



Nasjonal
kommunikasjons-
myndighet

14, Telenor ASA
Postboks 800
NO-1331 FORNEBU

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Draft decision - Updated price caps for copper-based services in Markets 3a and 3b

1 Introduction

On 20 December 2018, the Norwegian Communications Authority (Nkom) adopted a decision to designate a provider with significant market power and to impose specific obligations (Market Decisions) in the wholesale markets for local and centralised access to fixed access networks (Markets 3a and 3b). The market analysis that formed the basis for these decisions concluded that Telenor ASA (Telenor) has significant market power in Markets 3a and 3b. On the basis of identified competition problems, obligations were imposed on Telenor relating to access, price and accounting control, non-discrimination, transparency and accounting separation in these two wholesale markets.

Based on the identified competition problems, Nkom set price caps for access products in Telenor's copper network. Price caps were set for the 2019-2021 period.

At the end of January 2019, Telenor announced that it had decided that the copper network would be decommissioned by the end of 2022, and that broadband customers using the copper-based access network would be offered replacement products in the form of fibre-based or mobile-network-based broadband access. Telenor's decision to discontinue the copper network (decommissioning of the copper network) by the end of 2022 had not been communicated externally when Nkom made the decisions in Markets 3a and 3b on 20 December 2018.

In a decision from 2 September 2020¹, Nkom concluded that there was no basis for any conclusion that Telenor's significant market power in Markets 3a and 3b would lapse as a consequence of Telenor's decision on decommissioning of the copper network, and thereby no basis either for a renewed analysis of whether Telenor has significant market power. The decision entails that Telenor is required to maintain access to the copper-based access network for a period of up to five years from the entry into force of the decision.

Nkom has assessed the need to make new decisions relating to the price regulation of copper-based access for the period up to and including 2025.

On 4 March 2022, Nkom gave notice of new price caps for physical access to the copper-based access network and access to the sub-access line/SLU in Marked 3a and for ASDL, VDSL and SHDSL broadband access in Marked 3b. Telenor has submitted remarks to the notice, and GlobalConnect AS/HomeNet AS (GlobalConnect) and Telia Norge AS (Telia) have submitted remarks to Telenor's remarks to the notice.

2 Remarks to the notice

2.1 Updated price caps are based on an incorrect premise

Telenor made reference to Nkom having required Telenor to maintain the copper network for more than 2.5 years after the network will be emptied of Telenor's end-customers. This imposes costs on Telenor which are unlikely to be covered by the revenues from wholesale customers. It is particularly unreasonable that Telenor will have to cover costs for unused/abandoned copper infrastructure with no prospect of generating earnings. Telenor also noted that restricting the exemption related to the decommissioning of accesses in connection with circumstances beyond Telenor's control imposes additional operating and investment costs on Telenor. In Telenor's opinion, Nkom is making the assumption that the price level and price paths calculated in the LRIC model will continue to provide the modelled operator with cost coverage and a reasonable return. This assumption is flawed when given the realities of the use of the copper network since 2019.

GlobalConnect disagrees that Telenor has not received coverage for underlying costs for the copper accesses during the current regulatory period. The copper infrastructure has, for all practical purposes, been fully written down, and Telenor does not incur any fixed costs in connection with maintaining it. GlobalConnect also has difficulty seeing what relevant variable costs would make it unprofitable to provide access. Telenor does not carry out system

¹ https://www.nkom.no/ekom-markedet/markeder/marked-3a-og-3b-lokal-og-sentral-tilgang-til-faste-aksessnett/_attachment/download/9ab67684-1bda-4df8-a091-a6256cdd9b9b:56396f4462c29e322205578047504831d4a75c2d/Vedtak%20om%20endring%20av%20vedtakene%20i%20Marked%203a%20og%203b%20-%20Plikt%20til%20%C3%A5%20oppretholde%20tilgang.pdf

development or make changes to the network, and only conducts fault correction to a limited extent. The costs of operating existing support systems are marginal, and Telenor also does not incur any expenses for the operation or maintenance of passive copper accesses which are not in use. At the same time, Telenor receives revenues from the access seekers that are not insignificant.

