Price Control Principles for the 2021-2025 Regulatory Period in the Electricity and Gas Industries and for the Market Operator's Activities in the Electricity and Gas Industries, and for Mandatory Buyers

1. Content

2. Introduction

The Energy Regulatory Office (ERO or Office) draws up Price Control Principles for every regulatory period with a view to putting in place the conditions for a transparent, predictable, and stable environment in the energy sector. On 9 June 2020, the ERO Board approved the Price Control Principles for the fifth regulatory period from 1 January 2021 to 31 December 2025.

Under Act No 458/2000 on Conditions of Business and State Administration in the Energy Industries and Amending Certain Laws, as amended (the Energy Act) and Act No 165/2012 on Supported Energy Sources and Amending Certain Laws, as amended (the SES Act), the Price Control Principles set out the procedures for controlling the prices of related services in the electricity industry and in the gas industry for the electricity transmission system operator, the gas transmission system operator, and distribution system operators. For the market operator, they set out the procedures for controlling the prices of market organisation and provision of data from records of commercial transactions, prices related to the issuance of origin guarantees, and prices related to the mandatory buyers' operations.

The Price Control Principles describe the settings of the initial values in the regulatory formula for the fifth regulatory period and their development throughout the regulatory period. The Price Control Principles also contain the reasons for the selected control procedures.

Price controls apply to entities that carry on business in the segments of the energy industries, in which effective competition is non-existent for technical, organisational, economic or legislative reasons. Operators of energy infrastructure systems, suppliers of last resort, the market operator, and mandatory buyers are monopolies in their respective fields of operation. Price controls prevent these entities from billing unreasonable and, from the societal perspective, inappropriate prices; however, at the same time the set prices must ensure that the entities provide stable services at the required standard.

At present, i.e. at the end of the fourth regulatory period, the regulated segments of the Czech electricity and gas industries are in a very good shape. Thanks to incentivising regulation major investments above the depreciation value are being made on a long-term basis in the Czech transmission system and distribution systems in the electricity industry. When completed, these capital projects will support security of electricity supply to customers, improve electricity supply quality, and facilitate the connection of new supply points for customers and power producers. Being one of the most efficient European systems the Czech gas system guarantees users the supply of a large amount of energy in a safe and reliable manner. Its flexibility supports both changes in supplied volumes as well as relatively easy connection of new customers. The stable operation of an infrastructure featuring a very good technical condition is needed in order to help the transition to low-carbon energy and the Czech Republic to meet its climate obligations.

The purpose of regulation is to create a predictable, stable, and investment-friendly environment and to ensure that in the services that customers require and receive, they

obtain value for money. At the same time, regulation must make it possible for the regulated entities to respond dynamically to energy transition and preserve their financial stability. This task is more difficult than in the preceding period as the energy sector is now on the threshold of fundamental changes.

3. Key assumptions

3.1. Legal framework

The ERO controls prices under Section 2c of Act No 265/1991 on the Competences of the Authorities of the Czech Republic in Prices, under Section 17 (11) of the Energy Act and, in the case of the price for mandatory buyers' operations, under Section 12 (7) of the SES Act. The ERO is obliged to draw up price control principles for every regulatory period under Section 19a (9) of the Energy Act, which also lays down their main purposes, i.e. putting in place the conditions for a transparent, predictable, and stable environment in the electricity industry and the gas industry. The price control principles apply to the entire regulatory period, which is at least five years long under Section 19a (8) of the Energy Act.

When determining the price control procedures the Office must protect energy customers' and consumers' legitimate interests under Section 17 (4) of the Energy Act, primarily with a view to satisfying all reasonable requirements for supply of commodities. In the price control principles the Office must also reflect its competences related to support for competition, use of renewable and secondary energy sources, combined heat & power generation, and biomethane, and decentralised power generation. Through its regulatory procedures the Office also protects the legitimate interests of the licence holders whose operation is subject to price controls. Equally importantly, the regulatory procedures must comply with Section 17 (5) of the Energy Act, i.e. they must help to develop the EU's internal electricity and gas markets and regional energy markets.

3.2. Summary of the fourth regulatory period

The currently ending fourth regulatory period was originally specified for three years from 2016; it was later extended to 2020. The price control procedures are described in the Price Control Principles for the Fourth Regulatory Period. The tables below show a comparison of the set values of parameters and the values actually achieved by regulated entities for the first four years of the fourth regulatory period. Please note that the expected values of the parameters listed in point 9.5 of the Price Control Principles for the Fourth Regulatory Period match the actually set parameters only for 2016. The parameters for 2017 and later years were continuously updated in line with the regulatory procedures in the fourth regulatory period.

Table 1 Overview of the parameters in the regulatory formula: the TSO and regional DSOs in the electricity industry

The electricity industry overall								
	2016		2017		2018		2019	
CZK th	Set parameters	Actual parameters	Set parameters	Actual parameters	Set parameters	Actual parameters	Set parameters	Actual parameters *)
Costs	15,696,518	14,388,922	15,596,255	14,101,541	15,616,776	13,827,916	15,824,853	14,634,128
D&A	12,467,875	12,868,233	13,060,244	13,211,439	13,874,138	13,799,239	14,417,094	14,384,112
RAB	168,324,631	167,953,509	178,020,401	177,822,909	185,351,308	187,409,903	194,506,432	196,774,196
Profit	13,119,200	13,353,983	14,163,705	14,138,700	14,665,354	14,900,961	15,599,137	15,645,516
Market factor	-39,697		23		0		7,481	
Allowed revenues	**41,243,895**	**40,611,139**	**42,820,227**	**41,451,680**	**44,156,269**	**42,528,116**	**45,848,566**	**44,663,756**
Difference in AR		631,243		1,369,148		1,622,370		1,180,490
Other	-2,895,294		-3,542,204		-2,772,132		-2,844,215	
Adjusted allowed revenues	**38,348,601**		**39,278,023**		**41,384,137**		43,004,351	

*) Most of the TSO's actual parameters for 2019 are preliminary values; the actual values will only be known after the publication of these Price Control Principles.

Table 2 Overview of the parameters in the regulatory formula: the TSO and regional DSOs in the gas industry

The gas industry overall								
	2016		2017		2018		2019	
CZK th	Set parameters	Actual parameters	Set parameters	Actual parameters	Set parameters	Actual parameters	Set parameters	Actual parameters
Costs	5,613,043	5,323,151	5,577,199	5,284,332	5,584,547	5,450,474	5,659,394	5,534,404
D&A	5,470,190	5,769,144	4,925,557	5,053,300	5,350,486	5,031,813	5,069,420	5,053,667
RAB	63,214,752	63,056,520	64,830,919	64,767,039	66,319,333	66,093,670	68,606,783	68,125,179
Profit	4,979,888	5,006,688	5,148,100	5,142,503	5,233,523	5,247,837	5,463,294	5,409,139
Market factor	0		2,334		5,301		11,688	
Allowed revenues	**16,063,122**	**16,098,983**	**15,653,190**	**15,480,135**	**16,173,857**	**15,730,124**	**16,203,796**	**15,997,210**
Difference in AR		-35,861		173,055		443,733		206,587
Costs of covering losses and Balanced Tariff System	1,083,500	1,087,900	831,113	835,142	804,965	808,427	964,809	968,254
Correction factor	333,491		1,012,593		777,894		-94,927	
Other *)	681,310		429,509		337,089		391,851	
Adjusted allowed revenues	18,161,424		17,926,404		18,093,805		17,465,530	

*) The Other item comprises the TSO's allowed revenues at entry border points.

Chapter 19 offers an overview of the set and actual parameters in the regulatory formula for each of the regulated companies and the level of the replacement and development fund for each of the industries. The whole fourth regulatory period will be evaluated in a separate document following the evaluation of the last year of the fourth regulatory period, i.e. 2020.

3.3. Strategic context

The ERO is fully aware that the energy sector is going through a period of highly dynamic development. The forthcoming fifth regulatory period will be accompanied by several major trends, in particular the following: the decarbonisation of energy and the national economy as a whole, decentralisation, the arrival of new technologies (battery storage sites, smart networks and metering), electric mobility, and advancing digitalisation of society. The trends will be reflected in changes to the EU and Czech legislation, to which the Office must also respond in its price control procedures. New requirements will occasion the rollout of technical means that will flexibly respond to developments in energy markets, including the active use of energy infrastructure elements. The Office regards the following challenges and opportunities as priorities in the coming period:

- Sustainable energy development, in particular increasing the proportion of RES and decentralising power and gas production;
- Changes in the position of customers and their new needs, in particular the emergence and development of new concepts, such as prosumer, citizen energy communities, accumulation, flexibility, dynamic tariffs, and smart city;
- Improving energy efficiency;
- Ensuring energy security;
- Changing the fuel mix, in particular phasing out coal use in the Czech Republic.

During the fifth regulatory period, the new rules adopted in the Clean Energy for All Europeans package will be implemented and the whole regulatory period will be significantly influenced by their impacts. It will also be required to take into account the ambitious political programme of the European Commission that will aggressively respond to and direct the ongoing dual – digital and decarbonisation – transformation of society and economy.

The Clean Energy for All Europeans package has set out ambitious climate and energy targets. The European Union seeks to reduce greenhouse gas emissions by 40% on 1990, achieve a 32% share of renewable sources in energy consumption, and improve energy efficiency by 32.5% by 2030. The regulated industries will feel the implementation of these objectives already during the fifth regulatory period. Improved energy efficiency will influence energy demand in terms of both amount and structure, with an impact on the recovery of allowed revenue through regulated prices. The transition to clean energy, the development of renewables, and the electrification of a number of sectors will place different demands on the structure of distribution networks in the electricity industry, and will likely affect the gas industry at a later stage.

The new rules for the electricity market will empower consumers and customers in general. They will be granted new rights and opportunities to operate as prosumers in the market. This will also be accompanied by increasing decentralisation and community energy development. The acceleration of the supplier switching process and a market rendered transparent through independent price comparison websites and more understandable bills will motivate consumers to search for the best quotations. This will precipitate increased demands on IT security and on the development of regulated entities' infrastructure, in particular when meeting the requirements for securing the design, evaluation, and billing of dynamic rates and tariffs. The new rules will also create the conditions for a better integration of renewable energy, and support cross-border electricity trading. This will require additional investments in network elements and new procedures that will increase the flexibility of the electricity grid.

At the end of 2019, the European Commission delivered the first point on its climate and energy agenda when it presented the Green Deal for Europe. One of the main motives of the Green Deal for Europe is to meet the political objective of achieving climate neutrality by 2050. This will require a revision of the targets for 2030, which may in turn boost the above trends even more. In regulated sectors, pressures for a faster development of smart solutions and more intensive integration of the various energy sectors (sectoral integration: refers to coupling the energy consuming sectors with the power producing sector through smart infrastructure) can be expected. The gist of sectoral integration is taking advantage of the complementarities between, in particular, the electricity industry, the gas industry, and the heat supply industry with a view to supporting a most cost-effective decarbonisation. Together with the stronger development of electric mobility, sectoral integration still remains a certain unknown, but the Price Control Principles set the regulatory procedures so that the regulated entities are, if necessary, also able to face these as yet unclear challenges related to increased investments.

When drawing up the Price Control Principles the Office relied on a number of the Czech Republic's strategic and policy documents relevant for regulated sectors, in particular the following:

- The National Energy Policy of the Czech Republic; on 18 May 2015, the Czech Government approved the updated National Energy Policy for the following 25 years in its Resolution 362.
- The National Energy and Climate Plan of the Czech Republic; in its Resolution 31 of 13 January 2020, the Czech Government approved the document and instructed the Ministry of Industry and Trade (MIT) to deliver the document to the European Commission through official channels. The document contains the objectives and key policies in all five dimensions of the Energy Union. Under this document the Member States are, *inter alia*, obliged to inform the European Commission about their respective national contributions to the approved European targets for greenhouse gas emissions, renewable energy sources, energy efficiency, and interconnectivity of the electricity grid. A major update of

this document until 2023 can also be expected with the new Green Deal for Europe programme.

- The Innovation Strategy of the Czech Republic 2019–2030; it was approved on 4 February 2019 by the Czech Government's Resolution 104. It is a strategic framework plan that predetermines the Government's policy in research, development, and innovation and is intended to help the Czech Republic to become one of the most innovative European countries in 12 years. One of the objectives in the energy sector is to apply the principles of Industry 4.0 in energy sector, primarily in smart grids and also in smart cities and regions.
- The National Action Plan for Smart Grids 2019–2030 was drawn up under the Czech Government's Resolution 149 of 4 March 2015. On 16 September 2019, the Czech Government approved, in its Resolution 658, the National Action Plan for Smart Grids 2019–2030 (NAP SG Update). The main objectives of the updated NAP SG include:
    - Create conditions for a greater penetration of decentralised, in particular renewable electricity sources, storage, and electric mobility in line with the requirements of the National Energy and Climate Plan of the Czech Republic, and for their inclusion in the coordination and control of the energy system.
    - Ensure greater availability of information for customers with a view to making it possible to increase energy efficiency of on the demand side, and to their active involvement in the electricity market.
    - Improve the reliability, quality, and security of electrical energy supply. Ensure a lower rate of supply interruptions and a higher quality of supplied electricity as defined by, in particular, the stability of frequency and voltage, as well as a strong capability of restoring supply after blackouts and resilience of energy systems to external conditions (terrorism, climate phenomena, and cyber security).
- The National Action Plan of Clean Mobility (NAP CM), drawn up by the MIT in cooperation with other Ministries, vehicle manufacturers based in the Czech Republic, infrastructure providers, and gas and electricity companies, was approved by the Czech Government in its Resolution 941 of 20 November 2015.
- The National Action Plan of Energy Efficiency (NAP EE) describes the planned measures intended to increase energy efficiency and the expected or achieved energy savings, including savings in energy supply, transmission, and distribution, and also in end use of energy.

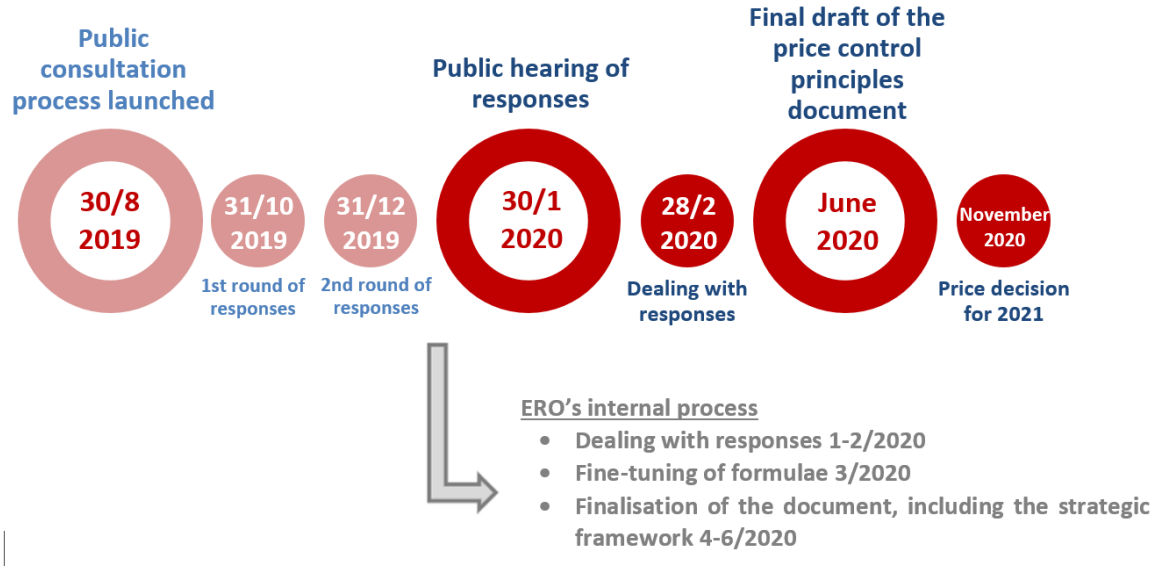
3.4. Public consultation on the proposed Price Control Principles for the fifth regulatory period

This chapter describes the process of the consultation on the proposed Price Control Principles. When drafting the Price Control Principles the ERO followed these assumptions:

- Stability and sustainability of the regulatory principles;
- Predictability of regulation for the various entities in the electricity and gas markets;
- Balanced regulation from the perspective of its impact on the various market participants;
- Objective and transparent design of the regulatory principles and inputs;
- Compliance with the applicable Czech and EU legislation and the current amendments thereto.

The public consultation process was launched on 30 August 2019 and the Office set the period for responding until 31 December 2019, i.e. a double of the statutory minimum of 60 days. The public consultation was divided into two rounds with a view to a better organisation of responses and the evaluation thereof. The respondents had an opportunity to discuss the responses sent in the first round (i.e. by 31 October 2019) with the ERO Board. A total of 25 parties joined the public consultation process; in addition to regulated entities, also stakeholder associations, traders, producers, one individual, and one trade union. Most of the respondents took advantage of the opportunity to discuss their responses in person. The Office received a total of 184 individual responses. Figure 1 below shows the timeline of Price Control Principles drafting.

Figure 1 Price Control Principles drafting timeline



When dealing with the responses ERO representatives met with those of the responding entities on a regular basis. For the process of dealing with the responses to be transparent

and effective, the ERO Board decided to apply project management to the process. The key directions in the management of the project for finalising the Price Control Principles were as follows:

- Take the draft Price Control Principles published on 30 August 2019 as the starting point, including the evaluation of the responses and the proposed substantiation of the manner in which the responses were dealt with;
- Identify, conceptualise, and find consensus on the key resources, support the set values of parameters by international practice;
- Promote the development of new technologies and motivational indicators;
- Analyse the ensuing proposals and quantify their impacts;
- Seek also other sources of funding, originating from subsidy/grant schemes; prepare a methodology for considering subsidy/grant schemes in regulation;
- Record the proposals relating to the preparations for the next regulatory period, which can no longer be used in the fifth regulatory period, primarily in relation to scientific and research developments (such as the BETA 2 a THETA projects of the Technology Agency of the Czech Republic), with a view to reflecting the motivation for additional capex plans in the settings.

The ERO set up four main working groups on each of the topics (costs; assets and profit; technical specificities in the electricity industry; and technical specificities in the gas industry). A coordination committee managed the working groups' activities and a steering committee was an umbrella for the whole project. The ERO's and the regulated entities' representatives were nominated to the working groups. Representatives of ERO management and those of the regulated entities' senior managements were nominated to the coordination committee. The steering committee included all members of the ERO Board; on this platform, the ERO Board therefore decided on the final text of the Price Control Principles and the final disposal of the various responses.

1. **Working Group 1: Costs in Price Controls in the Electricity Industry and the Gas Industry (WG1)**

   A joint group for the electricity and gas industries, focusing on costs in price controls. The group also considered the market factor, corrections to 'other revenues', reflection of auxiliary activities in regulation, etc.

2. **Working Group 2: Assets (including D&A and WACC) (WG2)**

   A joint group for the electricity and gas industries focusing on assets, including depreciation & amortisation and WACC.

3. **Working Group 3: Technical Specificities – the Electricity Industry (WG3)**

   The working group focused on the technical aspect, specifically the development of new technologies and motivational indicators for price controls in the electricity industry. The group also considered correction factors related to distribution and

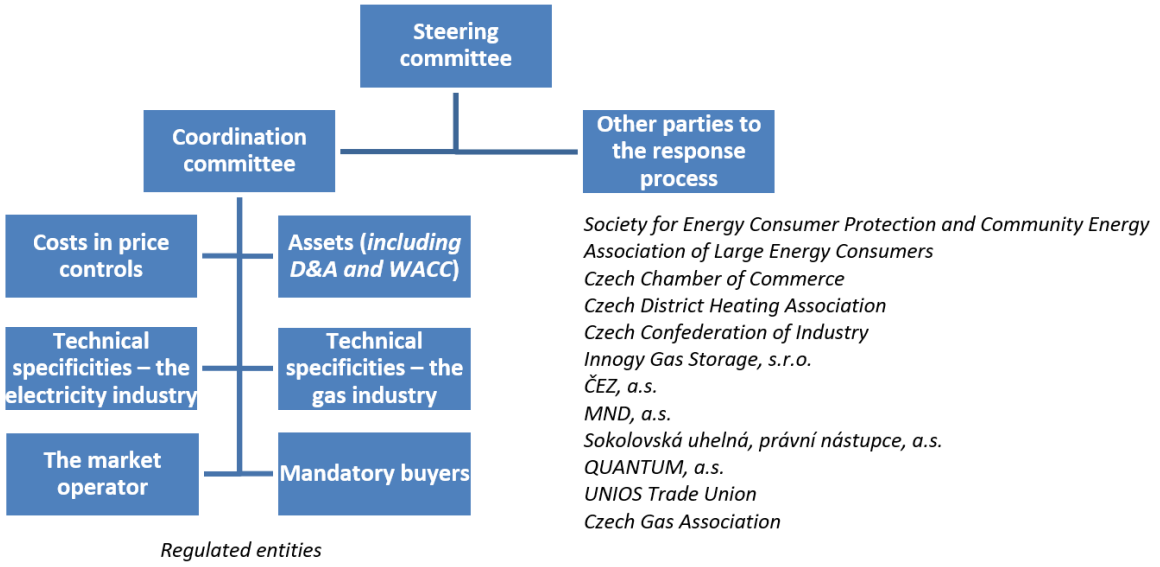
network use, the quality factor, management of reactive power, costs of ancillary services for network balancing, losses, etc.

4. **Working Group 4: Technical Specificities – the Gas Industry (WG4)**

   The working group focused on the technical aspect, specifically the development of new technologies and motivational indicators for price controls in the gas industry.

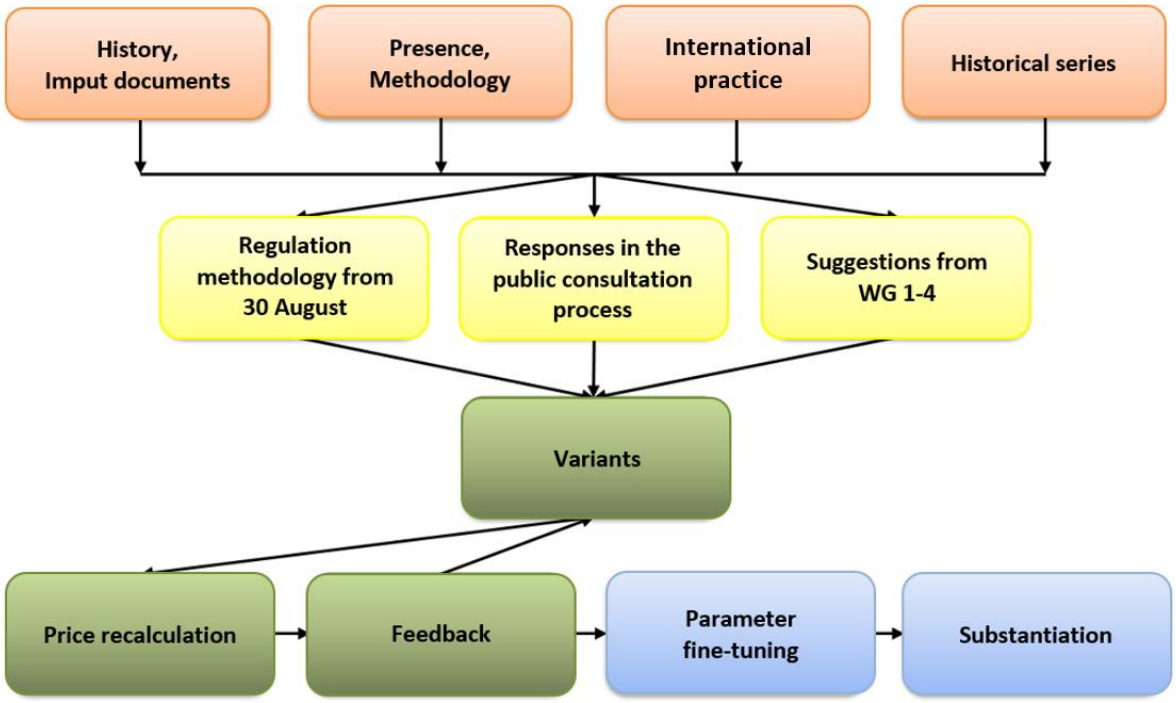
The Office also set up two smaller working groups on the market operator and on mandatory buyers.

