Annex 1

Analysis of the markets for voice call termination on individual mobile networks (market 7)

25 August 2010

Contents

Summary and conclusion

This is the fourth analysis that the Norwegian Post and Telecommunications Authority (NPT) has performed of the markets for voice call termination on individual mobile networks (market 7, former market 16).

The market analysis will provide the basis for applying sector-specific measures in markets in which undertakings with significant market power are identified. Chapter 1 contains a description of the background and framework for the analysis.

In chapter 2 the relevant product markets are defined. In its Recommendation, ESA has defined the relevant product markets as voice call termination on individual mobile networks. NPT regards the relevant markets as corresponding to the Recommendation. No sufficient substitution possibilities exist, on either the demand or supply sides, that make it relevant to broaden the product markets

NPT assumes that voice call termination on 2G networks, 3G networks and virtual mobile networks are included in the product markets. Voice call termination on LTE networks is not included in the market definition. If it should be relevant within the time-frame of the analysis, NPT will perform a specific assessment of whether voice call termination on LTE networks should be included.

Furthermore, NPT has defined the relevant markets geographically. The analysis concludes that the relevant geographic markets are limited to the individual mobile networks' respective footprints in Norway, including coverage achieved through national roaming agreements, MVNO (Mobile Virtual Network Operator) agreements or the like.

On the basis of the market definition, NPT defines the following markets[1]:

- Voice call termination on Telenor's mobile network
- Voice call termination on NetCom's mobile network
- Voice call termination on Network Norway's mobile network
- Voice call termination on Tele2's mobile network
- Voice call termination on Ventelo's mobile network
- Voice call termination on TDC's mobile network

In chapter 3 the relevant market are analysed on the basis of criteria for significant market power. In NPT's opinion, the most relevant criteria for analysis of this market are *market share*, *an overall assessment of entry barriers and potential competition*, as well as *countervailing buying power*[2]. The Authority has chosen to disregard many of the criteria from the Guidelines because an assessment of the omitted criteria in NPT's view would not have been able to change the result of the analysis.

[1] Mundio Mobile's (formerly Barablu Mobile Norway Ltd) MVNO agreement with Telenor was terminated in December 2009. NPT has no knowledge that the company has entered into a new access agreement. For that reason the company is not included in this market analysis. In the event of new entrants in the relevant market, NPT will consider the need to update the market analysis and any imposition of specific obligations.

[2] In what follows, the concepts "countervailing buying power" and "buyer power" are used synonymously.

Telenor, NetCom, Network Norway, Tele2, Ventelo and TDC are each the only provider of voice termination services on their respective mobile networks/virtual mobile networks, which correspond to the relevant markets. For that reason, they all have a 100% market share. The entry barriers within the individual relevant markets are absolute, which is why there is no potential competition within the time horizon of the analysis.

To begin with, in view of this, there will be a presumption that six undertakings have significant market power. For this not to be the case, there must be weighty factors that have a disciplinary effect on the undertakings' exercise of market power. These factors are assumed primarily to relate to countervailing buying power. NPT cannot see that there are buyers with enough bargaining power to have a disciplinary effect on the setting of Telenor's, NetCom's, Network Norway's, Tele2's, Ventelo's or TDC's termination charges.

In view of this, NPT concludes that Telenor, NetCom, Network Norway, Tele2, Ventelo and TDC have significant market power in the respective markets for voice call termination on individual mobile networks.

1 Introduction

1.1 Background and framework for the analysis

1. The regulatory framework for electronic communication is based on five directives adopted by the European Union (EU).[3] These directives entered into force for Norway on 1 November 2004. The directives have been implemented in Norwegian law through the Electronic Communications Act and appurtenant regulations.

2. The framework shall lay the foundation for the harmonization of regulation in the EU/EEA, limit entry barriers and facilitate sustainable competition to the benefit of users.

3. It follows from Norway's obligations under the EEA Agreement that identification of undertakings with significant market power is to be carried out in accordance with the guidelines and recommendations prepared by the EFTA Surveillance Authority (ESA) under the new Framework Directive for electronic communications services:

- The Guidelines on market analyses and the assessment of significant market power (hereinafter referred to as "the Guidelines")[4]
- Recommendation on relevant markets (herein after referred to as the "Recommendation")[5]

4. According to the Guidelines an assessment of relevant markets and significant market power must be based on a market analysis. The assessment is to accord with competition law methodology. The Guidelines and the Recommendation, together with the provisions of the Electronic Communications Act, particularly Sections 3-1 to 3-3, will therefore form the legal framework for the market analysis.

5. The Electronic Communications Act's definition of significant market power in Section 3-1 reads:

> *"A provider has significant market power when the provider individually or jointly with others has economic strength in a relevant market affording the provider the power to behave to an appreciable extent independently of competitors, customers and consumers. Significant market power in one market may result in a provider having significant market power in a closely related market."*

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[3] Directive 2002/21/EC on a common regulatory framework for electronic communications networks and services (Framework Directive); Directive 2002/20/EC on the authorisation of electronic communications networks and services (Authorisation Directive); Directive 2002/19/EC on access to, and interconnection of, electronic communications networks and associated facilities (the Access Directive); Directive 2002/22/EC on universal service and users' rights relating to electronic communications networks and services (Universal Service Directive); Directive 2002/58/EC concerning the processing of personal data and the protection of privacy in the electronic communications sector (Directive on privacy and electronic communications).
[4] EFTA Surveillance Authority Guidelines 14/07/2004.
[5] EFTA Surveillance Authority Recommendation 05/11/2008 with the Commission's Explanatory Note.

6. The term significant market power in the Electronic Communications Act is very close to the competition law standard “dominant position” (“dominance”).

7. In the document “Methodology for market analysis” (the methodology document) NPT has elaborated on the Guidelines’ criteria for market analysis on a number of points. The methodology document is not legally binding, but expresses NPT’s understanding of the guidelines to which NPT is obliged to adhere. The market analyses will therefore be carried out in accordance with the perceptions and assessments that are expressed in the methodology document. Should there prove to be discrepancies between the methodology document and the Guidelines or the Recommendation, the Guidelines or the Recommendation will take precedence. The document in no sense regulates the Norwegian Competition Authority’s assessments in accordance with the Competition Act. The methodology document is updated as the Guidelines and the Recommendation are amended. This analysis is based on the methodology document dated 11 June 2009.

8. The work on the market analysis can be naturally be divided into three stages:

 1. Define relevant markets by defining relevant product markets and define geographic markets.

 2. Perform market analyses of each of the relevant markets, with a view to uncovering whether any undertakings have significant market power.

 3. Impose obligations on undertakings designating as having significant market power.

9. This analysis contains NPT’s assessments in stages 1) and 2).

10. The market analysis is an annex to the draft decisions in which NPT notifies specific obligations on undertakings considered to have significant market power. Pursuant to Section 3-4 of the Electronic Communications Act and Norway’s obligations under the EEA Agreement, NPT is obliged to impose at least one specific obligation on an undertaking with significant market power.

11. The market analyses will be subject to regular review. In markets with frequent and comprehensive changes such reviews will have to be carried out relatively frequently. The market analyses are therefore limited in the extent to which they are forward-looking, cf. paragraph 20 of the Guidelines. This analysis has a time horizon of two to three years.

1.2 Previous market analyses and decision in the markets for termination on mobile networks

12. This is the Norwegian Post and Telecommunications Authority’s (NPT) fourth analysis of the markets for voice call termination on individual mobile networks. The markets are referred to in the analysis as the markets for voice call termination on mobile networks.

13. The three previous analyses were based on the ESA Recommendation on relevant markets from 2004. In the 2004 Recommendation the market for voice call termination was designated as market 16. The market is retained in the ESA Recommendation from 5 November 2008, but is referred to there as market 7. The definition of the market is unchanged.