Telia was taken aback by Telenor's argument that Nkom's price cap for copper from 2018 has not provided coverage for underlying costs during the regulatory period. For decades Telenor has enjoyed significant advantages and high earnings from the copper network. The fact that Telenor now also has to bear the majority of the cost of the final operational phase of the copper network, with fewer accesses and lower revenues, is by no means unreasonable. Telia notes that Telenor has argued that they will be forced to maintain the copper network for a period of 2.5 years after having emptied the network of their own customers. However, this is a result of Telenor's own choice and not something that concerns the access seekers.

Nkom's assessment

Telenor's decision to decommission the copper network has resulted in a different market development to that which was envisaged in the LRIC model from 2018. There has been a stronger decrease in the number of subscriptions on the copper network, while there has been a greater increase for fibre and later fixed wireless access (FWA). The model's calculations for determining the price caps for copper include the development in the demand for both copper and fibre. Given the decision to decommission the copper network, the actual development has resulted in a stronger decrease for copper and stronger growth for fibre than what was anticipated. However, the net effect of this is relatively limited, see Chapter 2.2 below.

Telenor itself made the decision to decommission the copper network without prior discussion with access seekers or Nkom, and Nkom is of the view that it is not reasonable to impose significantly higher costs on access seekers as a result of falling volumes during the decommissioning phase. Nkom would also make reference to our decision of 8 June 2023 in which Telenor was permitted to decommission empty exchanges, including exchanges with five or fewer active accesses if Telenor offers relevant replacement products.

2.2 New price caps based on a simple update of the LRIC model

Telenor agrees that a full update of the LRIC model would be complex and time-consuming, however it should be possible to take certain steps to make the result less erroneous as long as it is only a question of easily accessible input in the same model. Even if the calculation is not used to set the access prices, it may nevertheless serve as a starting point that can form the basis for constructive solutions that are palatable for all parties.

Telenor proposes calculating the access price based on updated demand in the access model, and where empty/abandoned and non-reusable infrastructure is removed from the cost base in

accordance with a template. In that case, Telenor must also be permitted to remove empty/abandoned infrastructure. Assuming that the price cap for Operator Access in Market 3a is adjusted by updating the access model, Telenor considers that the cost additions for Nkom's proposed price caps for the product variants of broadband access in Market 3b will be able to be applied.

Telia does not see any major problems in granting Telenor the opportunity to decommission parts of the copper network that are not in use in order to minimise construction work and power consumption.

Nkom's assessment

Telenor proposes updating demand by updating the development in the number of broadband subscriptions. The copper version of the model takes into consideration the development in Telenor's copper accesses (end-user and wholesaler), Telenor's fibre and the development of fibre for other operators, with the exception of Telia (Get). Demand based on cable TV networks is not included. A significant difference in the current market when compared to the period in which the model was developed is the importance of FWA.

Applying the model without making any change to the input will mean that it uses the original forecasts for demand. The model will then produce the following results for LLUB for the years 2023 - 2025:

- From 1 January 2023: NOK 81 per month
- From 1 January 2024: NOK 83 per month
- From 1 January 2025: NOK 85 per month

Based on Telenor's remarks, Nkom has reassessed the possibility of making a limited update to the LRIC model. Nkom has concluded that the access model will be updated with changes to the following elements, cf. Chapter 4.2 below:

- Demand
- Cost of capital (WACC)
- Inflation

After updating demand, cost of capital and inflation, the model provides the following results for LLUB for the years 2023 - 2025:

- From 1 January 2023: NOK 94 per month
- From 1 January 2024: NOK 98 per month
- From 1 January 2025: NOK 102 per month

For broadband access, Nkom will adjust the price caps in line with the changes in the price cap for LLUB.

Telenor also proposes that empty/abandoned and non-reusable infrastructure is removed from the cost base in the model in accordance with a template. Nkom considers such a change to be a significant change to the LRIC model that is complex and extensive. When considering the short remaining lifetime of the copper network, Nkom does not find this to be expedient at this stage.

With regard to the question of whether Telenor can be permitted to remove empty/abandoned infrastructure, Nkom makes reference to our decision of 8 June 2023 in which Telenor was permitted to decommission empty exchanges, as well as exchanges with five or fewer active accesses if Telenor offers relevant replacement products.