Figure 2 Project organisation diagram



The following process was determined for the working groups to meet the project objectives:

Figure 3 Working processes in the Price Control Principles finalisation project



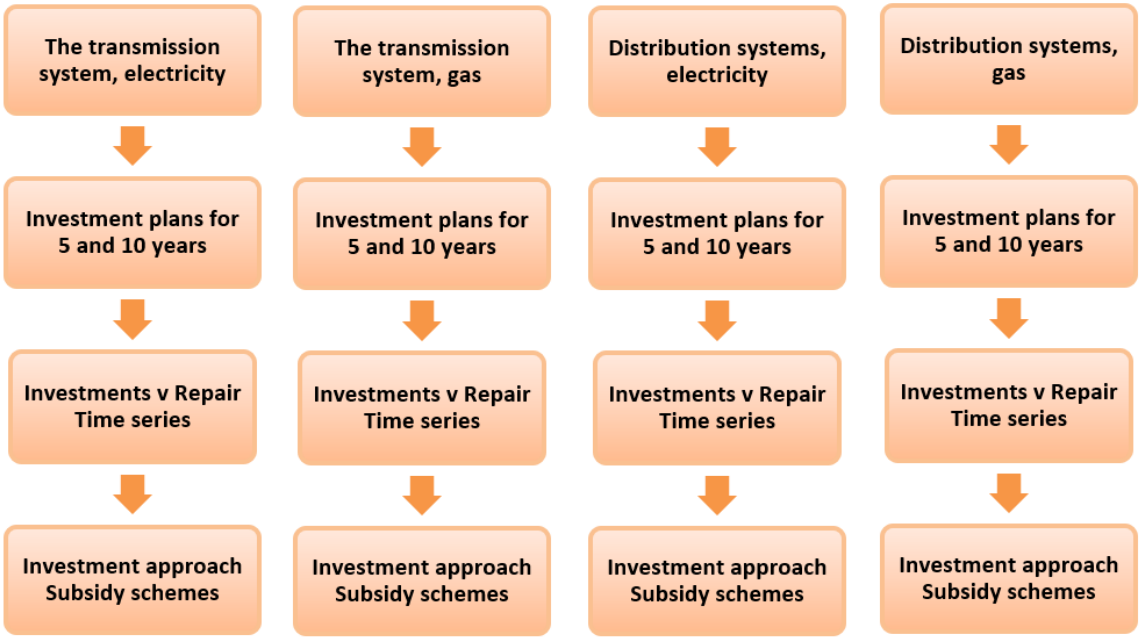
The project started in December 2019 and in three months of very intensive effort, most of the major responses were dealt with and the regulatory procedures for the fifth regulatory period were finalised and rendered fully compliant with the above objectives of regulation. For example the fact that no differences in opinion were voiced at the public hearing organised by the Office under Section 17e (10) of the Energy Act on 30 January 2020, which all the respondents could attend, indicates that the selected approach (project management) was correct. Within the statutory period the Office also dealt with all the responses received and on 28 February 2020 it published in writing the outcome of the response process on its website[1].

3.5. Investment outlook for the fifth regulatory period

One of the Office's objectives for the fifth regulatory period is significant support for a transformation-promoting policy of infrastructure development in connection with energy transition in the coming years, in particular by supporting decentralisation and the use of new innovative technologies. In the consultation process, the regulated companies' investment plans were assessed as indicated in the following diagram:

[1] http://www.eru.cz/cs/-/vyporadani-pripominek-k-navrhu-zasad-cenove-regulace-na-v-regulacni-obdobi.

Figure 4 Investment plan assessment diagram



Under the Energy Act, every two years the electricity transmission system operator, ČEPS, a.s., draws up the Ten Year Czech Transmission System Development Plan, which the ERO approves subject to the MIT's opinion. The Ten Year Czech Transmission System Development Plan is posted on ČEPS's website[2].

Under the Energy Act, every year the gas transmission system operator, NET4GAS, s.r.o., draws up the Ten Year Czech Transmission System Development Plan, the purpose of which is to analyse the development of the peak daily and annual consumption and the adequacy of the entry and exit capacity for the Czech Republic. The plan outlines the completed and forthcoming capital projects that increase the capacity of the gas transmission system, and also contains an analysis of security of gas supply. The ERO approves the Ten Year Plan subject to the MIT's opinion. The plan is posted on NET4GAS's website[3].

The electricity and gas industry DSOs have not been submitting their investment plans to the ERO for approval so far. As part of the preparations for the fifth regulatory period the ERO requested the plans and it will work with them on an indicative basis. The electricity industry plans will also help in the preparations for the process resulting in their future binding nature due to the transposition of Article 32 (3) of Directive (EU) 2019/944 of the European Parliament and of the Council, including the drafting of indicators.

[2] Ten Year Czech [Electricity] Transmission System Development Plan, it is available at https://www.ceps.cz/cs/rozvoj-ps.

[3] Ten Year Czech [Gas] Transmission System Development Plan, it is available at https://www.net4gas.cz/cz/projekty/rozvojove-plany/.

The Office leaves it fully up to the licence holders to determine and design their maintenance, replacement, and development systems on the basis of their business plans with a view to ensuring the trouble-free operation of their installations and a system capacity sufficient for customers' requirements, and meeting other legislative requirements. Nevertheless, during the fifth regulatory period the Office will monitor whether maintenance, replacement, and development are carried out efficiently and without resulting in an unjustifiable increase in tariffs.

The plans of capitalised expenditure on replacement and development in the electricity industry and the gas industry are contained in Chapters 9 and 14.

3.6. Objectives of the Price Control Principles

On the basis of the outcomes from the public consultation the ERO concluded that the assumptions initially specified for the Price Control Principles for the fifth regulatory period, i.e.,

- stability and sustainability of the regulatory principles,
- predictability of regulation for the various entities in the electricity and gas markets,
- balanced regulation from the perspective of its impact on the various market participants,
- objective and transparent design of the regulatory principles and inputs, and
- compliance with the applicable Czech and EU legislation and the current amendments thereto,

had been correct and could be regarded as a prerequisite for and guarantee of good regulatory practice. In order to finalise the price control procedures the ERO specified these assumptions in more detail and derived implementable and measurable targets from them (see below). The ERO then decided on the specific measures that would help to meet these targets, thereby also helping to materialise the assumptions that had been set at the very beginning of the process of developing the Price Control Principles.

The price that customers pay must match the quality of the services that they receive. Regulated companies must respond to changes in customers' position and new needs. Price control procedures must incentivise to network development with regard to the future needs, predictability of the environment, and the efficiency and economy of operation. They also have to provide for a high standard of energy supply security and reliability, including cyber security and personal data protection.

<u>Key features of the approach:</u>

1. The ERO will continue to use the motivational mechanism to fine-tune investment planning, which weakens the effect of correction factors. The mechanism consists in using two different values of money for cases of certain planned and actual reported values of D&A and/or RAB differing by more than 5%. In case of 'over-planning'

(a difference greater than 5%) the value of money is linked to the return on the regulatory asset base (WACC), and in other cases to the time value of money expressed by the producer price index (PPI).

2. In justified cases, and subject to consultation with or at the request of the licence holder, the ERO will keep the mechanism of spreading the correction factors, thus ensuring price stability for customers.
3. A major benefit for customers, which they will see in lower charges for electricity and gas distribution, will be a lower value of WACC due to a drop in the market parameters entering the calculation of the regulated rate of return using CAPM, i.e. a method used for calculating the cost of equity, based on which investors in a competitive market are willing to hold risk capital if the return thereon exceeds the return on risk-free assets, specifically by a risk premium; see point 16.1.2. However, thanks to its balanced setting, the set value of WACC will also provide for the further development of distribution systems, which will offer customers new opportunities of modern energy through their active involvement in the electricity market as prosumers.
4. The ERO will continue to record the difference between the actual D&A acknowledged in regulation and actual capitalised expenditure through the 'replacement and development fund' parameter. The final evaluation of the replacement and development fund following the end of the first 15-year reference period will take place at 31 December 2024 and the results will be reflected in allowed revenues for the sixth regulatory period. During the fifth regulatory period the ERO will examine the options for the further application of the replacement and development fund after the first 15-year reference period.
5. The continuing trend of tightening the requirements for the continuity of electricity distribution year-on-year will ensure a higher reliability of electricity supply for customers.

Regulation will enable companies' dynamic responses to energy transition through their pro-investment approach. Regulated entities will have funds enough for the effective investments required while the new regulatory procedures will reduce their financial risks. Thus, they will be able to respond to the development of renewable energy sources and decentralised generation, roll out smart solutions for remote metering and system control, take into account the evolution of electric mobility, and expand digitalisation. They will also be able flexibly respond to unexpected developments.

<u>Key features of the approach:</u>

1. In the light of the expected evolution of the regulated energy industries the ERO has set the fifth regulatory period as the shortest possible, i.e. five-year, from 1 January 2021. This is in line with the practice of the other European regulators who apply incentive regulation. In the EU, a regulatory period of three to five years predominates heavily, the five-year variant being the most frequent. Exceptions are Spain and the UK, and the UK

regulator is switching over to a five-year regulatory period due to the too high level of uncertainty concerning the future form of regulated activities.

2. Aware of the higher level of uncertainty in the coming years the ERO has reduced the overall risk in the regulatory environment by introducing a profit/loss sharing mechanism with a symmetric coefficient of 0.5 and also by using the rolling average of actual costs for calculating the eligible costs for the regulated year.
3. The ERO has kept the market factor parameter; it will be possible to use it in cases where licence holders incur significant non-recurring costs the nature of which evades the application of eligible cost calculation through rolling averages with profit/loss sharing. The market factor can assume positive and negative values.
4. The ERO has put in place a new special correction factor to reflect the revenues from and costs of non-frequency ancillary services in electricity distribution systems. This measure responds to the expected higher requirements for maintaining voltage quality and for the capability to control reactive power flows also in decentralised generation development.

The regulated entities' financial stability, the objective valuation of assets, and the fair estimate of the risk rate will help to put in place a very investment-friendly environment in which companies will be motivated to carry out the required projects.

Key features of the approach:

1. The rate of return on the regulatory asset base (RAB) will continue to be calculated as weighted average costs of capital. WACC has been set as a constant value for the whole regulatory period and the same for the TSO and DSOs in the electricity industry and the same for the TSO and DSOs in the gas industry. Two separate WACC values specific for each of the industries have been set for the electricity industry and for the gas industry. The pre-tax rate of return has been set at 6.54% (the electricity industry) and 6.43% (the gas industry). European regulators employ various methodologies and calculation models and combinations thereof for determining reasonable profit, and may also add additional elements/parameters to framework models. Most European countries use WACC for determining the rate of return. One half of these countries use the nominal value of WACC, as the ERO does. A formula reflecting the cost of equity and the cost of debt and the tax burden (the corporate income tax rate) is used as part of the methodology recommended to European regulators for WACC calculation. The differences in the WACC value between European regulators when formulating the price control principles for a specific regulatory period primarily arise from their differing approaches to the determination of the various parameters, i.e. the tax rate, the beta coefficient, the risk-free rate of return, etc. In Europe, for example Greece, Finland, Bulgaria, Poland and Luxembourg have a level of the nominal WACC (after taxation) comparable with that determined by the ERO for the fifth regulatory period in the Czech Republic;

2. Until 2025, the ERO will gradually equalise the value of the regulatory asset base (RAB) and the net book value of assets (NBVA); it will do so in a way preventing heavy year-on-year impacts on allowed revenues and on regulated prices for final customers. This will enhance the regulated entities' financial stability and the transparency of the regulatory framework for investors.
3. Subject to assessment and approval by the Office, regulated companies will continue to be able to include in RAB running investments in extensive and time-intensive projects. Where the whole capital project is not completed or the subsequent retrospective evaluation fails to meet the parameters for its RAB eligibility, the monies so awarded will be returned to customers, taking into account the time value of money.

Predictability of the regulatory environment has been enhanced by the smooth transition from the fourth to the fifth regulatory period and by preserving most of the currently applicable price control procedures.

Key features of the approach:

1. The Office prefers identical regulatory procedures for the electricity industry and the gas industry. It has only opted for different procedures in cases where by the very nature of these industries the procedures must be different, or where the law requires a different approach.
2. The Office has preserved incentive regulation through the revenue cap, with specific differences for the various parameters. For gas transit transmission, it has preserved incentive regulation through the price cap.
3. The Office will continue to apply the nominal rate of return to the nominal values of assets in the fifth regulatory period, provided that RAB and NBVA will be equalised for system operators by 2025. This decision introduces a tighter link to system operators' audited accounts.
4. The price control procedures will include D&A of the assets financed by subsidies in the same way as in the fourth regulatory period. The reflection of subsidies in regulation will respect the terms and conditions of the various subsidy programmes and calls thereunder, and the rules for reflecting subsidies in regulation applicable at the time when the regulated entity submitted an application for aid. The Office will therefore continue to monitor this issue and discuss it on a case-by-case basis with the competent authorities (in particular, the Office for the Protection of Competition (OPC) and the European Commission) and with each of the regulated entities. The Office will determine the methodology based on evaluating the best practice applied in other countries' regulatory sectors and fully in line with the public aid rules.
5. The correction factors from the fourth regulatory period will be treated in line with the Price Control Principles for 2016-2018 for the Electricity Industry, the Gas Industry and for the Market Operator's Services in the Electricity Industry and the Gas Industry with effect extended to 2020. The correction factors for 2019 and 2020 will be suitably spread

over the fifth regulatory period so that the impact on customers is as favourable as possible, i.e. to prevent major year-on-year variations in prices.

The Office reserves the right to derogate from the principles described in the Price Control Principles in the fifth regulatory period, in particular in the following cases:

1. A change in the legislation directly applicable to the licence holder's licensed activity, which has a major impact on the parameters in the regulatory formula;
2. An extraordinary change in the electricity/gas market or other extraordinary changes in the country's economy meriting particular treatment;
3. A state of emergency, a state of danger to the country, or a state of war is declared;
4. Parameters have been set on the basis of incorrect, incomplete or untrue information;
5. Material changes on the part of regulated entities where such changes significantly affect the assumptions on the basis of which these Price Control Principles have been formulated, in particular those impacting on the structure and amount of eligible costs or net book value of assets (such as insourcing/outsourcing or asset revaluation);
6. In cases of unforeseeable events and impossibility to correct the price development through correction factors in order to preserve price stability, it will be possible to reconsider the transition to the equalisation of RAB and NBVA for individual companies in order to prevent major year-on-year variations in prices.

4. Description of regulatory parameters for electricity and gas transmission and distribution

The basic formula for calculating allowed revenues (AR) is:

$$AR = EC + D\&A + Pr + MF$$

where

EC is the value of eligible costs,

D&A is the value of eligible depreciation and amortisation,

Pr is the licence holder's profit,

MF is the market factor.

4.1. Description of the costs, depreciation and amortisation, profit, and market factor parameters

4.1.1. Eligible costs

The value of the eligible costs for the fifth regulatory period is derived from the actual values of economically justified costs adjusted by the value of profit/loss sharing. With regard to the availability of the licence holders' relevant audited data, for every regulated year the eligible costs base is determined on the basis of the actual costs of the last three completed reference years. The costs acknowledged in the fourth regulatory period through the market factor, which have a permanent nature, will not reduce the economically justified costs included in the eligible costs base for the fifth regulatory period.

The values of companies' actual economically justified costs will be adjusted by the escalation factor (point 4.2.1) to the time value of the year preceding the regulated year, and by the efficiency factor (point **Chyba! Nenalezen zdroj odkazů.**). The eligible costs base for each of the regulated years of the fifth regulatory period is calculated as the arithmetic mean of the adjusted values of actual costs for the last three known years. For the first year of the fifth regulatory period, the arithmetic mean of economically justified costs in 2017-2019, adjusted by the escalation factor and the efficiency factor, is used. Economically justified costs from the fourth regulatory period (actual values) included in the value of the costs in the fifth regulatory period are not adjusted by profit/loss sharing. The calculation will use the actual values in the above period, net of extraordinary costs in the fourth regulatory period. Extraordinary costs are those that are unrelated to the regulated entity's everyday operation and do not have a regular nature or have been incurred on a one-time basis. On the occasion of company transformations, the eligible costs base will be adjusted by the quantified impacts caused by such transformations.

The difference between eligible and actual costs in the years of the fifth regulatory period is subject to profit/loss sharing. The value of profit/loss sharing is calculated as the three-year average of the acknowledged portions of the differences between eligible costs and actual

economically justified costs in the preceding years, adjusted by the escalation factor, the efficiency factor, and the profit/loss sharing coefficient, the basic value of which was set at 0.5 for the years in the fifth regulatory period.

For the subsequent regulatory periods, the ERO expects to continue applying the above principles of profit/loss sharing for calculating eligible costs in order to even them out over the long term and to ensure a predictable regulated environment.

In the fifth regulatory period the ERO will also check the economic justifiability of the costs that were included in each company's eligible costs base. The checks will respect the legislation applicable in the years under review, having specific impacts during the fifth regulatory period or, if needed, in the following regulatory periods. The ERO considers this procedure to be objective, transparent, fair, non-discriminatory, and acceptable for all market participants.

4.1.2. Eligible depreciation and amortisation (D&A)

Eligible D&A is calculated on the basis of the planned values of D&A (calculated using D&A rates – minimum useful lives listed in a schedule to or an explanatory statement on the public notice on regulatory reporting) in each year of the fifth regulatory period.

The planned values of D&A will be adjusted by the actual values with a lag of two years and using the time value of money.

In connection with the Energy Act, the ERO must determine such value of eligible D&A which, after inclusion in the regulated price, will be a source of financing the replacement and development of the non-current assets required for the licensed activity.

In order to prevent any abuse of the rules through overestimated plans the Office has set two time values of money for cases of reported overestimated and underestimated planned values of D&A. In case of overestimated plans, the time value of money for the D&A correction factor's portion the value of which exceeds 5% of actual D&A will be pegged to the value of the rate of return on the regulatory asset base (point 4.2.4) while for the D&A correction factor's portion the value of which does not exceed actual D&A by more than 5% will be pegged to the time value of money (point 4.2.3). In the case of underestimated planned values of D&A the indexation of the whole D&A correction factor will be pegged only to the time value of money (point 4.2.3).

Should during a regulated year the Office find a significant year-on-year difference between the actual and planned values of D&A with a heavy impact on price stability, it is authorised to adjust the value of the D&A parameter for the following year by spreading this difference, including spreading it over multiple consecutive years.

As regards the eligibility of D&A of the part of assets procured using a subsidy/grant, the Office notes that discussions with the OPC and the European Commission are under way and may affect the recognition of subsidies/grants in the future. The price control procedures will include D&A of the part of assets procured using a subsidy/grant identically as in the fourth regulatory period. The recognition of subsidies/grants in regulation will respect the

terms and conditions of the various subsidy schemes and calls and the rules for recognising subsidies/grants in regulation applicable at the time when the regulated entity submitted its application for aid. The issue of the recognition of subsidies/grants in regulation is related to the published terms and conditions of the respective calls under subsidy schemes. The ERO reserves the right to analyse this issue on an ongoing basis and to address it with the various entities on a case-by-case basis.

4.1.3. The replacement and development fund

Before the fourth regulatory period, the Office decided to introduce the replacement and development fund parameter (it currently does not enter into the calculation of allowed revenues). The Office stated its intention to introduce such parameter, or mechanism, already in The ERO's Final Report on the Methodology of Regulation in the Third Regulatory Period of 11 November 2009. Chapter 5.1 of the Report states: *"In 2006, the Office intensively cooperated with regulated companies to assess their long-term investment plans, on the basis of which the Office could analyse the amount of the funds that the company would need over the following 15 years for asset replacement in order to maintain the current technical standard and quality of supply. On the basis of the above analyses the Office concluded that the required amount of D&A as a source of funds for asset replacement matches the revalued D&A that the companies carried in their books. Should companies fail to reinvest revalued D&A in asset replacement so as to maintain the condition of the assets and the quality of supply, the Office will introduce into regulation a mechanism that will ensure that eligible D&A is used only for investment purposes under the licence."*.

Based on the above, the Office has introduced the monitoring of the actual use by licence holders of eligible D&A as a source of finances for the renewal and development of the electricity transmission system, the national gas transmission system, and distribution systems in 'the replacement and development fund'.

In the light of the duration of investment cycles in the energy sector, the ERO regards a period of 15 years as sufficiently informative.

In the fifth regulatory period, the Office will continue to evaluate the amount of reinvested D&A on an annual basis.

For the purposes of registering the level of the replacement and development fund the relevant period is understood to be the period beginning on 1 January 2010 and ending on the last day of the year in which the duration of the relevant period reaches 15 years, i.e. the last day of 2024. A 5% tolerance is allowed for the acceptance of uninvested actual D&A acknowledged in regulation. The ERO will take into account the average useful life of process equipment and will ensure that the funds that customers have paid in the set regulated prices are returned to the regulated activity, thereby helping to ensure secure, reliable, and efficient energy supply services. The ERU regards the reference period, covering 15 years, as the optimum for checking and registering the funds that are continuously afforded in this manner. Following the evaluation of the reference period the ERO will reflect the

replacement and development fund's final level in the allowed revenues for each of the years in the sixth regulatory period.

The method for monitoring and registering the levels in the replacement and development fund is described in point **Chyba! Nenalezen zdroj odkazů.** of these Price Control Principles.

The replacement and development fund was introduced in the Price Control Principles for the Fourth Regulatory Period. Its omission from the price control rules during the declared 15-year period would amount to a violation of the market participants' legitimate expectations. In fifth regulatory period, the ERO will consider the options for the continued application of the replacement and development fund after the first 15-year reference period.

4.1.4. Regulatory asset base

The regulatory asset base (RAB) constitutes a regulatorily acknowledged value of the licence holder's assets that serve for performing the licensed activity. The RAB parameter is the basis for calculating the licence holder's profit. The application of the rate of return to RAB helps to determine a reasonable profit ensuring return on investments made in equipment serving for licensed activity performance. This procedure is a recognised and often used method for profit calculation in regulatory practice in other countries.

For the sake of continuity between regulatory periods the initial value of the regulatory asset base (RAB_0) for the fifth regulatory period has been set as the planned value of the regulatory asset base for the last year of the fourth regulatory period, i.e. 2020. For the system operators whose planned revaluation coefficient for 2020 is greater than or equal to 1, RAB_0 will be set as the actual value of NBVA for 2019 adjusted by the planned additions for 2020. For the gas TSO, due to the transition to direct allocation of assets and costs together with the determination of the individual allocation ratios for specific infrastructural elements of the system the value of RAB_0 will be derived from the planned net book values of these elements at 31 December 2021; individual allocation ratios and the revaluation coefficient entering into RAB at 68.01%, based on the RAB and NBVA ratio in 2020, will be applied to these elements.