14. The three analyses mentioned are dated 19 September 2005, 8 May 2007 and 17 November 2008, respectively. In view of the three aforementioned analyses, the following have been designated as undertakings with significant market power:

- Telenor ASA
- NetCom AS
- MTU Gruppen AS[6]
- Tele2 Norge AS
- TDC AS
- Network Norway AS
- Ventelo AS
- Mundio Mobile Norway Ltd.[7]

2 Market definition

2.1 General comments on market definition

15. As stated above, in regard to the market analyses, NPT must assess whether the market predefined by ESA suits Norwegian circumstances. A description/definition of the product market is to be given and the geographic market defined.

16. The relevant markets are to be defined in accordance with the principles of competition law. Even so, in some cases, the definition of relevant markets for *ex ante* sector-specific regulation may depart from the market definition that would apply to *ex post* competition regulation, cf. section 1.3 of the ESA Guidelines.

2.1.1 The product market

17. A relevant product market comprises products or services (the terms are used interchangeably below without difference in meaning) that are sufficiently substitutable. The starting point for the definition of a relevant product market is an assessment of demand-side substitutability. However substitutability may also exist on the supply side and may thus be relevant in definition of the relevant market.

18. Demand-side substitutability exists when two or more products in the market are, in the perception of the end user, mutually exchangeable or substitutable on the basis of characteristics, price and area of utilisation.

19. Supply-side substitutability exists when in response to a marginal price change in the short term, providers of other (non-substitutable) products can change their production or distribution and offer substitutable products without incurring significant additional costs or substantial risk.

[6] MTU Gruppen petitioned for bankruptcy at the end of November 2007.
[7] The company was previously called Barablu Mobile Norway Ltd and terminated its MVNO agreement with Telenor in December 2009.

20. An acknowledged method of analysing substitutability is the so-called "hypothetical monopolist test" (SSNIP test), where one endeavours to find the best-defined market in which a hypothetical monopolist can exercise market power[8]. This test assesses the effect of a small, but significant (in practice 5-10 per cent) and non-transitory increase in price for the relevant product, based on the assumed price level in a market with effective competition. All other prices are assumed to be unchanged. The effect of the price increase in the relevant market and the overall effect on the producer's revenues are then assessed. Determining whether the price increase will be profitable for the producer is key.

21. The Recommendation does not make use of the SSNIP test an absolute requirement in the market definition. Similar methods may therefore also be used. Regardless of method, the hypothetical assessment should be supplemented by factual information on behaviour on the supply and demand sides to the extent that such information is available. On the demand side, factors such as the end users' access to information, the costs of changing and other lock-in mechanisms should be taken into consideration. On the supply side, account should be taken of the actual potential a provider has to change production as well as any regulatory conditions that prevent rapid market entry by competitors in the market.

2.1.2 The geographic market

22. Once the relevant product markets are determined, the geographic market is defined. In accordance with the Guidelines, paragraph 57, the geographic market may be defined as that area in which the relevant product is offered on approximately similar and sufficiently homogeneous conditions of competition.

23. However, paragraph 60 of the Guidelines points out that geographic markets in electronic communications have traditionally been defined by reference to the relevant network's area of coverage as well as the effective boundaries (jurisdiction) of the legal regulation of the market.

24. NPT can only define regional or national markets. The jurisdiction for defining transnational markets is vested with ESA.

25. It might make sense in the case of some product markets to divide them into geographic markets smaller than the nation-state, since there are local providers of electronic communications services covered by the relevant product market.

26. ERG published its "Common Position on Geographic Aspects of Market Analysis (definition and remedies)"[9] (ERG CP) in October 2008. Here, ERG recommends a step-by-step process for geographic definition of the market. The first step in this process is to identify whether it is necessary to undertake a detailed geographic analysis. "Preliminary analysis", paragraph 1, page 2 of ERG CP reads:

> "*Before going into the details of geographic analysis, NRA's should look at a number of criteria which are easily accessible and indicate whether competitive conditions are such that a national approach to market definition, market analysis and the implications of remedies is justified. Indicators pointing in this direction are:*

[8] "Small but Significant Non-transitory Increase in Price". See paragraph 40 of the Guidelines.
[9] http://www.erg.eu.int/doc/publications/erg_08_20_final_cp_geog_aspects_081016.pdf

- The hypothetical monopolist test suggests that there is sufficient demand- and/or supply-side substitution between different areas.
- Competitive conditions are sufficiently homogenous:

- *Alternative networks either have small coverage and market shares or have (close to) national coverage with similar prices;*
- *There is a uniform price of the incumbent operator and similar prices of alternative operators;*
- *There are no significant geographical differences in product characteristics."*

27. I section 2.2.3, in view of the criteria above, NPT assesses whether a detailed geographic analysis is needed.

28. Assessment of the relevant geographic market will be somewhat different depending on whether the assessment is made *ex post* or *ex ante*. A definition of geographic markets *ex ante* must necessarily have a wider basis and a more general approach than is taken with an *ex post* definition. An *ex post* definition is based on an actual event the extent of the effects of which one can chart, whilst the forward-looking assessment must be based on somewhat different circumstances. This will therefore also characterise the scope of the assessment of the relevant geographic market.

2.2 Definition of the markets for voice call termination on mobile networks

2.2.1 Product definition in the Recommendation

29. The market definition for the markets for voice call termination on mobile networks in the ESA Recommendation from 2008 is unchanged from the Recommendation from 2004. Nor are there any material changes with regard to the guidelines provided by the Commission for this market in the Explanatory Note[10]. In this section NPT summarises the most important guidelines for defining the relevant product market.

30. In the Explanatory Note the Commission begins with the fact that voice call termination on mobile networks is a factor input for calls originating on both fixed and mobile networks. Furthermore, the Commission emphasises the market failure in the termination markets as a result of the "calling party pays' (CPP) principle. According to the principle, only the party placing the call (the calling party) pays for the call. Because the termination charge is set by the owners of the network receiving the call (the terminating operator), the calling party has little or no ability to influence the termination charge. The CPP principle is currently the norm in all European countries. The Commission states that the same market characteristics apply to SMS

[10] On 17 December 2007 the Commission approved the revised Recommendation of relevant markets with a new Explanatory Note. ESA has not written a corresponding Explanatory Note for its Recommendation, but refers to the Commission's Explanatory Note.

termination. However, owing to demand- and supply-side substitution, the Commission believes that SMS termination constitutes a separate market from voice call termination.

31. With regard to substitutability at the retail level the Commission points out that a call to a particular end user is not substitutable with a call another end user. For an end user to be able to reach a particular end user on another mobile network, the originating operator has no choice other than to terminate the call on the mobile network to which the end user in question is connected. For that reason, demand at the wholesale level is derived directly from demand at the retail level.

32. Regarding supply-side substitutability, the Commission points out that given current technology, no real possibilities exist for other undertakings to offer substitutable services that can impose discipline on a competitor so that it does not raise its termination charges. The Commission points out further that in practice it is impossible for an undertaking to price discriminate among termination to various end users on the same network. The Commission therefore finds that the scope of the relevant market is at least as extensive as termination on each operator’s network.

33. Since the undertaking and product are perfectly linked, the Commission discusses whether other forms of communication could represent real substitutes on the supply and demand sides, respectively. In that case this might represent a *de facto* limitation on the ability of undertakings to set termination charges regardless of customers, competitors and consumers. However, the Commission concludes that as of today, other forms of communication do not represent full substitutes, on either the demand or supply side. To the extent substitutes exist on the demand side, such as calls to a fixed-line telephone or SMS, these alternative forms of communication do not appear to be able to impose discipline on the pricing of termination.

