provide services to one group can easily change their emphases and begin to offer services to the other group.

34. The PTA will thus structure its definition of the markets such that services to residential and non-residential customers belong to the same market.

2.3.3 Varying technology on fixed line networks

2.3.3.1 PSTN and ISDN

35. In the PTA analysis from 2008 it was considered that PSTN and ISDN services would belong to the same service market. The PTA considers it very unlikely that a small but significant, lasting increase in the price of telephone services to residential users would prompt large numbers of users to purchase ISDN subscription, as a large number of customers had already converted their PSTN subscription to ISDN subscriptions in the past years without the proportional price difference between these two subscription options having changed significantly. In addition to this, a significant number of residential customers had transferred their ISDN subscription back to PSTN subscription because the share of broadband (xDSL) in data transfer had increased steadily, and had reduced the use of dial-up connections. The PTA considers that PSTN and ISDN access belong to the same market.

2.3.3.2 VoIP that uses telephone numbers

36. In the year 2008 The PTA considered that voice telephony connections through high-speed connections also belonged to the markets for access to public telephone services provided at a fixed location, where the connection for voice telephony used a telephone number. The PTA considered there to be substitutability between such a service and traditional public telephone services provided at a fixed location both on supply and demand sides.

37. This is not fully in accordance with the Explanatory Note to the Commission's Recommendation from 2007 as has been shown here above. In the Explanatory Note it is considered that consumers would generally not switch to high-speed connections for the sole purpose of gaining access to a public telephone network and that users that choose a low speed connection have little or no need for Internet access, and are thus not likely to react to minor price increases by switching to high-speed connection. With this in mind, one can conclude that broadband connections are not a substitute service for narrowband connections and thus they do not belong to the same market.

38. In this country, most electronic communications undertakings offer Internet phone services of some kind. Siminn offers a computer telephone service which can be accessed at any location through an Internet connection. This is what is called a nomadic service that is not tied to any specific network connection point. The service uses telephone numbers from the Icelandic telephone system, but may only use numbers from the 49x xxx xxx sequence. This service can be a substitute for traditional fixed line telephone services if the user is prepared to change telephone number. Most of the electronic communications undertakings offer both nomadic service and fixed line through fibre-optic. A fixed line telephone service through fibre-optic is tied to a fixed location and can use numbers from all of the sequences for voice telephony. The lowest monthly rate for a fixed line telephone through fibre-optic is a little over ISK 1000, which is about half of the price for traditional fixed line telephone, but in order to access the service, one needs to purchase access to the fibre-optic system from Gagnaveita Reykjavíkur for ISK 2410 per month. A fixed line telephone service tied to one fixed network connection point through an xDSL connection does not seem to be any longer on offer in this country.

39. There is clearly an additional cost involved in switching from a traditional fixed line telephone to VoIP telephone where the user does not already have an Internet connection. However, one must keep in mind the fact that almost all residential and non-residential customers in this country already have an Internet connection. According to information gathered by Statistics Iceland, 93% of households in Iceland have access to the Internet through high-speed connections and 99% of companies with 10 employees or more have access to the Internet¹⁸. The great majority of these connections are high-speed connections as such connections can now be accessed throughout the country. This means that it is only a small number that would need to add a high-speed connection, if they wish to switch from PSTN/ISDN service to VoIP. One can assume that some user would hesitate before switching from traditional fixed line telephony services to a nomadic service because they would not be able to move their telephone number into the new service. With telephone services through fibre-optic however, it is possible to transfer the number. Telephone service through fibre-optic is not on offer for all. About 50,000 users can now connect to fibre-optic local loops and about 21,000 are now using the connections.

40. The quality of VoIP service has increased in recent year and one can assume that it is comparable with the quality of PSTN/ISDN service. The number of users of VoIP service has increased significantly in recent years, and in particular of services that are provided through a fibre-optic connection. Subscribers for such services are now about 19,000 which is equivalent to 10.5% of the total number of voice lines in the fixed line telephone network.

41. In PTA's view access to VOIP service via fibre optic connection is fully substitutable with access to PSTN/ISDN. The service is sold as a substitute for PSTN and pricing, functionality and quality are very similar. For price comparison one can for example take a look at identical VoIP and PSTN subscriptions offered by Vodafone. Vodafone offers VoIP subscriptions with a fixed monthly charge from ISK 1.190 to ISK 5.350 which includes 1000 minutes of fixed calls and 0-500 minutes of calls to mobile phones. Extra minutes cost 2 ISK for fixed calls and 22 ISK for mobile. The same subscriptions are offered on the PSTN network but the price is higher, ranging from ISK 2.090 to ISK 6.250. Customers who choose the VoIP via fiber optic have to pay ISK 2.610 for access to the network. If customers are

¹⁸ Hagtíðindi, year 96, 45 ed., page 6.

only buying telephone service the VoIP customer will pay 5.360 for a medium priced subscription (Heimasími 200) while the PSTN customer pays ISK 3.650. However, since at least 93% of households in Iceland are buying internet services it is sensible to take into account that the telephone service and the internet service share the cost of the network access. Customers buying telephone (Heimasími 200) and internet service (Internet 40) from Vodafone pay almost the same monthly fee regardless of whether they use the fiber optic network or the copper network, the fibre optic customer pays ISK 10.429 in total while the copper network customer pays ISK 10.229. The subscriptions are identical apart from the internet download speed which is higher in the fibre optic subscription. The same terminal equipment is used for the telephone service on the fibre optic network and PSTN network. According to the network provider the VoIP via fibre optic works exactly as the PSTN service. The service providers sell the service as a substitute for the PSTN service and claim that the quality is similar. The PTA does not have data regarding the quality of the VoIP service on fiber networks, but there have not been any complaints to the authority regarding the quality of the service. Number portability is allowed between the service on the copper network and the service on the fibre optic network.

42. Subscriptions to nomadic service are now just over 3 thousand, or 1.7% of the total number of telephone connections. The service has been available for several years, but the number of users has never been significant. PTA believes low usage of the service can be explained partly by the fact that service providers have not placed special emphasis on the marketing of the service and the service is generally unobtrusive in promotional material from the companies. Due to the small number of users, PTA does not believe it can affect the outcome of the market analysis whether this service is considered to belong to the market or not. However, PTA does not see a need to separate the service from the market. The pricing of this service is comparable to other telephone services and the price of subscriptions including domestic calls is usually between 1-2 thousand ISK per month. This service makes it possible to call any phone number and you can call the subscriber from any phone numbers. PTA has not been made aware of any quality problems associated with this service. PTA believes that the only noticeable difference between this service and other telephone services is that number portability from other types of telephone service to nomadic service is not allowed. This is however not an issue for all telephone users. The service uses seven-digit telephone numbers from the public numbering plan like any other telephone service, but the numbers must be from certain numbering series for the purpose of making them distinguishable for emergency services. PTA is considering lifting the ban on number portability to nomadic services and this could come into effect in the near future. In market analysis in several countries in the EEA, these services are not explicitly excluded. In a market analysis conducted by the Norwegian Authority in 2010 it was specifically stated that IP phone service that is not tied to a particular broadband connection belongs to the relevant market.¹⁹ In the Danish Authority's analysis that same year nomadic service was not excluded and what is considered defining the services market is primarily the client's possibility to call anyone and that everyone can call him and that the service uses numbers from the Danish numbering plan.²⁰

43. In PTA's former decision on the relevant market (decision no. 30/2008) access to

¹⁹ See: Analysis of the retail market for access to fixed telephony revised and updated 10 August 2010, page 17.

²⁰ See: Markedsafgrænsning for detailmarkedet for fastnettilslutning (marked 1), engrosmarkedet for fastnetoriginering (marked 2) og engrosmarkedet for fastnetterminering (marked 3) IT- og Telestyrelsen, 22. desember 2010, page 20.

VoIP service was considered substitutable with access to PSTN/ISDN. That was also the case in PTA's decision no. 36/2013 on market 2 and market 3. In recent decisions from the Norwegian, Danish and Swedish NRA's on the relevant market VoIP services that use telephone numbers have been considered to belong to market 1.

44. The PTA considers that those users that do not have high speed connections do not increase their costs by switching to VoIP service. On the contrary, such service is often less expensive than the PSTN/ISDN service. Given the above, and taking into account the increased quality of VoIP service, The PTA considers it realistic to categorise access to VoIP service, which uses telephone numbers as a substitute service for PSTN/ISDN connections. Such substitutability is however limited to some extent by the fact that users cannot transfer their telephone numbers to nomadic service and some of the users do not have the option of connecting to a fibre-optic network. Despite these limitations, The PTA considers there to be no reason not to include access to VoIP in the same market as access to PSTN/ISDN.

2.3.3.3 VoIP that does not use telephone numbers

45. In general these are what were called peer-to-peer calls, which are solutions where telephone calls are normally processed through appropriate software in private computers with the help of headphones/speakers and a microphone so that the user can have a conversation with other users through the Internet that have analogous software and equipment. This service is normally free but it is usually not possible to use it to call or receive dialled calls from PSTN/ISDN networks.

46. It is only possible to connect to a limited group of users in this manner so it is unlikely that small but significant, lasting price increases in fixed line telephones would lead to a large group of users converting to Internet phone calls in this category. There is reason to believe that Internet phone calls of this kind are mainly used as an addition to traditional fixed line usage and not instead of it. The proportion of substitutability could certainly increase in the case of international calls. One could, for example, consider that many users have very little need to be able to access all telephone numbers abroad through their fixed line telephone or to be themselves available. Then the solution of being able to communicate with a closed group of users (without using telephone numbers) could be satisfactory. It is however unlikely that this use of Internet phone would lead to many individual customers cancelling their subscriptions to traditional fixed line telephones. For this reason it is not possible to consider Internet telephone service of this kind as a realistic option to connections with a fixed line telephone network.

47. Variations of this service can offer telephone calls from computers to telephone numbers for a fee. This possibility increases the usability of the service and provides the option of being able to call almost any end-user. The substitutability of this service is however limited, with respect to traditional fixed line telephone services in that it is not possible to call the Internet telephone user from a traditional fixed line telephone. The PTA considers that this type of service does not belong to the market for access to public telephone services provided at a fixed location.

2.3.4 Access to mobile phone networks

48. In the Recommendation a distinction is made between markets for public telephone services provided through a fixed line network on the one hand and through a mobile phone network on the other. The main rule is that one should neither consider access to public

telephone services through a mobile phone network, nor telephone traffic that originates in mobile phone networks as part of the predefined market for access to public telephone services provided at a fixed location. Here in this country there has been a significant reduction in the number of users and of minutes in public telephone services provided at a fixed location in recent years, while the number of users and minutes of traffic in mobile phone services has increased during the same period.²¹ This could indicate that a number of users have switched from public telephone services provided at a fixed location to mobile phone services. There are, however, more explanations for this development, among other things, less use of dial-up connections for Internet access. The difference in the price per minute is still too great for users to generally consider mobile phone service as a substitute for fixed line service.²² The PTA does not consider that market circumstances in Iceland today call for a change in the distinction between these two markets.

2.4 Conclusions on the definition of the relevant service markets

49. The PTA has come to the conclusion that the definition of Market 1 to be found in the ESA Recommendation applies in this country. The PTA conclusion is, however, not exactly in line with the discussion on this market in the Explanatory Notes to the Recommendation of the EU Commission, as The PTA considers access through a high-speed connection to be part of the market. This does not refer to the high-speed connection itself, but to the service provided through the connection which is access to VoIP service that uses telephone numbers. The PTA will, in the following market analysis use the following definition of Market 1:

Access to the public telephone network at a fixed location for residential and non-residential customers This market includes any kind of connection with an electronic communications network that provides fixed line access to public telephone services for residential customers, regardless of the electronic communications infrastructure or technology on which the access is based. This means that the market in question is not limited to analogue (PSTN) and digital (ISDN) access to the copper local loop, but it includes access for residential customers to public telephone networks at a fixed location via other access networks with a fixed network connection point (which includes access to VoIP services using telephone numbers via broadband networks with the assistance of a variety of technical solutions including both xDSL and fibre optic connections).

²¹ See further discussion in Chapter 5.

²² According to the Siminn tariff in November 2012, the general price per minute in base subscription for calls from fixed line phone to fixed line phone is ISK 3.90, while in mobile phone services the most common price per minute is ISK 16.90.

3.0 Demarcation of geographical market

50. In its analysis from 2008, the PTA came to the conclusion that the geographical market for access to public telephone services provided at a fixed location was the whole country. This was based on the following factors:

51. According to the Guidelines²³ the relevant geographic market comprises an area in which the undertakings concerned are involved in the supply and demand of the relevant products or services, in which area the conditions of competition are similar or sufficiently homogeneous and which can be distinguished from neighbouring areas in which the prevailing conditions of competition are appreciably different. In assessing demand-side substitutability, it is appropriate to consider customers' preferences and geographical purchasing patterns. In the Guidelines it further states that the traditional definition of geographical markets in the sphere of electronic communications is decided with reference to the area covered by the electronic communications network in question and to existence of regulatory and other legal instruments that apply to the relevant market.

52. The Siminn fixed line network reaches all inhabited areas in the country. The Mila copper local loops are installed into all homes in the country and are connected to the Siminn telephone exchanges throughout the country. The same laws and regulations apply to the operation of fixed line telephone networks everywhere in the country and a company's licence to operate such a network applies throughout the country and the rules governing universal services lead to a duty to have such connections on offer for all citizens. All companies on the market offer one price for public telephone services provided at a fixed location at all locations in the country. The PTA further considers that there is no difference in preferences or purchasing pattern of users according to region. In the opinion of the PTA, it is not possible to demarcate an area where conditions for competition are significantly heterogeneous to that which applies elsewhere in the country.