2.3 Updated price caps do not cover Telenor's costs

Telenor has used Nkom's LRIC model to make some general calculations of the access costs for copper accesses. The calculations show that the actual customer development has resulted in a significantly higher cost per copper access than the result of Nkom's predicted customer development. Telenor has therefore not achieved cost coverage in the years following the previous market decision, nor will Telenor achieve cost coverage in the future with the proposed price caps. Telenor's cost accounts for copper accesses in the years after 2018 also document that Nkom's stipulated price cap for copper accesses has not provided Telenor with coverage for underlying costs.

Telenor is also of the opinion that the LRIC model vAcc2.3 was not used to determine the price cap and price path in the 2018 decision, but rather a modified model that Telenor has not had access to. Telenor has asked Nkom to clarify what assumptions have been changed in Nkom's "internal" model, and that have resulted in a different LRIC cost to what was stated in LRIC model vAcc2.3. Telenor has further requested that Nkom's "internal" LRIC model be sent to Telenor.

In addition, Telenor made reference to Nkom's guidelines for the use of remedies, which state that cost orientation is the strictest form of price regulation that can be imposed. Correspondingly, both the Commission and BEREC recommend an LRIC-based approach for copper-based access in order to send correct buy/build signals to access seekers. Nkom's updated price caps mean that cost-driving regulation does not influence the access price and that Telenor alone has to subsidise a large part of the mandatory copper activities in the wholesale market. As such, this is a significantly stricter form of price regulation than cost orientation, and Telenor questions the legality of such a decision.

GlobalConnect is of the opinion that the conditions for imposing an adjusted price cap on Telenor pursuant to Section 4-9 of the Electronic Communications Act are satisfied. There is no doubt that the company can maintain a disproportionately high price level due to the absence of competition in a market. In practice, access seekers are forced to purchase access on the copper network from Telenor until the infrastructure is decommissioned. Telenor is vertically

integrated and has both the incentive and the opportunity to establish margin squeezes for other providers in the absence of a price cap.

GlobalConnect is also of the view that Nkom is not obligated to determine price regulation in the form of cost orientation calculated through an LRIC model. Section 4-9 of the Electronic Communications Act does not require the national regulatory authority to use a specific method for price regulation when the infrastructure is scheduled to be phased out. The Commission's recommendation concerning cost-oriented price regulation based on LRIC applies to situations in which the copper network is to remain. The purpose of this approach has been to provide the right investment incentives into the future. This consideration does not apply during the transitional period until infrastructure is decommissioned.

GlobalConnect supports the proposed regulation and is of the opinion that Nkom can and should adopt the notified, adjusted price caps.

Telia is of the view that Telenor's assertion that access seekers will now receive a heavily subsidised service and that this will reduce the access seekers' investments in high-speed broadband is erroneous. Telia is aware that the copper network will disappear in 2025 and is making significant investments in new technology. Telenor is required to maintain access until 2025 in order to give access seekers sufficient time and opportunity to migrate their customers over to new technology in a responsible manner. Telia also made note of the fact that the company has urged Telenor on several occasions to cease sales of new copper accesses, and to make this applicable for all access seekers and to Telenor itself. Due to the planned decommissioning of the copper network, greater operational instability and frequent disconnection warnings from Telenor, Telia purchases the least possible new copper accesses.

Telia supports Nkom's notified decision regarding updated price caps.

Nkom's assessment

In the 2018 decision, the price regulation of copper-based services was based on modelled costs from Nkom's LRIC models. This entails that the price caps that were determined for 2019 – 2021 in the 2018 decision provide Telenor with cost coverage based on the underlying principles. As stated in Chapter 2.2 above, Nkom has made a limited update of the LRIC model. The update produces model results that are slightly higher than the price caps Nkom had calculated in the notification of decision. With these updates, Nkom is of the view that the price caps that have been determined provide Telenor with cost coverage in accordance with the basic assumptions and principles in the LRIC model, and the updates took into account demand, cost of capital and inflation.

The version of the access model which Telenor has made reference to, i.e. vAcc2.3, is the public version of the model Nkom used when determining the price caps in the 2018 decisions. The public version differs from the non-public version in that some input data has been adjusted to prevent commercially sensitive information from becoming publicly available. The public

version is functionally identical and is not a modified version as Telenor claims. Similarly, there are also different public and non-public versions of the margin squeeze models that are used for VULA fibre and FWA.