34. The Commission then concludes that the relevant market under a CPP regime is voice call termination on individual mobile networks. A consequence of the definition is that all mobile operators are monopoly providers of termination on their own mobile networks. However, it was pointed out that it is still not a given that the undertakings will have significant market power. This will depend on an assessment of whether there would be sufficient countervailing buyer power that in practice limits this market power.

2.2.2 Definition of the Norwegian product markets

35. In the market analysis for the decision of 8 May 2007, NPT did a relatively extensive assessment of substitutability on the demand and supply sides based on Norwegian market conditions. At that time the Authority concluded that the relevant Norwegian product markets coincided with the Recommendation. As stated above, the market definition in the Recommendation from 2008 is unchanged from the definition from the Recommendation from 2004. Since NPT cannot see that either market or technological circumstances related to termination have changed substantially since these assessments were done, it does not see a need to do an equally extensive review of the market definition, including substitution assessments, as in 2007.

36. In the analysis of 8 May 2007 NPT concluded that SMS termination was not included in the markets.[11] The reason for this was that there did not appear to be a

[11] See section 2.3.6.2 in Annex 1 to NPT’s decision of 8 May 2007.

sufficient degree of substitutability between voice call and SMS termination on mobile networks. For a rate increase for voice call termination to result in customers opting to send text messages to this network rather than to call, several assumptions needed to be met. A higher termination charge would have to result in higher retail prices (for origination), the end users would have to have knowledge of what network he should call and what it costs and it would have to be possible to replace the call with a text message. NPT believed that it is not necessarily the case in practice that the increase in the termination charge results in a higher retail price, and the majority of end users do not have an overview of which network a call is terminated on or of the costs connected with this.

37. Furthermore, NPT did not find that SMS could be included in the call termination market in view of common price calculations, either. The Authority has not found conditions to justify amending the conclusion that SMS is not included in the relevant market.

38. NPT further found that voice call termination on 2G networks, 3G networks and virtual mobile networks should be included in the product markets.[12] The reason for this was that from the point of view of technology, 2G and 3G networks are integrated networks, on the whole. The end users do not notice if the call is terminated on a 2G or 3G network, and the termination charges are expected to be identical regardless of technology. With regard to termination on virtual mobile networks, NPT argued that such networks act as “real” mobile network in relation to purchasing termination. Market characteristics like a 100% market share on their own network just like ordinary mobile networks apply here too. 3G networks and virtual mobile networks were also not then and nor are they now explicitly discussed in the Recommendation. For the record, NPT points out that the inclusion of termination with MVNOs (mobile virtual network operators) and on 3G networks involve a clarification and not an expansion of ESA’s market definition.

39. Several mobile operators have been assigned numbers in the 58x and 59x series. These number series are reserved for machine-to-machine (M2M) communication and are to be used by automated or semi-automated, primarily mobile network-based, communication services for voice or data traffic. These are services, such as transmitting inventory data, automatic reading of electric meters, cabin heating systems, vehicle fleet management and emergency calls from vehicles. The 58x number series is 12 digit and 59x is 8 digit. Both number series have been adopted for M2M to relieve the ordinary number series for mobile communication (4x and 9x). Both the 4x and 9x series are also used for M2M communication. From 1 July 2010 it will not be permitted to produce new SIM cards for M2M in the 4x and 9x series. However, it will still be possible to use these series for existing M2M applications.

40. Even thought voice calls are not expected to account for a large share to M2M traffic, such applications cannot be ruled out. There is no distinction in the numbering plan between M2M applications with and without voice. Nor is there any distinction within the 4x and 9x series between ordinary mobile subscriptions (with voice) and M2M subscriptions (with or without voice). This suggests that traffic for M2M subscriptions should be included in the markets. Such a conclusion will also be in keeping with the inclusion of fax traffic in the voice call termination markets on fixed

[12] See section 2.3.6.3 in Annex 1 to NPT’s decision of 8 May 2007.

networks, see sections 3.2 and 3.6 in NPT's market analysis of 24 March 2006 in the former markets 8-10.

41. There is presumably little demand-side substitutability between ordinary voice services and M2M communication. On the supply side the picture is a different one. As NPT sees it, providers of voice termination services on mobile networks will be able to fully offer termination to SIM cards used in M2M communication without substantial adjustment costs. For that reason, NPT has concluded that time-metered traffic to mobile-based M2M subscribers in the 4x, 58x, 59x and 9x series is included in the markets for voice call termination on mobile networks.

42. Both Telenor and NetCom will presumably roll out LTE networks on a greater scale during the time horizon of the analysis. NPT assumes that IP-based LTE networks will initially be used for data traffic. However, NPT is aware of work on development of various technologies for also providing voice over LTE networks. In principle, the voice call termination market is technologically neutral, but if the technology used has significance for the product's functionality, quality or price, this may be important for the market definition. Whether voice call termination on LTE networks is also to be included in the relevant market will therefore have to be decided on the basis of a more specific assessment than there is a basis for today. NPT will return to this assessment if there should be a need for this within the time horizon of the analysis.

43. With regard to termination on mobile providers' voice mail services, NPT concluded in the analysis of 8 May 2007 that these voice mail services are an integral part of the mobile subscription and that for practical reasons it is not possible to separate this service from it. NPT has found no circumstances warranting changing this conclusion.

44. In view of this, NPT believes that the relevant product markets in Norway shall still be defined as voice call termination on individual mobile networks, in accordance with the definition of market 7 in the Recommendation. No sufficient substitution possibilities exist, on either the demand or supply sides, that make it relevant to broaden the product markets.

2.2.3 Definition of the Norwegian geographic markets

45. In the three previous market analyses of voice call termination on mobile networks NPT concluded that the geographic market is to be defined nationally and to the extent of each individual undertaking's network.

46. Defining the product markets as termination on individual mobile networks functions inherently as a geographic definition. In NPT's view, geographic market definition should be based on the area where the undertakings in question control termination charges and where market conditions are sufficiently homogeneous. Mobile networks used for termination are geographically limited to Norway. Moreover, the geographic scope of the Electronic Communications Act is limited to Norway.

47. Pursuant to Section 1-3 of the Electronic Communications Act, cf. Regulation No. 882 of 4 July 2003, the Electronic Communications Act applies to Svalbard, Jan Mayen, the dependencies and Antarctica. However, as far as Svalbard is concerned, exemptions have been made for Chap. 3 (significant market power), Chap. 4 (access) and section 9-3 (consultation procedure). However, electronic communications on Jan

Mayen, the dependencies and Antarctica are assumed to have very little significance for the market analyses NPT carries out pursuant to the Electronic Communications Act.

48. As mentioned in section 2.1.2, according to ERG CP, among other things a hypothetical monopolist test should be performed to ascertain whether a more detailed geographic analysis for the market definition is needed. The relevant question is then whether a marginal, but non-transitory increase in price (5-10%) in an area means that a sufficient number of end users will move to a different area or whether providers from other areas will start to offer the product in the relevant area in response to the price increase, so that it would not be profitable. Since the termination charges for mobile telephony are the same throughout the country and, mobile customers naturally move around, dividing the relevant market into several market segments cannot be justified. As mentioned above, the CPP principle also means that undertakings' end users have little incentive to influence the price by moving in the event of a marginal, but non-transitory increase in price.

49. Market and competitive conditions must be characterised as homogeneous throughout the country. Both Telenor's and NetCom's networks cover virtually the entire country. Undertakings with national roaming or MVNO access agreements achieve similar coverage through their agreements. Thus, all providers of termination services offer termination in practically all of Norway.

50. Nor, with regard to the quality of the call termination product, is it possible to separate undertakings or areas from one another. Furthermore, the charges for termination on mobile networks are, as mentioned above, are also equally independent of where in the country the subscriber happens to be.