53. There have been no significant changes in the structure of fixed line telephone networks since 2008. The coverage of the Siminn fixed line network is the same as before. The distribution of the Vodafone network has increased considerably, and the company now offers access to its own public telephone network provided at a fixed location at many locations in the country. The increased coverage of the Vodafone network supports the conclusion that the country is one market. The addition of the networks of Símafélagið, Hringdu and Nova in the capital city area are not such that they affect the geographical demarcation of the markets as these networks are small and the companies' share is very low. As there have not been significant changes in status from the previous market analysis, then the PTA conclusion is the same as before, that is to say that for wholesale of origination and termination of calls, the country is one market.

²³ See Chapter 2.2.2 in the ESA Guidelines.

4.0 Conclusion of Market Analysis 2008

54. In the year 2008, when the prior analysis of the markets for access to public telephone services provided at a fixed location was published there were three companies Siminn, Vodafone and Hive (now Tal) that offered retail subscriptions to public telephone services provided at a fixed location. Siminn had by far the largest share on both markets at the end of 2007, which in terms of revenue was considered to be approximately [80-85%]²⁴ of access for residential customers against [75-80%]²⁵ for access for non-residential.

55. The PTA considered that the Siminn economies of scope and scale constituted a barrier for new companies entering the market. The PTA considered the market for fixed line telephony to be a mature market, and for this reason, the limited growth opportunities represented a barrier for new competitors. In addition to this, The PTA considered that the Siminn ease of access to capital strengthened the company's position against new competitors on the relevant markets.

56. The PTA also considered that Siminn's bundling, its varied service offer and vertical and horizontal integration contributed to the companies increased market strength on the relevant markets.

57. The PTA considers that Siminn had a dominant position on both markets and that active competition would not flourish during the estimated period of application of the market analysis. Although entry into these markets had in some ways become easier, The PTA considered that entry barriers still existed, among other things, in the form of the Siminn economies of scope and size. The PTA designated Siminn as having significant market power on Markets 1 and 2.

58. The PTA imposed obligations on Siminn to provide access in the form of carrier selection and pre-selection, along with wholesale access to connections to the public telephone network, with the option where the user could receive one invoice from the service provider for both access and telephone calls (single billing). In connection with these access obligations, obligations were imposed on Siminn for non-discrimination, transparency, accounting separation and price control.

²⁴ Margins for confidentiality.

²⁵ Margins for confidentiality.

5.0 Supply and demand on the market in 2012

59. When the first PTA analysis of fixed line public telephone markets was made in 2008 there were, as previously stated, three companies that sold public domestic fixed line telephone services at retail level. Today there are 6, and they are the companies Siminn hf., Fjarskipti hf. (Vodafone), IP-fjarskipti ehf. (Tal), Símafélagið ehf., Hringdu ehf. and Nova ehf.

60. Tal does not operate its own fixed line telephone exchanges. The other companies operate their own electronic communications networks, but to varying degrees. Siminn operates more telephone exchanges than any of the other companies and they cover all inhabited areas of the country. Vodafone operates dozens of telephone exchanges at locations spread over the country and the scope of its network has grown significantly since the year 2008. The companies Hringdu, Nova and Símafélagið operate telephone exchanges in the capital city area.

61. Siminn has been the country's largest electronic communications company from the outset. Siminn has been dominant on the fixed line telephone market, and has maintained a high market share after the lifting of the monopoly. Siminn, which was previously called Landssími Íslands and was state-owned, had a monopoly on the sale of fixed line telephone services from the founding of the company in 1906 and until 1998. The state sold its shares in the company in 2005 to Skipti hf. which was owned by the investment company Exista (now Klakki) and other parties. After the privatisation of Siminn, its operational form was changed in such a way that network operations and services were separated. A company called Mila was founded in 2007, the sister company of Siminn, which among other things, manages operations of all fixed backbone and access networks. With the organisational changes that took force last 1 October, Siminn took over the operations of specific lease lines from Mila in the backbone network, including the Ethernet connections. Among other things Siminn operates telephone exchanges and sells telephone services to homes and companies. For this purpose it leases backbone lines and local copper loops from Mila. The parent company Skipti hf. handles ownership of Mila, Siminn and other subsidiaries in telecommunications, information technology and media operations.

62. Vodafone is the second largest electronic communications company in the country. It came into existence in 2002 with the merger of the companies Tal²⁶, which commenced operations in 1998 and Íslandssími, which commenced operations in 1999. Vodafone offers comprehensive electronic communications services at retail level and operates an extensive electronic communications network. The Vodafone public telephone network reaches most regions of the country, but does not have as great a distribution as that of Siminn.

63. Tal is the third largest company in fixed line telephony services, but it does not operate its own telephone exchanges in the public telephone network. The company can trace back its inception to the year 2001 when it was called Hive. Hive merged with the companies Sko and Atlássími and started using the name Tal in 2008. Tal was in the majority ownership of Teymi, which was the parent company of Vodafone, from the year 2008 to 2010 when it was sold to independent parties in accordance with the Decision to this effect from the Competition Authority.

²⁶ This is another company than the one called Tal today.

64. Símafélagið was founded in 2008 and Hringdu in 2009. These companies operate telephone exchanges in Reykjavík. They offer fixed line telephony services, mobile phone services and Internet connections. Parts of the services of these companies are based on resale, which includes all of their mobile phone services. These companies offer services both to individuals and the companies and as yet they only have a small market share of the fixed line telephony market.

65. Nova started operating a mobile phone network in the year 2007. Nova has recently started to offer fixed line telephone services, seemingly only to the non-residential customers. In the middle of the year 2012 Nova had about a 27% market share of the mobile phone market, but its share of the fixed line telephony market at a fixed location is still very low.

66. This service which is most used on the fixed line telephony market is still that which is based on PSTN/ISDN, but the use of Internet telephone services (VoIP) of various kinds is, however, gradually gaining ground. Demand for fixed line telephone services has decreased in recent years. The total number of voice channels in PSTN/ISDN networks reached a maximum in 2001 when the connections totalled something over 196,000. Since then the number of connections has been on the decrease and they were just under 164,000 in mid-2012. Development in number of connections is shown in table 5.1

Table 5.1. Installed lines in public telephone network and high speed connections 2007-2011

At year end	Installed lines				High-speed Internet connections (xDSL)	High-speed Internet connections (fibre-optic)
	Total ²⁷ :	User lines in fixed line networks (PSTN)	ISDN Base Rate Interference (2B+D)	ISDN Primary Rate Interference (30B+D) this		
2007	186,688	134,622	12,113	928	94,630	1,218
2008	193,512	140,858	11,267	1,004	98,762	2,615
2009	186,779	135,969	10,945	964	97,862	6,908
2010	181,119	132,069	9,405	1,008	95,448	11,563
2011	173,997	126,955	8,626	993	92,745	17,265
2012*	163,859	124,171	7,934	794	88,331	21,028

Source: Post and Telecom Administration

*Figures for 2012 for first half of year

67. VoIP services have been on offer to companies since 2005. In 2006, it was authorised to transfer of numbers from traditional fixed line telephone services to telephone services with Internet phones, where the service was registered at a specific location and not marketed as nomadic service. Subsequent to this announcement, the companies Atlassími and IP-fjarskipti began to offer Internet telephone services for residential customers. These companies later merged and discontinued the operation of their own networks. Today VoIP is generally not on offer for residential customers except in the form of nomadic²⁸ services or telephone services via fibre-optic. The use of VoIP has increased somewhat since the last market analysis was made. Users of VoIP telephones through a fixed network connection point were 5,591 at the end of 2008 while in mid-2012 they were 19,303. The number of users in nomadic services

²⁷ Sum of possible voice channels in both PSTN and ISDN.

²⁸ Nomadic services are those that one can access ubiquitously through an Internet connection. A special number series is used for the service 49x xxxx and number transfer is not authorised between this service and traditional telephone services at a fixed network connection location.

increased at the same time from 1,576 to 3,125. This amount is about 12% of the total number of users of fixed line telephone services. It is interesting to note that in the first half of the year 2012 there was a decrease in number of users of nomadic services.

Table 5.2 Internet telephone service (VoIP). Number of users 2009-2011

	2009	2010	2011	2012*
Internet telephone-nomadic service (49X-XXXX)	1,786	3,001	3,277	3,125
Internet telephone-fixed network connection point	4,952	11,820	17,674	19,303

Source: Post and Telecom Administration

*Figures for 2012 are for the first half of the year.

68. If one adds together the number of users in Internet telephone services with the total number of installed PSTN/ISDN lines, it can be seen that there has been very little change to the total number of connections during the years 2009 to 2011.

69. There has been a significant change in the amount of traffic in public telephone networks at a fixed location, and this development is shown in table 5.3. There one can see a very significant reduction in traffic and the number of minutes of telephone calls in fixed line networks has dropped from 519 million in 2007 to 440 million 2011. This change is attributed among other things to changes in circumstances on the telephone market. As is stated in table 5.1 here above, high speed connections have become near universal among users while ISDN and dial-up connections have decreased. Other factors such as Internet phones have also made an impact as it is much less expensive to call through such systems. One could also mention e-mail and chat channels on the Internet. Finally, one can mention that telephone calls and SMS from mobile phone systems are also influencing factors.

Table 5.3 Calls in general public fixed line network (PSTN/ISDN) 2007-2011

Year	Thousands of minutes			
	Calls to fixed line networks	International calls		Calls to mobile phone networks
		Calls to numbers abroad	Calls from abroad	
2007	519,543	43,339	35,276	143,449
2008	531,594	35,585	..	148,537
2009	509,883	30,889	56,956	131,614
2010	462,848	26,190	55,498	123,453
2011	439,551	22,872	44,863	118,223

Source: Post and Telecom Administration

70. The importance of voice telephony services at fixed location is steadily decreasing in comparison to other electronic communications services. Table 5.4 shows total revenue from electronic communications operations here in this country during the years 2007-2011 and a breakdown into individual types of service. There one can see that turnover on the electronic Communications market on the whole has increased by about 15% since 2007, while the turnover in voice telephony services at fixed locations has shrunk by about 11%. In the year 2007, revenue from voice telephony services at fixed location represented about 20% of total income from electronic communications operations, while in the year 2011 this revenue had dropped to 15%.

Table 5.4 Revenue from electronic communications operations 2007-2011, figures in ISK millions.

Type of operations	2007	2008	2009	2010	2011
Total revenue from electronic communications operations	39,406	42,423	42,993	43,366	45,295
of this from fixed line networks	4,385	6,149	6,197	6,395	6,422
of this from voice telephony	7,885	7,721	7,260	6,868	7,005
of this from mobile phones	15,991	15,712	15,297	14,865	15,616
of this from data transfer	5,005	4,606	4,927	4,799	4,881
of this from Internet services	2,081	2,362	2,122	2,353	2,666
of this from other revenue	4,059	5,873	7,190	8,086	8,705

Source: Post and Telecom Administration

6.0 Assessment of market power

6.1 General

72. In the following Chapters the PTA will examine the factors that could have the most significant impact on market power on the relevant markets. The discussion will be directed first and foremost at Siminn, which was designated as having significant market power in 2008, as Siminn is still the largest company on the market. The same factors are examined as in the PTA market analysis in 2008.

6.2 Market share

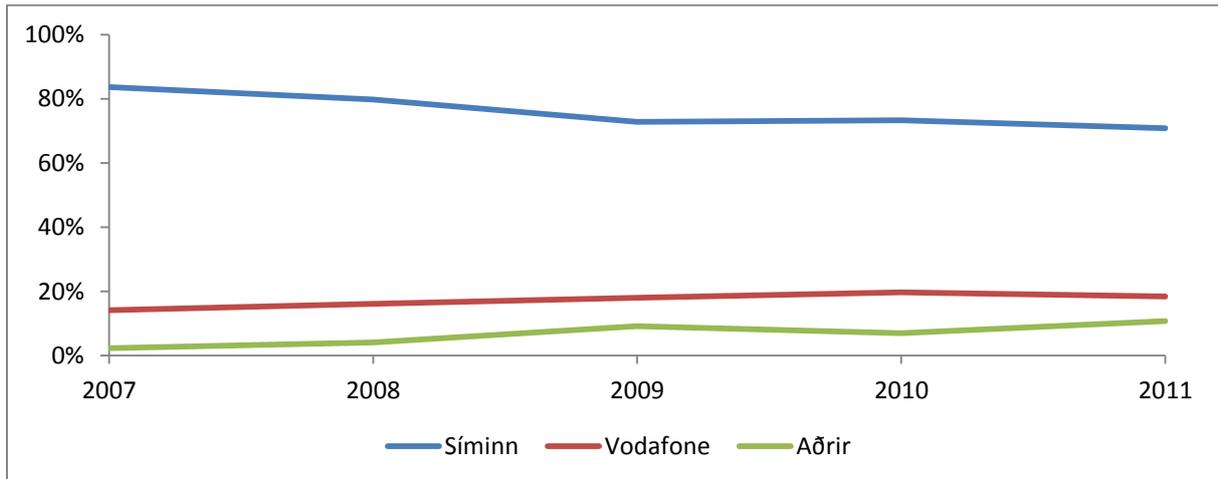
73. A company's market share is an important factor in market analysis. It does not, on its own determine whether a company is considered to have significant market power, but it does give a strong indication that such is the case. A very significant market share, that is to say over 50%, is on its own sufficient according to accepted case law, to designate an undertaking as having a dominant position, except in exceptional circumstances. According to the Guidelines, a suspicion that single dominance is in existence with undertaking does not arise until market share has reached at least 40%. This depends, however, on the size of the undertaking in comparison with its competitors. In some instances an undertaking with a market share of less than 40% can have single dominance. An undertaking with market share of less than 25% would in all likelihood not be considered to have dominance, except in the case where it had joint dominance with another undertaking.