On the basis of a detailed analysis the Office wants to equalise the RAB and NBVA values by 2025. In the event of sudden major impacts on the prices for final customers, these changes in the allowed revenues and prices will be evened out during the fifth regulatory period. The increment for gradually equalising RAB with NBVA in each year of the fifth regulatory period has been set as the difference between the planned value of NBVA in 2020, the planned value of RAB in 2020 and the RAB correction factor (for the gas TSO, the difference between the planned value of NBVA and the planned value of RAB in 2021) multiplied by an individually set coefficient listed in the following table:

Table 3 Percentage of the difference between RAB and NBVA in each year of the fifth regulatory period

Company/year	2021	2022	2023	2024	2025
Electricity industry					
PREdistribuce, a.s.	38%	30%	10%	12%	10%
E.ON Distribuce, a.s.	40%	20%	20%	15%	5%
ČEZ Distribuce, a.s.	40%	30%	10%	10%	10%
Gas industry					
E.ON Distribuce, a.s.	40%	20%	20%	15%	5%
GasNet, s.r.o.	40%	18%	23%	5%	14%
NET4GAS, s.r.o.	40%	18%	23%	5%	14%
Pražská plynárenská Distribuce, a.s.	addressed on an individual basis				

The ERO adjusted the RAB value for Pražská plynárenská Distribuce, a.s., as early as 2016 as an exceptional measure. The adjustment was made due to the earlier use of conclusively incorrect input data as part of the unbundling of DSOs required by the law. As the result of the incorrect valuation, from 2007 to 2015 the company lacked funds amounting to hundreds of millions of Czech crowns per year to repair and upgrade its distribution network. The Office based its decision on an expert opinion and a subsequent second, review opinion while taking into account the gravity and necessity of the change with regard to the financeable amount of future investments in the renewal and development of the system, targeted in particular at its safe and reliable operation. This step cannot be regarded as a revaluation of the company's assets but only as the correction of the incorrect valuation in the past. With regard to the above, the Office will continue to follow an individualised approach to Pražská plynárenská Distribuce, a.s. in respect of the RAB and NBVA equalisation so that the safe, reliable and economical operation of the system is maintained for the customers connected to this distribution system.

In addition to the impact of the RAB and NBVA equalisation in each year of the fifth regulatory period, the initial value of the regulated entities' RAB will be adjusted by the values of the planned capitalised expenditure, the planned asset disposals, and the planned D&A. The RAB value will include the planned value of the assets acquired upon company transformations. It will be included in RAB subject to assessment and approval by the ERO. The revaluation coefficient will no longer be applied to the planned D&A. These values, entering into RAB calculation, will be adjusted based on the actual values without using the time value of money and with a lag of two years.

The RAB value may also include the value of the assets that are used for licensed activity performance and the use of which is allowed for a consideration, where the licence holder has the right or obligation to acquire the ownership title to the provided asset during the course or at the end of using the asset. The value of the assets under the foregoing sentence can only be included in RAB on the basis of contracts concluded until 31 December 2020. In such cases, the consideration for use is not regarded as an economically justified cost item.

With the exception of the gas TSO, the RAB correction factors continuing from the fourth regulatory period, i.e. those for 2019 and 2020, will be levelled during the fifth regulatory period following the procedures applicable for the fourth regulatory period. The RAB correction factors defined in 16.2.6 and 16.3.3 of these Price Control Principles will first be applied when calculating the adjusted allowed revenues for the regulated year 2023. The correction factors from the fourth and fifth regulatory periods can be distributed over each of the years.

During the fifth regulatory period the ERO will carry out checks of assets; the checks will focus on, *inter alia*, the assets that are not intended for licensed activity performance but are included in RAB. Where the ERO finds that the initial value of RAB for the fifth regulatory period or, subsequently, the year-on-year changes in this value include assets that are not intended for licensed activity performance, whereby the licence holders have violated the principles of providing complete and true information under the Energy Act, the ERO will remedy the situation. The unlawful profit generated by including assets not intended for licensed activity performance and yet incorrectly included in RAB for the fifth regulatory period, will be removed through a proportional reduction of the profit for each of the years of the following regulatory period. The D&A of the assets so incorrectly reported will be removed similarly.

4.1.5. Profit

The profit parameter is calculated as the product of the rate of return and the value of the regulatory asset base.

Under Section 19a (1) of the Energy Act, when regulating the price of the related service in the electricity industry and the price of the related service in the gas industry the ERO shall proceed so that the set prices cover, *inter alia*, a reasonable profit ensuring return on investment in equipment serving for licensed activity performance. The reasonableness of profit is ensured by using a rate of return set as the weighted average cost of capital (WACC) under point 4.2.4 of the Price Control Principles.

The value of the profit parameter will be adjusted by the profit correction factor for each year of the fifth regulatory period. The profit correction factor is calculated as the product of the difference between the actual and planned values of the regulatory asset base (the RAB correction factor) and the rate of return applicable in the relevant year, applying the time value of money. In order to prevent any abuse of the rules through overestimated plans, the Office has set two different values of money for cases of 'over-planned' and 'under-planned' values of the RAB change. In case of 'over-planning', the time value of money for the profit correction factor's portion that exceeds 5% of the actual value of the RAB change, will be pegged to the value of the rate of return on the regulatory asset base in the relevant regulatory period under point 4.2.4 of the Price Control Principles, while for the profit correction factor's portion that does not exceed 5% of the actual value of the RAB change, it will be pegged to the time value of money under point 4.2.3 of the Price Control Principles.

In case of 'under-planning', the time value of money for the profit correction factor will be pegged only to the time value of money under point 4.2.3 of the Price Control Principles.

4.1.5.1. Profit from development investments in progress

The profit may include the various development investments in progress [= capital work in progress] to the extent to which the investment's portions procured using a subsidy are not included, provided the planned procurement period for the investment is longer than 24 months (the period of project implementation, excluding preparations), and the value of the accumulated portion of a single investment in progress, net of any capitalisation of the individual parts of the investment, in excess of CZK 0.5 billion in the relevant year. In case subsidies are granted and paid only on the basis of completed construction work, and in retrospect the conditions for granting the status of an investment in progress were not met, the values of the assets procured using the subsidy will be used to adjust the actual accumulated value of investments in progress, which enters into the correction factor of the profit from the value of investments in progress.

The inclusion of such investments in regulation will be subject to assessment and approval by the ERO. The planned value of development investments in progress can only be applied subject to a negative or zero value of the replacement and development fund registered at the end of the last full regulated year. In the relevant regulated year, the profit value will include only the part of the investment in progress planned for that year, as accumulated since the beginning of the investment and net of any capitalisation of the individual parts of the investment. With a lag of two years, this value will be subject to adjustment by the actually invested funds, by the actual time of investment procurement, and by any partial capitalisation. Once a portion of an investment has been included in the plan of capitalised expenditure, i.e. in RAB, the relevant portion of the investment will not be included in the 'investments in progress' parameter when calculating profit. The investment procurement period means a period of time beginning on the date of the building site handover (between the contracting entity and the contractor) and ending on the date of the acceptance of the work by the contracting entity and the full capitalisation thereof regardless of when the contracting entity pays the price to the contractor. The preparatory phases (such as project preparations and building permit) are not included in the investment procurement period.

An investment in progress can be acknowledged for the licence holder only for the regulated year for which the first payment for project construction by the contracting entity to the contractor is planned. The costs incurred in the preparations for an investment designated as an investment in progress will be included in the 'planned accumulated value of investments in progress' parameter when this parameter is first acknowledged in relation to this investment.

Where the actual investment procurement period is less than 24 months the licence holder's adjusted allowed revenues will be reduced by the values of the profit flowing from this investment due to its categorisation as an investments in progress, taking into account the time value of money. The same applies also in case where the accumulated portion of

a single investment in progress having the status of an investment in progress, net of any capitalisation of the individual parts of the investment, is lower than CZK 0.5 billion. The applicable reduction of adjusted allowed revenues can be made on a one-off basis within one regulated year, or can be spread over multiple regulated years.

If a portion of such a capitalised investment in progress is procured using a subsidy, this portion of assets is subject to the rules for subsidy recognition in regulation under point 4.1.2.

Timetable of consultations on investments in progress:

1. By 15 April, the licence holder sends the ERO for consultation a list of capital projects for which it requests reflection in the prices for the forthcoming regulated year and which meet the above rules;
2. By 15 May, the ERO assesses and comments on the received capital projects proposed for reflection in the 'investments in progress' parameter;
3. By 30 June, the licence holder reports investments in progress.

4.1.6. The market factor

The market factor can be used in cases where licence holders incur significant extraordinary costs that will be separated from the calculation of eligible costs through rolling averages with profit/loss sharing. Such costs may be incurred in connection with, for example, changes in the Czech and EU legislation, implementation of European codes, development of the market situation, coping with natural events, etc.

In respect of the costs incurred in coping with natural events, which were not covered by insurers, the ERO reserves the right, as with other types of costs, to assess whether it is justified to include these costs in the market factor. This issue will also be assessed from the perspective of whether or not the asset insurance costs exceed the amount of any benefit compensating other unexpected costs.

The market factor will cover economically justified costs that will be included in allowed revenues *ex post*, i.e. only after such costs were actually spent and reported in regulatory returns, or after they were actually spent but before they are reported in regulatory returns. Regulated companies can apply for the eligibility of costs and the Office assesses the request from the perspective of the justifiability of the various requirements. If approved, such costs will be reflected in allowed revenues and prices for the following year or, in justified cases and following consultation with the regulated entity, spread over multiple regulated years to prevent significant year-on-year changes in regulated prices.

The value of allowed revenues will be adjusted by the costs granted through the market factor, which do not have a recurring nature, to prevent dual reflection of costs.

The economically justified costs entering into the eligible costs base for the fifth regulatory period will not be reduced by the costs having a recurring nature and acknowledged through the market factor in the fourth regulatory period.

The adjustments to allowed revenues by the market factor will contain the time value of money amounting to the producer price index (PPI).

The eligible costs base has been determined as a three-year rolling average with a 50:50 parameterisation of the saving/overstepping of eligible costs, and it can therefore be expected that the need to cover costs through the market factor will be significantly reduced.

Where justifiable reasons necessitate a change to a parameter in the regulatory formula or to the principle of its setting, such change will be reflected in allowed revenues through the market factor. The market factor can assume both positive and negative values.

4.2. Shared parameters

4.2.1. Cost escalation factor

Escalation is a mechanism whereby the costs spent in a certain preceding year are adjusted for the future years so as to reflect the economic development.

On the basis of its analyses and evaluation of economic factors the ERO has decided to change the algorithm for calculating the escalation factor so that this factor responds to economic changes more flexibly. In the fifth regulatory period, escalation will be based on a compound escalation factor comprising the wage index and the index of business service prices (sub-index of the market services index) published by the Czech Statistical Office. For each licence holder, the weights of the two indices are set individually and separately for each regulated year. The calculation of the wage index weight, which enters into the calculation of the escalation factor, is based on the ratio of the actual personnel costs and the total economically justified costs included in the eligible costs base for the year for which the wage index is calculated. Where the values of the ratio of these costs are not known the values of the last closed year will be used.

The weight of the index of business service prices is calculated as the complement so that the sum of the weights of the two indices is 100% every year. The escalation factor is designed on a rolling basis, identically with the costs, in order to respond continuously to the changes in the ratio of the personnel and total economically justified costs.

4.2.2. Efficiency factor

The purpose of the efficiency factor is to simulate the effect of market forces in the regulated industry, since it reflects the growth of productivity across the industry. At the same time the purpose of incentive regulation is to motivate the regulated companies proactively to seek savings in the various cost items.

The yearly value of the efficiency factor has been set at 0.511%. For companies that have achieved savings exceeding 15% in operating expenditure versus eligible costs for the fourth regulatory period (2016–2019), the yearly value of the efficiency factor will be set at 0.2%.

For the fifth regulatory period, the efficiency factor is applied when calculating the eligible costs base, profit/loss sharing, and the eligible costs for the regulated year.

4.2.3. Time value of money

For adjusting the planned values entering into the regulatory parameters, the time value of money is the rate of inflation parameter set as the producer price index (PPI). In certain cases (for the part of the D&A correction factor, the value of which is higher than 5% of actual D&A, and for the part of the profit correction factor, which exceeds 5% of the actual value of the RAB change) the rate of return on the regulatory asset base will be used as the time value of money.

The rate of inflation parameter is set every year on the basis of the ratio of the rolling averages of the PPI published by the Czech Statistical Office for April of the relevant year.

4.2.4. Rate of return

The rate of return has been set as the weighted average cost of capital, WACC.

In order to determine the rate of return for the fifth regulatory period, the Office has revised the rate of return algorithm used in the fourth regulatory period, seeking to preserve the principles used for the fourth regulatory period and to reset all the inputs into the calculation. When determining the rate of return as the key parameter of investment conditions in the regulated environment the ERO analysed the changes in the market environment, the risks in the electricity and gas environments in certain countries, and the overall economic positions of the peer companies in those countries.

The Office has set the values of WACC as a parameter fixed throughout the regulatory period, except for cases of changes in the corporate income tax rate, taking into account the relevant specific conditions and indicators for the electricity industry and the gas industry. A single rate of return has been set for the electricity industry, likewise for the gas industry.

One of the main parameters in the calculation of regulated revenues in the electricity industry and the gas industry for the fifth regulatory period is the calculation of WACC of the companies operating in the given industry. The method for computing WACC is based on the weighted average of the cost of equity and cost of debt in the relevant companies.

Details of the WACC methodology are described in point 16.1.2 of these Price Control Principles.

4.2.5. Revenues from auxiliary services

When carrying on their licensed activity, system operators carry out the operations required by the law, which are necessary for the safe and reliable operation of the electricity transmission and distribution systems. Over and above these operations, the operator also receives requests for additional services, and it then delivers such services in some cases; these are recognised in bookkeeping separately from licensed activity operations.

For the fifth regulatory period, the current model employed in the fourth regulatory period will be preserved, with potential exceptions as the ERO may specify at the system operator's request subject to a detailed analysis of the service, the related costs, D&A, and profit from the assets included in regulation. The ERO will also assess, as the key aspect, the risk of market environment distortion, whereby unregulated entities that provide the service bear all the risks associated with the service, and therefore have to reflect these risks in the price of the service.

5. Special section on electricity transmission

In the fifth regulatory period, this special section of the Price Control Principles on electricity transmission may be modified or replaced to the extent of the technical units intended for the allocation of the TSO's adjusted allowed revenues and variable costs of losses. Such amendment, which does not influence the amount of the adjusted allowed revenues or the variable costs of losses, shall not be deemed to be a change to the Price Control Principles.

5.1. Electricity transmission, and services associated with ensuring the reliable and safe operation of the transmission system

5.1.1. Charge for reserved transmission system capacity

The Office regulates the charge for reserved transmission system capacity under point 16.2.1 of the Price Control Principles. The charge for reserved transmission system capacity is determined by allocating the adjusted allowed revenues from electricity transmission in proportion to the capacities reserved by the various electricity market participants connected to the transmission system.

Second-category electricity generators and first-category electricity generators in the case of a long-term shutdown of the electricity generating plant also contribute to the payment of the charge for reserved transmission system capacity. For this reason, the Office has introduced a new correction factor for electricity transmission, which adjusts the adjusted allowed revenues by the revenues from reserved capacity and exceedance thereof also collected from market participants other than regional distribution system operators, revenues from exceedances of the reserved input and output power, and any other revenues and costs deriving from the charges set out in the ERO price decision laying down the prices for related services in the electricity industry, unless they are recognised in the cost base or in other correction factors, and other revenues under separate legislation[4] related to Q Management. Revenues are included in the correction factor in full. Adjustment through the newly introduced correction factor for the TSO's other revenues also applies to other income, such as proceeds from connection, which will be adjusted in full, and to 60% of the positive difference between the proceeds from the sale of non-current assets and material hitherto serving for the licensed activities and their book value.

For regional distribution system operators, the reserved capacity for withdrawal from the transmission system is again determined as the average of the power balances at the interface between the transmission system and regional distribution systems from the four winter months (November to February) for the period of the last three years before the regulated year.

[4] Public notice 16/2016 on the conditions of connection to the electric grid

The other factors that influence the adjusted allowed revenues from electricity transmission include:

1. the balance of revenues and costs related to congestion,
2. the system development fund,
3. the TSO's investment factor,
4. parameter F2,
5. Q Management.

5.1.1.1. Balance of revenues and costs related to congestion

Where revenues from congestion on cross-border interconnectors exceed the costs, the use thereof follows Article 19 of Regulation (EU) 2019/943 of the European Parliament and of the Council on the internal market for electricity. The balance of revenues and costs will be used subject to the methodology described below, which, however, may be modified in the future to comply with the methodology prepared under Article 19 (4) of this Regulation.

The balance of the congestion revenues and costs will be used for paying the costs related to guaranteeing the actual availability of the allocated capacity including firmness compensation, or maintaining or increasing cross-zonal capacities through optimisation of the usage of existing interconnectors by means of coordinated remedial actions, where applicable, or covering costs resulting from network investments that are relevant to reduce interconnector congestion. The remaining unused revenues will be transferred to the system development fund, which will help to cover the costs incurred in the subsequent years in connection with the costs related to guaranteeing the actual availability of the allocated capacity including firmness compensation, or maintaining or increasing cross-zonal capacities through optimisation of the usage of existing interconnectors by means of coordinated remedial actions, where applicable, or covering costs resulting from network investments that are relevant to reduce interconnector congestion. The part of the balance of the costs and revenues of the ITC[5] mechanism, used in respect of infrastructure, will be added to the balance of the congestion revenues and costs.

A change in the approach compared with the practice in the fourth regulatory period is a modification of the allocation of the use of revenues from auctions, including the infrastructure part of ITC, between a part for D&A, a part for paying the costs related to guaranteeing the actual availability of the allocated capacity including firmness compensation, or maintaining or increasing cross-zonal capacities through optimisation of the usage of existing interconnectors by means of coordinated remedial actions, and a part for investments in the transmission system. The specific algorithm will limit the use of

[5] The Inter-Transmission System Operator Compensation (ITC) defined in COMMISSION REGULATION (EU) No 838/2010 of 23 September 2010 on laying down guidelines relating to the inter-transmission system operator compensation mechanism and a common regulatory approach to transmission charging

revenues from auctions, including the infrastructure part of ITC, for D&A and the costs related to guaranteeing the actual availability of the allocated capacity including firmness compensation, or maintaining or increasing cross-zonal capacities through optimisation of the usage of existing interconnectors by means of coordinated remedial actions, to 25% of the revenues for the year under review. The TSO shall use the remaining 75% for investments in the transmission system. The first monitored year is 2021, and the values of D&A and the costs related to guaranteeing the actual availability of the allocated capacity including firmness compensation, or maintaining or increasing cross-zonal capacities through optimisation of the usage of existing interconnectors by means of coordinated remedial actions, will enter into the prices for 2023 through correction factors (D&A will enter into the TSO's D&A correction factor and the other costs will enter into the correction factor for the provision of system services). For 2021, the amount of D&A entering this mechanism has been set as D&A of newly capitalised investments in year 2021 covered from the revenues from auctions and the infrastructure part of ITC. For subsequent years, the amount of D&A entering this mechanism will be determined by cumulating D&A of newly capitalised investments covered from revenues from auctions and the infrastructure part of ITC and D&A of investments covered from revenues from auctions and the infrastructure part of ITC since the beginning of the fifth regulatory period. If the aggregate value of the D&A entering this mechanism and the costs of redispatch does not amount to 25% of revenues from auctions and the infrastructure part of ITC, the remaining difference in the given year will be available for use for investments in the transmission system.

Under Article 19 (5) of Regulation (EU) 2019/943 of the European Parliament and of the Council on the internal market for electricity, the TSO reports to the Office the amount of congestion revenues and the use thereof for the preceding calendar year (without the ITC component) by 20 February of each year.

5.1.1.2. The system development fund

The system development fund has been preserved for the fifth regulatory period and serves for financing the costs related to guaranteeing the actual availability of the allocated capacity including firmness compensation, or maintaining or increasing cross-zonal capacities through optimisation of the usage of existing interconnectors by means of coordinated remedial actions, where applicable, or covering costs resulting from network investments that are relevant to reduce interconnector congestion, including the D&A related to such investments, under Article 19 of Regulation (EU) 2019/943 on the internal market for electricity.

The accounting for the use of the congestion revenues in the fifth regulatory period (i.e. for the first time in 2021 based on the actual values of 2021) must always take place as soon as practicable, however, not later than by 30 April of the subsequent year, as follows:

The actual balance of the congestion revenues and costs for year *i-2* + the actual balance of forex gains and losses + the ITC infrastructure balance for year *i-2* = $\mathbf{V1_{pepi-2}}$.

If $V1_{pepi-2}$ is positive, it will be used to cover the costs related to guaranteeing the actual availability of the allocated capacity including firmness compensation for year *i-2*, the costs related to maintaining or increasing cross-zonal capacities through optimisation of the usage of existing interconnectors by means of coordinated remedial actions for year *i-2*, opex on congestion management for year *i-2*, the costs resulting from network investments that are relevant to reduce interconnector congestion, including D&A related to these investments for year *i-2*, and to cover investments in the transmission system under the rules set out in point 5.1.1.1.

The value $V2_{pei-2}$ determined as the positive balance of $V1_{pepi-2}$ after the above steps will be allocated to the system development fund.

If $V2_{pei-2}$ > CZK 0, $V2_{pei-2}$ will be allocated to the system development fund. If $V2_{pei-2}$ <= CZK 0, no value will be allocated to the system development fund.

If the base value $V1_{pepi-2}$ for year *i-2* is negative, it will be factored in the adjusted allowed revenues for the regulated year.

5.1.1.3. The TSO's investment factor

In respect of determining its adjusted allowed revenues, the TSO's investment factor continues to be considered; it provides the funds that are required for investment in the replacement and development of the transmission system under the transmission system development plan but that are not provided by equity or debt. To determine the value of the investment factor the Office adjusts the TSO's leverage so that the total interest-accruing debt does not exceed a triple of EBITDA; the investment factor can have both positive and negative values. The sum of positive and negative investment factors for the period for which investment factors are applied shall equal zero.

The approach to the TSO's investment factor is as follows:

1. For the purposes of calculating the investment factor, total interest-accruing debt/EBITDA is used as the indicator of the company's leverage.
2. In the event of a planned exceedance of a triple of EBITDA, the amount of the positive investment factor will be determined so that total interest-accruing debt/EBITDA equals three.
3. When the planned leverage drops under three, the amount of the negative investment factor will be determined so that total interest-accruing debt/EBITDA equals three.
4. A positive investment factor is treated as an interest-free loan, which ČEPS, a.s. ("ČEPS") will repay through a negative investment factor.
5. The investment factor is not part of the debt.
6. Negative investment factors serve only for repaying the sum of positive investment factors and will be utilised until the full repayment of the sum of positive investment

factors. At the same time, the cumulated sum of positive and negative investment factors shall not be negative.