51. In NPT's opinion, different competitive conditions do not exist in stable and clearly defined parts of the country to indicate that a geographic division of the market is necessary. For this reason, NPT believes that further analysis of the question of whether the market shall be divided geographically is unnecessary, and a national approach to market definition and analysis is well documented.

52. Thus, NPT believes that the geographic market for voice call termination on mobile networks shall continue to be defined as the individual mobile networks' respective footprints in Norway, including coverage achieved national roaming or MVNO access agreements. Norway means mainland Norway/Norwegian land territory, cf. the clarification above.

2.2.4 Overview of operators

53. Mobile providers that technically and financially control access to terminate voice telephony with end users are relevant undertakings in the relevant market.

54. In all nearly 5.1 billion minutes (excluding internal traffic) were terminated on Norwegian mobile networks during 2008.[13] Corresponding figures for 2009 were approx. 5.44 billion minutes. Figure 1 below shows the breakdown of terminated call minutes among undertakings that control termination based on the figures for 2009. Undertakings with less than 1% terminated traffic are not included in the figure.

[13] The figures include termination of calls originated on Norwegian fixed networks, originated on Norwegian mobile networks (excl. internal traffic) and calls originated abroad.

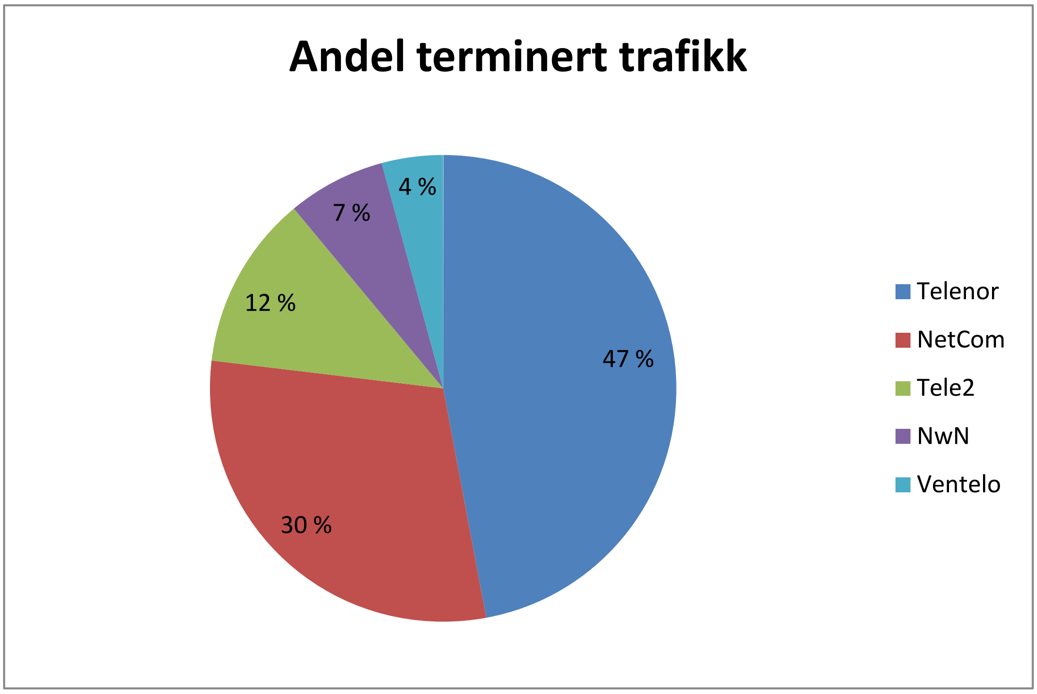

Figure 1: Market actors' share of the total number mobile-terminated minutes. Operators with less than 1% market share are not included in the figure.
Source: Ecom statistics collected by NPT for 2009.

55. For 2008, revenue from voice call termination on mobile networks account for a total of NOK 3.7 billion, and for 2009, NOK 3.6 billion. The figure below shows the breakdown of termination revenue among undertakings. Undertakings with less than 1% of total termination revenue are not shown in the figure.

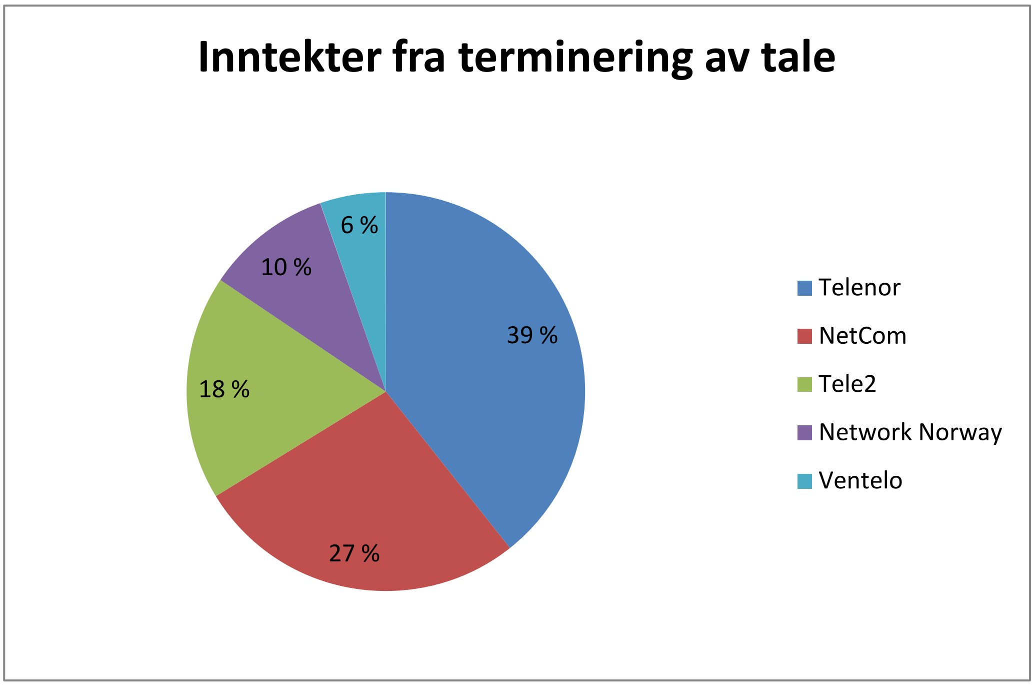

Figure 2: Market actors' share of total revenue from voice call termination on mobile networks. Operators with less than 1% revenues share are not included in the figure.
Source: Ecom statistics collected by NPT for 2009.

56. In Norway there are three mobile providers with both radio and core networks: Telenor, NetCom[14] and Network Norway. Telenor and NetCom have GSM networks (GSM 900/1800) covering virtually all of Norway. Both undertakings also have UMTS networks on which they provide both voice and data traffic. In 2009 around 47% of all traffic to mobile network terminated on Telenor’s network. The corresponding figure for NetCom was 30%. Since the aforementioned undertakings have the lowest termination charges in the market, their share of revenue from voice call termination is proportionally lower than the volume. In 2009 Telenor received around 39% of the revenues from termination, while the corresponding share for NetCom was around 27%.

57. When Network Norway took over Norway’s third GSM licence in 2005, it began to roll out a mobile network. The company entered into an agreement on national roaming with NetCom and launched commercial services in February 2007. In September 2007 it was announced that Tele2 and Network Norway wanted to build mobile networks together through the network company AMI. The company later changed its name to Mobile Norway. The new network company was awarded Norway’s fourth 3G licence in the 2100 MHz band in December 2007.

58. In April 2008 Network Norway entered into a new agreement on national roaming with Telenor and terminated the agreement with NetCom at the same time. The agreement gave Network Norway the opportunity to use Telenor’s GSM and UMTS networks. The company’s customer base has grown quickly, including through the acquisition of service providers Lebara and OneCall in 2008. In 2009, 7% of total traffic to mobile networks terminated on Network Norway’s network. Since the company has far higher termination charges than the established network owners (Telenor and NetCom), the company received just over 10% of total revenue from termination.