74. In the summer of 2007 Siminn had a dominant market share on the markets for access to public telephone services provided at a fixed location. Measured by revenue, the Siminn share on Markets 1 and 2 was in the range of [75-85%]²⁹. In the year 2011 the Siminn share had shrunk somewhat. On Market 1 as it is defined today, i.e. for residential and non-residential customers, the Siminn share by revenue in 2011 was in the range of [70-75%]³⁰. The Siminn share by a number of subscriptions had changed from 82% in the year 2007 to 67% in the year 2011. In the following figures, one can see the development of the Siminn market share and of the shares of other companies on the market for the period 2007-2011, by revenue and by number of subscriptions.

²⁹ Margins for confidentiality.

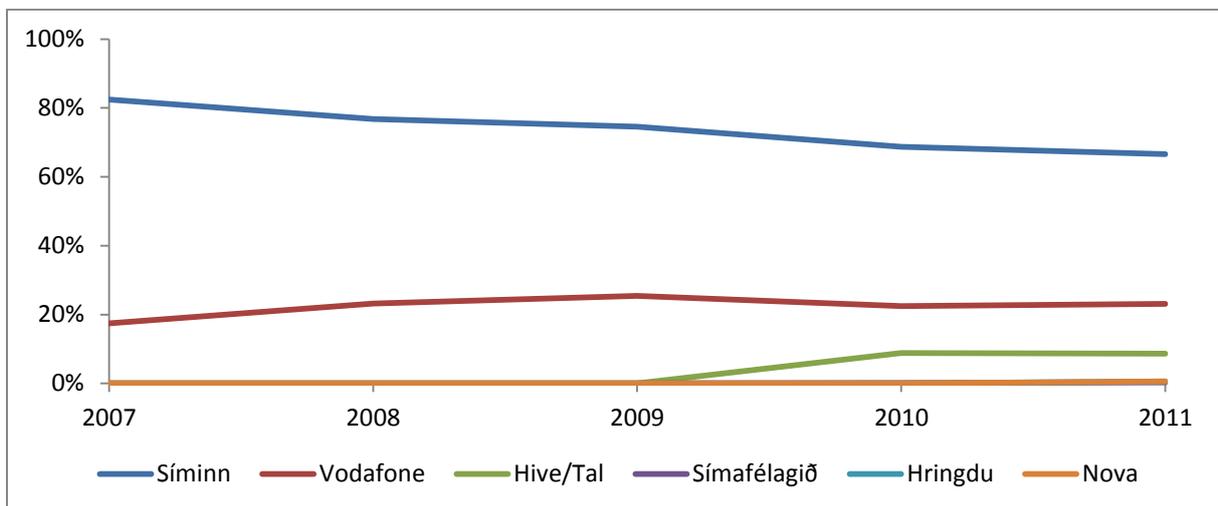
³⁰ Margins for confidentiality.

Figure 6.1 Public telephone network at fixed location - market share by revenue 2007-2011



Source: Post and Telecom Administration

Figure 6.2 Public telephone network at fixed location - market share by subscription 2007-mid 2012



Source: Post and Telecom Administration

75. The Síminn share has dropped from its 2007 level, but it is nevertheless still very high. Given the speed of the reduction of the past years. It can be expected that the Síminn share by revenue will continue to be over 50% for the next 2-3 years. Vodafone has increased its market share to a small extent and the shares of smaller companies have also grown somewhat. It could be that these figures do not give an exact picture of the position as the revenues of providers of fixed line voice telephony through fibre-optic are lower than those in traditional fixed line telephony services, because the charge for the local loop is collected by the network operator, and not by the service provider. On the other hand, the number of users with fixed line access through fibre-optic is only about 10% of all fixed line telephone users and for this reason, the deviation caused by this factor should not weigh heavily.

76. Although the Síminn market share is very high on this market and clearly indicates market power, it is not on its own an adequate criterion to decide on the existence of significant market power, but this factor has rather to be examined in the context of other relevant criteria, see 79. Paragraph 79 of the ESA Guidelines.

6.3 Profitability

77. In the PTA analysis from 2008, there was discussion on profitability, as high profitability can be an indicator for significant market power. PTA considered that Siminn had an advantage over its competitors because of its size and that this factor gave Siminn the opportunity to achieve greater profitability than could be expected by competitors. The PTA considered nevertheless, that the information available from Siminn and from other companies did not give an adequate picture of profitability in fixed line telephone services at the retail level. For this reason, and taking into account the fact that information on profitability did not always provide clear answers on market power, The PTA considered that it could not determine whether profitability of companies operating on the market could give an indication of significant market power on the relevant market.

78. Information on profitability of all companies for public telephone services at a fixed location is not available in a sufficiently clear form to enable statistically significant comparison of such profitability. In addition to this, the operational environment for companies in this country is generally considered not to have reached equilibrium after the economic crash of 2008. For this reason, the PTA will make no further examination of profitability on the market in this instance, and nor will it draw specific conclusions on possible profitability of companies and its impact on market power.

6.4 Entry barriers

79. Entry barriers are a collective name for various factors that can influence companies' market power and the entry of new companies into a market. If there are few barriers then potential profitability is an attraction for new companies to gain market share from the incumbents. Possible competition from new parties can influence the behaviour of a company with significant market power and can diminish its harmful influence on competition. Entry barriers on the other hand weaken or prevent competition.

80. There is a strong relationship between entry barriers and company profitability. The more entry barriers that exist, the greater the profitability that can be expected from incumbent companies, which can often be attributed to a lack of competition rather than to efficiency. An ideal situation for an incumbent company is one where there are many entry barriers and few exit barriers. In such circumstances incumbent companies deter new companies from establishing themselves and companies without profitability will soon give up.

81. The objective of the PTA market analysis and possible subsequent measures is to strengthen competition on markets. It is conducted for the purpose of encouraging innovation and development, of enhancing companies' competitiveness and the interests of consumers. One way to achieve this is to limit entry barriers to markets, which can be in varying forms. The following discussion deals in more detail with the main entry barriers to the relevant market.

6.4.1 Control of infrastructure that is not easy to duplicate

82. Where a service provider controls infrastructure that is difficult to duplicate and where such infrastructure is an important factor in entering the market in question, then this could represent significant entry barriers to potential competitors

83. It has been generally accepted that it is not financially feasible to establish, for the purposes of competition, a core network for public telephone services provided at a fixed location, e.g., because of substantial costs and very significant sunk costs, see the discussion here below. However, in recent years, fibre-optic local loops have been installed, mainly in the capital city area, which among other things, provide a connection option to a public telephone network at fixed location. There are now about 50,000 of these local loops subscriptions to fixed line telephone and services through these local loops are in excess of 17,000. Those who install fibre-optic systems of this kind usually place more emphasis on faster Internet connections and in innovations in TV distribution and Internet phones, but the fibre-optic networks are nevertheless a new option for access to public telephone networks at a fixed location.

84. Control of infrastructure which is not easy to duplicate can be a barrier to entry on the market here under discussion, as it was a few years ago. Companies who offer broadband services (xDSL) through the Mila local copper loop can offer their customers Internet telephone services, and while wholesale access to the Mila local copper loop is controlled in a similar manner to how it is controlled today, then the control of the countries core network by the Skipti group is not necessarily a significant entry barrier to this market. Small companies that have invested in telephone exchanges only however have facilities in the capital city area and it is more difficult for them to enter this market in the provinces.

85. Though it is difficult to acquire infrastructure that is in any way comparable to the access network controlled by the Skipti Group, technical innovations and the obligation to provide access to the copper local loop network has meant that new parties on the market need not invest as much in equipment as they would have had to before. The PTA thus does not see control of infrastructure that are difficult to duplicate as a significant access barrier on this market.

6.4.2 Sunk costs

86. Fixed sunk costs are fixed costs that can be related to irretrievable investments. As an example, one could mention a case where a service provider cannot expect to recover the investment that he has made, for example by selling the investment should the service provider decide to leave the market. Sunk costs mean that a new service provider needs to bear higher costs than the service providers that have already established themselves on this market. This difference in cost is in reality an entry barrier for potential new competitors on the market.

87. Mila, the sister company of Siminn, is the only electronic communications company that controls the local copper loop at a national level and the development of this network has taken place over a period of decades. There is no question whatsoever that it would be extremely costly for a potential competitor to develop a competitive network of comparable size. Such a development would in addition mainly require sunk investment costs which would constitute an access barrier as described here above. A new service provider does not however need to build its own local loop system to be able to compete with Siminn or other companies because there is an obligation on Mila that it provides other service providers with access to the copper local loop network. Should the obligation on Mila to provide access to its fixed line network be maintained, then this will reduce sunk costs incurred by new service providers.

88. In this connection, it is nevertheless necessary to keep in mind that the very significant investments by Siminn on the market here under scrutiny have a long history. Siminn has established considerable goodwill over a period of many years, while potential customers must contribute capital to new investments in competition with Siminn. New undertakings have the option, however, of selecting newer and less expensive technology than that originally available to Siminn.

89. Sunk costs can also be related to intangible assets such as branding and advertising costs. New undertakings must invest in considerable marketing in order to gain a foothold in a market where incumbent undertakings operate. In all cases, such expenses are non-recoverable. The market under scrutiny is a retail market requiring a considerable amount of marketing to attract customers. PTA takes the view that the marketing costs that a new undertaking must incur in order to enter the market and compete with well-known and established brands represent somewhat of an entry barrier. On the whole, The PTA considers that sunk costs do not represent significant access barriers to the market here under discussion.

6.4.3 Economies of scale and scope

90. Economy of scale exists when an increase in production results in a reduction of the average unit price of a product. This is a characteristic of production based on technology with rather high fixed costs and low variable costs.

91. Economy of scope exists when the average unit price drops as a result of more than one aspect of production; for example, the joint use of infrastructure or administrative systems.

92. Both economy of scale and economy of scope can represent entry barriers for new service providers in the market and can give incumbent operators a competitive advantage.

93. In PTA's estimation, Siminn enjoys considerable economy of scale in the market under discussion here because it offers services all over the country and has a very large number of customers. It is not assumed that any other service provider in this market has achieved the critical mass necessary to enjoy economy of scale to a comparable degree.

94. It is possible to use a portion of a telephone company's infrastructure and support systems for the production and delivery of various types of service. The PTA considers that Siminn enjoys greater economy of scale on this market than any of its competitors because of a very diverse product offer and because of its large number of customers on various electronic communications markets.

95. In PTA's estimation, economies of scale and scope create entry barriers and enhance Siminn's position in the market.

6.4.4 Access to capital

96. Access to capital can have a deciding influence on the possibilities for a company on a competitive market. This particularly applies to markets that demand high initial investment. The difference between companies, with respect to access to capital could be a barrier to entry. Financially strong companies with good access to capital, other things being equal, are

in a better position and can more easily protect themselves from competition than comparable companies that do not have as good access to capital. Good access to capital can both represent an entry barrier and can indicate market power.

97. As has already emerged, it is not necessary to build a new network to enter this market; however, market entry entails substantial expense for marketing, etc.

98. Very unique circumstances pertain on financial markets at this point in time. There has been a climate of international financial crisis in recent years and the financial crisis in this country has been particularly difficult and has impinged on all economic activity in this country. One must consider it certain that financing is tighter for all companies on the relevant market and that this factor does not give specific companies on the market the competitive advantage they once enjoyed. It is on the other hand clear that capital for new investments in networks is harder to get than before and can thus be a significant entry barrier to the market. The effects of the recession will in all likelihood diminish as time goes on, but it is likely that they will have a negative impact on the possibilities of entry into the market for new companies during the coming years.

99. Siminn is the country's largest electronic communications undertaking, and it generates more revenues and returns on its electronic communications services than other undertakings in the market. In general, it can be concluded that a company of this size, with established operations, will have better access to capital than will new companies wishing to enter the market. In addition to this, one has to keep in mind the ownership of the largest electronic communications companies, Siminn and Vodafone. Siminn is owned by Skipti hf. which is owned by Klakki ehf., and the three largest shareholders in Klakki are Arion Banki hf., Kaupthing hf. and Burlington Loan Management LTD. Vodafone is owned by investment and pension funds and is registered on market in the Icelandic stock exchange (NASDAQ OMX). The largest shareholders in Vodafone are the investment fund Framtakssjóður Íslands slhf. And various other pension funds. Framtakssjóður Íslands is also owned by sixteen pension funds, Landsbanki hf. and the insurance company VÍS.

100. The PTA considers that access to capital for new companies on the market is difficult in the current situation. Despite the fact that there has been a certain reduction in the cost of entering the market, the shortages of capital for new investments are still an access barrier on the market.

6.4.5 Access to sales and distribution systems

101. If established service providers in the market have built up well-developed sales and distribution systems, these systems could function as an entry barrier for potential market entrants. This is especially the case in markets where the development of sales and distribution systems requires substantial outlay of capital or where established undertakings have concluded exclusive agreements with the largest/most important distributors in the market.

102. The sale of subscriptions to individuals in the fixed-line market takes place largely through telephone sales, Internet sales, direct sales, etc. Therefore, these sales are not dependent on access to sales systems that established operators have developed. Thus it is not possible to say that access to sales and distribution systems alone constitutes an entry barrier in the market under discussion here.

6.4.6 Barriers to growth

103. A market with significant potential for growth is much more attractive to new operators than is a stagnant (mature) market. It is probable that undertakings contemplating entry into a stagnant market must lure customers away from established operators. If there are limits to a market's potential to grow and its capacity to be able to offer more extensive services than those existing on the market, entry barriers may exist.

104. Given that local loops have been laid to every commercial and residential property in Iceland, it can hardly be said that there is significant growth potential in this area. Demand for fixed-line telephone service has peaked and is now on the wane, due in part to a decrease in the use of dial-up connections and increased mobile phone use. New operators entering the market must concentrate on luring customers from incumbents, as there is little reason to anticipate any sizeable increase in the number of new users.

105. The PTA's conclusion is that this market can be viewed as mature and that this constitutes an entry barrier and tends to enhance the position of well established companies in the market, and Siminn is the lead company in this category.