With regard to the recommendations from the Commission and BEREC regarding the use of an LRIC-based approach to copper-based access in order to send the correct buy/build signals to access seekers, Nkom would note that this applies in a situation in which the copper network is expected to remain in place. In the present-day Norwegian reality, where the copper network will be removed within a relatively short period of time, there is nothing to indicate that relatively low prices for copper-based access have an adverse effect on investments in new infrastructure. The growth in fibre-based broadband and FWA in recent years confirms this, and operators that have largely relied on the use of the copper network have lost market share. The justification for the need to extend the lifetime of the copper network is that it is necessary for some customers and locations to spend more time on establishing replacement solutions. In a situation in which the copper network has a short lifetime, the price of access to copper will be of lesser importance, while the establishment of alternative solutions will become more important. Access prices for copper appear to be ineffective as a remedy for migrating customers over to new technology.

2.4 Price caps cannot be set lower than underlying production costs

Telenor is of the opinion that Nkom is neglecting the fact that the regulation related to maintaining access to the copper network has a genuine cost side. There is also no discussion that pricing copper-based access products far below actual costs also has effects other than simply the assumed positive predictability for access seekers. Telenor makes particular reference to the unfavourable signal that a heavily subsidised copper price would send for the development of modern solutions for high-speed broadband throughout the country. In connection with this, Telenor makes reference to a report prepared by Frontier Economics for the European Telecommunications Network Operators' Association (ETNO) in January 2022, and notes that Nkom's approach is far from what is recommended in the report.

Telenor also assumes that Nkom nevertheless does not intend to reject the principle that regulated access prices cannot be set lower than underlying production costs, as has been established in both Norwegian and European electronic communications legislation and practice.

Nkom's assessment

Nkom disagrees with Telenor that a relatively low price for access to the copper network would send unfavourable signals for the development of modern solutions for high-speed broadband. Nkom also considers the report from Frontier Economics to be of little relevance to the Norwegian market. The market conditions in Norway would indicate that copper prices have

very little effect on the incentives to invest in new infrastructure. We also refer to Nkom's assessments in Chapters 2.2 and 2.3 above relating to cost coverage.

Telenor itself made the decision to decommission the copper network without prior discussion with access seekers or Nkom, and Nkom is of the view that it is not reasonable to impose significantly higher costs on access seekers as a result of falling volumes during the decommissioning phase. The costs of decommissioning the network must be borne by Telenor itself.

The current price regulation has resulted in high and lasting investments in fibre networks in particular. A significant increase in the price cap for copper at this stage, which is very close to an end date, would not impact investments in NGA. On the other hand, this could contribute to a disproportionately high increase in costs for access seekers and their end-customers and thus weaken competitiveness for access seekers.

3 Current decision on price regulation for copper-based access

In Chapter 7.3.2 of the decision for Market 3a, Nkom concluded that it was necessary to continue an obligation for Telenor concerning price regulation of local, physical access to copper-based access networks in Market 3a. Nkom concluded that the most appropriate method was to set price caps for the upcoming regulatory period on the basis of modelled costs, which in turn are based on an updated LRIC model for fixed networks.

Nkom set price caps for 2019, 2020 and 2021, cf. Chapter 7.3.11 of the decision for Market 3a. Concerning the situation that Nkom has not made a new decision before 31 December 2021, section 659 of the decision states:

“If Nkom does not make a new decision in this market before 31 December 2021, the price caps set for 2021 for local, physical access and sub-access line/SLU will apply until further notice.”

In Chapter 7.3.2 of the decision for Market 3b, Nkom equivalently concluded that price regulation was necessary for copper-based broadband access. In this case too, Nkom set price caps for 2019, 2020 and 2021, cf. Chapter 7.3.10 of the decision for Market 3b. In the same way as for Market 3a, section 468 of the decision for Market 3b states the following:

“If Nkom does not make a new decision in this market before 31 December 2021, the price caps set for 2021 will apply until further notice.”

Nkom has not made new decisions for Market 3a and Market 3b by 31 December 2021. Therefore, the price caps for copper-based services in both markets will apply until further notice.

Price regulation of SHDSL broadband access is stated in section 470 of the decision for Market 3b:

“Under the authorisation of Section 4-9 of the Norwegian Electronic Communications Act, Nkom requires Telenor to determine prices for SHDSL broadband access products that do not deviate significantly from the current level.”

Furthermore, reference is made in section 339 to how Telenor can document and justify any price changes for SHDSL broadband access based on objective criteria. Changes in underlying, relevant costs will be central to such an assessment.