59. In addition to network owners, there are four MVNOs that also provide termination. Tele2, TDC[15] and Ventelo have their own core networks, switching networks and related support systems, as well as their own mobile network codes (MNC). However, undertakings with MVNO agreements do not have their own spectrum resources or radio networks but enter into agreements with undertakings that own their own networks for access to the radio portion of these networks. An MVNO will conclude separate interconnection agreements with other undertakings in the same manner as ordinary mobile providers, thereby controlling the right to terminate voice telephony with their end users.

60. Tele2 began to provide mobile telephony based on an MVNO agreement, including termination on its virtual network, on 1 December 2003. The share of traffic to mobile networks that terminated on Tele2’s network totalled about 12% for 2009 measured in the number of minutes. However, the company’s share of the revenues amounted to around 18%.

[14] NetCom as is a wholly owned subsidiary of TeliaSonera AB (TeliaSonera). However, since this market analysis deals with markets related to mobile operations in Norway, in what follows it will be referred to as “NetCom”.

[15] In 2007 the company changed its name from TDC Song AS to TDC AS.

61. In the autumn of 2005 TDC and Ventelo also signed MVNO agreements with Telenor. TDC terminated under 1% of total traffic to mobile networks. Similarly, their share of revenues from voice call termination also came to less than 1%. The share of traffic to mobile networks that terminated on Ventelo's network totalled approx. 4% in 2009. The company's share of the revenues amounted to around 6% in the same period.

62. Nordisk Mobiltelefon currently provides mobile data communications (mobile broadband) based on rolling out its own network using CDMA technology under the name/brand Ice.net. For now the company does not provide voice telephony and thus not voice call termination on its own mobile network, either. Nordisk Mobiltelefon and its current operations thus fall outside the relevant market in this analysis.

63. In addition, there are around 20 other undertakings in the Norwegian mobile market. These undertakings have entered into service provider agreements with one of the network owners that gives them a non-exclusive right to offer, market and deliver services through prepaid cards or subscriptions to end users. The end user has exclusively a contractual relationship to the service provider. All traffic is routed according to the network operator's interconnection agreements and roaming agreements with others. The service providers thus do not control voice call termination and are thus omitted from further analysis.

2.2.5 Conclusion of market definition

64. In NPT's opinion the relevant markets covers the following:

- Voice call termination on Telenor's mobile network.
- Voice call termination on NetCom's mobile network.
- Voice call termination on Network Norway's mobile network.
- Voice call termination on Tele2's mobile network.
- Voice call termination on Ventelo's mobile network.
- Voice call termination on TDC's mobile network.

65. The individual market covers voice call termination on both GSM and UMTS networks. Furthermore, the markets include termination on voice mail services. Time-metered traffic to mobile-based M2M subscriptions in the 4x, 58x, 59x and 9x number series are included in the market.

3 Analysis of the markets

3.1 General – significant market power

66. According to paragraph 76 of the Guidelines, the assessments underlying a designation of having significant market power shall be based on a forward-looking market analysis that begins with existing market conditions.

67. NPT emphasises that the relevant subject of assessment is the existence of significant market power and not anti-competitive abuse of market dominance. For the assessment of significant market power it is thus not crucial whether any market

power/dominance is actually abused or not. However, it does not mean that a provider's behaviour in the market is irrelevant to the assessment of significant market power. Even if structural factors are accorded the greatest weight in the assessment, behaviour that helps to create or maintain competitive advantages may bolster the conclusion of significant market power.

68. The analysis of significant market power is based on the Guidelines and NPT's methodology. The undertakings' *market share* forms the basis of the analysis. Then *prices and price developments, entry barriers* and *potential competition* as well as *market power* or *countervailing buying power* are assessed. In NPT's view, the remaining criteria from the Guidelines provide little or no information that is essential for the assessment of significant market power in the relevant termination markets. For that reason they will not be subject to further discussion.

69. Significant market power can be attained by one undertaking alone (single dominance) or together with others (collective dominance). However, for the markets concerned, the issue of collective dominance is irrelevant, since there is only one undertaking in each market.

3.2 Market share

70. Assessing market share is a natural starting point for analyses of significant market power, cf. paragraph 76 of the Guidelines. In the Guidelines ESA points out that the Commission assumes that single dominance will normally be found at providers with more than a 40% market share. ESA furthermore writes:

> *"According to established case-law, very large market shares - in excess of 50 % - are in themselves, save in exceptional circumstances, evidence of the existence of a dominant position. An undertaking with a large market share may be presumed to have SMP, that is to be in a dominant position, if its market share has remained stable over time.*

71. Market share may be measured by revenue, volume or number of customers. The characteristics of the relevant market will determine the choice of criteria for measuring market share, cf. paragraphs 77 and 78 of the Guidelines.

72. For the markets for call termination on individual mobile networks, it follows from the market definition that there is only one undertaking in each market. Thus, regardless of the criteria used for measuring market share, each mobile provider has a 100% market share in its respective market. Telenor, NetCom, Tele2, Network Norway, TDC and Ventelo are accordingly all monopolists with regard to call termination on their own networks.

73. The companies' market shares in the relevant markets are thus far higher than the thresholds specified by the ESA and the Commission for there to be a presumption that the undertakings have significant market power.

74. However, market share cannot be the sole evidence for significant market power, but must be viewed in context with the other relevant assessment criteria, cf. paragraph 79 of the Guidelines.

3.3 Prices and price developments

75. Price levels and price developments over time may often indicate something about the degree of competition in a market, possibly the degree of potential competition, and can thereby provide an indication of whether a provider has market power. However, in the markets for call termination on mobile networks, it follows from the definition that each market consists solely of a single undertaking. Since each individual undertaking does not have competitors in their market, there is by definition no price competition in this market.

76. An assessment of prices and price developments may nevertheless provide useful information in an evaluation of market conditions. The figure shows termination charges from 1 January 2007 up to and including the rate reductions implemented on 1 July 2010 pursuant to NPT's decision of 17 November 2008 and the Ministry of Transport and Communications' decision of 19 May 2009.