6.4.7 Conclusion with respect to entry barriers

106. It is PTA's conclusion on entry barriers in Market 1 that they have not changed much from the time that the previous market analysis was made in the year 2008, and that they are still significant. It is easier now than before to develop facilities to provide access to a fixed line telephone network with the advent of VoIP telephone technology and with the increased roll-out of fibre-optic connections. Though there is a difference between the position of Siminn and those of other companies, resulting from the Siminn telephone exchange distribution, The PTA considers that it is not so difficult to develop the necessary facilities to enter the market that this would create a significant barrier to entry. The PTA considers furthermore that sunk costs are not a significant entry barrier and nor is access to distribution and sales systems. On the other hand, The PTA considers that the economies of scale and scope enjoyed by Siminn create a barrier for the entry of new companies into the market, as the Siminn market share is many times greater than the share of the smaller companies on the market. The PTA views the fixed-line telephone market as a mature market and considers the limited potential for growth to be a barrier to new competitors. The PTA also considers that access to capital for new investments is difficult and that this acts as a barrier to new companies. On the whole The PTA considers that there are significant and non-transitory barriers to entry.

6.5 Potential competition and innovation

107. When there is considerable innovation on the market there are normally fewer opportunities to leverage a dominant market position than on markets where there is little innovation. Technological development can thus be important with respect to the creation of competition on markets. For this reason, innovation resulting from technological development could weaken the position of a well-established service provider.

108. Even though the market under scrutiny here can be viewed as mature, and although growth in the number of connections/subscriptions is not to be expected in the near future, technological developments could tend to weaken Siminn's position in the market.

109. Convergence in both networks and services has characterised developments in the fixed-line market in recent years. New convergence, particularly the possibility of using broadband to transmit electronic communications and information services of various types, means that new undertakings' interest in offering individuals access to the public fixed-line telephone network has increased from recent levels.

110. The importance of offering what is called triple play solutions, i.e., Internet access, telephone and television in one package has increased. Siminn has been a leader in innovation in the telephone, data transmission, Internet, and television markets. For example, Siminn was first to offer ADSL service, MPLS service, digital television, and television via ADSL. In PTA's estimation, Siminn has a nationwide advantage in triple-play solutions.

111. There are instances where telephone users choose to use only a mobile phone and omit a fixed-line phone entirely. This appears to be particularly the case with young customers' telephone usage. However, there is still quite a price difference between mobile phone services and fixed-line phone services. Technological development also results in mobile phone services and fixed line phone services becoming increasingly comparable.

112. The PTA believes that potential competition and innovation in the use of Internet phones will somewhat reduce Siminn's market power on this market. It is unclear, however, how large a share Siminn, on the one hand, and other service providers on the other hand, will enjoy in the market for Internet phone services.

6.6 Behaviour of parties to the market

6.6.1 Product bundling and diversification

113. If service providers offer a very diverse range of products and services, this can promote enhanced goodwill and can make it difficult for competitors to enter the market, unlike the situation where product offers are more homogeneous. Strong brand names have a comparable effect.

114. Product bundling can help companies differentiate themselves from competitors and can strengthen their position. A service provider with a dominant position in a given market could link services or products in that market with services or products in another market so as to offer an integrated package of products/services that will be distinct from the offers of other service providers, who have limited possibilities for engaging in similar behaviour. For this reason, bundling of services could promote a dominant position in one market while

leading to increased dominance in another market.

115. Siminn had virtual control of bundling telephone subscriptions and telephone services until wholesale access was offered to fixed line telephone connections pursuant to an obligation imposed by the PTA on Siminn in 2008. It was not until the autumn of 2011 that Siminn began to offer such a service after a PTA intervention. This product bundling has thus afforded Siminn a very significant competitive advantage.

116. Siminn has a strong position on the markets for fixed line telephony, broadband, broadband TV and mobile phone services and Siminn can therefore offer a more varied and bundled service than many of its competitors. This position has afforded Siminn competitive dominance on the market here under scrutiny and has an impact on market power.

117. Siminn is involved in a variety of operations and it has sometimes been difficult to define the limits between the company's various spheres of activity. There have been examples of this in recent years where Siminn has offered discounts that are conducive to the company leveraging its dominant position on the market, both with respect to mobile phone services and fixed line telephony services.³¹

118. The PTA considers with the above in mind that the varied service offer and bundling strengthen the Siminn position on the relevant market.

6.6.2 The impact of significant market power on related markets

119. Significant market power in one market can foster increased market power in a related market. The impact of such market power can be vertical - that is, at both wholesale and retail levels - and horizontal - that is, in the market for various products at the same level in the value chain.

Vertical integration

120. If the operations of a service provider reach more than one level in the value chain, that service provider is said to be vertically integrated. A vertically integrated service provider can deploy its upstream strength in order to keep competitors out of the market downstream; for example, through pricing at the upstream level or by not offering its downstream competitors products at the upstream (wholesale) level. In this way, a vertically integrated undertaking that has a strong position in the wholesale market can enhance its position in the downstream (retail) market.

121. Siminn's operations related to access to the public fixed-line telephone network are vertically integrated. Siminn has a dominant position at the wholesale level because the

³¹ See e.g. Competition Authority Decision no. 21/2005; Submission from Og fjarskipti ehf.(Vodafone) to the Competition Authority with respect to misuse by Siminn hf. of its dominant market position when marketing the company's offer under the slogan "all together with Siminn" which constituted bundling of fixed line telephone service, mobile phone service and Internet service on the consumer market. The decision of the Competition Authority was to the effect that Siminn hf. had breached Article 11 of the Competition Act then in force no. 8/1993, which deals with misuse of a dominant market position, by offering and promoting the subscription offer in question. With reference to Article 17 of the Competition Act, the subscription offer is invalid. One could also mention the decision of the Competition Authority no. 34/2001, see the Decision of the Competition Appellate Committee no. 2/2002: submission by Titan ehf. to the Competition Authority regarding the misuse by Siminn of its market dominance when making an agreement with the Hafnarfjörður Municipality. The conclusion was the same in both cases.

Siminn group owns the copper local loop network and the telephone network that has been laid all over Iceland and this dominance can extend to the retail level, which is the market under consideration here.

122. The PTA is of the opinion that Siminn's vertical integration enhances its strength in the market under scrutiny.

Horizontal integration

123. If, in the shelter of ownership, a service provider controls various parallel elements of electronic communications infrastructure that can be used to provide a user with products in a competitive market, this is referred to as horizontal integration. If this is the case, the service provider in question can strengthen his dominance of the market by preventing competition with other electronic communications infrastructure that he controls.

124. Siminn is a leader in most of the upstream markets for electronic communications and is also a leader in most related retail markets because the company in most instances enjoys vertical integration on these markets. Siminn is a leader in the retail markets for fixed-line services, mobile phone services, broadband access, and Internet phone services, and it can offer several different product/service packages that can be customised to meet the needs and budget of each individual market sector. None of Siminn's competitors offers such a diverse selection of products and services. Therefore, these competitors cannot bundle products and prices to the same degree as Siminn, and this enhances Siminn's power in the market under consideration and limits new operators' chances to compete.

6.6.3 Price development

125. Price developments over the long term can be indicative of competitive position and even potential competition and can therefore indicate whether a service provider has a dominant market position.

126. The price of domestic fixed line telephony services has risen somewhat in ISK since the year 2007. During this period the monthly fee for a base subscription to the public telephone network at fixed location at Siminn has risen by about 34%, i.e. from ISK 1,395 to ISK 1,880. It should be noted that in general prices have increased by about 42% for the period December 2007 to September 2012. As is seen in the tables below, it is possible to find lower prices for base subscriptions than those offered by Siminn. In addition to this there are many kinds of subscription packages on offer with most companies with offers of discounts and other combinations of prices.

Table 6.1 Price of base subscriptions 2007

Subscription type	Siminn Base subscription	Vodafone Home telephone	Tal Home telephone
Monthly price	ISK 1,395	ISK 1,390	ISK 1,390
Origination price	ISK 4.95	ISK 4.70	ISK 4.90
Call to home telephone on-net	ISK 1.75	ISK 1.50	ISK 0.00
Call to home telephone off-net	ISK 1.75	ISK 1.50	ISK 1.90
Call to mobile telephone on-net	ISK 16	ISK 21.1	ISK 14.90
Call to mobile telephone off-net	ISK 21	ISK 17.7	ISK 14.90

Source: Post and Telecom Administration

Table 6.2 Price of base subscriptions 2012

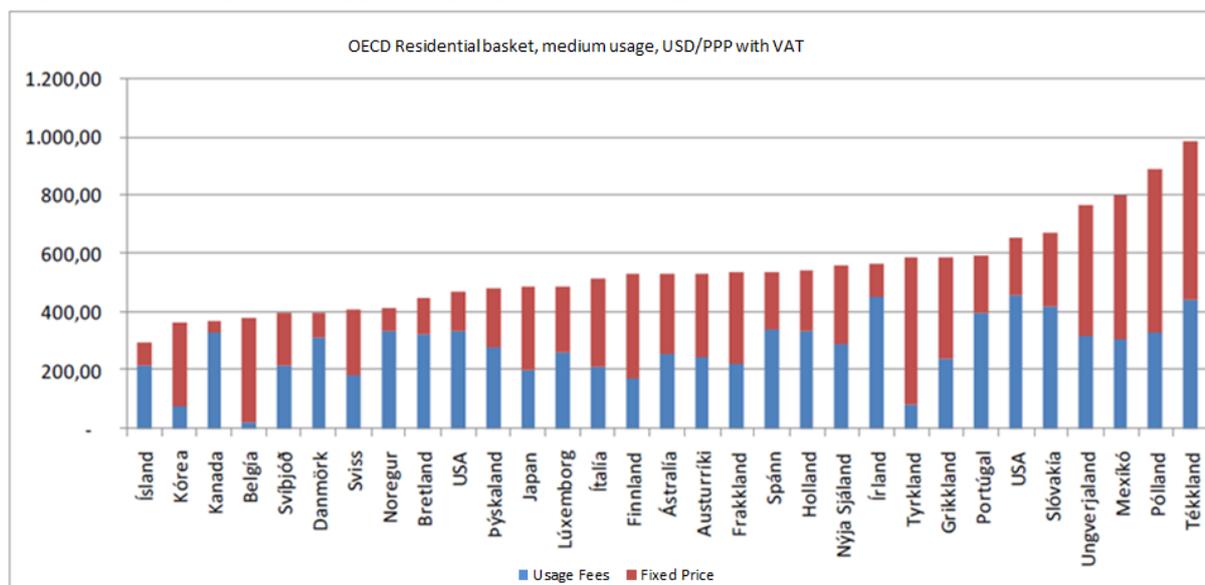
Subscription type	Siminn base subscription	Vodafone home telephone	Tal home telephone	Hringdu home telephone	Símafélagið home telephone
Monthly price	ISK 1,880	ISK 1,750	ISK 2,165	ISK 1,995	ISK 1,750
Origination price	ISK 8.90	ISK 6.80	ISK 6.80	ISK 0.00	ISK 4.90
Call to home telephone on-net	ISK 3.90	ISK 2.00	ISK 2.00	ISK 0.00	ISK 1.50
Call to home telephone off-net	ISK 3.90	ISK 2.00	ISK 2.00	ISK 0.00	ISK 1.50
Call to mobile telephone on-net	ISK 17.90	ISK 26.00	ISK 26.00	ISK 14.90	ISK 14.90
Call to mobile telephone off-net	ISK 17.90	ISK 26.00	ISK 26.00	ISK 14.90	ISK 14.90

Source: Post and Telecom Administration

127. The price for fixed line telephony services in this country is rather low in comparison with other states in OECD. According to data from Teligen, Iceland has been among the 7 least expensive countries for the last 5 years, both for residential and non-residential customers. In the Teligen benchmarking, costs are adjusted using Purchasing Power Parity (PPP) and the exchange rate in November each year.

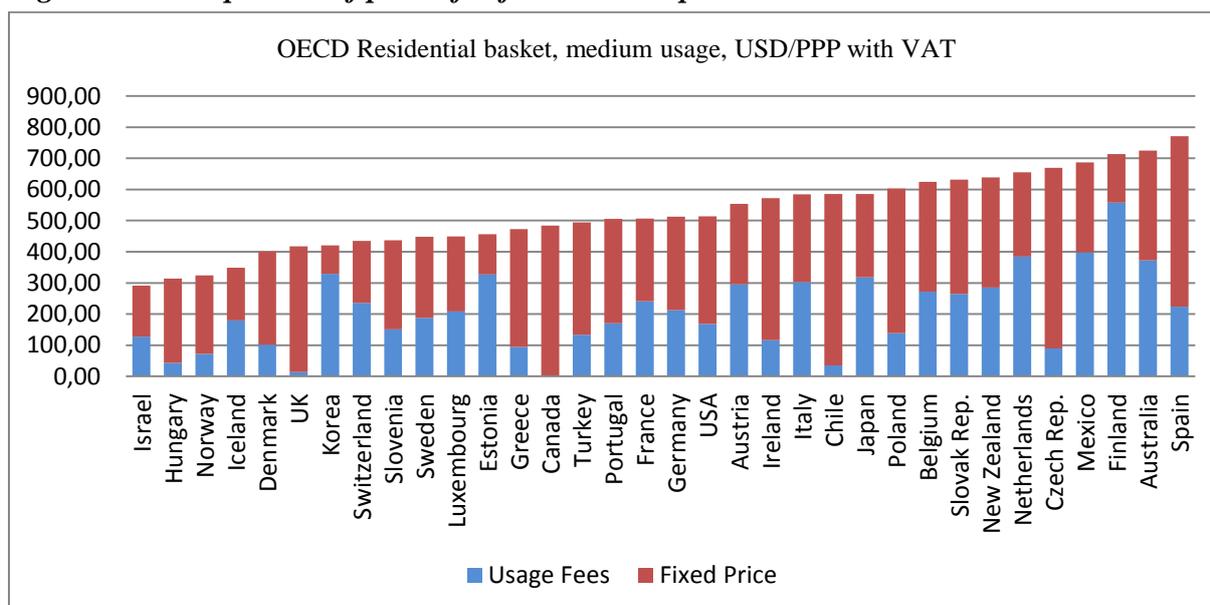
128. Within Europe, Iceland's position has changed little since 2008. The following figures that are based on data from Teligen, it is shown that annual costs for a home telephone was lowest in Iceland in 2008, while in November 2011, Iceland was in the fourth lowest position.