7. A positive investment factor is treated as extraordinary financial income. ČEPS transfers the full amount of a positive investment factor into a separate fund from profit, which will be newly established upon the application of the first positive investment factor. Before the complete repayment of the sum of positive investment factors, the money in this fund may only be used for covering capex; this fund must not be abolished and no dividends may be paid out of the fund.
8. Throughout the time of applying the methodology for the calculation of the investment factor, the company must satisfy the condition that dividends are paid out from profit after tax and after allocations to the various funds and that no annual bonuses are paid to board members. Upon a breach of this condition, the Office will no longer award positive investment factors and will demand the refund thereof, with the time value of money equalling WACC for the fifth regulatory period. In such a case the other provisions will be used *mutatis mutandis*.
9. As part of regulatory reporting, every year ČEPS supplies the Office with the actual and planned values of its capex for years *i-2* and *i+3*. On the basis of the values of this capex, ČEPS supplies the Office with information about the calculation of the company's leverage for years *i-2* and *i+3* using the indicator in point 1 above. If the leverage indicator under point 1 is greater than three, ČEPS proposes the values of the investment factor for regulated years *i* to *i+3* and also supplies the Office with information about the values, remaining in ČEPS's plans, of the positive investment factors determined.
10. The Office sets the value of the positive or negative investment factor for year *i* and notifies the licence holder thereof in accordance with the timetable for notifying the TSO of the regulatory formula parameters, taking into account the planned values of leverage for years *i* to *i+3* and the amount of dividend payout in year *i-3* (subject to the above conditions) on the date specified later in these Principles.

The procedure of applying the positive and negative investment factors will be assessed on an ongoing basis; the first revisions will take place in the period between the determination of the investment factor for the last regulated year of the fifth regulatory period and the determination of the investment factor for the first regulated year of the sixth regulatory period.

5.1.1.4. Parameter F2

Parameter F2 was introduced in the third regulatory period and contained finances provided as advances towards investments in the third regulatory period. The residual value of parameter F2, which was not cleared in the third or fourth regulatory period, has been carried over to the fifth regulatory period, in which it will reduce the adjusted allowed

revenues by the amount not cleared, including the time value of money as at the first year of the fifth regulatory period.

5.1.1.5. Management of reactive energy (this text is relevant for both the TSO and the DSOs)

The major changes that are under way in the electricity industry, such as the integration of distributed generation, in particular renewables, electric mobility, storage, introducing and using the opportunities provided by new metering technologies, the requirements for conversion to cables and the development of electrical networks within urbanised areas, and the change in the flows between the transmission and distribution systems in industry (new technologies, electric mobility) and in households (installation of smart appliances, power generating facilities, and storage), are increasing the requirements for maintaining the quality of voltage and for managing the changes in the flows of reactive energy. Since voltage quality is an issue that has a local nature while the increasing flows of reactive energy is an issue that has a both local and system-wide nature, a systemic solution that will be fair for both sides at the interface between the networks of different operators, and both for the operators themselves as well as for the users of their systems, must be designed.

The efficiency of the measures for ensuring voltage quality therefore rests in putting in place a single solution for Q Management and in the balanced determination of:

- the requirements placed on system users upon their connection so that the users do not adversely impact the voltage quality in their locality and the flows of reactive energy;
- the pricing of unsolicited export/import of reactive energy;
- the procurement of ancillary services concerning reactive power (U/Q control);
- the company's own investment and operating measures to ensure the required voltage quality and flows of reactive energy.

The framework:

- Reactive power is becoming an integral part of relationships between market participants at all levels. The tariff for unsolicited supply of reactive power is motivational (effectively prompts the company to install and reliably operate its own compensation).
- Q Management solutions reflect the international experience with the principles of U/Q control.
- The costs of Q Management include, in general, the relevant system operator's economically justified costs. The funds obtained for the exceeding of the agreed reactive power limits, i.e. for unsolicited reactive power, are part of the adjustment of allowed revenues.
- There may be a single charge for unsolicited reactive power, or in the future it can be differentiated by voltage level.

- A portion of the costs incurred in Q Management can be a part of the payments for active power (for example, in relation to the free-of-charge power factor).

The following measures will be used in the fifth regulatory period:

1. Conditions for connecting power generating facilities, customers' demand facilities, storage devices, and distribution systems, and conditions for operating them.

   The conditions that specify system users' behaviour so that they do not adversely impact the system's parameters -- voltage quality and reactive energy export/import -- must be laid down in the relevant legislation/contract.

2. Payments for unsolicited reactive energy export/import.

   Unsolicited reactive energy export/import is understood to be reactive energy export/import outside the range of the allowed, i.e. agreed power factor. The contribution of the power generating or other facility to voltage control using reactive power must be specified, together with the range of the allowed power factor, in the connection agreement or some other contract with the relevant DSO.

3. The quantity of reactive energy exported/imported is evaluated in each metering interval at the connection points that are equipped with the relevant metering (active and reactive power is measured at 15-minute intervals). In the first stage, this will be applied only to the market participants whose equipment is connected at the HV and MV levels. The decision on the potential application to the market participants whose equipment is connected at the LV level will be taken later (in relation to AMM rollout).

4. The method of evaluation and charging will be specified in the relevant provisions of the ERO price decision. Evaluation at 15-minute intervals is being envisaged.

5. Only failure to follow the relevant control scheme is regarded as overstepping in the case of devices used in the control of reactive power exported/imported.

6. For the use of voltage control or reactive power control services for the DSO, the range of allowed free-of-charge power factors for the first, second, and third quadrants, which is (1 to 0.95), is expected to be maintained. In the fourth quadrant (active import, reactive export), the current approach where the whole Q export is unsolicited is expected to be retained.

7. Ancillary services in respect of voltage and reactive power control.

   The TSO and DSOs buy the ancillary service that controls voltage and reactive power, one of non-frequency ancillary services (AS-Nf). The service is paid on the basis of a contract; its provision beyond the technical control, which the generating facility is obliged to provide under the connection conditions, is subject to evaluation.

8. The TSO's and DSOs' own measures.

   The system operator can install devices helping to control voltage and reactive electricity flows (compensators, shunt reactors, etc.) in the relevant parts of the network. The costs strictly necessary for procuring, operating, and maintaining these

devices as well as the costs of the related operating measures are reflected in allowed revenues.

The following Table 4 shows the expected quantities required for reactive power compensation, AS-Nf, to control U/Q in the EG CR until 2030, for 2020, 2025 and 2030.

Table 4 Technical requirements for additional reactive power in distribution networks

Technical requirements for additional reactive power in distribution networks in the year:	**2020**	**2025**	**2030**
Measures to compensate for impacts of Q overflows from DS to ETS [MVAr]	52	203	323
Measures for voltage control (provided as a service) in DS [MVAr]	210	724	917
Total additional reactive power required in DS **[MVAr]**	***262***	***927***	***1240***

Expected timetable:

- work started on an amendment to the legislation, 2020;
- incorporation in the ETS Code and DSOR in 2020;
- Q metering system deployed at the HV and MV levels: beginning of the fifth regulatory period;
- decision to change the procedure for charging unsolicited reactive energy in respect of the distribution system's customers at the LV level; end of the fifth regulatory period;
- quality measurements at secondary substations rolled out by 2025.

5.1.2. Charge for using the transmission system networks

The Office proceeds under point 16.2.1 of the Price Control Principles to regulate the charges for using the transmission system networks. The network use charge is calculated by dividing the variable costs of losses by the electricity quantity withdrawn from the transmission system by the other electricity market participants.

The variable costs of losses are determined using the price of electrical energy for covering losses in the transmission system and the planned quantity of losses in the transmission system. The variable costs of losses also reflect the correction factor for network use.

The Office lays down the price of electrical energy for covering losses in the transmission system in line with the methodology described in point 5.1.3.

The charge for network use is subject to correction. Unlike the preceding regulatory period, the correction factor now also includes the balance of the revenues and costs (compensation and contributions) for losses from ITC mechanism clearing5, including the operating costs related to the ITC mechanism clearing5, which will not be part of the cost base for calculating eligible costs.

5.1.3. Methodology for pricing electrical energy for covering losses in the transmission system

In the fifth regulatory period, the price of electrical energy for covering losses in the transmission system is calculated using the same methodology as in the fourth regulatory period, but for certain changes.

The unit price of electrical energy is based on the value of costs in several categories:

1. Costs of procuring electrical energy to cover the loss profile;
2. Costs of loss imbalances, and the charges for hedging the price of and procuring electricity;
3. The incentive component of profit.

The costs of procuring electrical energy for covering the planned loss profile are determined on the basis of the costs of electricity bought in electricity futures and electricity forwards and the costs of electricity bought at spot markets. In futures, electricity in the base year product, BL CAL *i*, having a total value depending on the minimum-load hour in year *i*, is bought for covering the loss profile. The rest of the profile is covered by electricity bought at the day-ahead electricity market. In order to price the base year product BL CAL *i* in the event that by 31 August of year *i-1* no base year product BL CAL *i* had been bought, the arithmetic average of the known prices for the regulated year *i* (for 2021, EEX BL CAL 21) for the period from 1 October *i-2* to 30 September *i-1* is used. The resulting price is marked up or down by the arithmetic average of the Joint Allocation Office S.A. (JAO) auction prices of the yearly capacity in the interconnector between the German bidding zones of the 50Hertz Transmission GmbH and TenneT TSO GmbH transmission system operators and ČEPS, a.s., the Czech transmission system operator, depending on the price levels in the Czech and German bidding zones. The following applies to translating EUR into CZK:

Values in € (EUR) are translated from € (EUR) into Kč (CZK) using the average daily rate of the EUR/CZK currency pair over the monitored period. The daily rate of the EUR/CZK currency pair is then marked up by:

1. a bank margin of 0.2% on the purchase of EUR,
2. a risk premium of 0.33% for the daily volatility of the EUR/CZK currency pair,
3. a premium of 1Y forward points of the EUR/CZK currency pair for each of the days of the period under review,
4. a premium of 4M forward points, in excess of the 1Y forward points, for the period under review.

The bank margin equals the average premium charged by commercial banks when they sell hedging instruments in the form of EUR/CZK FWS. The premium is based on the average EUR/CZK bid-ask spread from 1 October 2012 to 30 September 2017. The risk premium for daily volatility covers the risk of buying a currency at any moment in a day and is derived from the average value of the daily volatility of the EUR/CZK rate from 1 January 2014 to 31 December 2018; daily volatility is defined as the share taken by the difference between

the high and low values in the day's opening value. Volatility so calculated expresses, in percentage terms, the actual interval of the daily rate's movement. The premiums of the 1Y and 4M forward points have been selected with regard to the average time between buying the currency for buying electricity for covering losses and billing the electricity supplied for covering losses, which is 16 months. The use of 1Y forward points was selected in the light of the relevancy of this financial product, which is liquid and available. The Czech National Bank (CNB) provides the data on 1Y forward points for the monitored period. In order to take into account the average time of 16 months between electricity purchase and billing, a premium of 4M forward points has been set in excess of 1Y forward points, because 16M forwards are not a product traded on an everyday basis. The additional 4M forward points have been determined by a linear interpolation of 4M forward points from the difference between 18M and 1Y points. This algorithm is used for the part of the BL CAL product, which the TSO has not yet bought in regulated year *i*.

In the event that by 31 August of year *i-1* a yearly base load product BL CAL *i* had been bought, the pricing of the part of the BL CAL product, which had been bought, is based on the prices of actually executed transactions. In the event of using the prices in actually executed trades, of already bought energy in the yearly base load product BL CAL, for the remaining energy not yet bought in the BL CAL, the relevant period, containing the initial prices for pricing the remaining energy not yet bought, is changed to 1 June *i-1* to 31 August *i-1*. The remaining prices of electricity at the day-ahead market for year *i* are accepted from OTE's day-ahead market for the period of trading from 1 October *i-2* to 30 September *i-1* in EUR and then translated into CZK using the above rate, determined using the applicable methodology, for which the relevant period is the same as for futures. At the same time, the calendars must be reconciled with a view to reflecting the trading period days in the whole year *i* and to taking into account all public holidays and winter/summer/winter time switches. Since year-on-year, the week days keep shifting in respect of any specific date in the calendar, calendar reconciliation helps to shift the dates in the calendar with a view to an even use of the relevant period's hourly prices on the matching days in the calendar of regulated year *i*.

The costs of loss imbalances and the charges related to hedging the price of and procuring electricity are calculated as the arithmetic average of the actual costs for years *i-4* to *i-2*. The past practice of awarding profit for buying electricity to cover losses has been changed. A fixed value of profit, CZK 2.5 million, will continue to be awarded to the TSO *ex ante* when calculating the network use charge.

In the fifth regulatory period, another part of profit, CZK 2.5 million, is conditional on keeping the parameters of the incentive to reduce, on a year-on-year basis, the average yearly value of the loss imbalance, converted to MWh of electricity losses in the transmission system. The incentive consists in achieving an average absolute unit imbalance of losses (the absolute value of the difference between the resulting trading position and the actually measured values of losses (MWh)) which is lower than the value derived from the arithmetic average of the actual average absolute unit hourly imbalances for years *i-5* to *i-3*, where *i* is

the subsequent regulated year. The meeting of the conditions for acknowledging the incentive component of profit is evaluated as part of correction factor calculation.

The planned price of electrical energy for covering losses in the transmission system is calculated as the above costs divided by the planned quantity of losses in the transmission system for year *i*.

The costs of procuring electrical energy are subject to adjustment in the correction factor for network use. The costs of procuring electrical energy for covering the loss profile and the costs of loss imbalances and the charges related to hedging the price of and procuring electricity are 100% adjusted, while the incentive component of profit, CZK 2.5 million, may be awarded as part of the correction factor following the evaluation of the conditions set out in the above paragraph.

The TSO may procure electricity and hedge its price otherwise than by following the above algorithm for the regulated price entering the calculation of the charge for network use. Such electricity procurement and hedging shall always be carried out for the purpose of minimising the costs of using the transmission system networks.

5.1.4. Charge for system services

The Office proceeds under point 16.2.2 of the Price Control Principles to regulate the charge for system services. The charge for system services is calculated by dividing the adjusted allowed revenues from system service provision by the electricity quantity withdrawn from the grid, which is subject to the charge for system services.

In the fifth regulatory period, the value of the adjusted allowed revenues is based on the value of the allowed revenues from system service provision, which is derived, the same as in the fourth regulatory period, from eligible costs, D&A, and profit. In the fifth regulatory period, the value of the eligible costs required for to ensure trading in system and ancillary services for the regulated year is calculated in a different manner than the algorithm used in the fourth regulatory period. The eligible fixed costs are calculated under point 4.1.1 of the Price Control Principles, i.e. on the basis of the rolling average of the actual values of the costs reported for the last three known years, the adjusted escalation factor, and the efficiency factor related to the time value of the year for which the value of the eligible fixed costs is being calculated. In respect of eligible costs, profit/loss sharing will be applied in line with the above-cited point. The value of eligible D&A will result from the same algorithm as in the fourth regulatory period, and the value of profit will be set as a fixed value equalling the guaranteed profit in the fourth regulatory period.

However, the main component of the adjusted allowed revenues from system service provision consists of the planned costs of balancing services (BS), which are determined on the basis of the planned reserve capacity procured in line with the yearly operational plan drawn up under public notice 79/2010 on electric grid operation control and on data transmission for grid operation control, as amended, multiplied by the planned price calculated as the arithmetic average of the values of the actual average yearly costs of BS procurement for the last three known years. In this calculation, the reserve capacity and the

average yearly costs mean a point value related to the entire reserve capacity, i.e. regardless of whether the ancillary services were bought under forward contracts or from the day-ahead market. With regard to Section 24 (3) (b) of the Energy Act, the TSO has the right to take into account the bid prices and may change the shares of each of the BS being procured, while keeping the operating and reliability parameters in compliance with Commission Regulation (EU) 2017/1485 establishing a guideline on electricity transmission system operation.

Where the TSO's actual average yearly value of the costs of BS is lower than the planned value, a portion of this saving will be left to benefit the TSO and will be reflected in the regulated prices by way of the incentive portion of the profit related to BS procurement, set as 40% of the positive difference between the planned and actual average yearly values of the costs of BS procurement, multiplied by the actual yearly volume of reserves bought in year *i-2*. Where the TSO's actual average yearly value of the costs of BS procurement is higher than the planned value the Office will not award any incentive portion of the profit related to BS procurement. In both cases, the TSO recoups the actual costs of BS purchase, equalling the actual average yearly value of the costs of BS purchase, in the correction factor. The Office evaluates the history of the development of the planned and actual values of the volume of the reserves bought as part of BS and in the event of any significant unjustified differences between the planned and actual values or between years, it can change the regulatory formula parameter or the principle of its setting for valid reasons.

Regulation continues to reflect additional revenues and costs related to system service provision, such as the impacts of the imbalance settlement mechanism, the provision of non-frequency ancillary services and balancing energy, the residual value of the costs of remedial actions and of ensuring system security, or any exchange of reserves between TSOs and some other actions to ensure balance in the EG CR. Unlike the fourth regulatory period, the incentive bonus for the TSO, amounting to 30% of the total difference between the revenues and costs of the GCC mechanism, will no longer be reflected.

In the event of a positive balance of the congestion revenues and costs, this balance will be utilised under point 5.1.1.1 for paying the costs related to guaranteeing the actual availability of the allocated capacity including firmness compensation, or maintaining or increasing cross-zonal capacities through optimisation of the usage of existing interconnectors by means of coordinated remedial actions, where applicable, or covering costs resulting from network investments that are relevant to reduce interconnector congestion, unless the methodology under Article 19 (4) of the internal electricity market regulation lays down otherwise.

5.1.5. Timetable of notifying the parameters of the regulatory formula to the transmission system operator

5.1.5.1. Parameters of the regulatory formula notified before the regulatory period

Not later than five months before the regulatory period, the Office notifies the TSO of the values of the following parameters:

1. the annual value of the efficiency of electricity transmission and system service provision,
2. the rate of return on the regulatory asset base for electricity transmission,
3. the initial value of the regulatory asset base for electricity transmission,
4. the fixed profit from system service provision.

5.1.5.2. Parameters of the regulatory formula notified before a regulated year

Not later than five months before each regulated year, the Office notifies the TSO of the values of the following parameters:

1. the value of adjusted allowed revenues for electricity transmission,
2. the value of allowed revenues separately for electricity transmission and for system service provision,
3. the weights of the wage index for electricity transmission and for system service provision for each of the years entering the calculation,
4. the values of the wage index for each of the years entering the calculation,
5. the value of the business services price index,
6. the value of the producers price index,
7. the eligible costs base separately for electricity transmission and for system service provision,
8. the value of profit/loss sharing separately for electricity transmission and for system service provision,
9. the value of eligible costs separately for electricity transmission and for system service provision,
10. the planned value of D&A of non-current assets separately for electricity transmission and for system service provision,
11. the expected value of D&A of non-current assets for electricity transmission for year *i-1*,
12. the actual value of D&A of non-current assets for electricity transmission for year *i-2*,
13. the planned value of D&A of non-current assets procured from a subsidy for electricity transmission,

14. the correction factor for D&A separately for electricity transmission and for system service provision,
15. the TSO's correction factor reflecting the allocation of a part of the revenues from auctions, including the infrastructure part of ITC, and the system development fund in D&A,
16. the planned value of the regulatory asset base,
17. the planned value of capitalised investments for electricity transmission,
18. the planned value of electricity transmission assets acquired through company transformation,
19. the planned value of disposals of electricity transmission assets,
20. the expected value of capitalised investments for electricity transmission,
21. the expected value of electricity transmission assets acquired through company transformation,
22. the expected value of disposals of electricity transmission assets,
23. the actual value of capitalised investments for electricity transmission,
24. the actual value of electricity transmission assets acquired through company transformation,
25. the actual value of disposals of electricity transmission assets,
26. the planned cumulated value of investment in progress for electricity transmission,
27. the actual cumulated value of investment in progress for electricity transmission,
28. the value of the market factor separately for electricity transmission and for system service provision,
29. the balance in the replacement and development fund,
30. the planned electricity demand values for calculating the prices in the regulated year:
    a. yearly reserved capacity in the transmission system for all customers,
    b. the expected electricity quantity that is subject to the charge for use of transmission system networks,
    c. the expected electricity quantity that is subject to the charge for system services,
31. the planned quantity of total losses in the transmission system,
32. the settlement of the F2 factor from the third regulatory period,
33. the incentive component of profit for organising trade in ancillary services,
34. the differences between the revenues and costs related to the settling of the differences resulting from settling the costs of imbalances, of balancing energy, of balancing energy from *ad hoc* electricity supply from and to other countries as part of the TSOs'

cooperation, of redispatch, and of the compensation for electricity not taken during grid operation control,

35. the profit correction factor,
36. the profit correction factor from the value of development investments in progress,
37. the correction factor for electricity transmission,
38. the correction factor for other revenues,
39. the value of the system development fund,
40. the correction factor for transmission network use,
41. the correction factor for system services,
42. the investment factor.

By 10 October of the year preceding the regulated year, the Office notifies the TSO of the values of the following parameters:

1. the charge for electrical energy for covering losses in the transmission system,
2. the charge for capacity reserved in the transmission system,
3. the charge for use of transmission system networks,
4. the value of the adjusted allowed revenues from system service provision,
5. the charge for system services.

5.1.5.3. Changes in the parameters of the regulatory formula

The Office reserves the right to derogate from the principles described in the Price Control Principles in the fifth regulatory period, in particular in the following cases:

1. A change in the legislation directly applicable to the licence holder's licensed activity, which has a major impact on the parameters in the regulatory formula;
2. An extraordinary change in the electricity/gas market or other extraordinary changes in the country's economy meriting particular treatment;
3. A state of emergency, a state of danger to the country, or a state of war is declared;
4. Parameters have been set on the basis of incorrect, incomplete or untrue information;
5. Material changes on the part of regulated entities where such changes significantly affect the assumptions on the basis of which these Price Control Principles have been formulated, in particular those impacting on the structure and amount of eligible costs or book value of assets (such as insourcing/outsourcing or asset revaluation);

6. Special section on electricity distribution

In the fifth regulatory period, this special section of the Price Control Principles on electricity distribution may be modified or replaced to the extent of the technical units intended for the allocation of adjusted allowed revenues and variable costs of the DSOs' losses. Such amendment, which does not influence the amount of the adjusted allowed revenues and the variable costs of losses, shall not be deemed to be a change to the Price Control Principles.

6.1. Electricity distribution, and provision of services associated with ensuring the reliable and safe operation of the distribution system

6.1.1. Charge for reserved capacity

The Office proceeds under point 16.2.3 of the Price Control Principles to regulate the charge for capacity reserved in distribution systems. The basic algorithm for calculating the unit price for reserved capacity, where the adjusted allowed revenues from electricity distribution are divided by the total average reserved capacity of connected electricity market participants, including the reserved capacity of transformation, has been maintained for the fifth regulatory period, unless the Office decides to replace reserved capacity with other technical units during the fifth regulatory period.

Compared with the fourth regulatory period, the adjustments to the actual values of the exceedances of the reserved capacity, and the reserved power input and output have now been included in the correction factor for electricity distribution, which also includes reserved capacity revenues from first-category generators in the case of a long-term outage of the power generating facility and any other revenues and costs deriving from the charges set out in the ERO price decision laying down the prices for related services in the electricity industry, unless they are recognised in the cost base or in other correction factors. The actual values of the balance of the revenues and costs of capacity reserved for overflows between DSOs' HV and MV networks are also part of the correction factor. Revenues are included in the correction factor in full.