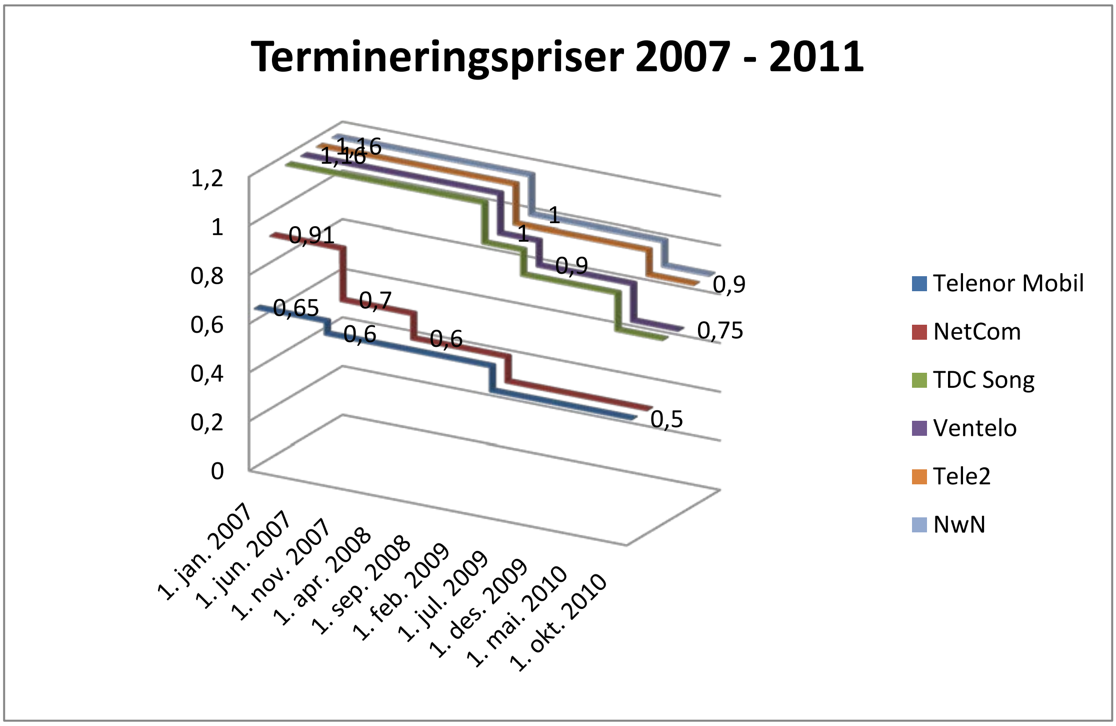

Figure 3: Price developments for mobile termination charges from 1 January to 1 October 2011. The rates are per minute when any call set-up charges are included.

77. Telenor's and NetCom's termination charges have been regulated during the entire period in question. This makes the criterion of prices and price developments not particularly relevant for the assessment of these undertakings' market power. Tele2's termination charges were not subject to price controls until in its decision of 13 February 2008, the Ministry of Transport and Communications determined that Tele2 should not be permitted to raise its termination charges in the period up until NPT issued a new decision on termination on Tele2's network. At the time Tele2 had a termination charge of NOK 1.155, which it kept until a new price cap entered into force on 1 February 2009. The rate was then reduced to NOK 1.00. The most recent rate cut for Tele2 took place on 1 July 2010, when its rate was reduced to NOK 0.90.

78. An obligation of a reasonable price was imposed on TDC on 8 May 2007. At the time the company had a termination charge of NOK 1.155, which they kept until NPT

clarified “reasonable price” in the decision of 17 November 2008. On 1 February 2009 TDC reduced its termination charge to NOK 1.00 and then down to NOK 0.90 on 1 July 2009 in line with NPT’s decision. The most recent rate cut for TDC took place on 1 July 2010, when its rate was reduced to NOK 0.75.

79. Network Norway and Ventelo were not subject to price controls until the decision of 17 November 2008. Up until that decision, both undertakings had a termination charge of NOK 1.155. In the Ministry of Transport and Communications’ decision Ventelo was ordered to follow the same gradual reduction plan as TDC, whereas Network Norway was supposed to reduce its charges in step with Tele2.

80. Thus neither Tele2, Network Norway nor the aforementioned MVNOs have chosen to follow Telenor and NetCom’s gradual reduction of termination charges. Such a pricing strategy would not be possible over time in a market with competition. If there were competition in providing a commodity like termination, the undertakings would have to be at virtually the same price level to be able to sell their product. The price developments appearing in the figure above thus indicate that the markets for termination are separate markets where the undertakings do not face competition.

3.4 Entry barriers and potential competition

81. Potential competition from new operators will normally affect a dominant operator’s behaviour in the market, including price setting. Various forms of entry barriers may, however, weaken or remove the basis for potential competition.[16]

82. The relevant markets are defined as voice call termination in the individual undertakings’ physical or virtual mobile networks. Given the current state of technology it is not possible for parties other than the undertaking controlling this mobile network to provide termination to its own customers on the network in question. For that reason, within the time horizon of the analysis of two to three years it appears to be impossible for other undertakings to enter the respective termination markets. In such a market, entry barriers will thus be absolute, and there is no potential competition. Therefore NPT does not find it necessary to carry out a more detailed assessment of entry barriers like sunk costs and economies of scale.

83. In addition, the calling party pays principle[17] (CPP) will in practice reduce the importance of competition in the termination market. This principle enables the operator with high termination charges to subsidise its own customers’ calls with revenues from termination. Thus, the end users of the operator with the high termination charge will not have an incentive to change provider.

84. Absolute entry barriers, and thus the absence of potential competition within the time horizon of the analysis, indicate that Telenor, NetCom, Tele2, Network Norway, Ventelo and TDC continue to have significant market power in the voice call termination markets on their respective mobile networks.

[16] In paragraph 81 of the Guidelines, ESA writes the following about entry barriers: “In fact, the absence of barriers to entry deters, in principle, independent anti-competitive behaviour by an undertaking with a significant market share.”

[17] The calling party pays principle entails that the subscriber placing the call also pays for it.

3.5 Buyer power/countervailing buying power[18]

3.5.1 Buyer power in an SMP assessment in general

85. The markets for voice call termination on individual mobile networks are characterised by the undertakings having a 100% market share, absence of competitors and no potential competition. For that reason there is a strong presumption that undertakings in these markets can behave independently of competitors, competitors and consumers, cf. section 3-1 of the Electronic Communications Act. Buyer power[19] is a factor that may indicate that contrary to expectations providers of termination services on mobile network do not actually *have* significant market power.

86. In the comments on the Commission's Recommendation[20] it states:

> *"A market definition for call termination on each mobile network would imply that currently each mobile network operator is a single supplier on each market. However, whether every operator then has market power still depends on whether there is any countervailing buying power, which would render any non-transitory price increase un-profitable."*

87. In line with NPT's decision of 17 November 2008, NPT assumes that buyer power exists when a defined buyer or group of buyers is important enough to the sellers as to be able to influence the price the seller charge for the good or service. Thus, exercising buyer power in the individual markets for voice call termination on mobile networks will mean that buyers of termination are able to have an impact on the monopolists' determination of their own termination charges.

88. However, in assessing buyer power in connection with significant market power it is not enough to ascertain that undertakings that demand the termination service potentially have some buyer power or that the undertaking has actually exercised buyer power. The question here is whether the seller of termination is subjected to buyer power to a degree whereby the buyer power justifies abandoning the presumption that he is able to behave independently of competitors, customers and consumers. In what follows, the issue is discussed as a matter of whether the buyer power is sufficiently effective.

89. Buyer power is deemed to be sufficiently effective if it is able to generate virtually the same outcome that could be expected in a market characterised by competition. This means, among other things, that the operator is prevented from having termination charges substantially higher than the price that could be expected in a competitive market. Providers of termination services are in a reciprocal relationship in that they act as buyers and sellers of termination in one another's networks. Profits from the call termination product will thus depend on the difference between revenue from termination on the operator's own network and expenses for termination on other operators' networks. For that reason, a reduction of termination charges by one seller of termination may provide a reason for the buyers of

[18] The criterion corresponds to the criterion "absence of or low countervailing buying power" in paragraph 79 of the Guidelines.
[19] In what follows the terms "countervailing buying power" and "buyer power" are used interchangeably without any intended difference in meaning.
[20] Cf. Explanatory Note, page 44.

termination to reduce their own termination charges. Both termination charges above the price that would be attained in a functioning market and the lack of such a reduction in the cost level[21] leading to undertakings cutting their termination charges may thus be an indication of insufficiently effective buyer power

90. Buyer power is not an absolute concept, but refers to the relative strength a buyer has in bargaining with a seller for a given good or service. The degree of buyer power thus vary according to the particular constellation of buyers and sellers.

91. In the following, NPT will examine whether the undertakings covered by the analysis are subjected to buyer power to such a degree that they cannot be deemed to have significant market power in their own termination markets. Some factors generally serve to reduce the ability to exercise buyer power in the markets for voice call termination on mobile networks. These factors are discussed in section 3.5.2. Then NPT will assess whether there are indications that any of the companies covered by this analysis are being subjected to buyer power that can change the presumption that the undertakings have significant market power.