Figure 6.3. Comparison of prices for fixed line telephone services within OECD 2008



Source: Teligen, August 2008.

Figure 6.4. Comparison of prices for fixed line telephone services within OECD 2011



Source: Teligen, November 2011.

129. Though individual price items, such as price per minute for fixed line telephone calls at Siminn, have risen in excess of general price trends, there are many examples to the contrary. It is difficult to make an exact comparison of prices because of the complexity of tariffs and because of the varied subscription packages on offer. It is clear that Iceland more or less maintains its position in the international comparison with prices here being among the lowest within OECD.

130. In the opinion of the PTA, priced development does not give clear indications of competition circumstances on the market. Iceland remains in the group of companies with the lowest prices on offer. One cannot, however, detect a high level of price competition on the market. Parties to the market have increased their monthly rates during the period and those price rises are close to price rises in general. Siminn has increased its rates per minute in base subscriptions well in excess of general price development and this means that the total cost to users of fixed line telephone services has risen in excess of general price development. This indicates that there is not much pressure on Siminn to reduce its prices.

6.7 Circumstances on the demand-side

6.7.1 Countervailing buying power

131. Buyers with a strong negotiating position can influence competition and can limit sellers' possibilities to operate without taking into consideration competitors and customers. A strong negotiating position exists primarily when a customer buys a large portion of an operator's production, is well informed of other offerings, can switch to another operator without significant expense, and even has the potential to commence production of a comparable product/service.

132. In general, customers seek these services for themselves alone. Individual customers have no countervailing buying power, except perhaps for very large companies. The PTA must therefore take the view that joint countervailing buying power among consumers does not counterbalance Siminn's strong position on the market.

6.7.2 Customers switching options and cost of switching

133. If a service provider has a dominant market position, limitations or costs to consumers of switching provider company can enhance that provider's opportunities to behave without concern for the market. Such limitations can be commercial, technical or financial in nature, but they can also be a consequence of the user trusting established service providers more than new ones and being unwilling to take the risk of switching providers.

134. It can be said that limitations and termination periods have a certain binding effect on the market. With the changes made to the Electronic Communications Act in 2007 it was stipulated in Paragraph 2 of Article 37 that the maximum contractually binding period should be six months. Furthermore, the provision states that once the six-month period during which the subscriber is contractually bound has expired, the contract may be cancelled with one month's notice. Should the subscriber decide to switch to another electronic communications undertaking, it must be guaranteed that the transfer of service will proceed smoothly.

135. It is therefore impossible to state that significant switching costs exist in this market, even though households are subjected to certain contractual obligations and have limited freedom of choice. These factors do not make a substantial impact on Siminn's market position.

6.7.3 Customer access to information

136. If customers are to be able to choose from among service providers in the market, they must have access to information that enables them to compare the various offers that are available. Complex price lists and manifold bonus and discount offers can complicate customers' choices and can further strengthen a dominant undertaking's position in the market.

137. Most of the electronic communications undertakings in Iceland publish both their price lists and the services they offer on their websites. In general, it is not very difficult to compile information concerning various services and prices in this market. On the other hand, the price lists and terms and conditions published for the various subscription options are often complicated and difficult to compare. This can obstruct a comparison of price levels and services, which enhances Siminn's dominant position because the general lack of transparency in price lists and terms makes it difficult for consumers to make decisions concerning the selection of a new service provider.

138. In order to make it easier for consumers to choose the most advantageous subscription packages, the PTA published a calculator on the Internet (www.reiknivél.is), which is a tool that allows consumers to compare prices of service offers of electronic communications companies for telephone and Internet services. The purpose of the calculator is to assist consumers in understanding which service offers are appropriate for them given specific usage of telephone and Internet services.

6.8 Designation of companies with significant market power

139. The assessment of significant market power³² is based on the ESA Guidelines and various other criteria. PTA complies with the instructions in Paragraph 76 of the Guidelines

³² Significant Market Power – SMP.

and considers current market conditions in its analysis of this market as it is today. The market analysis discusses developments in recent years and considers the likely developments in the months to come.

140. In Paragraph 1 of Article 16 of the Electronic Communications Act no. 81/20030, the following is stated: *An undertaking shall be deemed to have significant market power if it, either individually or jointly with others, holds a position of economic strength on a certain market which enables it to prevent effective competition and to operate to a substantial extent without concern for competitors, customers and consumers.*” This is an important point of departure in the market analysis, and PTA wishes to emphasise that significant market power is the appropriate measure, not abuse of a dominant position. Therefore, the core of the market analysis is not whether an undertaking has misused its dominant market position. This does not mean, however, that an undertaking’s behaviour in the market does not make any difference in the assessment of SMP. Even though the formal aspects of the market are most important, conduct that enhances a dominant position or maintains the competitive advantage enjoyed by a dominant undertaking can strengthen that undertaking still further.

141. A company’s market share is an important factor in market analysis, though it does not decide on its own, whether a company is considered to have significant market power. A very significant market share, i.e. over 50%, is on its own sufficient according to accepted case law, to designate an undertaking as having a dominant position, except in exceptional circumstances. As is discussed here above, there have been changes in market share since 2007. Siminn has nevertheless still by far the largest share of the market [70-75%]³³ by revenue and 67% by number of subscribers, which is well above the reference limits that are generally considered to indicate market dominance.

142. In the opinion of the PTA there are still significant entry barriers on the market. Despite the fact that new companies have entered the market it is clear that their operations are on a very small scale and that it is difficult and time-consuming to establish oneself on the market in such a manner that operations will prosper in the future. The main barriers can be attributed to the Siminn economy of scale, to a drop in demand on the market and to limited access to capital for new investments.

143. The PTA considers that vertical integration of the Skipti Group significantly strengthens the position of Siminn on the relevant markets. As most purchases of services on the market are small, countervailing buying power does not exist and there is nothing that indicates that competitors, customers or consumers can influence Siminn prices for access to a public telephone network at fixed location.

144. The PTA considers in the light of Siminn's high market share and taking into account the previously mentioned factors that are such that they would inhibit competition, that it is above all reasonable doubt that Siminn enjoys significant market power on the relevant market. The PTA considers there to be no indications that changes in the criteria will be such in the next 2 to 3 years, that there will be a significant reduction in the Siminn market power.

145. With the above in mind the PTA intends to designate Siminn as having significant market power on the market for access to public telephone networks provided at a fixed location (Market 1).

³³ Margins for confidentiality.

7.0 Imposition of regulatory obligations

7.1 In general on obligations

146. According to Paragraph 2 of Article 17 of the Electronic Communications Act, market analysis shall be the basis for decisions on whether the PTA shall impose, maintain, amend or withdraw obligations on undertakings with significant market power. If a market analysis reveals that there is no effective competition in the relevant market and that one or more electronic communications undertakings in that market possess significant market power, the PTA is authorised to impose one or more obligations on the undertaking that is designated as having significant market power, in accordance with Article 18 of the Electronic Communications Act. If the PTA has previously imposed specific obligations on operators, these shall be reviewed and either maintained, amended, or withdrawn in accordance with the results of the market analysis.

147. Article 27 of the Electronic Communications Act states that when an electronic communications undertaking is designated with significant market power, the PTA may impose on it obligations concerning transparency, non-discrimination, accounting separation, open access to specific network facilities, price control and cost accounting, as necessary for the purpose of promoting effective competition³⁴ These obligations are described more fully in Articles 28 – 32 of the Electronic Communications Act.

148. When selecting obligations to be imposed in order to solve specific competition problems, it is necessary to use several fundamental principles as Guidelines.³⁵ All obligations imposed shall take into account the nature of the specified competition problem and shall be designed to solve it. They shall be transparent, justifiable, reasoned, and in line with the objectives they are designed to achieve – that is, to promote competition – as well as contributing to the development of the internal market and safeguarding users' interests. Obligations must be proportionate and may not impose heavier burdens on operators than is considered necessary.

149. In a report from the European Regulators Group (ERG)³⁶ on ex-ante obligations³⁷ emphasis is placed on developing competition in the construction of electronic infrastructure and networks where this is considered desirable. In such instances the imposed obligations should support such development. When infrastructure-based competition is not considered desirable due to significant and persistent economies of scale and scope or other barriers to entry, it is necessary to guarantee sufficient access to electronic communications networks and equipment at the wholesale level. In this context, it is necessary to ensure two things: first, to encourage service-based competition; and second, to guarantee a sufficient fee for access to existing electronic communications networks, thus providing an incentive for further investment in such networks, as well as for their renovation and maintenance.

³⁴ See also Articles 9-14 of the Access Directive.

³⁵ See Article 8 of the Framework Directive.

³⁶ Now the Body of European Regulators for Electronic Communications (BEREC).

³⁷ Revised ERG Common Position on the approach to Appropriate remedies in the ECNS regulatory framework Final Version May2006.http://www.erg.eu.int/doc/meeting/erg_06_33_remedies_common_position_june_06.pdf

150. For the long term, service-based competition that has its foundation in steered access to a cost-analysed price can be a tool for generating competition in the development of electronic communications networks. This refers to that which is called “the investment ladder,” and its objective is to create conditions that make it possible for new operators to build up their electronic communications networks step by step.

151. In selecting the obligations that are best designed to promote competition in a given market, it is often beneficial to consider the position that would exist if obligations were not imposed on undertakings in the relevant market and whether it would be sufficient to use the general competition legislation alone to guarantee effective competition.

152. Obligations are imposed on undertakings with significant market power with the aim of combating real and/or potential problems in the field of competition in the markets in question. Problems in the field of competition refers to any kind of behaviour by an undertaking with significant market power, which is intended or lead to competitors being forced out of markets, which prevents potential competitors from entering the market and or damages consumers' interests. When obligations are applied pursuant to the Act on Electronic Communications the reason does not need to be that a dominant market position is in reality being leveraged, but on the contrary, it suffices that competition problems could possibly arise from the circumstances that pertain on the market.

7.2 Competition problems on the market in question

7.2.1 General

153. The PTA described the competition problems on the market in its analysis from 2008. As has been stated here above there have not been significant changes in the structure of the market since then. The structure of the market is broadly as it was in 2008, and Siminn still has by far the largest market share of the market and enjoys significant market power. In the light of the fact that circumstances have not changed much since 2008 the PTA considers that the same competition problems exist to a great extent. The following section reviews the various competition problems that could emerge in this market. While this summary is not necessarily exhaustive, it includes a number of potential competition problems that the PTA has identified in view of the conditions that would exist if no obligations were imposed in this market.

7.2.2 Vertical exertion of market power

154. Vertical exertion of market power is when a vertically integrated company with significant market power upstream tries to transfer its market power from wholesale level over to a related market at retail level. Vertical exertion of market power can be defined as when a dominant undertaking denies competitor access to necessary infrastructure in order to transfer its dominant position from one sales level to another. In a market that is not monitored at the wholesale level, and where there is active competition at the retail level, there is generally no incentive for a service provider with significant market power at the wholesale level to try to wield its market power at the retail level because the service provider can fully exert its market power at the wholesale level.

155. If, for any reason, an undertaking cannot fully utilise its market dominance at the wholesale level, this can lead to a situation where the company could exert its power with more strength at the retail level. If an undertaking with a dominant market position at the

wholesale level is subjected to strict price control, for example, that service provider has an incentive to exert its market power in a comparable manner at a later sales level because it is unable (because of price control) to utilise its market power fully at the wholesale level.

156. The PTA considers that, as Siminn has significant market power on the market for access to fixed line telephone networks and call origination at the wholesale level, the company has a great incentive to deny access to those service providers that wish to compete with Siminn at retail level. If this is done it significantly limits competition on retail markets for fixed line telephone services. This could then lead to rising prices and increased profitability. Denial of access is thus the main problem that could arise in connection with competition on the market for fixed line telephony.

157. There are instances of a number of signs in recent years that indicate that Siminn is unwilling to provide access to infrastructure necessary for entry to the market for access to fixed line telephony. Siminn competitors had for a long time requested fixed line telephone lines in wholesale. An obligation to this effect was imposed on Siminn in 2008, but it took more than 2 ½ years to introduce “pre-selection single billing”³⁸ after the PTA had imposed an obligation for access to such service on Siminn with its Decision of 5 December 2008. A complaint was recently received from the company Nova which maintained that Siminn exercised access barriers on the market by not being prepared to provide Nova with single billing for ISDN sub numbers, but only for POTS and ISDN main numbers. This matter being investigated by the PTA, but the companies has now reached an agreement. The parties to the case are however still negotiating a solution. Regardless of the conclusion to this case it is an interesting fact that access to single billing should still not proceed without problems in all respects, when 4 years have passed since the PTA obligation for this access was imposed on Siminn.

7.2.3 Delays in service

158. In cases where there is no explicit refusal of wholesale access there can nevertheless be an access barrier in the form of delay. Siminn's retail department could profit by protracted contract negotiations at the wholesale level involving promotions of new service elements. Under such conditions internal retail departments could gain an advantage in the market by offering the new services in advance of competitors, who need more time to incorporate innovations into their operations than Siminn's own departments do. Reference is made in this respect to the discussion above on the Siminn reluctance to introduce single billing.

7.2.4 Exploitative behaviour³⁹

159. This type of competition problem is often referred to as "typical monopoly behaviour." Under these conditions, a service provider charges abnormally high prices or practices price discrimination in order to profit to an abnormal degree.