Nkom has commenced work on new analyses of the broadband markets, however it remains uncertain as to when new decisions will be handed down. Nkom is therefore of the opinion that it is necessary to update the price regulation for copper-based access in Markets 3a and 3b.

4 Further price regulation for copper-based access

4.1 Key considerations

The discontinuation of the copper network is not based on regulatory orders or other exercise of authority. On the contrary, Telenor itself has decided to shut down the copper network.

Furthermore, the decommissioning decision was not known when the design of the price regulation for copper-based services was made in the decisions from 20 December 2018.

In the decision of 2 September 2020, Nkom refers to how it has been important for the development of competition in the retail market for fixed broadband access over the past 10-15 years that Telenor’s competitors have had predictable framework conditions for establishing their own access networks and have also been able to base their retail provision on regulated wholesale access to Telenor’s nationwide copper network, and gradually also to Telenor’s fibre network and FWA, in combination with their own infrastructure².

In the period up to 2025, Nkom believes it is important to ensure regulation that maintains competition for services based on available wholesale services from Telenor, and to ensure that the transition to relevant replacement products does not entail unnecessarily high costs.

In this assessment, Nkom believes that it is reasonable to assume that the copper network’s effect on investments and prices for other competing infrastructure has deteriorated as a consequence of the phasing-out decision. This indicates that relatively more emphasis should be given to securing competition for services through predictable prices for the rest of its lifetime.

² In this context, ‘own infrastructure’ refers to the establishment of the access seekers’ own fibre-based access networks and to the establishment of their own broadband nodes linked to Telenor’s copper lines.

Migration of accesses from Telenor's copper network to alternative wholesale access at Telenor, wholesale access at other network owners, or other own infrastructure will entail costs for access seekers.

At the beginning of 2021, the cost limit for when a copper access affected by errors can be closed down was increased to NOK 50,000 per access, after dialogue between Nkom, Telenor and the access seekers. This entails costs for Telenor.

Nkom handed down a decision on 8 June 2023 which entails that Telenor will be permitted to decommission empty exchanges, as well as exchanges with five or fewer active accesses if Telenor offers relevant replacement products. This means that Telenor's costs associated with maintaining the copper network can be significantly reduced.

As a result of Telenor's decision to decommission the copper network, the transition from copper-based broadband services to broadband based on other technologies has occurred at a more rapid pace than what was predicted in the forecasts in the LRIC model. Continued use of the LRIC model as the basis for price regulation of copper-based services would therefore suggest the need for certain updates in the model.

On the whole, it is Nkom's conclusion that the price regulation of copper-based services up to 2025 should primarily ensure predictable and stable prices during this period, while at the same time ensuring that Telenor has coverage of relevant costs in accordance with assumptions and principles in the LRIC model.

4.2 Design of further price regulation

As a starting point, an updated price regulation based on modelled costs will require the relevant LRIC model to be updated and will take into account that a date has been set for phasing out the copper network in the relatively near future. A complete update would be challenging in model-technical terms and will be relatively time-consuming and entail a significant regulatory cost.

Another option might be to take prices for a "Modern equivalent asset" (MEA) as the starting point. In this case, it would be obvious to look at prices for VULA fibre. The speeds offered for copper lie in the lower layer of speeds offered within VULA fibre. This approach would aim to apply the prices for the lower speeds of VULA fibre as a price cap for copper for the remaining lifetime of the copper network. There are still challenges related to other price elements that are included in a comparison of prices between copper and fibre, such as ODP, and whether to take account of differences in quality parameters.

Nkom considers it to be a better alternative to continue a price cap regulation based on modelled costs. Nkom has concluded above that the most important consideration is predictability for the access seekers during the remaining lifetime of the copper network. This entails that phasing out copper-based services and the transition to replacement products must

take place in a manner which does not mean that the consequences of increasing lower volumes on the copper network will result in disproportionately high costs and access prices.