92. The analysis of buyer power is based on what is called a "modified greenfield approach[22]".

3.5.2 Factors of general importance for exercising buyer power in the relevant market

93. Factors of general importance for the ability to exercise buyer power in the individual termination markets include:

- If the buyer is able to cover his needs in a way other than by buying from the seller, including the possibility of reducing or refraining from purchasing.
- The regulatory context in which any buyer power is exercised, including any specific obligations, as well as the parties' expectations of the outcome of referring to NPT any dispute on the signing or implementation of interconnection agreements.

94. In many cases, the threat of switching supplier or producing a service internally may form the basis for exercising buyer power. However, in the individual markets for voice call termination on mobile networks the seller of the termination service has a monopoly on terminating calls to his own end users. For that reason, a potential buyer of termination in a given mobile network will lack alternatives to enabling his end users to call end users on the seller's mobile network. The lack of alternatives is a factor that severely weakens the ability to exercise buyer power vis-à-vis sellers of termination on mobile networks.

95. The ability to refrain from buying will often be a strong bargaining chip. Pursuant to section 4-2 second paragraph of the Electronic Communications Act, NPT may direct undertakings to conclude interconnection agreements. This provision authorises ordering termination on another undertaking's mobile network when this is

[21] Cost level refers to the unit price the seller of termination pays for terminating on other undertakings' networks.

[22] A "modified greenfield approach" means that the market is assessed on an assumption that the relevant market is subjected to *ex ante* regulation, but where regulation in adjacent markets is taken into account nonetheless.

necessary to ensure end-to-end connectivity. The provision is known to the relevant operators in the market, and NPT has traditionally attached great importance to ensuring end-to-end connectivity. These factors serve to attenuate the threat of not buying and thereby exercising buyer power.

96. If a potential buyer of termination completely refrains from buying termination from one or more sellers of termination on mobile networks, this will mean that the companies' own end users will are no longer able to reach the end users on the network that has not purchased termination. In that case, the party refraining from buying termination will risk that his own end users will chose a provider that does not have a similar limitation on its service. The potential for losing end users, and thus market share and competitiveness, is another factor that weakens the ability to exercise buyer power by threats not to buy. However, the commercial importance of such assessments must also be viewed in the context of the number of end users with the seller of termination. This aspect will be considered in section 3.5.3.

97. The buyer's threat to reduce his purchasing can also potentially represent a strong bargaining chip. However, the demand for purchasing call termination products at the wholesale level derives directly from the end users' demand for termination. In this way, a purchase of termination may be viewed as a tied purchase. In view of the undertakings' commercial interest in providing end-to-end connectivity, NPT believes that the undertakings' ability to directly limit their purchases of termination on a given network will be a feeble basis for exercising buyer power.

98. The providers of termination are in a mutually dependent relationship since in principle all providers are forced to purchase termination on one another's networks. To the extent termination charges had been set on the basis of commercial agreements between operators, it may be claimed that all providers of termination services will be able to exercise a degree of buyer power vis-à-vis one another. In that case, a provider could reflect the seller's termination charge in the price the seller himself would have to pay for termination on the buyer's network.

99. However, all providers of termination services on mobile network are subject to a price cap. Providers of termination services on fixed networks too are subject to price controls. The price cap is meant as a barrier to exercising buyer power in that an undertaking who wishes to reflect the seller's termination charge in his own termination charge will have to do this under the price cap. Evidence suggests that providers of termination services set their termination charges equal to the price cap. Thus, in practice, an undertaking's ability to exercise buyer power by threats to raise its own charges will not be an option it will actually use.

100. Pursuant to section 4-2 first paragraph of the Electronic Communications Act, providers of access to electronic communications networks and services have the right and obligation to negotiate with other providers for interconnection, including buying and selling termination. If the parties do not reach an agreement, either party may refer the conflict to NPT for mediation, cf. section 11-1 of the Electronic Communications Act. The parties may also being a dispute over rights and obligations in accordance with individual decisions issued under the authority of or pursuant to the Electronic Communications Act before NPT for a decision, cf. section 11-2 of the Electronic Communications Act.

101. If the parties can have a reasonable expectation of the outcome of referring a conflict over the setting of termination charges to NPT, this expectation may form the basis for exercising buyer power. As mentioned above, NPT has previously attached

decisive importance to maintaining end-to-end connectivity. In view of this, NPT believes that the operators can largely expect that NPT will give priority to guaranteeing end-to-end connectivity as quickly as possible. Moreover, on a more general basis the outcome of such a process will have to be regarded as uncertain. Thus, NPT believes that the ability to bring a dispute on the setting of termination charges to mediation or a decision by NPT is little suited to strengthening the originating party's buyer power.

102. **In summary,** NPT believes that the above discussion shows that several factors weaken the ability to exercise buyer power in negotiations to purchase termination on mobile networks. The possibility of exercising buyer power vis-à-vis sellers of termination on mobile networks is thus very slim. NPT will now discuss whether there are factors that on an individual basis indicate that the companies covered by the analysis are subjected to buyer power that is sufficient to change the presumption that the undertakings can behave independently of the market.

3.5.3 NPT's assessment of whether the specific undertakings are subjected to buyer power

103. In addition to the factors mentioned in the previous section, buyer power may be exercised on the basis of:

- The buyer's importance to the seller by virtue of the buyer's volume of purchases.
- Whether the buyer can offer something of interest to the seller, such a access to other markets.

104. The buyers of voice call termination on mobile networks consist of other fixed network providers and mobile providers. The biggest buyers in Norway are, in descending order, Telenor's mobile business, Telenor's fixed-line business and NetCom. In addition to buying termination for its own mobile and fixed-network customers, Telenor acts as a transit provider for other mobile and fixed-network operators.

105. Negotiations on interconnection ordinarily take place bilaterally between undertakings. In view of Telenor's and NetCom's roles as the biggest buyers of termination on Norwegian mobile networks, NPT finds that these companies are most able to exercise buyer power. The fact that Telenor and NetCom produce services that are necessary for the other undertakings to be able to produce their services is assumed to pull in the same direction.

106. For that reason, the assessments in this section will largely start with Telenor's and NetCom's ability to exercise buyer power. To the extent that the analysis shows that these companies will not be capable of disciplining the analysed undertakings' termination charges, it will not be assumed either that the other buyers of termination will be capable of exercising buyer that justifies abandoning the presumption that the companies have significant market power.

107. The termination charges of all undertakings covered by the analysis are subject to price controls in the form of a price cap. As part of its assessment of buyer power, NPT will choose what is called a "modified greenfield approach", namely disregarding the obligations in the market that is the subject of a market analysis. This means that in its assessment of buyer power NPT primarily needs to look at how the companies set their termination charges before they became subject to a price cap. At

the same time, the price caps will not prevent any buyer power from driving prices down further. For that reason it is also relevant to examine the undertakings' behaviour after a price cap was imposed.

3.5.3.1 Assessment of whether Telenor is subjected to sufficient buyer power

108. Telenor is the largest provider of mobile termination in Norway. Around 47% of all traffic to mobile networks terminated on Telenor's network in 2009, cf. section 2.2.4. The biggest buyers of termination services from Telenor are the company's fixed line business and NetCom. The assumption is that the Telenor Group has incentives to ensure the greatest possible profitability for the operation as such, which is why the fixed network business will not exercise substantial pressure against the setting of termination charges for calls to Telenor's mobile network.

109. In NPT's opinion it does not appear that NetCom or other buyers of termination have anything to offer Telenor that is so attractive as to be able to discipline Telenor's pricing. Furthermore, NPT cannot see that there is empirical evidence that NetCom is capable of subjecting Telenor to buyer power that is sufficiently effective to change the presumption that Telenor has significant market power. Telenor has been subject to price cap since 2005 and has for the entire time operated with a termination charge that was identical to the price cap set at the time in question.