160. The PTA considers high prices could become a serious competition problem in the market for access. It is generally accepted that if an undertaking with significant market power is obliged to provide access, but had free reign to set prices, it is likely that such an undertaking would charge prices well above the underlying costs of providing the service. Such access pricing would return greater abnormally large profit to the company, but society would bear the expense. Abnormally high profit can also encourage possible competition

³⁸ Single billing.

³⁹ Exploitive behaviour.

problems through cross-subsidy.

161. It is not possible to say that excessively high pricing is a problem at retail level in the market in question today, as Iceland is in the group of companies that have the lowest prices for fixed line telephony. It is not, however, possible to discount the possibility that retail prices would be raised excessively where there are no obligations for wholesale access for new electronic communications companies. This would result in entry to the market becoming more difficult, which would in turn give a company with market dominance the opportunity to raise prices.

162. At wholesale level a tendency has been observed to impose abnormally high prices and in this connection one could indicate the PTA Decision number 21/2011 on cost analysis of Siminn wholesale prices for access to general fixed line telephone networks for residents and companies (Markets 1-2), dated 22 June 2011. In that case it is stated that the initial cost analysis made by Siminn, which was based on historical costs, returned a wholesale price that The PTA considered to be too high. The final conclusion was that a considerably lower cost was used as a reference than the one returned by the Siminn cost analysis.

7.2.5 Cross-subsidy

163. In the opinion of PTA, it is important to consider competition problems related to Siminn's wholesale services, in the context of the retail market for fixed-line phone services. The PTA is of the opinion that a competition problem exists if Siminn uses revenues from wholesale markets to subsidise its own retail services. Such cross-subsidy could distort competition in the retail market for fixed-line phone services, which can prove detrimental in the campaign for a sustainable competitive environment. Cross-subsidy that involves other elements in Siminn's operations could also prove to be a competition problem; cf. horizontal transfer of market power.

164. Cross-subsidy can also be a potential competition problem as regards the service of other operators, but to a lesser degree than with Siminn's services. The reason for this is that the possibilities for other service providers to pitch their prices too high are much more limited than analogous opportunities for Siminn, given that Siminn is not subject to price control.

7.2.6 Conclusions concerning competition problems on the market

165. The PTA analysis of the situation on the market for access to public telephone networks at a fixed location indicates that competition is not sufficiently active. Parties that started offering fixed line telephony services prior to 2008, mostly abandoned their efforts to compete on their own and joined forces. Companies that have entered the market since the last analysis, from 2008 all have a very small market share. The market is characterised by strong dominance by Siminn, which can be attributed to the fact that Siminn was formally the license provider and had a monopoly in electronic communications in this country until 1998. Market analysis has demonstrated that entry barriers on the fixed line telephony markets are significant and that there is a lack of possible competition. One can observe that a certain part of the market has reached stagnation, see telephone calls in fixed line networks. The market is characterised by Siminn vertical integration, which serves all sections of the market from wholesale to retail.

166. The main problem that the PTA considers could develop on the market, because of the

situation that pertains on the market, is vertical exertion of market power, such as by denying access at wholesale level, delays in providing services, cross subsidy and abnormally high prices at wholesale level where price control is not in place.

167. The PTA believes that competition on the relevant market could be much more active, were conditions created for competition in provision of services. Increased competition in provision of services would probably return the results of improving services on the market in question and reducing prices to end users.

7.3 Obligations in force

168. With the PTA Decision from 5 December 2008 obligations were imposed on Siminn on the market for access to a public telephone network provided at a fixed location. The obligations relate to supply of wholesale service, but the PTA decided not to impose special obligations at retail level. The obligations imposed on Siminn were as follows:

Carrier selection and pre-selection

169. Siminn is obliged to enable its subscribers to gain access to the services of all interconnected companies that provide public fixed line telephony. The structure of this access can either be such that the user selects a prefix prior to the each phone call or uses pre-selection, which can be by-passed in certain phone calls by selecting a prefix.

Lease of fixed line telephone lines at wholesale level

170. Siminn shall offer a solution where service providers with pre-selection can provide their customers with single billing for both access and telephone usage. This could, for example, be a case of a wholesale leased line or another analogous solution. In this way new service providers can be provided with lines set up by Siminn. Siminn is obliged to accede to normal and fair requests for access to its fixed line network and to services at wholesale level. Should Siminn reject or not reply within 14 days, to a request for access, then the company should provide the applicant with a written reason supported with arguments for the rejection or delay.

Obligation for non-discrimination

171. The PTA imposed obligations on Siminn for non-discrimination, both with respect to price and other factors. The non-discrimination obligations apply to all types of access and resale of lines. The dissemination of information from the relevant Siminn department should be in a comparable manner whether to third parties or to other departments within the company. The treatment of information gained by Siminn in making agreements for access shall be in accordance with Article 26 of the Electronic Communications Act.

Obligation for transparency

172. The PTA imposed an obligation on Siminn to publish a reference offer for wholesale of lines. The offer should be sufficiently itemised, should show price, terms and conditions and an agreement on the level of service in all instances, pursuant to PTA recommendations.

173. Should the Siminn reference offer not be considered adequate for the market, the PTA could prescribe amendments to the offer pursuant to Paragraph 2 of Article 29 of the Electronic Communications Act. Given the problems that have emerged in previous discussions on wholesale of lines, the PTA considered it appropriate to stipulate that Siminn

may not demand a bank guarantee from electronic communications undertakings for resale of lines without special permission from the PTA.

174. It is required that Siminn send to the PTA all agreements that are made on access to the public telephone network and in addition that Siminn notify all changes made to the conditions of the agreements within a given period of notice. A copy of a signed agreement based on the reference offer shall be sent to the PTA in the form in which it is made and no later than a week after it has been signed. Alterations to the agreements shall also be notified in such a manner that the nature of the changes is clear as is their location in the document. Siminn is also obliged to publish book-keeping information on the financial performance of its public telephone network.

Obligation for accounting separation

175. In its accounting, Siminn should separate income, expenditure, assets and capital for its fixed line phone network. Siminn should provide to the PTA on an annual basis a breakdown of the operational accounts and balance sheet for wholesale and retail along with a statement of the division of indirect costs that were not possible to assign through comparison with other cost items. The above specified statements should reach the Administration no later than 1 April each year for the preceding year.

Obligation for price control

176. Obligations were imposed on Siminn for price control of wholesale access to public telephone network and pre-selection, where Siminn should provide a cost model for calculations, no later than 6 months after the publication of the Decision on the relevant market, which develops the use of historical costs as reference for the tariff. As a reference the PTA would use the operations of analogous service that was operated in an efficient manner in accordance with its authorisation from the Electronic Communications Act. The PTA will assess on the basis of the results of the cost analysis in each instance whether it is more appropriate to use the LRIC model than to use historical costs when determining the company's tariffs.

Cost accounting

177. Siminn is obliged to maintain cost accounting for access to the public telephone fixed line network.

7.4 The impact of existing obligations

178. According to the obligations imposed on Siminn in 2008, Siminn was obliged to offer wholesale access to the fixed line telephone network, such that companies that used pre-selection could offer their customers single billing for both access and telephone calls. This wholesale service is called "pre-selection single billing" or single billing. It took a long time to introduce this service and it was not on the market until 2 ½ years had passed from the time that an obligation to this effect was imposed. The Decision of the PTA no. 19/2011, dated 9 June 2011, prescribed the form of the Siminn reference offer for single billing and the Decision number 21/2011, dated 22 June 2011 decided the price for the service. The price was decided with reference to the Siminn analysis of historical costs, but the PTA made a number of observations on the initial Siminn cost analysis, which returned a lower result.

179. The service is now offered, but so far is not used much. Today there are just under 4000 users connected with pre-selection. Of that number about 300 have single billing. The low usage of single billing could among other things be explained by how long it took to bring the service on the market. Some companies have found other solutions, such as for example Vodafone, which increased the number of its exchanges during the period when parties were waiting for the Siminn wholesale service. Smaller companies have however not had the financial capacity to increase the number of telephone exchanges. Problems are still arising in transactions with single billing; see the discussion here above on the Nova complaint regarding ISDN sub numbers. One can expect that users of the single billing will increase in the coming years, mainly with companies that are new entries to the fixed line telephone market.

180. It is not possible to discuss development in pricing of single billing as the service has only been active for a short period of time. It is however clear that the obligation for price control supports pricing being normal and commensurate with costs. In the Decision of the PTA number 21/2011 a price was decided for the service, based on cost analysis, which was considerably lower than the price that Siminn had initially planned to charge. It is difficult to evaluate the direct impact of wholesale obligations on retail price in the market. As previously stated, prices have risen in ISK, but it varies whether the individual price rises are in excess of price trends or not. There is, however, certain likelihood that the existence of obligations creates more competitive pressure on companies with market dominance and limits their possibilities to decide their pricing, without consideration for competitors and consumers. Iceland is among the group of countries with the lowest prices for public telephone services provided at a fixed location.

181. Since the PTA imposed obligations on the market in 2008, the number of companies offering fixed line telephone services has somewhat increased. Now they are 6, and were 3 in 2008. Of these companies 5 operate some kind of network. This is something of an increase from before. Three of these companies have however a very low market share and are thus not yet providing the larger operators with much competition. In 2011 the combined share of new companies was less than 2% measured by number of subscribers. It is likely that the obligations from 2008 have facilitated entry into the market and have been conducive to an increase in companies on the market.

182. It is the opinion of the PTA that the obligations that were imposed in 2008 have had the effect of combating price increases. Furthermore the obligations have helped the entry of new parties to the market. There is however a long way to go before active competition will exist on the fixed line telephone market, both at wholesale and retail levels. It is therefore necessary to maintain obligations on the market.

7.5 Proposals for obligations

183. On the basis of the market analysis the PTA has come to the conclusion that it is appropriate to maintain obligations on Siminn on the market for access to public telephone networks provided at a fixed location. The obligations that were imposed in 2008 and that the PTA intends to maintain are mostly unchanged. There is, however, the occasional amendment of implementation, such as with respect to the methodology for cost analysis and to the publication of book-keeping information. In this Chapter the content of these obligations will be presented in more detail.

184. In its analysis of the relevant market for access to the public telephone network, the PTA has come to the conclusion that competition is not effective enough and that this situation is primarily a result of Siminn's strong position in the relevant market and related markets. The PTA concluded that Siminn has significant market power in the relevant market, which creates certain competition problems that cannot be resolved any other way than by the imposition of obligations. The obligations that were imposed on Siminn in 2008 and that the PTA intends to maintain have the primary objective of increasing competition in the relevant market by strengthening the position of independent service providers and by creating conditions conducive to the entry of new providers. Consideration is also given to ensuring that the obligations are conducive to the protection of consumer interests. Given the competition problems described above, the obligations that PTA proposes are conducive to the resolution of the problems existing in the relevant markets.

185. In the opinion of the PTA these obligations are both in accordance with the objectives presented in the EU Framework and Access Directives and with the provisions of legislation on electronic communications and are appropriate for the period that is expected to pass until the market will be analysed again. Here below there will be detailed discussion on the above specified obligations and of the requirements that the PTA intends to maintain on Siminn on the relevant market.

186. The proposed regulatory obligations will apply to Siminn's PSTN/ISDN network and services but not to Siminn's provision of access to VoIP services. Siminn's market power is based on its PSTN network which covers the whole country and was until recently used by every household. Siminn is still relying on this network and has not yet introduced a significantly successful VoIP product. Siminn is not providing service on the fibre optic network of Gagnaveita Reykjavíkur like all the other telephone operators. For these reasons PTA is aiming its remedies towards the PSTN/ISDN network which still has the vast majority of users. It is not evident that Siminn would be in a position to abuse its market power in the field of VoIP, in the same way as it can do in the present situation of the PSTN service, should it at some point in time choose to move its focus from PSTN to VoIP. PTA will analyse this market again in 2-3 years. If, in the meantime, there will be a significant shift from PSTN to VoIP in the market that, among other factors, could cause PTA to consider performing a new analysis on the relevant market sooner.

7.5.1 Carrier selection and pre-selection

187. Siminn has significant market power on the market under discussion here, with respect to the possibilities for connecting to a public telephone networks and to the use of such networks at fixed location. For this reason, the PTA considers it unequivocal that Siminn is obliged, pursuant to Article 53 of the Electronic Communications Act, to offer both carrier selection and pre-selection. The PTA proposes several other obligations in addition to this one: wholesale access to connections, non-discrimination, transparency, price control, cost accounting and accounting separation.

188. Pursuant to Article 53 of the Act on Electronic Communications, Siminn is obliged to enable its subscribers to gain access to the services of all interconnected companies that provide public fixed line telephony. The structure of this access can either be such that the user selects a prefix prior to the each phone call or uses pre-selection, which can be by-passed in certain phone calls by selecting a prefix.

7.5.2 Obligation for access: Wholesale leasing of fixed line telephone lines

189. According to Paragraph 1 of Article 28 of the Electronic Communications Act no. 81/2003, the PTA may instruct undertakings with significant market power to accede to normal and reasonable requests for open access to public electronic communications networks, network elements and associated facilities under certain conditions prescribed by the Administration. Paragraph 2 of this Article contains a list of obligations that may be imposed on electronic communications undertakings with significant market power on the basis of the access obligation and there is stated among other things, in item b that the obligation may be imposed on a company that it offers a specific service at wholesale level that a third party resells. The comments on this provision in the legislative bill for this Act state, among other things: *"This could apply, for example, when an undertaking that cannot offer comprehensive service through its own network wishes to offer customers comprehensive electronic communications services. It could be justifiable in the interest of effective competition to require undertakings with significant market power to sell certain services at the wholesale level; for example, to sell wholesale connections to the telephone network to operators whose customers use pre-selection."*

190. In imposing an obligation to grant access, it is necessary to consider whether the access in question encourages investments in the network and promotes innovation, efficiency, and sustainable competition. In Paragraph 3 of Article 28 of the Electronic Communications Act it is stated that when making a Decision to impose obligations pursuant to Paragraph 1, the PTA shall take into account whether it is:

- a. technically and financially realistic to use or install competing facilities in view of market developments and the nature and type of interconnection and access involved;
- b. feasible to provide the access proposed;
- c. justifiable, in view of the original investment by the owner of the facility and the risk taken in making the investment;
- d. to the advantage of competition in the longer term;
- e. inappropriate, in view of intellectual property rights;
- f. conducive to increasing the supply of services.