Nkom has considered the possibility of making a limited update to the LRIC model. The copper version of the model takes into consideration the development in Telenor's copper accesses (end-user and wholesaler), the development in Telenor's fibre and the development of fibre for other operators. Demand based on cable TV networks (HFC) is not included. Nkom has concluded that the access model can be updated with changes to the following elements:

- Updated demand based on historical information from Nkom's electronic communications statistics up to and including the end of 2022 and forecasts up to 2025. As previously, consideration is made to the development in Telenor's copper accesses (end-user and wholesale), Telenor's fibre and the development of fibre for other operators. Consideration is also made to the fact that there is now a greater degree of parallel fibre than what was the case in the previous update of the access model. Demand related to HFC and FWA is not included in the model.
- The current cost of capital (WACC) set by Nkom³,
- Updated assumptions regarding inflation.

New annual price caps for copper-based access in Market 3a are stipulated in Chapter 6.1 below. The price caps will apply from and including October 2023 up to and including 2025.

Price regulation of DSL Broadband Access

The design of the updated price caps for DSL Broadband Access follows the same principles as the current regulation⁴. A separate assessment has been made of the need for updating "busy-hour" capacity. Based on analyses of the capacity development for copper, Nkom has found no grounds for adjusting this parameter.

New annual price caps for copper-based access in Market 3b are specified in Chapter 6.2 below. The price caps will apply from and including October 2023 until and including 2025.

³ https://nkom.no/ekom-markedet/kostnadsmodeller-og-wacc/_/attachment/download/0db85370-e4b2-4578-9727-52e01571d539:2d7bf05b16702a760445690ef349d903898efbd3/Vedtak%20om%20kalkulatorisk%20rente%20-%2004042022.PDF

⁴ Cf. Chapter 7.3.2 of the Decision for Market 3b (https://nkom.no/ekom-markedet/markeder/marketed-3a-og-3b-lokal-og-sentral-tilgang-til-faste-aksessnett/_/attachment/download/d828061b-aec8-483e-8d7c-71af067ddb82:4ee97a5f51a307653ac5121321aff68b7413c5b6/Vedtak%20i%20Marked%203b.pdf) and Annex G in the documentation for LRIC model fixed network access (https://nkom.no/ekom-markedet/markeder/marketed-3a-og-3b-lokal-og-sentral-tilgang-til-faste-aksessnett/_/attachment/download/1f715d20-507b-4e89-a3a6-8071485c46d4:09b31b279cf123847af8e230730a22f94c914f44/Vedlegg%204%20Documentation%20of%20Nkoms%20vAcc2.3%20model.pdf).

Specifically about SHDSL broadband access

The current price regulation for SHDSL broadband access has been based on the prices applying on the decision date of 20 December 2018 and requires Telenor not to deviate significantly from these prices. Moreover, on a case-by-case basis, Nkom may assess any changes, provided that Telenor can document a sufficiently objective basis, mainly justified by changes in relevant underlying costs.

In Chapter 4.1, Nkom has concluded that the price regulation of copper-based services up to 2025 should mainly ensure stable and predictable prices. Nkom believes that equivalent assessments also apply to SHDSL broadband access.

The price regulation of SHDSL broadband access will therefore be based on current prices for SHDSL. Nkom determines price caps for the period from and including October 2023 until and including 2025 based on the current prices. The price caps for SHDSL, Proff and Premium versions, are adjusted annually with a corresponding percentage change as the average of the Proff and Premium versions of ADSL and VDSL. New annual price caps for SHDSL are set out in Chapter 6.2 below.

5 Proportionality

As described above, Telenor has announced that it will decommission the entire copper access network by the end of 2022. Nkom has, however, ordered Telenor to maintain access to the copper-based access network for a period of up to five years from 2 September 2020.

The design of the access obligation concerning the copper access network set out by Nkom will create predictable framework conditions for operators that depend on such access and facilitate that these operators can continue to have national broadband provision. Such operators will thereby still be able to compete effectively with, among others, Telenor's own retail activity. Nkom also believes that the notified continuation of price caps for copper-based services will create predictable framework conditions for both access seekers and Telenor.

The design of the access obligation entails that Telenor would have to maintain the access for a longer period than assumed in Telenor's original plan for the decommissioning of the copper access network. The discontinuation of the copper network is not based on regulatory orders or other exercise of authority, however. On the contrary, Telenor itself has decided to discontinue the copper network.

Nkom's decision of 8 June 2023 which entails that Telenor will be permitted to decommission empty exchanges, as well as exchanges with five or fewer active accesses if Telenor offers relevant replacement products, means that Telenor's costs associated with maintaining the copper network can be significantly reduced.