3.5.3.2 Assessment of whether NetCom is subjected to sufficient buyer power

110. NetCom is the second-largest provider of mobile termination in Norway. Around 30% of all mobile-terminated traffic terminated on NetCom's network in 2009, cf. section 2.2.4. In view of NetCom's role as the next biggest seller of termination on mobile networks, NetCom's termination charge will be very important to Telenor, for example. Thus it may be assumed that as the largest buyer of NetCom's call termination product, Telenor will have an incentive to exercise any buyer power vis-à-vis NetCom. However, NPT cannot see that there is empirical evidence for concluding that Telenor's bargaining power has had such a disciplinary effect on NetCom's termination charge that it justified abandoning the presumption that NetCom has significant market power. Like Telenor, NetCom has been subject to a price cap since 2005. During the entire time, NetCom has also operated with a termination charge that was identical to the price cap set at the time in question, which also meant that until 1 July 2008, NetCom has had higher termination charges than Telenor.

3.5.3.3 Assessment of whether Tele2 is subjected to sufficient buyer power

111. Measured in the number of minutes, around 12% of all mobile-terminated traffic in 2009 terminated on Tele2's network. However, based on revenues, Tele2's share was 18%. The relatively high costs Telenor and NetCom have from terminating on Tele2's network bolster these companies' incentives to attempt to exercise buyer power vis-à-vis Tele2. Even so, NPT has not found empirical evidence that Telenor and NetCom have actually succeeded in exercising buyer power that has forced Tele2 to reduce its termination charges.

112. Tele2 buys MVNO access on NetCom's mobile network. NetCom's position as seller of access may boost the company's ability to exercise buyer power vis-à-vis Tele2. However, NPT has no indication that Tele2 is subjected to buyer power from NetCom to any particular extent.

113. Since Tele2 launched services as an MVNO on 1 December 2003, the company's termination charge has been among the highest in the Norwegian mobile market. The rate remained at the same level until NPT ordered to company to reduce its termination charges from 1 February 2009. The fact that the company did not cut its termination charges as the other major operators' rates that were reduced under price caps indicates that the company has not been subjected to sufficient buyer power. Despite the fact that Tele2's price cap has been substantially higher than those Telenor and NetCom, the company has operated with a termination charge equal to the price cap set at any given time. In NPT's view, this is also an indication that the Tele2 has market power in its own termination market. NPT is thus unable to see weighty arguments for Tele2 being subjected to bargaining power in negotiations on interconnection to a degree that may indicate that the company would not have significant market power in the market for call termination market on its own network.

3.5.3.4 Assessment of whether Network Norway, Ventelo and TDC are subjected to sufficient buyer power

114. Network Norway and Ventelo terminated 7% and 4%, respectively, of all mobile-terminated traffic on their networks in 2009. The corresponding figure for TDC was under 1%. However, Network Norway's share based on revenues was 10%. Thus, like Tele2, Network Norway has a substantially higher share based on revenue than on call minutes. All of these companies buy access from Telenor. Network Norway uses national roaming, whereas the others purchase MVNO access.

115. Normally it can be expected that smaller undertakings will be more vulnerable to pressure in negotiations than larger operators. However, the minor operators' relatively low traffic volume means that the charges that the minor operators set have a relatively small impact on the larger operators' interconnection costs, and may pull in the opposite directions. Thus it may be assumed that Telenor's incentive to exercise buyer power is greater vis-à-vis Network Norway, but that its ability to exercise buyer power is greater vis-à-vis Ventelo and TDC.

116. Before the companies' termination charges were capped, Network Norway, Ventelo and TDC all set their termination charges at a level that was substantially higher than Telenor's and NetCom's. NPT believes that the price level was also substantially above the rates the undertakings could expect to attain in a market with functioning competition. None of these undertakings reduced their termination charges when Telenor and NetCom implemented rate reductions imposed on them on 1 October 2007 and 1 July 2008 (rate reduction for NetCom only). In NPT's opinion, these factors indicate that the buyer power the companies are subjected to has an insufficiently disciplinary effect on these undertakings' setting of their own termination charges.

117. Even so, NPT expects that Telenor will have a certain ability to achieve lower rates by using its bargaining chip with minor operators such as Ventelo and TDC. The reason is that through their MVNO agreements these companies are in a certain dependency relationship to Telenor on account of their need for favourable access prices. On the other hand, these operators are able to seek to conclude MVNO agreements with NetCom. However, such a switch will entail transaction costs and a potential for the loss of customers, which weakens this alternative in a negotiation situation.

118. Exempt from public disclosure[23] [[redacted]]

119. Even if Telenor's mobile business could actually successfully negotiate a lower termination charge, it does not necessary imply that other operators that depend on buying termination can achieve the same result. Before the aforementioned operators came under a price cap, they all charged the same rate for termination of other operators in the market, such as Telenor fixed-network and NetCom. These rates were substantially above those charged by Telenor and NetCom at the same point in time. The same is true after the price cap was imposed. Thus, it does not appear that any buyer power that Telenor may have in this area will benefit other buyers of termination. Such buyer power will hardly be able to push down an operator's rates across the board, only the rate that Telenor itself has to pay. In view of this, NPT believes that any buyer power Telenor may have is insufficient to abandon the presumption of significant market power in the individual termination markets of the companies in question.

3.5.4 Summary of buyer power

120. A lack of alternative providers and the ability to ensure end-to-end connectivity through interconnection obligations help to severely curtail opportunities to exercise buyer power vis-à-vis sellers of voice call termination on mobile networks.

121. NPT has not found evidence that Telenor and NetCom are subjected to buyer power in their respective termination markets.

122. There are signs that some of the smaller operators have been subjected to a certain degree of buyer power. However, NPT believes that none of the companies have been subjected to a degree of buyer power that would justify abandoning the presumption that the undertakings can behave independently of customers, competitors and consumers in the markets for voice call termination on their own mobile networks.

123. As accounted for above, the key question is whether the companies concerned are subjected to buyer power that can discipline the companies' termination charges to the level they could expect in a market characterised by competition. NPT believes that the rate levels at which the different companies have placed themselves, especially before they were subject to a price cap, but even after that, clearly show that this is not the case. On the contrary, in NPT's view the set price level shows that the undertakings have both the incentive and the ability to set rates that are higher than they could have done in a market with functioning competition.

124. Consequently, NPT's conclusion is that the buyer power the analysed undertakings are subjected to is not sufficiently effective to warrant abandoning the

[23] Exempt from public disclosure, cf. section 13 of the Freedom of Information Act, cf. section 13 first paragraph number 2 of the Public Administration Act.

presumption that the undertakings have significant market power in the markets for call termination on their own mobile networks.

3.6 Conclusion - single dominance

125. Telenor, NetCom, Network Norway, Tele2, Ventelo and TDC are each the only provider of voice termination services on their respective networks, which correspond to the relevant markets. Thus, they all have a 100% market share. The assessment of price developments for voice call termination in section 3.3 also shows that the undertakings do not have an incentive to voluntarily reduce their termination charges to a level corresponding to a market with competition. The entry barriers within the individual relevant markets are absolute, which is why there is no potential competition within the time horizon of the analysis. Therefore, in principle, all undertakings will be in the position of having significant market power. For this not to be the case, weighty factors must exist that have a disciplinary effect on the exercise of market power. These factors can primarily be assumed to relate to countervailing buying power.

126. Nor, as the discussion above makes clear, can NPT see that countervailing buying power will be able to sufficiently curtail the undertakings' exercising of buyer power for call termination on their own networks.

127. In view of this, NPT concludes that Telenor, NetCom, Network Norway, Tele2, Ventelo and TDC has significant market power in the respective markets for voice call termination on individual mobile networks.