191. Because of Siminn's strong position in the market, it could be difficult for new operators to enter the fixed-line market. The current situation, where most households have a telephone, results in certain barriers to growth in the market. The build-up of a new telephone network represents investment expense and operating expense which companies with a small market share find difficult to handle.

192. The PTA is of the opinion that the obligation should be maintained on Siminn to be required to offer a solution whereby service providers with pre-selection can send their customers a single invoice (single billing) for both access and telephone use, irrespective of whether Siminn provides this service to the customers or not. This would facilitate the development of sustainable competition in the access markets and encourage other service providers to enter the fixed line telephone markets. The PTA considers it appropriate for the time being to use the service that is called single billing and that is now part of the Siminn reference offer for interconnection of fixed line telephone networks. The PTA considers it even more important to maintain the obligation in question because there is as yet insufficient experience of the obligation. The service is only been on offer since the autumn of 2011, even

though the obligation was imposed on Siminn in December 2008. As has been stated here above, the PTA is investigating a case where there still seem to be problems with the accessing question. In the above mentioned reference offer from Siminn, the services are described in the following manner:

The service involves access for Siminn users in its fixed line network to the network of counterparty without the user having to preselect a specific prefix. All traffic, including traffic to 3 and 4 digit numbers (other than 112) is directed to the counterparty's network. This service enables service providers (Siminn counterparties with single billing) to provide their customers with one inclusive invoice, both for access and telephone usage, while the charge from Siminn is directed at the counterparty.⁴⁰

193. The nature of the single billing service was described in further detail in the Decisions 19/2011 and 21/2011. The PTA, however, states that the obligation does not need to be limited to this one access form. If the needs of the market change, the PTA reserves the right to review the nature and presentation of wholesale access to fixed line telephony.

194. This obligation has a twin purpose. First, it is intended to directly respond to the very significant market share held by Siminn on the access market, by enabling competitors in the provision of services to compete on the retail market without their needing to develop their own substantial public fixed line telephone networks. The second purpose is to increase the efficiency of proposed obligations related to carrier selection and pre-selection.

195. With decisions no. 19 and 21/2011, the PTA endorsed Siminn's reference offer and cost analysis on the relevant market, which significantly increased the possibilities of alternative operators to utilise the single billing services. The uptake of single-billing is still low but it is rising slowly as is the number of providers using this option. PTA anticipates that this development will continue. The number of customers using this service in March 2013 was 463 of the 4200 carrier pre-selection customers in total. One of the reasons for the slow uptake is the growth of Vodafone's network. Since Vodafone now has a significant amount of telephone switches it can rely more on local loop unbundling. Nevertheless PTA still thinks this is a necessary remedy for the smaller operators, and it makes it possible for them to provide services in areas where they do not have a switch.

196. It is also necessary to impose additional obligations concerning access, transparency, non-discrimination, price control and cost accounting in order to address the problems related to Siminn's interactions with other service providers. PTA is confident that it can ensure that pricing and other conditions of this service will not prevent new operators from using it in the future. In this respect PTA can for example use the price control obligation to ensure fair prices and the non-discrimination obligation to ensure that the retail division of Siminn will not get a better service than wholesale buyers of the single billing solution.

197. Based on the authority in Article 28 of the Electronic Communications Act, PTA intends to impose on Siminn the obligation to respond to reasonable and appropriate requests for access to its fixed-line network and wholesale services. Should Siminn reject or not reply within 14 days, to a request for access, then it shall provide the applicant a reasoned written

⁴⁰ See Appendix 3a (1.9.2011) to the Siminn reference offer for interconnection of fixed line telephone networks, Chapter 2.4.5, page 5.
http://heildsala.siminn.is/servlet/file/Vi%C3%B0auki+3a+-+%C3%BEj%C3%B3nusta+%C3%BAtg.+3.6-A++1.+sept+2011.pdf?ITEM_ENT_ID=189046

response explaining the rejection or delay.

7.5.3 Obligation for non-discrimination

198. According to Article 30 of the Electronic Communications Act, the PTA can impose obligations on electronic communications undertakings designated with significant market power to practise non-discrimination when agreeing to interconnection or access. Such obligations should particularly ensure that electronic communications undertakings make the same conditions to other undertakings that provide electronic communications services for the same kind of transactions and should provide service and information with the same conditions and the same quality as it provides to its own service department, subsidiaries or collaborators.

199. In order for this to be successful, the obligation to grant access must be imposed together with an obligation for non-discrimination. The non-discrimination obligation is intended to prevent a vertically integrated undertaking with significant market power from engaging in conduct that has a negative impact on competition. It is intended to prevent such an undertaking from discriminating, for example, with regard to price and quality of service; i.e., selling less expensive and better services to its own retail departments than to other parties. Fair, moderate and justifiable conditions for access, including price, are basic issues when striving to strengthen competition. The obligation for non-discrimination does not mean that all companies are subject to exactly the same conditions but rather that all difference in conditions is based on objective criteria.

200. Discrimination can take many forms; therefore, it is difficult to speak in general terms of the circumstances that fall under the obligation to observe non-discrimination. Discrimination can for example be based on price. A vertically integrated undertaking with a dominant market position can transfer its strength from the wholesale level to the retail level by increasing its competitors' costs in the retail market. This could happen if the undertaking raises the access price charged to external service providers, which will then affect those service providers' retail prices. In order for the non-discrimination obligation to have the desired effect, it is often necessary to impose an obligation to practise accounting separation as well.

201. Even though an undertaking operates under an obligation to charge cost-analysed prices, it could attempt to discriminate on the basis of factors other than price in order to force competitors out of the market. This could for example be in the form of poor provision of information, varying quality in services and unfair conditions in agreements. In the opinion of the PTA the obligation for non-discrimination is admirably suited to tackle the problems that arise in connection with discrimination, both with respect to price and other factors. It must be assumed that the non-discrimination requirement is both appropriate and reasonable.

202. When an undertaking with significant market power, such as for example Siminn, is also vertically integrated, this can be an incentive for that undertaking to provide wholesale services on terms and conditions that benefit its own retail operations in a way that makes a palpable impact on competition. In particular it is the temptation to charge competitors higher prices for wholesale services than the company charges its own retail departments. This increases the expense the competitor must incur in order to render the service and gives the undertaking an unfair advantage over its competitors. The non-discrimination rule is used to address competition problems related to pricing, but it can also have a direct effect on

variables other than price; for example, concealment of information, deliberate delays, abnormal demands, poor quality, product formation in the sale market, and unfair use of information. Such circumstances could damage competitors and ultimately be detrimental to consumers.

203. Once wholesale leasing of lines or single billing has been implemented, other service providers will begin to use the lines offered by Siminn to provide their customers with service comparable to that provided directly by Siminn. The provision of information and services to companies that use wholesale access needs to be comparable to that which is on offer to the Siminn retail departments. It is particularly important that the information that Siminn gathers for the sale of services to other service providers is not used in any way whatsoever in the company's retail departments to gain an unfair advantage, in any manner whatsoever.

204. With authority of Article 30 of the Electronic Communications Act, the PTA intends to impose on Siminn an obligation to practise non-discrimination with respect to price and other criteria that have been mentioned. The non-discrimination obligations apply to all types of access and resale of lines related to the relevant market. The dissemination of information from the Siminn wholesale department should be in a comparable manner whether to third parties or to other departments within the company. The treatment of information gained by Siminn in making agreements for access shall be in accordance with Article 26 of the Electronic Communications Act.

7.5.4 Obligation for transparency

205. According to Paragraph 1 of Article 29 of the Electronic Communications Act, the PTA can oblige electronic communications undertakings with significant market power to publish specific information in order to increase transparency of interconnection or access to the facilities of an electronic communications undertaking, for example book-keeping information, technical information, implication on the characteristics of networks, terms and conditions for delivery and for use and tariffs. It is authorised to make an exemption to the publication of information if an electronic communications undertaking can show that it concerns important financial or business interests that it is fair and normal to keep confidential.

206. In Paragraph 2 of Article 29 of the same Act it states that when an electronic communications undertaking is obliged to practise non-discrimination then the PTA can demand that it publishes a reference offer that contains a breakdown description of interconnection or access, along with terms and conditions, including tariffs. The PTA can prescribe amendments to the reference offer and is authorised to impose rules on the content of such offers.

207. Conditions that apply to access to networks and services are of extreme importance to new parties and can have a decisive impact on their possibilities to gain market share. It is clear that the competitive position of such parties is at risk if they must endure discriminatory conditions. Furthermore, it facilitates the entry of companies into the market if the conditions on offer for access and service that they must purchase are foreseeable, and the same applies to the basis for pricing and other conditions.

208. The publication of a reference offer gives all parties to the market the opportunity to see what is on offer and it ensures that companies will not be required to pay for service and

facilities for which they have no need. The PTA considers it important for the entry of service providers that there is a reference offer for access to a public fixed line telephone network. The PTA, however, assumes that parties can make an agreement on other terms than those shown in the reference offer, but such an agreement shall be public and shall be on offer to other parties.

209. It was stated here above that the PTA considers it necessary to impose an obligation on Siminn for non-discrimination. In this context, it is also stated that in order for the non-discrimination obligation to be truly effective, it is also necessary to impose a transparency obligation on Siminn. This is done in order to prevent attempts to discriminate between parties.

210. On the basis of the obligation for transparency it is possible to oblige Siminn to publish a reference offer. The PTA considers it necessary that Siminn publish a reference offer for wholesale leasing of lines. The more detailed the reference offer the easier it is to determine whether non-discrimination is being practised. The offer shall contain a sufficiently detailed description of terms so that the party requesting access can easily determine its position.

211. The reference offer shall contain the following items, at a minimum:

- Basic items pertinent to the agreement
 - Type of service
 - Fees, invoices, and accounting
 - Prices, discounts, and amount of traffic
 - Quality of service
- Technological implementation
 - Distribution system and communication between systems
 - Telephone calls
 - International calls
 - Other services
 - Testing
- Customer maintenance
- The obligations to observe confidentiality between parties, confidentiality of data and plans, and protection of personal information
- Guarantees and payment
- Unforeseen events and special circumstances
- Security and phone-tapping
- Expiry of agreement and termination of agreement
- Treatment of disputes

212. Should the Siminn reference offer not be considered adequate for the market, the PTA could prescribe amendments to the offer pursuant to Paragraph 2 of Article 29 of the Electronic Communications Act. The PTA considers it appropriate, given the problems that have emerged in previous discussions on wholesale of lines, to stipulate that Siminn may not demand a bank guarantee from electronic communications undertakings for resale of lines without express permission from the PTA.

213. It is required that Siminn send to the PTA all agreements that are made on access to the public telephone network and in addition notify all changes made to the conditions of the

agreements within a given period of notice. A copy of a signed agreement based on the reference offer shall be sent to the PTA in the form in which it is made and no later than a week after it has been signed. Alterations to the agreements shall also be notified in such a manner that the nature of the changes are clear and their location in the document. The requirement concerning the obligation to provide information is based on the authority in Article 5 of the Act on the Post and Telecom Administration, no. 69/2003.

214. Based on the authority in Article 29 of the Electronic Communications Act, the PTA intends to impose on Siminn the obligation to observe transparency and to publish a reference offer, for carrier selection, pre-selection and wholesale access to fixed line telephone lines which contain terms and conditions for supply and use, tariffs and other information necessary for counterparties, see the list of the content of the reference offer here above.

215. The PTA considers it unnecessary to maintain the obligations for publishing of book-keeping information, but Siminn is obliged to deliver all such information to the PTA to the extent that this is required to verify compliance with the obligations that are in force on this market.

7.5.5 Obligation for accounting separation

216. If an obligation to practise non-discrimination is to be effective, it is necessary that Siminn be required to practise accounting separation so that it will be possible to confirm that the company complies with the requirement that it sell services to external customers at the same prices that it charges its own retail departments.

217. In Regulation number 564/2011 on book-keeping and cost analysis in the operations of electronic communications undertakings, there is an explanation of the purpose of accounting separation and instructions on how it should be implemented. The purposes is among other things to make it possible to see income, costs and sunk capital for varying operational units and to be able to show that the same conditions apply to services provided to other companies and to services supplied to other departments of the electronic communications undertaking in question.

218. Accounting separation supports the discovery of possible failures on the market and reveals whether non-discrimination is practised on the market or not. Such obligations promote enhanced transparency because they shed light on wholesale internal transfer prices within the company itself. The PTA also has the possibility to investigate whether the obligations for non-discrimination are fulfilled and in addition to this can tackle problems related to price competition. The PTA considers it necessary to maintain obligations on the accounting separation in order to make it easier for the Administration to investigate whether rules are being complied with and it considers this to be a prerequisite for effective obligations on transparency and non-discrimination.

219. With the authority in Article 31 of the Electronic Communications Act the PTA maintains obligations on Siminn for accounting separation. Such separation should constitute as a minimum that on the one hand wholesale and on the other hand the retail fixed line telephone divisions should have their accounts separated from other operations. The Siminn wholesale prices and internal prices within the company shall be transparent, among other things to prevent unjustified subsidies.

220. In its accounting, Siminn should separate income, expenditure, assets and capital for its fixed line phone network. Siminn shall provide to the PTA on an annual basis with a breakdown of the operational accounts and balance sheet for wholesale and retail along with a statement of the division of indirect costs that were not possible to assign through comparison with other cost items. The above specified statement should have reached the Administration no later than five months after the end of the operational year. Should Siminn's accounting separation not be satisfactory, the PTA reserves the right to submit demands at a later date for further separation.