Adjustments to the actual values of the costs of non-frequency ancillary services, including any other revenues under different legislation4 related to Q Management and including revenues from the charge for failure to keep the power factor and the charge for unsolicited supply of reactive power, or alternatives thereto upon a change in the charge for reactive power during the fifth regulatory period, will be made in the correction factor for non-frequency ancillary services in full. Proceeds from connection and from the sale of non-current assets and material will also be adjusted through the newly introduced correction factor for the DSO's other revenues. This correction factor reflects 100% of the actual proceeds from connection, 60% of the positive difference between the proceeds from the sale of non-current assets and material hitherto serving for the licensed activities and their book value, and 60% of the proceeds from damages in the event of illegal off-take at the various voltage levels.

In the fifth regulatory period, the correction factor for electricity distribution is evaluated in two steps in two consecutive years. In the first step for year *i-2*, the correction factor for electricity distribution is evaluated on the basis of the data from regulatory returns, reported under a separate piece of legislation[6], in a manner similar to that in the fourth regulatory period. However, because of the inaccurate estimate of the unbilled electricity quantity, the regulatory returns for year *i-2* may show a quantity of losses at the LV level that does not equal actual losses, which, due to the preservation of the balance sheet equation, influences also the electricity quantity taken by customers connected to the LV level, and this quantity enters into the calculation of the revenues from customers connected to the LV level. What can also occur – because of completing regulatory returns for year *i-2* without knowing the actual spread of the supplied electricity quantity over customer groups by distribution tariff and without knowing the actual billed number of supply points during the year – is additional inaccuracies in calculating the system operators' actual revenues from customers connected to the LV level. As part of the second step of adjustment for year *i-3* the correction factor for electricity distribution will therefore be rectified following the billing of the entire supplied electricity quantity relating to year *i-3,* also including all supply points with non-continuous metering, on the basis of the year *i-3* electricity quantity actually billed to customers connected to the LV level. The rectification for year *i-3* will be also based on the actual spread of the supplied electricity quantity over customer groups by distribution tariff and the actual billed number of supply points during the year. As part of calculating the correction factor for year *i-3* the metered values will also be rectified. The exact method of rectification will be designed depending on the outputs from the ongoing project in which the stakeholder parties are participating.

The fifth regulatory period may also see the rectification of the inaccuracies in the calculation of the correction factor for electricity distribution for the fourth regulatory period, which [the inaccuracies] result from the above described inaccurate completion of the regulatory returns. This rectification for the fourth regulatory period concerns only the correction factor for electricity distribution, as part of which the actual revenues and costs are adjusted on the basis of a comparison with the DSOs' adjusted allowed revenues, and does not concern the correction factor for network use, as part of which the actual revenues and costs related to electricity for covering losses are adjusted. Any adjustments extending into the fourth regulatory period will preserve all the principles and procedures for price controls as set and applicable for the fourth regulatory period.

The resulting charge for reserved capacity is a cumulative price, i.e. the charge for reserved capacity at a given voltage level includes the unit price for reserved capacity and also a portion of the costs of electricity distribution at higher voltage levels, including transmission and the costs of overflows between system operators.

The other components influencing the adjusted allowed revenues from electricity distribution include:

[6] Public notice 262/2015 on regulatory reporting, as amended

1. Incentive-based quality regulation
2. Q Management

6.1.1.1. Incentive-based quality regulation

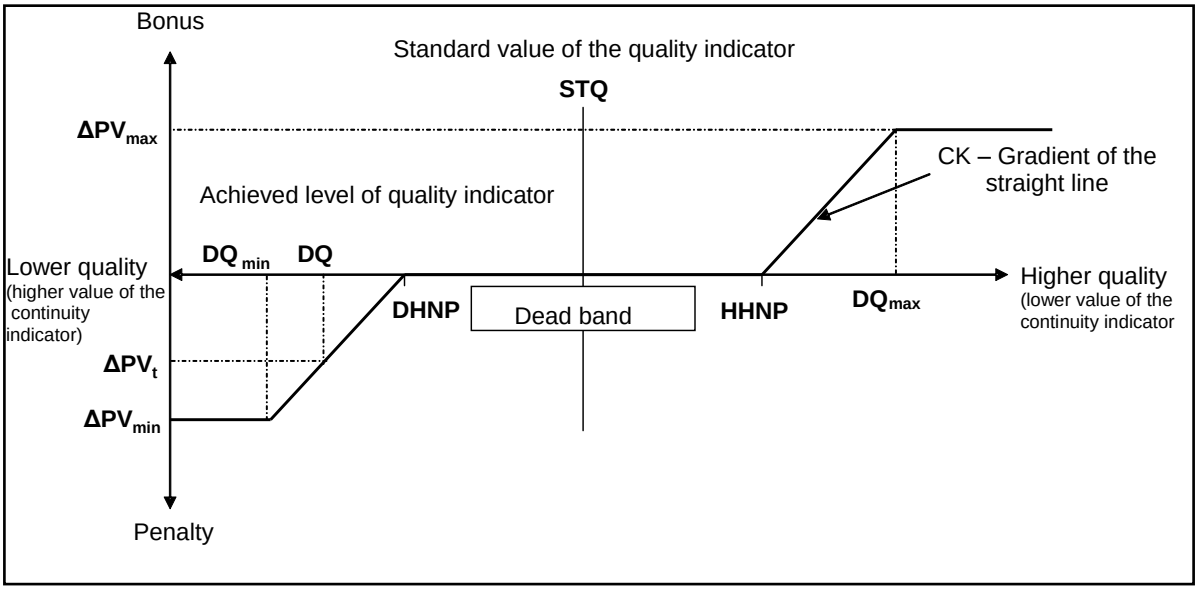
When assessing adherence to the set limits, the quality of network services will also be measured with the help of a combination of the $SAIFI_Q$ and $SAIDI_Q$ indicators in the fifth regulatory period. $SAIFI_Q$ expresses the average number of electricity distribution interruptions at customers in a given system for a period of one calendar year. $SAIDI_Q$ expresses the average total time of all electricity distribution interruptions at customers in a given system for a period of one calendar year. The calculation of continuity indicators is set out in Annex 5 to public notice 540/2005 on the quality of electricity supplies and related services in the electricity industry, as amended ('the quality regulation'), or in a similar annex to its new wording.

Individual parameters of the quality indicator are set for each of the licence holders. The required values of $SAIFI_Q$ and $SAIDI_Q$ are 'whole-system' indices, i.e. indices for the respective system operator's entire distribution system without differentiating between voltage levels.

The amount of the penalty or bonus for the quality level achieved in electricity distribution is calculated on the basis of the acknowledged values of the indicators of continuity in electricity distribution as against the required values set by the Office.

Together with the required quality parameters, upper and lower limits are set, beyond which the maximum value of the bonus or penalty are applied. A 'dead band' is also used, within which no bonuses or penalties are applied. This feature helps partly to eliminate the probable year-to-year variations in the achieved values of continuity indicators. The mechanism of incentive-based quality regulation is shown in the following diagram.

Figure 5 Incentive-based quality regulation diagram



where:

ΔPV_t is the bonus/penalty for the quality achieved, expressed in financial terms

t is the serial number of the regulated year

DQ is the achieved value of the quality indicator in the period relevant for assessing service quality for the respective year of the regulatory period

CK is the unit price of quality

ΔPV_{max} is the maximum bonus for service quality achieved

ΔPV_{min} is the maximum penalty for service quality achieved

DHNP is the lower limit of the dead band

HHNP is the upper limit of the dead band

STQ is the required value of the quality indicator ($SAIDI_Q$ and $SAIFI_Q$)

DQ_{max} is the limit value of the quality indicator, from which the maximum bonus for achieved service quality is applied

DQ_{min} is the limit value of the quality indicator, from to which the maximum penalty for achieved service quality is applied

6.1.1.2. Features of incentive-based quality regulation

a) Clear-cut definition of the input indicators:

Incentive-based quality regulation only includes such events in the calculation of $SAIFI_Q$ and $SAIDI_Q$, which are within the system operator's control.

Due to this fact, the calculation of continuity indicators includes only the following interruption categories under Annex 4 to public notice 540/2005:

1. Unplanned failure-related interruptions in electricity transmission or distribution caused by failures originating in the installations of the system operator's transmission or distribution system or in the operation thereof under unfavourable weather conditions (category 16);
2. Unplanned failure-related interruptions in electricity transmission or distribution caused by third-party interference or action (category 12);
3. Forced unplanned failure-related interruptions in electricity transmission or distribution (category 15);
4. Extraordinary unplanned interruptions in electricity transmission or distribution (category 14);
5. Unplanned interruptions in electricity transmission or distribution caused by events outside the system operator's system and at the generator (category 13);
6. Planned interruptions in electricity transmission or distribution scheduled by the DSO on account of an extraordinary capital project acknowledged by the Office (category 213), subject to the limitation shown in Figure 6 below.

b) Setting the required values for the whole regulatory period:

The Office is aware that significant development and extensive refurbishments of distribution systems are time and cost intensive activities that have to be planned a long time in advance. For this reason, setting the required targets for a longer period of time, i.e. determining the achievable level of the quality of electricity supply, is necessary for incentive-based quality regulation to work. This step makes it possible for the various companies to make well in advance the necessary preparations for implementing the measures that will help to improve electricity supply quality parameters.

For this reason, the required values of $SAIFI_Q$ and $SAIDI_Q$ are set for the whole regulatory period. The required values have been set on the basis of the conclusions of a study mapping the impacts of any measures that may be implemented by the DSOs at the end of the fourth and during the fifth regulatory period and the settings of the required $SAIFI_Q$ and $SAIDI_Q$ continuity indicators depending on such measures.

c) The key principles of incentive-based quality regulation:

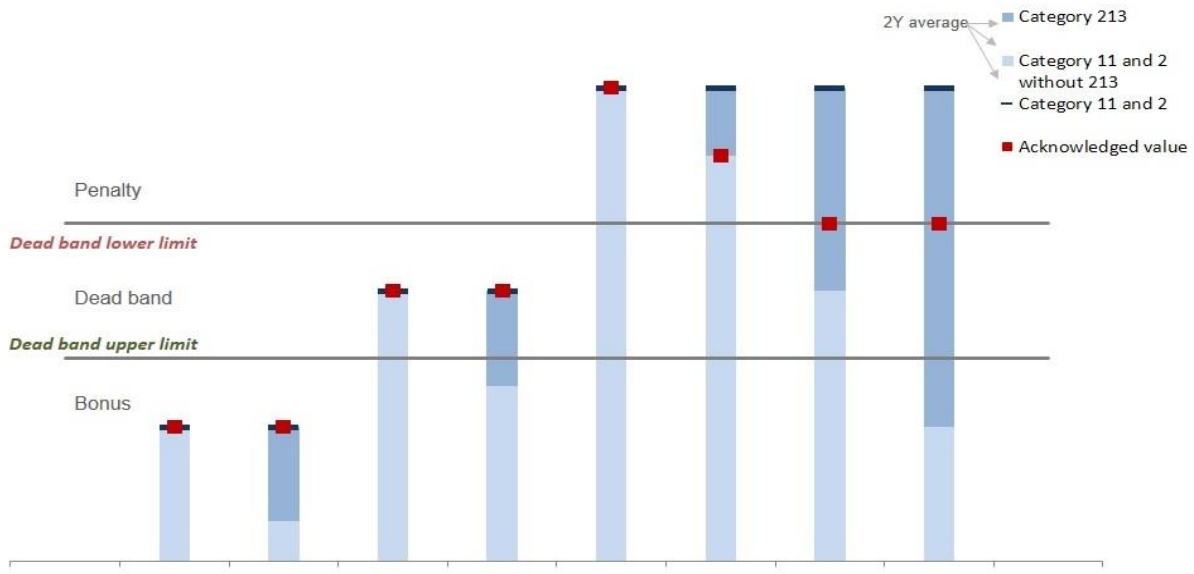
The Office's objective is to continue providing sufficient incentives to DSOs to improve the quality of electricity supply to final customers. In the fifth regulatory period, the Office has preserved the maximum bonus and penalty at ± 4 % of the utility's profit. The 50/50 allocation of the maximum bonus and penalty to $SAIFI_Q$ and $SAIDI_Q$ has also been preserved.

The values of continuity indicators calculated on the basis of a two-year rolling average will continue to enter the quality factor calculation. The feature has been preserved in order to smooth out the year-to-year variations in continuity indicators even more.

The centres of the dead bands are tied to the centres of the dead bands announced for 2020 (i.e., they have been derived for 2021 for the values of centres applicable in 2020 with the relevant toughening; the toughening will continue in a geometric series going forward).

In the case of the category of planned electricity distribution interruptions, planned interruptions in category 213 are excluded from the quality factor: the inclusion of an interruption in this category is subject to approval by the Office and is limited to a reduction in penalisation rather than intended for bonus winning or increasing, based on the following diagram.

Figure 6 Diagram showing the exclusion of category 213 planned interruptions from the quality factor



Quality parameters in the fifth regulatory period:

The Office's objective is to provide sufficient incentives to DSOs to improve the quality of electricity supply for final customers and also to accentuate quality within the regulatory mechanism even more.

Quality parameters in the fifth regulatory period:

ČEZ Distribuce, a.s. and E.ON Distribuce, a.s.

- Broadening the dead band, compared with the dead band in the fourth regulatory period, to ±7.5% while preserving the proportionality zone at 10% (±17.5% from the centre of the dead band),
- year-on-year tightening:
- for $SAIFI_Q$ 1%
- for $SAIDI_Q$ 1%

- Broadening the dead band, compared with the dead band in the fourth regulatory period, to ±12.5% while preserving the proportionality zone at 15% (± 27.5% from the centre of the dead band),
- year-on-year tightening:
- for $SAIFI_Q$ 0.75%
- for $SAIDI_Q$ 0.75%

6.1.1.3. Q Management

The Q Management framework shared by the TSO and DSOs in the fifth regulatory period is described in point 5.1.1.5.

6.1.2. Charge for using distribution system networks

The Office regulates the charge for network use under point 16.2.3 of the Price Control Principles. The basic algorithm to calculate the unit price for use of distribution system networks has been preserved. The unit price for network use is therefore calculated by dividing the planned variable costs of losses by the planned electricity quantity taken, which [the quantity] is subject to the charge for network use.

The main components of the planned variable costs of losses are the allowed quantity of losses and the price of electrical energy for covering losses in the distribution system. The allowed quantity of losses is calculated on the basis of the planned yearly losses if their quantity is lower than or equal to the value calculated on the basis of the allowed rate of losses; otherwise, the allowed quantity of losses is calculated on the basis of the allowed rate of losses and the planned electricity quantity flowing into the distribution system. The maximum allowed price of electrical energy for covering losses in the distribution system is set by the Office under the methodology in point 6.3. The variable costs of covering losses are subject to a correction factor.

The correction factor is based on the difference between the costs incurred in and the revenues collected from network use. The main component of the costs incurred in network use is the actual variable costs of losses. The calculation of the correction factor for network use employs incentive-based quality regulation, where in the case of buying electrical energy for covering losses in the distribution system for a price lower than the price set by the Office, the DSO's revenues generated by the difference between the set price of electrical energy for covering losses and the actual price of electrical energy for covering losses are left to the DSO.

The correction factor is adjusted by the costs of network use in the transmission system and the balance of the costs of and revenues from network use in adjacent systems.

Compared with the fourth regulatory period, the correction factor for network use is, similarly as the correction factor for electricity distribution, evaluated in two steps in two

consecutive years. In the first step for year *i-2* the correction factor for network use is evaluated on the basis of the data from regulatory returns, reported under a separate piece of legislation6, where the quantities of losses at MV and LV and the electricity quantity taken by customers connected to the LV level and also the electricity quantity flowing into the LV level may be influenced by the inaccurate estimate of the unbilled electricity quantity. In the second step for year *i-3,* following the billing of the entire supplied electricity quantity relating to year *i-3,* also including all supply points with non-continuous metering, the electricity quantity taken by customers connected to the LV level will be replaced with the year *i-3* electricity quantity actually billed to customers connected to the LV level; furthermore, an adjustment will be made to the value of the losses at the LV level, potentially together with the quantity of losses at the MV level and the electricity quantity flowing into the LV level, on the principle of preserving the balance sheet equation. As part of calculating the correction factor for year *i-3* the metered values will also be rectified.

In the subsequent year *i*, this correction for year *i-3* will enter into the calculation of the correction factor as adjustment to the actual revenues from network use and related costs concerning year *i-4*.

The allowed rate of losses for the fifth regulatory period is also calculated differently and also has a different meaning. The allowed rate of losses in the fifth regulatory period is calculated for every regulated year and it will only be important for limiting the planned quantity of losses for the regulated year so that this quantity is in line with the expected development of losses, determined on the basis of the values of the losses calculated after billing the entire supplied electricity quantity, also including all supply points with non-continuous metering. The allowed rate of losses in the fifth regulatory period does not determine the maximum eligible regulatory quantity of losses in the distribution system. The value of the allowed rate of the DSO's losses will also be an input into calculating the rate of losses serving for imbalance evaluation by the market operator.

The resulting charge for network use is a cumulative price, i.e. the charge for network use at a given voltage level includes the unit price for network use and also a portion of the costs of electricity distribution at higher voltage levels, including transmission and the costs of overflows between system operators.

6.1.3. Timetable of notifying the parameters of the regulatory formula to distribution system operators

6.1.3.1. Parameters of the regulatory formula notified before the regulatory period

Not later than five months before the regulatory period the Office notifies the DSOs of the values of the following parameters:

1. the annual value of the efficiency factor,
2. the rate of return on the regulatory asset base,
3. the initial value of the regulatory asset base,

4. the planned value of the difference between the book values of assets and the regulatory asset base for 2020,
5. the values of the required level of the quality indicators for each of the years of the regulatory period,
6. the relative number expressing the maximum value of the bonus or penalty applicable to the DSO's profit,
7. the relative number expressing the limit value of a quality indicator, from which the maximum value of the bonus/penalty for achieved quality is applied,
8. the relative value expressing the value of the upper or lower limit of the dead band,
9. The coefficient for allocating the quality factor to the individual voltage levels.

6.1.3.2. Parameters of the regulatory formula notified before a regulated year

Not later than five months before each regulated year the Office notifies the DSOs of the values of the following parameters:

1. the value of total adjusted allowed revenues for electricity distribution,
2. the value of allowed revenues from electricity distribution broken down by voltage level,
3. the weights of the wage index for electricity distribution for each of the years entering the calculation,
4. the values of the wage index for each of the years entering the calculation,
5. the value of the business services price index,
6. the value of the producers price index,
7. the eligible costs base broken down by voltage level,
8. the value of profit/loss sharing broken down by voltage level,
9. the planned value of D&A of non-current assets broken down by voltage level,
10. the planned value of D&A of non-current assets procured from a subsidy broken down by voltage level,
11. the planned value of the regulatory asset base,
12. the planned value of capitalised investments,
13. the planned value of assets acquired through company transformation,
14. the planned value of asset disposals,
15. the planned value of development investments in progress broken down by voltage level,
16. the coefficient of the individual convergence of the regulatory asset base to the book value of assets,

17. correction factor for the planned value expressing the annual convergence of the regulatory asset base to the book value of assets,
18. the value of the market factor broken down by voltage level,
19. the balance in the replacement and development fund,
20. the planned electricity demand values for calculating the prices in the regulated year, broken down by voltage level:
    a. the expected electricity quantity at input to the voltage level,
    b. the electricity quantity expected to be distributed,
    c. the electricity quantity expected to be taken by final customers,
    d. the electricity quantity expected to be transformed into a lower voltage level;
21. the allowed quantity of total losses in the distribution system at each of the voltage levels,
22. a percentage premium on the uniformity ratio,
23. the D&A correction factor broken down by voltage level,
24. the correction factor for the regulatory asset base,
25. the profit correction factor broken down by voltage level,
26. the profit correction factor derived from the value of development investments in progress, broken down by voltage level,
27. the correction factors for electricity distribution, broken down by voltage level,
28. the correction factor for distribution network use, broken down by voltage level,
29. the correction factor for non-frequency ancillary services at the distribution system level, broken down by voltage level,
30. the correction factor for other revenues, broken down by voltage level,
31. the quality factor,
32. the calculated values of reserved transformation capacity,
33. the expected total reserved capacity of final customers broken down by voltage level,
34. the allowed rate of total losses at each of the distribution system's voltage levels,
35. the rate of losses serving for evaluating imbalances by the market operator.

Where the planned coefficient of revaluation, k_{deplt}, set for the DSO for 2020, is greater than or equal to one, the parameters entering into the calculation of the regulatory asset base and the profit correction factor are notified in a structure similar to the one notified to the TSO.

By 25 October of the year preceding the regulated year, the Office notifies the DSOs of the values of the following parameters:

1. the price of electrical energy for covering losses in the distribution system,
2. the coefficients for adjusting allowed revenues between voltage levels,
3. the values of adjusted allowed revenues broken down by voltage level,
4. the charge for reserved capacity in the regional distribution system for the HV and MV levels,
5. the charge for network use for the HV and MV levels.

By 5 November of the calendar year preceding the regulated year the Office notifies the DSO of the following parameters:

1. the charges for electricity distribution at the LV level.

6.1.3.3. Changes of parameters in the regulatory formula

The Office reserves the right to derogate from the principles described in the Price Control Principles in the fifth regulatory period, in particular in the following cases:

1. A change in the legislation directly applicable to the licence holder's licensed activity, which has a major impact on the parameters in the regulatory formula;
2. An extraordinary change in the electricity/gas market or other extraordinary changes in the country's economy meriting particular treatment;
3. A state of emergency, a state of danger to the country, or a state of war is declared;
4. Parameters have been set on the basis of incorrect, incomplete or untrue information;
5. Material changes on the part of regulated entities where such changes significantly affect the assumptions on the basis of which these Price Control Principles have been formulated, in particular those impacting on the structure and amount of eligible costs or book value of assets (such as insourcing/outsourcing or asset revaluation);
6. In cases of unforeseeable events and impossibility to correct the price development through correction factors in order to preserve price stability, it will be possible to reconsider the transition to the equalisation of RAB and NBVA for individual companies in order to prevent major year-on-year variations in prices.

6.2. Regulation of local distribution systems

In the fifth regulatory period, the same principle of price controls for local DSOs as in the fourth regulatory period has been preserved. A local DSO for which the Office does not set the charges for electricity distribution and services related to ensuring the reliable and secure operation of the distribution system under a separate piece of legislation[7] uses the charges for electricity distribution and services related to ensuring the reliable and secure operation of the distribution system up to the amount of the charges for electricity

[7] Section 19a (7) of Act No 458/2000, the Energy Act

distribution and services related to ensuring the reliable and secure operation of the distribution system, which are used by the operator of the regional distribution system to whose distribution system its local distribution system is connected. Where the local distribution system is not connected to the Czech electric grid, the local DSO for which the Office does not set the charges for electricity distribution and services related to ensuring the reliable and secure operation of the distribution system under a separate piece of legislation7 uses the charges for electricity distribution up to the amount of the charges for electricity distribution and services related to ensuring the reliable and secure operation of the distribution system, which are used by the operator of the regional distribution system within the delineated area of which the local distribution system is located.