The updated price regulation, together with the duty of access imposed in the decision from 2 September 2020, will give access seekers scope to maintain offers to their own retail customers, while allowing for assessments related to the purchase of wholesale access on technologies other than copper, or the development of their own infrastructure.

The design of the price regulation and the access obligation are thereby appropriate to set predictable terms for access seekers and thus supports the purpose of the access obligation.

The current price regulation is based on modelled costs. Based on updates of relevant assumptions in the LRIC model, the updated price caps provide Telenor with coverage of relevant costs within the framework of the current regulation. Nkom believes that the revised price regulation is proportional and does not impose a greater burden on Telenor than Telenor must have anticipated when the decision to discontinue the copper network was made.

6 Draft decision

6.1 Market 3a

Pursuant to Section 4-9 of the Norwegian Electronic Communications Act, Nkom requires Telenor to set prices per month for full local, physical access to the copper-based access network and access to the sub-access line/SLU in line with the price caps set out for the years 2022-2025 below.

The decision entails that the following sections are added to Chapter 7.3.2.11 of the Market 3a Decision:

656b. The price caps for local, physical access to the copper-based access network for the years 2023-2025 are set at:

- *Effective from 1 October 2023: NOK 94 per month*
- *Effective from 1 January 2024: NOK 98 per month*
- *Effective from 1 January 2025: NOK 102 per month*

658b. The price caps for access to sub-access line/SLU for the years 2023-2025 are set at:

- *Effective from 1 October 2023: NOK 77 per month*
- *Effective from 1 January 2024: NOK 80 per month*
- *Effective from 1 January 2025: NOK 84 per month*

6.2 Market 3b

Pursuant to Section 4-9 of the Norwegian Electronic Communications Act, Nkom requires Telenor to set prices per month for ADSL, VDSL and SHDSL broadband access in line with the price caps set for the years 2023-2025 below.

The decision entails that the following sections are added to Chapter 7.3.2.10 of the Market 3b Decision:

468b The price caps for ADSL and VDSL broadband access for the period from October 2023 until and including 2025 are determined as set out in Tables 14 to 19 below:

ADSL Basis		ADSL Premium		ADSL Proff	
Produkt	Pristak	Produkt	Pristak	Produkt	Pristak
7200-24000/480-1728	265	7200-24000/480-1728	332	19200/864	439
160-7200/128-736	208	160-7200/128-736	252	14432 / 800	425
		160-2464/128-448	252	9600 / 800	418
				7232 / 704	403
				6080 / 640	343
				4864 / 640	331
				3616 / 512	320
				2464 / 448	298
				1856 / 448	298
				1248 / 384	298
				864 / 2562	275
				480 / 256	275
				RA 864-160 / RA 256-128	275

Table 14. Price cap, without telephony, for ADSL Basis, ADSL Premium and ADSL Proff. 2023.

VDSL Basis		VDSL Premium		VDSL Proff	
Produkt	Pristak	Produkt	Pristak	Produkt	Pristak
32000-63500	342	32000-63500	425	52544/12544	505
22016-36000	291	22016-36000	359	40000/10048	501
12960-27008	274	12960-27008	328	30016/10048	433
				25024/5056	416
				20000/1000	416

Table 15. Price cap, without telephony, for VDSL Basis, VDSL Premium and VDSL Proff. 2023.

ADSL Basis		ADSL Premium		ADSL Proff	
Produkt	Pristak	Produkt	Pristak	Produkt	Pristak
7200-24000/480-1728	278	7200-24000/480-1728	350	19200/864	465
160-7200/128-736	218	160-7200/128-736	266	14432 / 800	451
		160-2464/128-448	266	9600 / 800	443
				7232 / 704	427
				6080 / 640	366
				4864 / 640	353
				3616 / 512	341
				2464 / 448	317
				1856 / 448	317
				1248 / 384	317
				864 / 2562	292
				480 / 256	292
				RA 864-160 / RA 256-128	292

Table 16. Price cap, without telephony, for ADSL Basis, ADSL Premium and ADSL Proff. 2024.

VDSL Basis		VDSL Premium		VDSL Proff	
Produkt	Pristak	Produkt	Pristak	Produkt	Pristak
32000-63500	358	32000-63500	448	52544/12544	533
22016-36000	304	22016-36000	378	40000/10048	528
12960-27008	287	12960-27008	345	30016/10048	458
				25024/5056	441
				20000/1000	441

Table 17. Price cap, without telephony, for VDSL Basis, VDSL Premium and VDSL Proff. 2024.