7.5.6 Obligation for price control

221. When market analysis indicates that a lack of active competition results in an undertaking with significant market power demanding excessively high fees or that there is an abnormally small difference in wholesale and retail prices, then the PTA may pursuant to Article 32 of the Act on Electronic Communications impose obligations on an electronic communications undertaking for a cost related tariff and obligations for cost accounting for certain types of interconnection or access. Investment by electronic communications undertakings shall be taken into account and reasonable dividends from sunken capital, while also taking into account the risk of the investment. When an obligation for a cost related price tariff with reasonable dividends is imposed on an electronic communications undertaking, the burden of proof rests on the undertaking. In the same provision it states furthermore that the PTA can require that an electronic communications undertaking make a cost model for the calculation of prices. When calculating costs the PTA can use as a reference the operation of analogous service that is considered efficiently run and can also take into account tariffs in analogous competition markets and it may use cost analysis methodologies that are not related to methodologies employed by an electronic communications undertaking.

222. It was the conclusion of the above specified analysis of the market for access to public telephone networks provided at a fixed location that competition was not sufficiently active and that the Siminn had significant market power. This conclusion, with reference to Paragraph 1 of Article 18 of the Act on Electronic Communications, indicates that the Siminn can hinder competition and can behave to an appreciable extent independently of competitors, customers and ultimately consumers. Siminn thus has the possibility of maintaining abnormally high prices or of creating margin squeeze. Despite the fact that benchmarking demonstrates that Iceland is among those European nations that have the lowest phone call prices, the PTA points out that the possibility for overpricing nevertheless exists. In the same manner, The PTA considers that the Siminn position on the market in question also gives the company the opportunity to maintain excessively high prices at wholesale level to deter new operators from entering the market.

223. Price is, in many instances, the main cause of competition problems and one must therefore consider that an obligation for price control is the most effective method to deal with such matters. In the opinion of PTA, obligations concerning transparency and non-discrimination alone are not sufficient to solve competition problems such as cross-subsidy, price discrimination, and excessive pricing. The PTA is of the opinion that an obligation concerning price control is necessary to establish competition in the relevant market.

224. It can be assumed that cost analysis is an onerous obligation that should only be imposed if other methods are unsuccessful. Cost analysis involves determining prices based on cost information that is obtained from a cost model and/or cost accounting. To allocate

costs to specific aspects of operations and services is a complicated and difficult task that can be carried out in various ways. The PTA can employ the BU-LRIC⁴¹ method for cost analysis, pursuant to Regulation no. 564/2011 on book-keeping and cost analysis in the operations of the electronic communications undertakings, which is a recognised methodology, among others, by the European Commission and by ESA. The methodology ensures transparency and the regulators are not dependent on information from the book-keeping of an electronic communications undertaking. The methodology can, on the other hand, be extremely costly and time-consuming. When choosing a methodology for cost analysis for the purpose of deciding pricing for access, it is important to keep in mind on the one hand, that the methodology is efficient and not too onerous and on the other hand, to create acceptable conditions for companies that may request wholesale access.

225. The PTA considers that because of the high cost of implementing the BU-LRIC cost model it is not appropriate at this point in time to adopt such a methodology on this market in this country. The use of such a methodology could create excessively high costs for the PTA, and for the electronic communications undertaking in question and such a cost increase would in all likelihood, eventually be met by consumers in the form of higher fees. The PTA therefore considers it proper to find another more efficient manner to achieve the objective of having tariffs that reflect the operations of an efficiently operated electronic communications network on the relevant market. Cost analysis will be based on the work that has already been done in recent years in order to minimise costs and time spent in reaching a Decision on new cost related access prices.

226. In the Decision of the PTA number 30/2008 from 5 December 2008 an obligation for price control was imposed on Siminn when it was prescribed that the Siminn tariff for carrier selection should be decided on the basis of cost analysis from historical costs. Subsequent to the Siminn cost analysis, a new wholesale tariff for Siminn was agreed with the PTA Decisions number 15/2011, 19/2011 and 21/2011. The Siminn tariff was subsequently reviewed in part, in December 2011 because of changes to the Mila tariff and that amendment came into force on 1 March 2012, see item for in Appendix 1a to the Siminn reference offer for interconnection of public telephone networks provided at fixed location.

227. With the authority of Article 32 of the Act on Electronic Communications the PTA intends to maintain the obligations on Siminn for price control of wholesale access to public telephone networks provided at fixed location for residential and non-residential customers. Siminn shall submit a tariff for wholesale access to its fixed line network to the PTA for endorsement, which includes carrier selection and pre-selection with single billing. Pursuant to Paragraph 4 of Article 32 of the Act on Electronic Communications, the tariff for the wholesale access in question shall be cost related, where costs are allocated to the services in question (FAC)⁴². The PTA is authorised to take into account analogous services that are considered to be operated in an efficient manner, where prices are adjusted should it be considered necessary in the opinion of the Administration on the basis of such comparison. Furthermore, the PTA is authorised to make price comparison on the basis of cost analysis of tariffs in the EEA.

228. When implementing its cost analysis Siminn shall base its methodology on Chapter IV of Regulation no. 564/2011 on book-keeping and cost analysis in the operations of the

⁴¹ Bottom-up Long-Run Incremental Cost.

⁴² All costs are allocated to the appropriate operations and services (Fully Allocated Costs; FAC).

electronic communications undertakings, such as on evaluation of operating capital, life-cycle and ROI requirement.

229. When deciding the price for wholesale access to public telephone networks provided at a fixed location for residential and non-residential customers, the PTA plans to authorise Siminn to review its cost analysis on the basis of the cost model on which the analysis was based. Such an implementation is neither a very time-consuming nor onerous for Siminn, and nor for the PTA surveillance.

230. Siminn shall submit the above specified cost analysis in the last instance 6 months subsequent to the publishing of the Decision on access to public telephone networks provided at a fixed location for residential and non-residential customers. The new wholesale tariff for access to fixed line public telephone networks will not come into force prior to PTA endorsement which will be subsequent to domestic consultation and consultation with ESA. The current Siminn wholesale tariff, dated 1 March 2012, which is published under item 4 in Appendix 1a to the Siminn reference offer on interconnection of fixed line telephone networks, shall apply until the revised tariff is available and has been endorsed by the PTA.

231. PTA considers the method of price control to be sufficiently transparent and clear. There is an existing cost model which will be used for determining the prices. This model is based on historical costs using the FAC method, but it is reviewed and amended by the PTA in order to avoid cost of any inefficiency. The method is further described in the PTA Decisions number 15/2011 and 21/2011 regarding Simin's cost analysis setting wholesale prices for fixed line telephone access and a reference to the Chapter IV of Regulation no. 564/2011 on book-keeping and cost analysis in the operations of the electronic communications undertakings. PTA will be able to compare the outcome of the cost analysis to prices of corresponding services in other EEA countries and the PTA can order Siminn to amend its cost model if the results are not in line with prices in other EEA countries. If Siminn's prices are higher than a simple average of prices of corresponding services in EEA countries then PTA will conduct a review of the cost model.

7.5.7 Cost accounting

232. Pursuant to Article 32 of the Act on Electronic Communications the PTA can impose obligations for cost accounting for specific types of interconnection or for access, in accordance with a cost related tariff. According to Chapter IV of Regulation no. 564/2011, on book-keeping and cost analysis in the operations of an electronic communications undertakings, an electronic communications undertaking with significant market power on whom special obligations have been imposed pursuant to the Act on Electronic Communications shall inform the PTA on the structure of separation in book-keeping, with respect to income and expenses.

233. Cost accounting is necessary when the obligation for price control has been imposed on an electronic communications undertaking with significant market power. Because the PTA intends to impose the obligation for price control on Siminn, the PTA also intends to impose the obligation for cost accounting. The obligation for cost accounting supports the obligation that the tariff is cost related and it is necessary for the implementation of accounting separation and can support surveillance of non-discrimination.

234. The PTA believes that should this obligation not be imposed on Siminn then the

company would be able to maintain abnormally high prices partly or in full or could distort proper proportions, with detrimental effects on competitors and eventually on users. Were the PTA to relax this requirement, then the Administration would not have adequate measures to ensure price monitoring on this market and would not be able to prevent possible failures there.

235. The PTA plans to maintain the obligations on Siminn for cost accounting for access to fixed line telephone networks.

7.5.8 Obligations at retail level

236. In the preceding sections of this report, PTA has presented proposals for maintaining obligations in the wholesale market for access to a fixed line telephone networks. In addition to pre-selection, which has been available for many years there is now wholesale access to fixed line telephone networks and with it, obligations concerning non-discrimination, transparency, accounting separation, price control and cost accounting. It has been something of a barrier to competition in this country, but because of the investment costs, some companies have not had the capacity to rent local copper loops and others have only been able to rent local copper loops in the largest built up areas. This has led to a situation where it has not been possible to offer users single billing for access to and use of fixed line telephone services. This problem should now be in the past with the imposition of obligations for wholesale access to fixed line telephone network connections, which was implemented in the autumn of 2011.

237. The PTA considers that in general, the emphasis should be placed on solving competition problems at wholesale level, as pursuant to Paragraph 2 of Article 27 of the Act on Electronic Communications, the PTA is only authorised to impose obligations at retail level subsequent to market analysis if the Administration considers that wholesale obligations or measures related to carrier selection or pre-selection will not return adequate results in the strengthening of active competition and in assuring users' interests. This provision is in accordance with Article 17 of the Universal Services Directive 2002/22/EEC. The PTA considers that at this stage it is not clear that wholesale obligations will not return results, particularly when one considers the fact that it is only a short time ago that single billing access became a reality with Siminn. This access has yet to be tried and tested. It is clear that three new companies have established themselves on the fixed line telephone market since the last analysis was made in December 2008.

238. The PTA considers that the strict wholesale obligations that have been imposed on Siminn on Markets 8-9 (now Markets 2 and 3), and on 11 and 12 (now 4 and 5), will continue to return the results of strengthening active competition and enhancing users' interests. In addition to this there is an unequivocal legal obligation on Siminn, as a party with significant market power, to provide electronic communications undertakings with carrier selection and pre-selection. Access obligations on Market 1 as described above, strengthen carrier selection as an option for electronic communications undertakings in establishing themselves in fixed line telephony services.

239. Though the price of fixed line telephone services in retail has risen in recent years it is still among the lowest within OECD. For this reason, the PTA has considered there to be no need up to this point in time to directly intervene in retail pricing. The PTA will monitor price development and make regular benchmarking on prices here in this country and in other

European states. Should the circumstances arise where there is a need for intervention in retail pricing, then the PTA has the legal authority to decide a maximum price for fixed line telephony services pursuant to Paragraph 2 of Article 20 of the Electronic Communications Act.

240. With the above in mind, The PTA considers there to be no reason to apply retail obligations for the time being.

7.6 Assessment of the effects of planned obligations

241. In accordance with the principle of proportionality, it is necessary to assess whether the onerous impact of the obligations that the PTA plans to impose are proportionate in the light of the objectives. The PTA considers that the obligations are conducive to achieving the objectives of the Electronic Communications Act number 81/2003 on active competition and efficient electronic communications. The need for each individual obligation is discussed in the relevant Chapters here above, and reference is made to this discussion.

242. The obligations that the PTA intends to maintain on Siminn are as a whole quite onerous for the company. On the other hand the PTA considers that they are in accordance with proportionality and that they are not a greater burden than is necessary. The obligations are to a large extent similar to the obligations that have been in force on the relevant markets since the last market analysis in 2008. No new obligations have been added while certain components of the obligations that were in force have been withdrawn.

243. The obligation for access is something of a burden on Siminn but it is an essential prerequisite for active competition on the fixed line telephone markets. It is not possible to solve the competition problems described here above in any other way than by imposing the obligation for access. One must keep in mind that Siminn receives normal recompense for access and the obligation can lead to more efficient use of the equipment in which Siminn has invested. Siminn has installed the necessary facilities and services to be able to provide the service prescribed. It is thus not significantly onerous to continue to provide the service as before.

244. The PTA considers the obligation for non-discrimination to be not particularly onerous as it is a reasonable demand on a company like Siminn, which has significant market power in a great number of the sub markets in electronic communications sector.

245. The obligation for transparency, among other things the publishing of reference offers, represents a certain inconvenience for Siminn. One must nevertheless keep in mind that Siminn has already published such an offer that contains the types of services referred to in the obligations on this market and it only needs to update the offer where circumstances on the market and technical development require this. The burden that Siminn has to bear from the obligations is not excessive if one takes into account how necessary the obligations are to strengthen competition.

246. The PTA considers that the obligation for accounting separation is not a burdensome, given its purpose, as it is a normal part of company operations today to separate costs for production/operations of varying products or services sold by the company.

247. The obligation for price control is onerous to the extent that Siminn cannot charge any price it pleases for access to its networks. The obligation however ensures that recompense is normal, given that the service is operated in an efficient manner. Siminn has already implemented cost analysis of the service types in question and during the next 2-3 years it only needs to update the analysis as required.

248. The obligation for cost accounting was imposed on Siminn on this market in 2008. Siminn has thus already taken measures to keep such accounts, which means that it is not particularly onerous to continue this work. Cost accounting is necessary prerequisite for being able to use the cost analysis methodology that has been applied on this market.

249. The obligations will not hinder the development of a fixed network as the pricing of access will be based on costs after taking into account the definition of efficient operations and the calculation allows for a normal return on investment. Price control should thus not inhibit willingness to invest in the long-term.

250. In the opinion of the PTA the above specified obligations are reasonable and necessary to support active competition and should not be considered unnecessarily onerous. The PTA considers the obligations to be in the interests of competition in the long-term and that they will encourage an increase in service offers on the market for fixed telephone network services.