In the case of setting lower charges for electricity distribution and services related to ensuring the reliable and secure operation of the distribution system than the charges for electricity distribution and services related to ensuring the reliable and secure operation of the distribution system applied by the particular regional DSO, the local DSO must maintain a non-discriminatory approach to the connected electricity market participants, i.e. offer the same prices for groups of customers having the same or similar nature of demand, as specified in the ERO price decisions laying down the prices for related services in the electricity industry. The manner of publicising the charges for electricity distribution and services related to ensuring the reliable and secure operation of the distribution system is a matter of agreement between the local DSO and the electricity market participants connected thereto. The charges for electricity distribution and services related to ensuring the reliable and secure operation of the distribution system may only be changed with effect from 1 January of the year for which the charges for electricity distribution and services related to ensuring the reliable and secure operation of the distribution system are being set.

For the local DSOs for which the Office set the charges for electricity distribution and services related to ensuring the reliable and secure operation of the distribution system under a separate piece of legislation7 in the last year of the fourth regulatory period, the Office will continue to set the charges for electricity distribution and services related to ensuring the reliable and secure operation of the distribution system under a separate piece of legislation7, unless decided otherwise.

To the local DSOs in whose case the Office decides, for the fifth regulatory period, on a different way of setting the allowed revenues and variable costs under a separate piece legislation7, a regulatory mechanism similar to the one applied to the regional DSO is applied throughout the effect of such decision.

6.2.1. Timetable of notifying the parameters of the regulatory formula to local distribution system operators

The Office notifies a local DSO for whom the Office sets the charges for electricity distribution and services related to ensuring the reliable and secure operation of the

distribution system under a separate piece of legislation7 of the parameters of the regulatory formula as follows.

6.2.1.1. Parameters of the regulatory formula notified before the regulatory period

Not later than five months before the regulatory period the Office notifies the DSOs of the values of the following parameters:

1. the annual value of the efficiency factor,
2. the rate of return on the regulatory asset base,
3. the initial value of the regulated asset base.

6.2.1.2. Parameters of the regulatory formula notified before a regulated year

Not later than four months before each regulated year the Office notifies the DSOs of the values of the following parameters:

1. the value of total adjusted allowed revenues for electricity distribution broken down by voltage level,
2. the value of allowed revenues from electricity distribution broken down by voltage level,
3. the weights of the wage index for electricity distribution for each of the years entering the calculation,
4. the values of the wage index for each of the years entering the calculation,
5. the value of the business services price index,
6. the value of the producers price index,
7. the eligible costs base broken down by voltage level,
8. the value of profit/loss sharing broken down by voltage level,
9. the actual value of D&A of non-current assets broken down by voltage level,
10. the actual value of D&A of non-current assets procured from a subsidy broken down by voltage level,
11. the actual value of capitalised investments,
12. the actual value of assets acquired through company transformation,
13. the actual value of asset disposals,
14. the value of the market factor broken down by voltage level,
15. the planned electricity demand values for calculating the prices in the regulated year broken down by voltage level:
    a. the expected electricity quantity at input to the voltage level,
    b. the electricity quantity expected to be distributed,
    c. the electricity quantity expected to be taken by final customers,

d. the electricity quantity expected to be transformed into a lower voltage level;

16. the allowed quantity of total losses in the distribution system at each of the voltage levels,
17. a percentage premium on the uniformity ratio,
18. the correction factor for electricity distribution broken down by voltage level,
19. the correction factor for distribution network use broken down by voltage level,
20. the correction factor for non-frequency ancillary services at the distribution system level, broken down by voltage level,
21. the correction factor for other revenues, broken down by voltage level,
22. the calculated values of reserved transformation capacity,
23. the expected total reserved capacity of final customers broken down by voltage level.

By 30 October of the year preceding the regulated year, the Office notifies the DSOs of the values of the following parameters:

1. the charge for reserved capacity in the local distribution system for the HV and MV levels,
2. the charge for network use in the local distribution system for the HV and MV levels,
3. the charges for electricity distribution in the local distribution system at the LV level.

The Office reserves the right to derogate from the principles described in the Price Control Principles in the fifth regulatory period, in particular in the following cases:

1. A change in the legislation directly applicable to the licence holder's licensed activity, which has a major impact on the parameters in the regulatory formula;
2. An extraordinary change in the electricity/gas market or other extraordinary changes in the country's economy meriting particular treatment;
3. A state of emergency, a state of danger to the country, or a state of war is declared;
4. Parameters have been set on the basis of incorrect, incomplete or untrue information;
5. Material changes on the part of regulated entities where such changes significantly affect the assumptions on the basis of which these Price Control Principles have been formulated, in particular those impacting on the structure and amount of eligible costs or book value of assets (such as insourcing/outsourcing or asset revaluation).

6.3. Methodology for pricing electrical energy for covering losses in distribution systems

6.3.1. Source data, rate of exchange

When the Leipzig energy exchange, EEX, acquired the Prague Energy Exchange, PXE, the Office decided to use, in the fifth regulatory period, EEX as the main source of data for

calculating the price of electrical energy for covering losses. EEX is a platform for buying forward and spot electricity products for a broad portfolio of bidding zones, including the Czech bidding zone. Despite the existence of a Czech bidding zone on the EEX platform, the Office selected the German bidding zone, EEX German Power Futures, for calculating the prices of products; this zone helps to simulate the price of Czech futures. The reason is that the liquidity of EEX German Power Futures is many times higher than the Czech bidding zone that, on the contrary, has long been illiquid for the purposes of pricing electrical energy for covering losses.

The overall liquidity in the German bidding zone has long been approximately 100 times greater than that in the Czech bidding zone. Watching the liquidity of trading in the various products, in certain cases the liquidity in the Czech bidding zone appears to be insufficient. The liquidity of trading in the base year future (BL CAL) approximately equals the share of BL CAL trading of the total liquidity in the German bidding zone; the problem is the liquidity of trading in other monitored products. In the case of the base quarter future (BL Q) for 2019, liquidity was approximately 180 times greater in the German bidding zone, and in the case of peak month and quarter futures the Czech bidding zone lacks liquidity completely.

The differences between the Czech and German bidding zone prices are eliminated by adding the price at the cross-border interconnector, which has long been equal to the differences between the Czech and German bidding zone prices.

The value of the arithmetic average of the prices of year futures for regulated year *i* (for 2021: EEX BL CAL 21 and EEX PL CAL 21) over the period of trading from 1 October *i-2* to 30 September *i-1* ("the monitored period") has been used as the basic value for determining product prices, from which the quarter and month prices for 2021 then derive.

Values in € (EUR) are then translated from € (EUR) into Kč (CZK) using the average daily rate of the EUR/CZK currency pair over the monitored period. The daily rate of the EUR/CZK currency pair is then marked up by:

1. a bank margin of 0.2% on the purchase of EUR,
2. a risk premium of 0.33% for the daily volatility of the EUR/CZK currency pair,
3. a premium of 1Y forward points of the EUR/CZK currency pair for each of the days of the monitored period,
4. a premium of 4M forward points, in excess of the 1Y forward points, for the monitored period.

The bank margin equals the average premium charged by commercial banks when they sell hedging instruments in the form of EUR/CZK FWS. The premium is based on the average EUR/CZK bid-ask spread from 1 October 2012 to 30 September 2017. The risk premium for the daily volatility covers the risk of buying a currency at any moment in a day and is derived from the average value of the daily volatility of the EUR/CZK rate from 1 January 2014 to 31 December 2018; daily volatility is defined as the share taken by the difference between the high and low values in the opening daily value. Volatility so calculated expresses, in percentage terms, the actual interval of the movement of the daily rate. The premiums of

the 1Y and 4M forward points have been selected with regard to the average time between buying the currency for buying electricity for covering losses and billing the electricity supplied for covering losses, which is 16 months. The use of 1Y forward points was selected in the light of the relevancy of this financial product, which is liquid and available. The Czech National Bank (CNB) provides the data on 1Y forward points for the monitored period. In order to take into account the average time of 16 months between electricity purchase and billing, a premium of 4M forward points has been set in excess of 1Y forward points because 16M forwards are not a product traded on an everyday basis. The additional 4M forward points have been determined by a linear interpolation of 4M forward points from the difference between 18M and 1Y points.

Table 5 Values of arithmetic averages of the prices of year futures between 1 October 2017 and 30 September 2018; example for regulated year 2019

Product	Price [€/MWh]	Average yearly rate of exchange over the monitored period [€/CZK]	Price 2019 [CZK/MWh]	Price 2018 [CZK/MWh]	Product price change 2019/2018 [%]
EEX BL CAL 19	39.60	25.78	1,020.83	803.72	27.01%
EEX PL CAL 19	49.06	25.78	1,264.80	1,014.06	24.73%

6.3.2. Prices of futures

Every year, each of the companies suffers considerable losses of hundreds of GWh to units of TWh. It is therefore logical that the companies cannot leave the purchase of electrical energy to the day-ahead market only but must also buy electrical energy in advance in year, quarter, and month futures. In addition to these costs, they also incur extra costs caused by the differences between the predicted and actual quantities of losses.

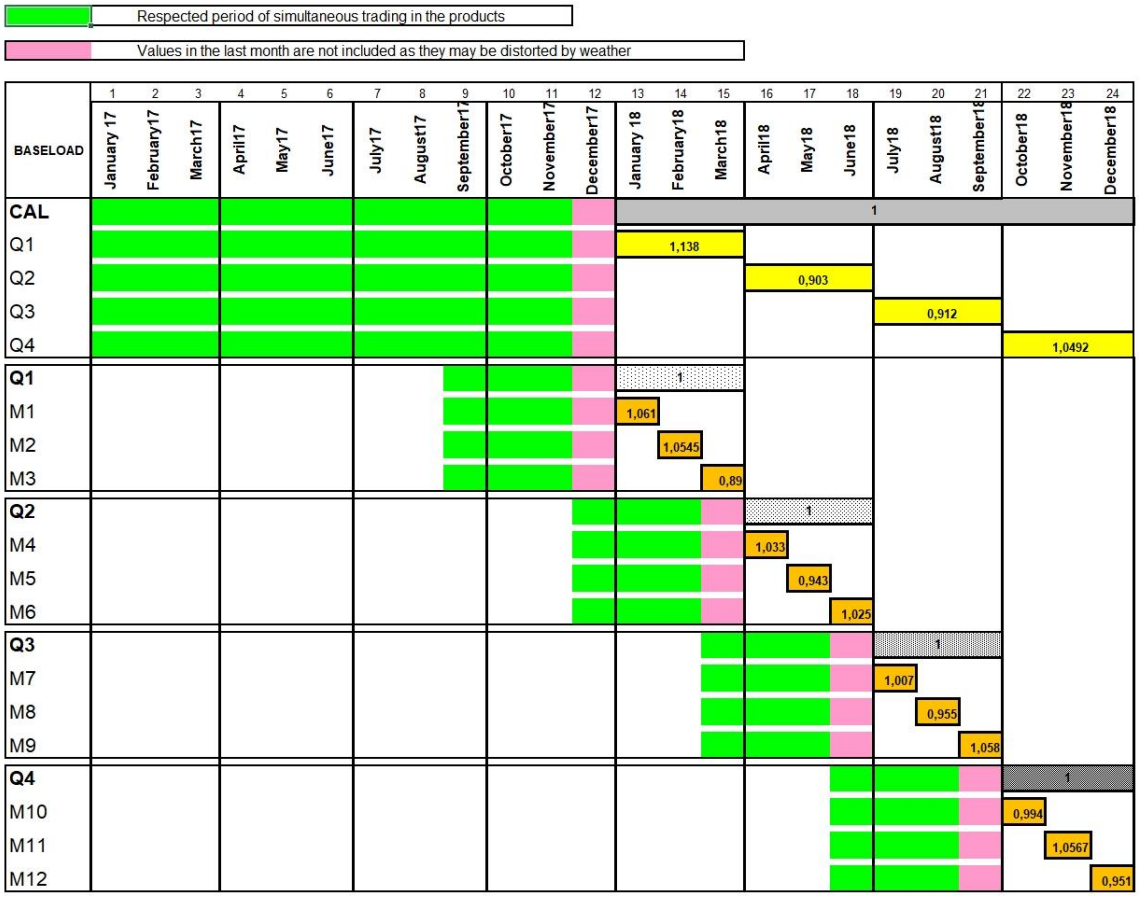
The reference value for calculating the prices for year *i* is the price of the year future (CAL) for year *i*. But since some products for year *i* are not yet traded or the volume of executed transactions is not sufficient for the purpose of finding the relevant price of a given product, the prices of quarter (Q) and month (M) futures for year *i* have been set on the basis of the relative ratios of the prices of Q and M futures to base and peak year futures over the past three years (i.e. the values of the ratios of product prices for years *i-3* to *i-1*).

This procedure can be used thanks to the stability of the ratios of the prices of the CAL and Q and also the Q and M futures during trading, both for base and peak products. In the monitored period, these ratios diverge somewhat just before the expiry of the first shorter product, which seems to be related to the product price's tendency to change depending on the weather and/or to the effect of the long-term trend of changes in electricity prices, i.e. changes in the ratio between spot and forward prices. The Office believes that this divergence is at least partly eliminated by omitting the values of the ratios of product prices over the last month of the monitored period shared by these products.

The method employed for calculating the prices of Q and M products in the following algorithm is this: calculate the arithmetic averages of Q product prices in relation to the year

product for the longest possible period over which the year product and all four Q products contained in the period of the considered year product were traded simultaneously. All relational coefficients between the various products have been found using the product prices in €, and so they do not distort the ratios between the individual years through the EUR/CZK rate. Figure 7 shows a model scheme for finding relations between products (here products for 2018).

Figure 7 Determining the shared periods of trading for products for 2018 (NB: numbers are shown with decimal commas rater than decimal points)



In order to find the Q to CAL and the M to Q coefficients, the M to CAL coefficients have been calculated by multiplying the relevant values of the above two ratios and the results were used for the coming regulated year in the form of three-year rolling averages with a view to eliminating any extreme values of the last year.

The annual arithmetic means of the relative variations in shorter base products have been set at the value of the relevant year or quarter products marked up by CZK 20 (the yearly average of BL Q 1-4 at the value of BL CAL and the yearly average of BL M 1-12 at the value of BL Q) to take into account the additional costs of hedging the products that are not yet traded. The procedure is similar in the case of peak quarter products in relation to the year product, and months in relation to the relevant quarter, where the arithmetic means are marked up by CZK 80. The additional hedging costs have been determined on the basis of analysing the bid-ask spreads for each of the products, which express additional costs over and above the determined buy (call) prices. A growing span of the bid-ask spreads has been

identified already for the base quarter products, with a growing trend towards the shortest peak products. The hedging costs have therefore been determined differently depending on the period of validity of the product in the base or peak load.

Example of BL Q calculation:

$$final\ price\ of\ BL\ Q_i = \frac{C^{BL\ CAL} + 20}{\frac{\sum_1^4 \left(C_{neadj}^{BL\ Q_i} \times \sum_1^4 hrs\ BL\ Q_i \right)}{\sum hrs\ BL\ CAL}} \times C_{neadj}^{BL\ Q_i}$$

where

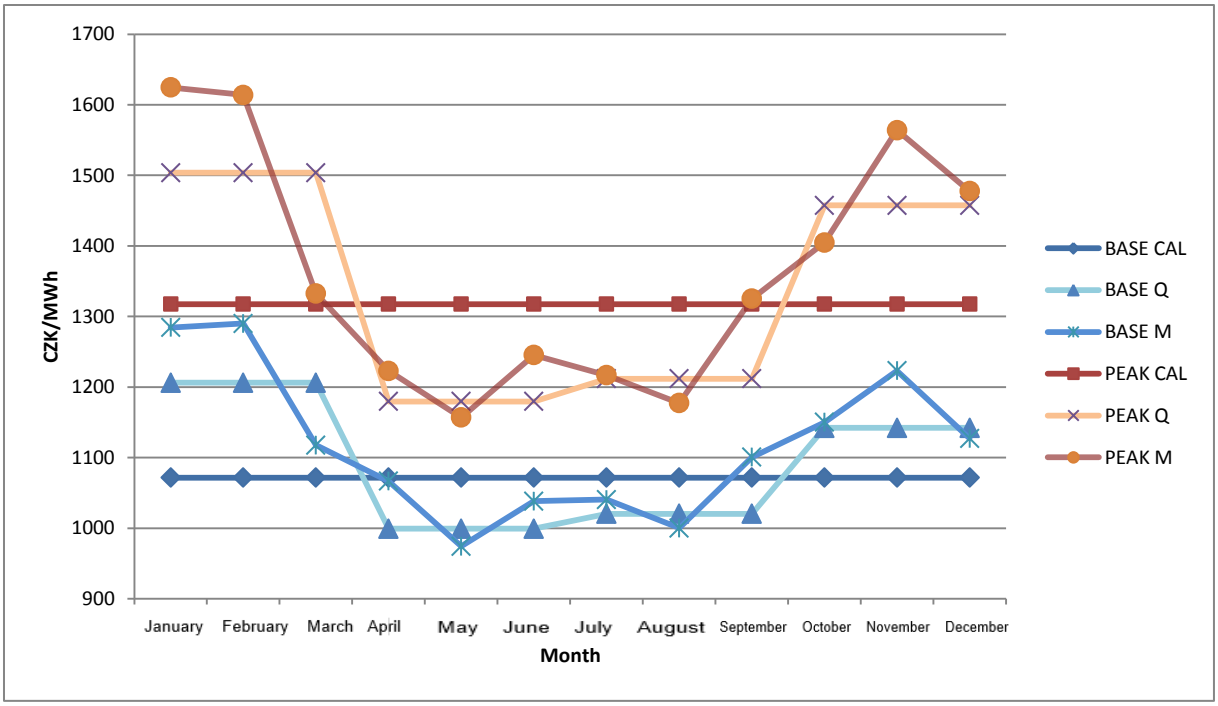
neadj means the product without the CZK 20 or 80 mark-up

The resulting version uses a conversion of the peak and off-peak hours (peak hours are from 08:00 to 20:00 on Monday to Friday) based on the actual distribution of hours in a calendar year.

Since the above relational coefficients are then applied to the arithmetic averages of the prices of year products translated at the exchange rate, determined as above, into CZK/MWh, all the determined (final) prices of the various products involve the prices and the average rate in the monitored period.

After the above adjustments, the possible prices of futures can be depicted as follows.

Figure 8 Final prices of futures for 2019



6.3.3. Spot prices

On the basis of a long-lasting analysis of the development of the price level at the day-ahead market and the stronger dependence of this development on the price level of the currently traded futures than on the price level of the matching futures for year *i*, the Office selected the method for predicting spot prices: simple acceptance of the day-ahead market prices over the monitored period. The spot prices for year *i* have been taken from the day-ahead market of the electricity market operator, OTE, a.s., for the monitored period in EUR and then translated at the exchange rate, determined as above, for which the monitored period is the same as for futures. The calendars must then be reconciled with a view to reflecting the monitored period days in the whole year and taking into account all public holidays and winter/summer/winter time switches. Since year-on-year, the week days keep shifting in respect of any specific date in the calendar, calendar reconciliation helps to shift the dates in the calendar with a view to an even use of the monitored period's hourly prices on the matching days of the calendar for regulated year *i*.

The spot prices serve as input into the calculation of the price called 'swap', which relates to the residual profile left after filling the loss profile with futures.

6.3.4. Pricing electrical energy for losses

Pricing the loss profile consists of covering the profile by futures from the longest (CAL) to the shortest (M) one. The products are progressively superimposed in the amount of the minimums of the monthly averages in a year (for CAL) or the minimums of the monthly averages of the months in a quarter (for Q) and the residuum, in each of the months, from the monthly average (for M) and always for BL first of all and then for PL.

The arithmetic average of the Joint Allocation Office S.A. (JAO) auction prices of the yearly transmission capacity in the interconnector between the German bidding zones of the TSOs 50Hertz Transmission GmbH and TenneT TSO GmbH on the one hand and the Czech TSO, ČEPS, a.s., on the other hand for the preceding year is added to or subtracted from the futures, depending on the price levels in the Czech and German bidding zones. Where the price level in the Czech bidding zone exceeds the price level in the German bidding zone, the value of the arithmetic average of the auction prices of the yearly interconnector capacity is added in the direction from the 50Hertz and TenneT zones into the ČEPS zone, while in the case of a higher price level in the German bidding zone the value of the arithmetic average of the auction prices of the yearly interconnector capacity is subtracted in the direction from the ČEPS zone into the 50Hertz and TenneT zones.

The Office has decided to use the auction prices of the preceding year due to the date of the auctions of yearly interconnector capacities on the JAO platform, which usually take place in the second half of November, i.e. at a time by which the Office had already determined the parameters of the price of electrical energy for covering losses for system operators. This algorithm therefore offsets, one year later, the actual difference between the prices of Czech and German products for the entities that buy electricity for covering losses.

In connection with the auction price of the yearly interconnector capacity the Office considered a situation of this price departing from its logical development and its sum with the futures price modelling the Czech market price inaccurately. A safeguard mechanism has been put in place to prevent such situations.

The safeguard mechanism consists in comparing the above average of the auction prices of yearly interconnector capacities with the difference between the average prices of base year futures, BL CAL, in the Czech and German bidding zones for one calendar year, with the exception of the last month of the year. The average price of the BL CAL for the Czech zone will also be marked up by 2% as a substitute for the missing liquidity in the EEX Czech bidding zone. Where this safeguard mechanism identifies a price lower than the average of the auction prices of yearly interconnector capacities, the above differences will be used rather than the arithmetic average of the auction prices of yearly interconnector capacity.

The residual profile is priced by the spot prices at OTE's day-ahead market and constitutes the 'swap', which is then added to the electricity price.

6.3.5. Determining extra costs of losses (differences and dynamic residuum) and costs of trades at the exchange

The extra costs of losses comprise the 'dynamic residuum' and loss imbalances. In the first step, the prices of loss imbalances were determined. In this respect the Office continued to use the methodology from 2013; only in the case of losses in distribution areas, it took into account the differences between the energy in *D-1* profiles and in the profile of total losses in distribution areas, which had been provided by OTE. The differences between the two profiles were priced by the price of the imbalance/opposing imbalance, reduced by the marginal price in the day-ahead market in the given hour. This was carried out using the loss prediction profiles from 2014 to 2018 from day *D-1* in the area served by the DSO ČEZ Distribuce, which were provided to the Office by the electricity trader ČEZ Prodej. The loss prediction profiles from day *D-1* in other distribution areas were not available. To be able to use the data of ČEZ Distribuce for determining the value of loss imbalances for the other system operators, the Office had to take into account the inaccuracy of the *R-1* loss prediction profiles and OTE's loss profile, the size of the distribution areas, and the other DSOs' customer portfolios.

To capture the trend followed by the customer portfolio and the size of the distribution area, the unit price of loss imbalances was multiplied by the ratio between the standard deviation of the respective DSO's coefficients of residual load profiles and the standard deviation of ČEZ Distribuce's coefficients of residual load profiles, namely by the average of the ratio for 2014 to 2018. The inaccuracy of the *R-1* loss prediction profiles and the OTE profiles was captured by the product of the average value of ČEZ Distribuce's loss imbalances for 2014 to 2018 times the ratio between the average value of the inaccuracies of the *R-1* prediction profiles plus OTE profiles recorded for the respective DSO for 2014 to 2018 and the average value of the inaccuracies of the *R-1* profiles plus OTE profiles recorded for

ČEZ Distribuce for 2014 to 2018. The result is the price's component reflecting the loss imbalance.