ADSL Basis		ADSL Premium		ADSL Proff	
Produkt	Pristak	Produkt	Pristak	Produkt	Pristak
7200-24000/480-1728	281	7200-24000/480-1728	356	19200/864	474
160-7200/128-736	222	160-7200/128-736	272	14432 / 800	459
		160-2464/128-448	272	9600 / 800	451
				7232 / 704	434
				6080 / 640	376
				4864 / 640	363
				3616 / 512	351
				2464 / 448	325
				1856 / 448	325
				1248 / 384	325
				864 / 2562	299
				480 / 256	299
				RA 864-160 / RA 256- 128	299

Table 18. Price cap, without telephony, for ADSL Basis, ADSL Premium and ADSL Proff. 2025.

VDSL Basis		VDSL Premium		VDSL Proff	
Produkt	Pristak	Produkt	Pristak	Produkt	Pristak
32000-63500	362	32000-63500	453	52544/12544	540
22016-36000	308	22016-36000	383	40000/10048	535
12960-27008	290	12960-27008	350	30016/10048	466
				25024/5056	448
				20000/1000	448

Table 19. Price cap, without telephony, for VDSL Basis, VDSL Premium and VDSL Proff. 2025.

The decision furthermore entails the replacement of section 470 of the Market 3b Decision with the following:

470. Pursuant to Section 4-9 of the Norwegian Electronic Communications Act, Nkom requires Telenor to set prices per month for SHDSL broadband access for the years 2023-2025 in line with the price caps set out in Tables 20 to 22 below.

ADSL Premium	SHDSL Premium	SHDSL Proff
9216/9216 (4 par)	1207	1256
4608/4608 (4 par)	881	926
2304/2304 (4 par)	719	763
4608/4608 (2 par)	710	753
2304/2304 (2 par)	547	589
1216/1216 (2 par)	465	506
2304/2304 (1 par)	461	503
1216/1216 (1 par)	380	420
640/640 (1 par)	344	384

Table 20. Price cap, without telephony, for SHDSL Proff and SHDSL Premium. 2023.

ADSL Premium	SHDSL Premium	SHDSL Proff
9216/9216 (4 par)	1272	1331
4608/4608 (4 par)	929	982
2304/2304 (4 par)	758	809
4608/4608 (2 par)	748	799
2304/2304 (2 par)	576	624
1216/1216 (2 par)	490	537
2304/2304 (1 par)	485	533
1216/1216 (1 par)	401	445
640/640 (1 par)	363	407

Table 21. Price cap, without telephony, for SHDSL Proff and SHDSL Premium. 2024.

ADSL Premium	SHDSL Premium	SHDSL Proff
9216/9216 (4 par)	1293	1357
4608/4608 (4 par)	945	1001
2304/2304 (4 par)	771	824
4608/4608 (2 par)	761	814
2304/2304 (2 par)	586	636
1216/1216 (2 par)	499	547
2304/2304 (1 par)	494	543
1216/1216 (1 par)	407	454
640/640 (1 par)	369	415

Table 22. Price cap, without telephony, for SHDSL Proff and SHDSL Premium. 2025.



7 Entry into force

This Decision enters into force immediately.

8 Right to appeal and deadline for initiating legal proceedings

The decision may be appealed, cf. Section 11-6 of the Norwegian Electronic Communications Act, and Section 28 of the Norwegian Public Administration Act. The deadline for appealing decisions is three weeks, cf. Section 29(1), of the Public Administration Act. Any appeal must be addressed to the Norwegian Ministry of Local Government and Regional Development and sent to Nkom, cf. Sections 28 and 32 of the Norwegian Public Administration Act.

Section 11-8, paragraph one of the Norwegian Electronic Communications Act stipulates that lawsuits concerning individual decisions made under or pursuant to this Act must be brought within six months after the decision was made. The time limit for legal action is interrupted by an appeal against the decision and does not run as long as the appeal is being processed, cf. Section 11-8 of the Norwegian Electronic Communications Act, second paragraph.

With kind regards,

Kamilla Sharma
Director Service Markets

Øyvind Halvorsen
Head of Section

The document is approved electronically and dispatched without signature