In respect of UCED Chomutov s.r.o., the Office did not have the relevant data (loss profiles) from days *R-1* and S and the above algorithm for determining the extra costs of losses in distribution was not viable as it was in the case of the other regional DSOs. The Office therefore adopted a simplified approach to evaluating that entity's customer portfolio and distribution area. The evaluation indicates that the entity's customer portfolio and distribution area are very similar to those of PREdistribuce, and the Office therefore set the same values of UCED Chomutov's extra costs of losses in distribution as in the case of PREdistribuce.

In the second step, the price of the dynamic residuum was determined. The component called dynamic residuum captures the effects that occur on a one-off basis and over a period of time longer than could be identified within the period containing the analysed data for 2014 to 2018. The calculation of the dynamic residuum for this reference period could not be regarded as having any information value, but data for a longer period was not available. Although this calculation for 2014 to 2018 did not prove the existence of any costs of a dynamic residuum, electricity traders do factor these effects in their continuous risk management and this risk has a price tag. The dynamic residuum was therefore priced by a unit risk premium, in CZK/MWh, reflecting the loss imbalance value determined for each of the system operators, considering that the uncertainty from day *R-1* to day *D-1* is at least as large as that between day *D-1* and *D* and the risk premium for the dynamic residuum has therefore been set at the lower limit of the estimate thereof.

Another eligible component of the total value of the extra costs is the item covering the energy exchange trading costs incurred by the entities that buy electircity to cover losses in systems. This item expresses the entity's fixed and variable administrative costs incurred in buying electricity for covering losses in systems. These costs [costs 1] include those related to exchange trading and personnel costs, market access costs, IT costs, and costs of measuring and forecasting meteorological variables. On the other hand, they do not include the costs spent on buying electricity for covering losses and the costs of the entity's imbalances; in addition, the costs of the activities of the mandatory buyer-trader are deducted from costs 1.

The Office has set the value of the extra costs for the fifth regulatory period on the basis of the arithmetic average of the costs actually spent from 2014 to 2018; electricity traders arranging electricity purchases for covering losses in distribution systems between 2014 and 2018 had provided that data.

The last item of the extra costs is the margin on electricity purchase for losses. The eligibility of this extra costs item for adding to the electrical energy price continues from the methodology used in the fourth regulatory period. The margin has been set as a fixed item of CZK 17/MWh and is awarded in the case of the DSO transferring its responsibility for loss imbalances to an electricity trader.

This amount of the extra costs, which comprises loss imbalances, the dynamic residuum, the exchange trading costs, and the margin for energy purchase for losses, is then added to the average price of electrical energy for covering losses. Table 6 lists the fixed values of the extra costs for the fifth regulatory period.

Table 6 Extra costs for the fifth regulatory period

Company	Extra costs of dynamic residuum and imbalances (CZK/MWh)	Costs of trading at energy exchanges (CZK/MWh)	Margin on energy purchase for losses (CZK/MWh)
ČEZ Distribuce, a.s.	33.32	9.31	17
E.ON Distribuce, a.s.	34.57	8.60	17
PREdistribuce, a.s.	70.37	12.96	17
UCED Chomutov s.r.o.	70.37	12.96	17

6.3.6. Total price

Recapitulating, the resulting prices of electrical energy for covering losses therefore also contain the above extra costs such as swap, dynamic residuum, loss imbalances, exchange trading costs, and margin on electricity purchase for losses.

6.4. Change of the tariff system

The Office is preparing a change of the tariff system. The change may be associated with adjustments to the algorithms for pricing the related services in the electricity industry and the algorithms for determining the other regulated prices in the electricity industry. Any changes in algorithms for determining regulated prices in the electricity industry will be described in updated annexes to the Price Control Principles or in statutory instruments or in the ERO price decisions.

7. Special section on mandatory buyers

7.1. Mandatory buyer-trader's activities

7.1.1. Key principles

1. The algorithm described below will be used in the fifth regulatory period beginning on 1 January 2021 and ending on 31 December 2025.
2. The correction factors for the last two years of the regulatory period beginning on 1 January 2016 and ending on 31 December 2020 were calculated in accordance with the annex to the ERO's price decision laying down the charge for the mandatory buyer's activity and the charges related to guarantees of origin for the respective regulated year for which the correction factors were calculated.
3. The Office reserves the right to depart in the fifth regulatory period from the principles set out in the Price Control Principles so that it carries out its powers in line with effective legislation.

7.1.2. Charge for the mandatory buyer's activities

To regulate the prices for the mandatory buyers' activity, the Office proceeds under point 16.2.4 of the Price Control Principles. The charge for a mandatory buyer's activity is calculated by dividing the mandatory buyer's adjusted allowed revenues by the planned quantity of electricity supported by feed-in tariffs and bought by the mandatory buyer.

The mandatory buyer's adjusted allowed revenues are based on the sum of the planned administrative costs, planned D&A, planned extra costs of imbalances, planned financial costs, and the correction factor.

The calculation of the planned administrative costs is not the same as that of the eligible costs for system operators or the market operator; the method of calculating the planned administrative costs in the fourth regulatory period continues to apply. At present, the mandatory buyer-trader is still defined in the SES Act, but under Section 10 of that law the Ministry of Industry and Trade may select a different mandatory buyer during the fifth regulatory period. Thus, there is no certainty of continuity here, unlike the cases of, for example, system operators or the market operator.

The planned D&A is calculated based on the planned values for each of the years of the fifth regulatory period and is, together with the other planned values, adjusted to reality through the correction factor for the mandatory buyer's activity, using the time value of money.

The actual extra costs of imbalances are calculated, the same as in the fourth regulatory period, for each of the three groups of renewable sources: photovoltaic power plants, wind power plants, and other RES. A new feature is that the mandatory buyer's actual extra costs so calculated will be compared with the cap on unit extra costs of imbalances, but the cap

will not be set for a group of wind power plants. For this type of plants, the number of generating plants supplying mandatory buyers is not sufficient, which prevents an objective statistical evaluation of the actual data. The cap on the unit extra costs of imbalances will be calculated as the arithmetic average of the two lowest values for the past period from 2013 to 2018. Where the actual extra costs of imbalances are lower than the extra costs calculated from the cap on the unit extra costs of imbalances, the difference between the extra costs calculated from the cap on the unit extra costs and the actual extra costs, multiplied by 50%, will be factored in the profit sharing for the mandatory buyer in respect of the extra costs of imbalances. Where the actual extra costs of imbalances are higher than the extra costs calculated from the cap on the unit extra costs of imbalances, the difference between the extra costs calculated from the cap on the unit extra costs and the actual extra costs, multiplied by 50%, will be factored in the loss sharing for the mandatory buyer in respect of the extra costs of imbalances. In addition, a mechanism for recalculating the determined cap on unit extra costs will be put in place for photovoltaic power plants. Should the unit extra costs of the whole system change by more than plus/minus 10% compared with the reference value determined as the arithmetic average of unit extra costs of the whole system in 2017 and 2018, the cap on the unit extra costs of imbalances will be adjusted by the same percentage.

For the fifth regulatory period, the price for the mandatory buyers' activity will also contain the market factor item due to the fact that mandatory buyers may incur extra costs. The market factor will be subject to approval by the Office and there is not entitlement to it. The market factor can have both positive and negative values.

7.1.3. Timetable of notifying the parameters of the regulatory formula to electricity trading licence holders that carry out the mandatory buyer's activities

Not later than by 15 July of the year preceding the regulated year, the Office shall notify the electricity trading licence holder who carries out the mandatory buyer's activity under the SES Act of the values of the following parameters:

1. Planned administrative costs incurred in electricity purchase;
2. Planned financial costs of the mandatory buyer's activity;
3. Planned D&A in the mandatory buyer's activity;
4. The correction factor for the mandatory buyer's activity together with the following parameters:
    - the actual costs of imbalances related to electricity purchase,
    - the value of the profit/loss sharing of the mandatory buyer's extra costs,
    - the actual administrative costs related to electricity purchase,
    - the actual financial costs related to electricity purchase through feed-in tariffs,

- the actual extra costs under a separate piece of legislation [8],
- the market factor for the mandatory buyer's activity,
- the actual D&A related to the mandatory buyer's activity,

5. The values of the price index of business services for the relevant years,
6. The actual quantity of electricity bought through feed-in tariffs,
7. The planned quantity of electricity bought through feed-in tariffs,
8. The planned costs of imbalances related to electricity purchase,
9. The value of the mandatory buyer's market factor,
10. The price for the mandatory buyer's activity.

7.2. Support for electricity from supported energy sources

7.2.1. Component of the price for support of electricity from supported energy sources

The regulation of the component of the price for support of electricity is laid down in the SES Act and is therefore independent of the regulatory period. With effect since 2016, the method for recovering the component of the price for support of electricity from supported energy sources was changed further to an amendment to the SES Act: now, the component of the price for support of electricity from supported energy sources is paid on the basis of the agreed power booked for delivery or the rated current of the main circuit breaker upstream of the electricity meter.

The prices are determined in line with point 16.2.5 of the Price Control Principles.

7.2.2. Timetable of notifying the parameters of the regulatory formula to the holder of the licence for market operator's services

Not later than by 15 July of the year preceding the regulated year, the Office shall notify the holder of the market operator's licence of the values of correction factors as follows:

1. The market operator's correction factor related to the payment of aid for electricity;
2. The correction factor for the national budget's funds to aid heat from renewable sources and for compensation for electricity consumed.

Not later than by 30 September of the year preceding the regulated year, the Office shall notify the holder of the market operator's licence of the values of parameters as follows:

1. The planned amount of compensation under Section 28a of the SES Act for the regulated year;
2. The planned costs related to the payment of aid for electricity through feed-in tariffs;

[8] Section 11 (7) of Act No 165/2012, the SES Act

3. The planned costs related to the payment of aid for electricity through green premiums (without the CF);
4. The planned costs of the mandatory buyer's activity;
5. The national budget's planned funds for operating aid to heat from renewable sources;
6. The component of the price for support of electricity from supported energy sources for each of the voltage levels.

8. Special section – prices of supply of last resort in the electricity industry

Under Section 19a (5) of the Energy Act, the prices charged by the supplier of last resort are regulated as cost-plus prices. Where the supplier of last resort so requests, the Energy Regulatory Office shall decide that the prices of the supplier of last resort are the maximum prices.

In case of price controls via cost-plus prices, the Office sets out the conditions for pricing in its price decision by 30 November of the calendar year preceding the regulated year for which the conditions for pricing should be set out, with effect from 1 January of the regulated year.

Where the Office regulates prices with an effective date other than 1 January of the regulated year, it sets out the prices or the conditions for pricing in its price decision at least 30 calendar years before the effective date thereof.

9. Strategic directions in the electricity industry – plans of system operators' capitalised investments for the fifth regulatory period and until the end of 2030

This chapter describes the measures that system operators will have to carry out and that are related to the ongoing or planned changes in the electricity industry.

The main purpose of these measures is to provide support for meeting the objectives set out in the National Action Plan for Smart Grids (NAP SG) and so ensure the reliable, safe, and high-quality supply of electricity to all customers going forward.

Table 7 Strategic objectives of the NAP SG

Strategic objectives of NAP SG	Requirements for technical development based on the strategic objectives – areas of technical development
Put in place the conditions for a more extensive penetration of DECE, storage, and electric mobility	Prepare the EG CR for DECE integration under the NEP
	Prepare the EG CR for electric mobility integration under the NAP Clean Mobility
	Put in place the conditions for integrating storage
Increase the reliability, quality, and safety of electrical energy supply	Innovate the management and automation of the EG CR in relation to the new conditions under the NEP
	Innovate the protection of the EG in the new conditions
	Ensure the safe operation of the EG CR in the changing environment
	Implement physical and cyber security of the EG CR at an adequate level
Ensure a better availability of information for customers and empower them to be actively involved	Ensure the effective implementation of smart metering
	Put in place the conditions for improving the flexibility of the EG CR by empowering customers to be actively involved in the electricity market

These measures are interconnected, which is a typical feature of new energy. Table 8 shows the various interconnections in general.

Table 8 Supported areas of the technical development of systems

		Supported areas of the technical development of systems								
		Put in place the conditions for a more extensive penetration of DECE, storage, and electric mobility			Increase the reliability, quality, and safety of electrical energy supply				Ensure a better availability of information for customers and empower them to be actively involved	
	Projects to enhance the existing and add new parameters of the system	Prepare the EG CR for DECE integration under the NEP	Prepare the EG CR for electric mobility integration under the NAP Clean Mobility	Put in place the conditions for integrating storage	Innovate the management and automation of the EG CR in relation to the new conditions under the NEP	Innovate the protection of the EG in the new conditions	Ensure the safe operation of the EG CR in the changing environment	Implement physical and cyber security of the EG CR at an adequate level	Ensure the effective implementation of Smart Metering	Put in place the conditions for improving the flexibility of the EG CR by empowering customers to be actively involved in the electricity market
Standard projects	Reinforcing overhead and cable HV, MV and LV lines	X	X	X	X	X	X	X	X	X
	Reinforcing and increasing the density of stations (TR, DTS, ...)	X	X	X	X	X	X	X	X	X
	Replacement of overhead and cable HV, MV and LV lines	X	X	X	X	X	X	X	X	X
	Retrofit of stations (TR, DTS, ...)	X	X	X	X	X	X	X	X	X
DSO's existing structure	AMM	(X)	(X)	(X)	X		(X)		X	X
	Compensation for reactive power Q						X			
	Smart DTS	(X)	(X)	(X)	X	X	X		(X)	(X)
	Parallel 110kV and 22kV operation	(X)					X			
	Automatic 110kV and 22kV backups						X			
	Automatic network control systems	X	(X)	(X)	X	X	X			
	Measures to prevent and control blackouts						X			
	Cyber and physical security						(X)	X	X	X
	Telecom infrastructure development	X	X	X	X	X	X	X	X	X
	New SCADA functionalities	X	X	X			X		X	X
Specific ČEPS projects	Upgrade and development of infrastructure to help to maximise its use in connection with network control tools	X	X	X			X			
	Installation of variable devices to compensate reactive power	X					X			
	Implementation of tools for using platforms for cross-border electricity trading and balancing services - only ČEPS						X			
	Upgrade of fiscal metering to ensure on-line transmission of the readings - only ČEPS	X							X	

In line with their long-term system development policies, the various operators prepare and carry out their capex policies primarily in four key areas:

a. Extended renovation of systems;

b. Investments in the connection of new customers and producers, including rerouting;

c. Standard development based on long-term trends and requirements of the systems;

d. Strategic development responding to the expected trends spawned by the CR's and the EU's new legislative requirements and strategic objectives in decarbonisation, digitalisation, decentralisation, electric mobility, implementation of new distribution system control and monitoring systems, and, equally importantly, projects enhancing the physical and cyber security of distribution systems and the reliability and quality of electricity supply.

A common feature of all these investment activities is pursuing the basic mission of the legislative framework, which entitles, but also obliges, the operators to operate and establish systems in the public interest, i.e. in the interest of every final customer.

9.1. ČEPS, a.s.

From the TSO's perspective, the expected plan of the 'capex measures' is drawn up on the basis of assessing each of the projected scenarios, both national and European. Within the meaning of the Ten-Year Network Development Plan (TYNDP) for the Czech transmission system, 'investment plans' are groups of the capex measures that appear in all the scenarios being considered. Major capex measures in the transmission system are not single-purpose measures; all of them push towards several purposes in synergy. For example, the targeted development of transformation capacities between the transmission and distribution systems responds to the expected development in several areas, continued growth in household and industrial consumption, the expected development of electric mobility, the rising decentralised (distributed) generation in distribution systems, the decommissioning of fossil fuelled plants in distribution systems, etc. These factors can be felt with varying intensities in various parts of the transmission system depending on the local conditions (for example, decommissioning of plants in coal basins, rising consumption and electric mobility in agglomerations, regions with suitable conditions for renewable sources, etc.). In connection with distributed generation and demand, the TSO will draw up and carry out pilot projects facilitating the system-wide use of the elements in the system for effective control and operation of the system. More detailed information is contained in the TYNDP for the Czech transmission system2, which is subject to approval by the Office and the gist of which was outlined in point 3.5 above.

9.1.1. Quantification of the planned impacts of the technological development of systems together with the quantification of standard replacement and development for the transmission system operator, ČEPS, a.s.

The following table lists long-term indicative predictions of capitalised investments at ČEPS, a.s. until 2030; however, they may change, such as on the basis of performing the TSO's current or future legislative obligations.

Table 9 Indicative predictions of capitalised investments

Quantification of the planned impacts on the TSO, in million CZK	**2021**	**2022**	**2023**	**2024**	**2025**
Total capitalised investments in the technical development of systems, specified in chapter 9, beyond standard replacement and development					
Total capitalised investments in standard replacement and development	4,178.03	3,701.60	4,598.35	5,563.72	4,249.30
400 kV lines	1,759.83	1,931.72	1,318.20	2,569.87	2,728.60
220 kV lines	0.00	0.00	30.95	0.00	0.00
110 kV lines	0.00	0.00	7.39	0.00	0.00
The grid control centre	208.57	15.99	101.98	152.81	76.00
Transformer stations	2,201.58	1,753.88	3,011.25	2,629.38	1,201.18
Fiscal metering	8.05	0.00	0.00	0.00	0.00
Other	0,00	0,00	128.59	211.66	243.51
Quantification of the planned impacts on the TSO, in million CZK	**2026**	**2027**	**2028**	**2029**	**2030**
Total capitalised investments in standard replacement and development	4,305.20	4,481.81	5,152.75	4,667.52	4,667.52

9.2. ČEZ Distribuce, a.s.

1. ČEZ Distribuce, a.s. expects to build new substations in the fifth regulatory period as follows:

Table 10 New and expanded HV/MV transformer stations (TR) and substations (R)

New and expanded HV/MV transformer stations (TR) and substations (R)
R 110 kV Vítkov – adjustment of R 110 kV for connecting T 402 (new field no. 7)
TR 110/MV Česká Lípa Dubice – addition to T 104 (22 kV) and retrofit of R 22 kV
TR 110/22 kV Dolní Benešov – new R 110 kV
TR 110/10 kV Varnsdorf – expansion and retrofit of R 110 kV
TR 110/22 kV Uničov – a new transformer station
R 110 kV Stéblová – looping a new R 110 kV
TR 110/22 kV Rakovník – expansion of R 110 kV to include a new T102
TR 110/22 kV Bavoryně – expansion of R 110 kV to include a new T102
TR 110/22 kV Pečky – new 110/22 kV transformation
TR 110/35 kV Týniště nad Orlicí – a new transformer station
TR 110/22 kV Nejdek – a new transformer station
R 110 kV Štětí papírna – a new distribution station
TR 110/22 kV Most Sever – expansion and retrofit of R 110 kV
TR 110/22 kV Černá Louka – retrofit
TR 110/22 kV Studénka – a new transformer station
TR 110/22 kV Tachov – retrofit and expansion of R110 kV
TR 110/22 kV Dětmarovice – a new R 110 kV
TR 110/35 kV Pardubice Sever – retrofit and a new T103
R 110 kV Nový Bydžov – retrofit and expansion
R 110 kV Unipetrol Litvínov – a new distribution R 110 kV
TR 110/22 kV Pyšely – a new R 110 kV
TR 110/22 kV Průhonice – a new R 110 kV
TR 110/22 kV Králíky – a new transformer station
TR 110/22 kV Lovosice – a new transformer station
R 110 kV Chotějovice – cable bushings for the new T401 transformer
R 110 kV Výškov – cable bushings for the new T401 transformer
R 110 kV Podhájí – expansion and retrofit
TR 110/22 kV Cheb (Dvory) – a new transformer station
TR 110/22 kV Bor (Vysočany) – a new transformer station

2. MV network looping

The MV network will be adjusted for backed up feeding to distribution stations, which is referred to as ‘MV network looping’; this primarily helps to increase the reliability of electrical energy supply to final customers. Another reason is that the generation capacity is shifted from the transmission to the distribution network, while the looping of also the flow paths, which have a significantly positive balance, will ensure the optimum spreading of generation in the direction towards the customers. The measure envisages the spanning of those parts of MV lines, which have hitherto been operated solely in the star topology.

Thanks to this, it will be possible in such cases to back up energy supply both in failure modes and during planned activities.

At present, for the DS 20+ cluster (a cluster of more than 20 distribution stations on a branch) a complete detailed analysis of the situation and the potential technical solutions exist. In this cluster, 23 network links with 674 distribution stations have been identified. The topology of linking and spanning has been designed for all the identified cases and capital expenditure has been estimated. The measure is expected to be carried out between 2020 and 2025, depending on the possibility for preparations and on feasibility. The costs of interconnecting the flow paths have been estimated at more than CZK 300 million.

3. Remote Controlled Devices, RCD

For quicker and more efficient handling and automation in the distribution system at the MV level, it is advisable to install on overhead lines remotely controlled, sectional load breaking switchgear and reclosers, featuring metering and interlocking/tripping functions. The main objective is therefore replacing certain switchgear elements in the distribution system with remotely controlled devices having more sophisticated functionalities and the potential to be automated, which will make it possible to improve (reduce the values) the SAIDI and SAIFI indicators of the continuity of electrical energy distribution. Once carried out, the project will also help to cut the costs and shorten the time required for trouble shooting. The company also expects a smaller quantity of electrical energy not supplied; the reason is the quicker trouble shooting and a smaller number of customers with interrupted distribution. It also expects that by 2020, it will add 1,049 RCDs to the MV network, resulting in a total of 4,500 RCDs at the MV level.

Follow-up activities from 2021 are related to the requirements for a change in the MV network topology, in particular the looping of long branches, the parallel operation of networks at the MV and LV levels, and the installation of remote control in nodal distribution stations. The number of new RCDs is estimated at 1,500 to 2,500 by 2030.

4. MDTSI: Installation of metering at terminal distribution stations

In this respect, the key objectives include reducing the SAIFI and SAIDI (impact of failures) parameters, cutting operating expenditure on buying electricity to cover losses, and more effective sizing and operation of the distribution system (the optimum use of capital expenditure on organic development). Additional objectives include the use of metering for monitoring electrical energy quality and for controlling the voltage and reactive power, which will result in more accurate calculations for optimising the voltage of distributed generation being connected to the distribution system.

Additional objectives include equipping terminal secondary substations (= ‘distribution transformer stations’, ‘DTS’) with P, Q, U, and I metering and network monitors, whose values will be transmitted to connected systems. This will help in network control and development and to optimise the operation of distributed generation in the distribution system, thereby helping the DSO to improve the reliability and quality of electrical energy supply.

5. Automating the distribution system is one of ČEZ Distribuce's most extensive programmes. It was launched in 2015 and it is planned to be completed at the very end of the fifth regulatory period. The programme comprises the following projects:

    a. Indication of broken MV conductors

    This function will help to improve the quality of electrical energy supply and to increase safety in the operated distribution system. It is based on the automatic evaluation of the measurements of LV phase voltages, which are not symmetrical when an MV conductor is broken or an MV fuse is blown. To implement this function, LV level metering with remote transmission to the network control centre must be installed at the distribution station and the logic for its evaluation must be defined. The start of the possible use of this function is conditional on MDTSI completion.

    b. Indication of breakdowns and earth faults at the MV level

    This function helps to enhance reliability (reduce SAIFI and SAIDI) and safety in the operated distribution system. It is based on indicating phase breakdowns and earth faults at specified points of MV lines, which helps the network controller to locate the point of the fault in the distribution system more accurately.

    To implement this function, current and voltage metering must be installed on remotely controlled sectionalisers, on remotely controlled reclosers, and on MV feeders in distribution stations with remote transmission of the indications to the network control system. This function is already being used in the existing distribution system; greater benefits of its use as part of distribution system automation are conditional on RCD and MDTSI completion.

    c. U/Q control

    The function helps to increase connectivity at the MV and HV levels and to improve the quality of electrical energy supply through voltage stabilisation. It is based on voltage control at the point of connection to the distribution system on the MV and HV levels thanks to the targeted change in Q import/export while maintaining the safety of the equipment in the generating plant. Measuring the voltage on MV and HV feeders can contribute to a more reliable voltage control through the optimisation function in the network control system. To implement this function, current and voltage metering must be installed on MV and HV feeders in electrical stations, with remote transmission of the readings to the network control system, and the optimisation function for MV and HV voltage control must be put into operation in the network control system in respect of the generating capacities that are being equipped with this control (this is a condition for connecting new generating capacities, while some of the existing ones are also being equipped with this feature). This function is already being used in the existing distribution system at the HV level; fully automated operation

at the MV level too is conditional on the completion of the planned retrofits of the electrical stations monitored as part of U/Q control and the implementation of the MV voltage control function in the network control system in respect of the generating capacities that are being equipped with this feature.

d. Automation of MV networks

The function helps to enhance reliability (reduce SAIFI and SAIDI) and safety in the operated distribution system. It is based on the appropriate equipping of MV lines with devices such as remotely controlled sectionalisers, remotely controlled reclosers, and remotely controlled feeders from distribution stations, so that on the MV level a fault triggers the automatic isolation of the smallest possible part of the distribution system containing the fault, while the remaining part of the distribution system can remain in operation.

6. ČEZ Distribuce, a.s. expects, in line with the recommendations of the NTM II (New Technologies for Metering II) study, the EC's requirement for the rollout of AMM in the EU member states, and the amendment to public notice no. 82/2011 on electricity metering and on the method of calculating compensation for unauthorised electricity take, supply, transmission or distribution, that the fifth regulatory period will see the first specific steps geared towards implementing and starting selective AMM installation at supply points with demand ≥ 6 MWh/year, which account for approximately 80% of total electricity consumption. The expected capital expenditure on this project and on the preparations for the selective AMM installation has been estimated at CZK 950 million in the fifth regulatory period.

7. Development of an optical fibre infrastructure

The purpose of this effort is rolling out an optical fibre infrastructure primarily on the MV level, taking into consideration the requirements of distribution system control, the integration of distributed generation, and the future needs of smart grids. The plan is to roll out optical connectivity to all 110 kV/MV and MV/MV transformer stations, MV switching stations, nodal distribution stations and selected distribution stations connected in a loop. The new optical network will make it possible to accommodate the technological changes spawned by the increase in distributed generation, the development of electric mobility, and the heavier demands placed on the reliability of the distribution network or the expected growth in the amount of read and transmitted AMM data. The optical fibre infrastructure will help to speed up the deployment of new technologies and approaches, such as controlling the reactive energy flows, dynamic loading of conductors, and using the Internet of Things for the distributor's needs. ČEZ Distribuce, a.s. aims at rolling out 4,000 km of new optical fibre networks by 2025 and another 3,000 km by 2030 in the following phases:

- cover all 110 kV/MV transformer stations by at least one optical fibre route by 2025; the expected length of the new optical fibre networks is approximately 600 km,

- build a back-up optical fibre route primarily along HV lines to all 110 kV/MV transformer stations by 2025 (completion of the 'optical fibre network looping'); the expected length of the new optical fibre networks is approximately 450 km,
- cover all MV/MV transformer stations and switching stations by optical fibre by 2025; the expected length of the new optical fibre networks is approximately 1,100 km,
- cover around 1,000 selected nodal distribution stations, which are critical for network control, by optical fibre by 2025; the expected length of the new optical fibre networks is approximately 1,850 km, and
- ensure optical connectivity to all nodal and looped distribution stations in municipalities, typically with a population of more than 1,000, by the end of 2030; the expected length of the new optical fibre networks is approximately 3,000 km.

9.2.1. Quantification of the planned impacts of the technological development of systems together with the quantification of standard replacement and development for the distribution system operator ČEZ Distribuce, a.s.

The following table lists long-term indicative predictions of capitalised investments at ČEZ Distribuce, a.s. until 2030; however, they may change, such as on the basis of performing the DSO's current or future legislative obligations.

Table 11 Indicative predictions of capitalised investments

Quantification of the planned impacts on the DSO, in million CZK	**2021**	**2022**	**2023**	**2024**	**2025**
Total capitalised investments in the technical development of systems, specified in chapter 9, beyond the standard replacement and development	**1,636**	**2,169**	**2,240**	**2,328**	**2,446**
Total capitalised investments in standard replacement and development	**11,609**	**12,081**	**12,260**	**12,172**	**12,054**
HV level	**2,201**	**1,881**	**1,945**	**1,719**	**1,348**
Overhead lines	1,753	1,458	1,581	1,400	1,040
Cable lines	86	7	7	7	7
ETS/HV substations	360	414	355	310	299
Meter service	2	2	2	2	2
MV level	**4,102**	**4,897**	**4,997**	**5,081**	**5,229**
Overhead lines	1,279	1,487	1,521	1,589	1,734
Cable lines	940	1,294	1,341	1,365	1,355
HV/MV and MV/MV transformer stations	1,647	1,880	1,927	1,919	1,905
HV/MV and MV/MV transformers	210	210	183	183	210
Meter service	26	26	25	25	25
LV level	**5,832**	**6,559**	**6,818**	**6,941**	**7,157**
Overhead lines	977	1,268	1,311	1,331	1,320
Cable lines	2,693	3,006	3,143	3,170	3,422

MV/LV transformers	550	550	550	550	545
Distribution stations	880	1,086	1,229	1,232	1,195
Meter service	732	649	585	658	675
Other	**1,110**	**913**	**740**	**759**	**766**
Quantification of the planned impacts on the DSO, in million CZK	**2026**	**2027**	**2028**	**2029**	**2030**
Total capitalised investments	**14,500**	**14,500**	**14,500**	**14,500**	**14,500**

9.3. E.ON Distribuce, a.s.

1. E.ON Distribuce, a.s. expects to build the following new substations in the fifth regulatory period:
    - New 110/22 kV substations in the two largest cities within the area that the company serves, namely in Brno, the R 110/22 kV Brno-North substation, and in České Budějovice, the R 110/22 kV Budějovice-Centre substation. One of the main reasons for building the two substations is to provide sufficient transformer output to meet the expected increase in power demand in these cities caused by the potential development of electric mobility. In the first wave, E.ON Distribuce, a.s. expects individuals' and organisations' increased demand for power in large urban and suburban neighbourhoods, and this construction is therefore situated in the above two locations. Additional preparations focus on other strategic locations such as large towns and cities and motorway hubs. The expected capital expenditure on the construction of the two substations has been estimated at CZK 550 million.
2. Complete retrofit of the HV overhead lines known as 'Sedlák'. Sedlák is a light-weight single-circuit line. Its phase wires have a diameter of 3 x 185 mm^2 and the line is designed with the use of 22 kV line elements with a transmission capacity of up to 80 MW. These lines were built at the end of the 1970s and the beginning of the 1980 and have reached the end of their useful life by now. E.ON Distribuce, a.s. expects to complete the full replacement of around ten of these lines with the standard 'Soudek' 2 x 3 x 240 mm^2 lines during the fifth regulatory period. The expected total extent is around 180 km of line routes, worth some CZK 1.8 billion. This measure will more than double the transmission capacity, from 80 MW to 200 MW, of the retrofitted routes of 110 kV lines and pave the way to the further development of the distribution system. Most of this replacement will be carried out on the lines situated in the southern part of the served area, and this measure can therefore be viewed as very beneficial in terms of putting in place the key prerequisites for further DECE deployment; these areas still have a sufficient potential, mainly in PV, for DECE deployment.
3. Other major capital projects that E.ON Distribuce, a.s. plans to carry out in the fifth regulatory period, which will significantly help to improve the quality of electricity supply to final customers, include targeted investments in the upgrade and automation of the MV assets that do not only significantly help to improve the quality of electricity supply to final customers in normal operation under normal climatic conditions but also and

primarily have a material impact on the distribution system's overall resilience under extreme climatic conditions, which are occurring increasingly often and with heavier intensities. Major projects in this respect include, above all, the following:

- Targeted deployment of remotely controlled devices such as reclosers in overhead networks. During the fifth regulatory period, the company expects to install some 250 to 300 of these devices; the expected capex is CZK 175 to 200 million.

  Targeted replacement of overhead lines with cables:

  - Inside municipalities;

  - In forest aisles;

  - In sections most prone to failures.

  Another capital project that will significantly help to improve the quality of electricity supply to final customers is the targeted replacement of MV overhead lines with cables. E.ON Distribuce, a.s. plans, for the medium term, to replace around 100 km of overhead lines with cables every year beyond standard replacement and development, primarily in areas experiencing frequent failures in extreme weather conditions (windstorms, ice accretion, and snow calamities). This measure entails capex of CZK 250 to 300 million every year.

  Rollout and development of a network of SMART DS

  In line with the cable conversion process and with the change of the overall design of supplying residential communities, E.ON Distribuce, a.s. will build new smart distribution stations that will help to meet the requirements for a higher level of automation in MV networks, and the monitoring and metering of the basic electrical variables (P, Q, U, and I) and quality parameters.

  The key benefit is the possibility to optimise MV network operation and loading and hence to minimise the costs of additional DECE embedding and electric mobility, and to enhance the reliability of system operation and put in place measurements for monitoring the quality of electrical energy supply.

  From the first pilot project stations built in 2019 and 2020, smart station rollout will progress to standard installations related to the standard replacement and development of the network at the following two basic tiers:

  - Installing operating metering (LV universal monitors with communication, 'LV UM') at all distribution stations as part of the extended replacement of the existing LV UM and also by gradually adding LV UM to distribution stations outside standard replacement (some 1,500 units every year).

- Construction of distribution stations with remotely controlled MV switchgear to provide greater room for handling in MV cable networks, but primarily for a quicker isolation of fault-ridden sections (some 50 to 100 stations every year with regard to the network replacement and the cabling process).

4. Preparations for the rollout of smart metering systems, AMM

   As early as 2017, E.ON Distribuce, a.s. started, in line with the recommendations of the NTM II (New Technologies for Metering II) study, the EC's requirement for the rollout of AMM in the EU member states, and the amendment to public notice no. 82/2011 on electricity metering and on the method of calculating compensation for unauthorised electricity take, supply, transmission or distribution, a pilot project called *The Emerald Smart Metering Pilot Project*. In 2020, the project entered into its implementation phase, i.e. the physical installation of smart meters at some 30,000 supply points and the rollout of a complete smart metering infrastructure that comprises smart meters, data concentrators, and a higher-level system governing the devices and for the collection, validation, and evaluation of the readings. The data for the purposes of customer billing will continue to be integrated in the existing internal SAP IS-U system.

   The purpose of the project is acquiring hands-on experience with the operation of an extensive segment of supply points employing smart metering for data collection and demand side management. The company expects that during the fifth regulatory period, it will leverage the experience gathered in the pilot project to launch specific steps geared towards implementing and starting selective AMM installation at supply points with demand ≥ 6 MWh/year, which will constitute the readings of approximately 80% of total electricity consumption given the conditions at E.ON Distribuce, a.s. The expected capex on this project and on the preparations for the selective AMM installation has been estimated at CZK 500 million in the fifth regulatory period.

9.3.1. Quantification of the planned impacts of the technological development of systems together with the quantification of standard replacement and development for the distribution system operator E.ON Distribuce, a.s.

The following table lists long-term indicative predictions of capitalised investments at E.ON Distribuce, a.s. until 2030; however, they may change, such as on the basis of performing the DSO's current or future legislative obligations.

Table 12 Indicative predictions of capitalised investments

Quantification of the planned impacts on the DSO, in million CZK	**2021**	**2022**	**2023**	**2024**	**2025**
Total capitalised investments in the technical development of systems, specified in chapter 9, beyond the standard replacement and development	**100**	**450**	**600**	**700**	**900**
Total capitalised investments in standard replacement and development	**4,753**	**4,798**	**4,937**	**5,065**	**5,190**
HV level	**494**	**699**	**563**	**590**	**616**
Overhead lines	455	640	453	474	495
Cable lines	0	19	69	72	76
ETS/HV substations	39	40	41	43	46
Meter service	0	0	0	0	0
MV level	**1,121**	**1,235**	**1,332**	**1,383**	**1,496**
Overhead lines	240	268	280	293	306
Cable lines	480	535	560	585	612
HV/MV and MV/MV transformer stations	338	357	358	376	394
HV/MV and MV/MV transformers	26	29	28	29	30
Meter service	38	46	107	100	154
LV level	**2,521**	**2,790**	**2,862**	**2,991**	**3,149**
Overhead lines	150	167	175	183	191
Cable lines	1,889	2,109	2,205	2,306	2,412
MV/LV transformers	55	53	53	53	53
Distribution stations	210	234	245	256	268
Meter service	218	226	185	193	226
Other	**718**	**525**	**779**	**802**	**827**
Quantification of the planned impacts on the DSO, in million CZK	**2026**	**2027**	**2028**	**2029**	**2030**
Total capitalised investments	**6,354**	**6,517**	**6,693**	**6,865**	**7,004**

9.4. PREdistribuce, a.s.

1. PREdistribuce, a.s. expects to build the following new substations and transformer stations in the fifth regulatory period:

    - Construction of new TR 110/22 kV transformer stations (in Slivenec, Písnice, and Ruzyně). The requirements for building new 110/22 kV transformer stations follow from modelling the evolution of the Prague load. The models take into account the most recent requests for connection, the planned development of Prague based on the data and models provided by Institut plánování a rozvoje hlavního města Prahy (Prague Institute of Planning and Development), and also strategic projects such as the new Line D of the Prague Underground, the Prague–Kladno high speed track, and the expansion of the Václav Havel Airport. The load models also take into account the time frame of the input data. Reinforced transformation output and the related increase in short-circuit ratios will also result in a higher connectivity potential of distributed generation and the

charging stations for electric vehicles. The construction will entail the deployment of control systems and remotely governed ancillary equipment elements in order to ensure the transition to a fully unmanned transformation standard.

2. The company will increase the short circuit current rating and encapsulate selected 110/22kV transformers (Prague–South, Měcholupy, Jinonice, and Prague–East).
3. The stricter requirements for the reliability of electrical energy supply and for preventing extensive outages are precipitating the need to operate spanned nodal areas via HV networks. Increasing the short-circuit power levels in the distribution system is related to that. In respect of some of 110/22 kV transformer stations, these substations have to be retrofitted to adjust their parameters to the new conditions. The retrofits should also accommodate the stricter requirements for the physical security of energy infrastructure. The increased short-circuit ratios and transformation output in the distribution system will also result in a higher connectivity potential of distributed generation and the charging stations for electric vehicles. The retrofits will entail the deployment of control systems and remotely governed ancillary equipment elements in order to ensure the transition to a fully unmanned transformation standard.
4. Retrofit and construction of new 110 kV lines (between Prague-North and Holešovice, Prague-North and Prague-East, Chodov and Uhříněves, Malešice and Běchovice, Uhříněves and Běchovice, and Prague-South and Malešice)

   Retrofits and the construction of new 110 kV lines will help to make the 110 kV network more robust. This is the key precondition for the ability to operate nodal areas in parallel via 110 kV networks. Such operation will help to enhance the reliability of supply to Prague and will prevent extensive outages in the distribution system in the case of any problems in the higher-level system. Retrofits and the construction of new 110 kV lines will also help to increase short-circuit ratios in the distribution system and in general to increase the transmission capability of the line. This will result in a higher connectivity potential of distributed generation and the charging stations for electric vehicles.

5. Rollout of smart MV/LV distribution stations at predetermined nodes of the distribution system

   The key functionalities of smart distribution stations include control, monitoring, remote control, and preparations for automation at the MV level, which will significantly help to enhance the reliability of system operation and the quality of electrical energy supply. The other benefits include links to the future smart grid equipment (smart metering systems AMM, control of the charging infrastructure, etc.), remote control and diagnostics of devices, data collection for asset management, and support for addressing emergency situations in the system. The massive rollout of smart distribution stations in PREdistribuce's networks was started in 2019 and is expected to continue gradually at a rate of around 100 stations every year. The functionalities of the distribution stations are being broadened on the basis of the optimum scenario, which has modelled the

contribution of new functionalities added to distribution stations to the enhancement of the distribution system's reliability.

6. Coordinated development of the optical fibre communication infrastructure

   The development of PREdistribuce's optical fibre communication infrastructure has been designed in line with the plan that maximises the synergies flowing from communication infrastructure development combined with that of the company's cable network. The replacement and development programme includes the laying of combined MV and LV cables and HDPE pipes. At minimal extra costs, this will create suitable conditions for blowing in optical cables at the moment of the need to set up communication with ancillary equipment devices.

7. AMM smart metering systems

   PREdistribuce, a.s. is making preparations for AMM rollout, the extent of which will be set out in the amendment to public notice no. 82/2011 on electricity metering and on the method of calculating compensation for unauthorised electricity take, supply, transmission or distribution. Emphasis is placed on testing the architectures and technical solutions that take into account the high density of buildings and a greater aggregation of supply points. The fundamental requirement is a high standard of the security of the solutions. The specific rollout plan will depend on legislative requirements.

9.4.1. Quantification of the planned impacts of the technological development of systems together with the quantification of standard replacement and development for the distribution system operator PREdistribuce, a.s.

The following table lists long-term indicative predictions of capitalised investments at PREdistribuce, a.s. until 2030; however, they may change, such as on the basis of performing the DSO's current or future legislative obligations.

Table 13 Indicative predictions of capitalised investments

Quantification of the planned impacts on the DSO, in million CZK	**2021**	**2022**	**2023**	**2024**	**2025**
Total capitalised investments in the technical development of systems, specified in chapter 9, beyond the standard replacement and development	**276**	**291**	**359**	**371**	**429**
Total capitalised investments in standard replacement and development	**1,564**	**1,663**	**1,698**	**1,724**	**1,780**
HV level	**123**	**295**	**264**	**172**	**170**
Overhead lines	12	188	164	104	116
Cable lines	111	107	100	68	55
ETS/HV substations	0	0	0	0	0
Meter service	0	0	0	0	0

MV level	**832**	**805**	**873**	**975**	**1,102**
Overhead lines	0	0	0	0	0
Cable lines	428	368	327	317	432
HV/MV and MV/MV transformer stations	377	393	466	617	652
HV/MV and MV/MV transformers	18	36	72	33	11
Meter service	9	9	9	9	7
LV level	**767**	**736**	**772**	**805**	**741**
Overhead lines	0	0	0	0	0
Cable lines	452	429	463	481	454
MV/LV transformers	9	9	9	10	10
Distribution stations	120	119	120	134	135
Meter service	187	180	180	180	143
Other	**118**	**119**	**148**	**143**	**195**
Quantification of the planned impacts on the DSO, in million CZK	**2026**	**2027**	**2028**	**2029**	**2030**
Total capitalised investments	**2,395**	**2,477**	**2,770**	**2,886**	**3,253**

10. Special section on gas transmission

10.1. Allocation mechanism

A substantial proportion of the TSO's assets is employed for system users within the Czech Republic and also for transit users; a fair mechanism for allocating the usage of these shared assets to these two groups of customers must be determined, i.e. an allocation mechanism supporting a fair allocation of costs, D&A, and the value of the assets entering the allowed revenue for national transmission and target revenue for transit transmission so that cross-subsidies between them are prevented.

National gas transmission is then priced on the basis of adjusted allowed revenues. These revenues are comprised of two parts. One part is the revenue related to the procurement and operation of the portion of the transit assets assigned through the allocation mechanism. The other part is revenue intended solely for the needs of national transmission.

In all preceding regulatory periods the allocation mechanism consisted in determining a single allocation ratio for the whole transit part of the transmission system for the whole regulatory period. For the fifth regulatory period, this principle has turned out to be unsatisfactory; the reasons are the expected capitalisation of major investments in the development of infrastructure, considerably increasing the value of the TSO's assets at the beginning or during the fifth regulatory period (in particular the Capacity4Gas (TRA-F-752, TRA-F-918) project and the Moravia Capacity Extension (DZ-3-005) project), and also the fact that the change of the actual value of the investments and also the difference between the planned and actual year in which the investment is capitalised would have, in the case of a single allocation ratio, a profound influence on the result of the allocation for the relevant year. The Office has therefore decided that certain individual infrastructure components (gas pipelines, compression stations, cross-border transfer stations) will have their own individual allocation ratio, and the resulting allocation will be calculated every year as the planned value and, subsequently, as the actual value. The Office believes that this is a fair method for determining the allocation ratio.

Having carried out a number of analyses and calculations based on sufficient information from the TSO, the Office has arrived at dropping the originally analysed scenario for calculating individual allocation ratios contained in the original consulted proposal for Price Control Principles dated 30 August 2019, which noted:

"The value of the allocation ratio is determined on the basis of the hydraulic modelling of the transmission system's behaviour in line with the scenario of gas flow and off-take dated 1 March 2018. In order to designate the infrastructure required for transmission for national purposes the individual infrastructure components must be identified, which are required for ensuring non-coincident maximum daily gas flows at the delivery stations between the transmission and distribution systems. There are no considerations of covering a part of this consumption by gas withdrawal from storage facilities.".

This scenario could not, as was found, preserve full transit flows while covering national consumption without using storage facilities. As a substitute, the following scenarios were calculated for determining the allocation ratio; the scenarios are based on the real possibilities (capacities) and the predominating expected scenarios of transmission system usage. Each of them represents a certain typical situation and need of the transit system's assets for national and transit customers (the capacities listed in the scenarios below are stated at reference conditions at a temperature of 20 °C):

Summer scenario A is based on maximising the transit flows in the direction from VIP Brandov to Lanžhot (119.6 million m^3/day), to Český Těšín (0.4 million m^3/day), and to VIP Waidhaus (91.3 million m^3/day) and catering to the country's summer consumption of 6.65 million m^3/day. The remaining part of the potential entry capacity of 25.4 million m^3/day is used for gas injection into the storage facilities connected to the transmission system (Innogy Gas Storage, s.r.o.; MND Gas Storage a.s.; and Moravia Gas Storage a.s.). This scenario reflects that in the summer months, the predominant usage of the transmission system is for transit in the directions from north to southeast and from north to southwest, while injection into storage facilities uses the remaining capacity. This scenario also simulates the transient situation (spring and autumn) when gas injection into storage facilities plus meeting the country's demand amounts to approximately 32 million m^3/day. The scenario expressing the usage of the transmission system in the transient situation was therefore dropped.

Summer scenario B is based on the fact that should the demand for injection into storage facilities exceed the value stated in scenario A for catering to the country's summer consumption of 6.65 million m^3/day, transit flows have to be reduced. This scenario envisages injection of 47.5 million m^3/day into storage facilities connected to the transmission system (Innogy Gas Storage, s.r.o.; MND Gas Storage a.s.; and Moravia Gas Storage a.s.), which results in reductions in the maximum possible flows from VIP Brandov to Lanžhot (110.2 million m^3/day), to Český Těšín (0.4 million m^3/day), and to VIP Waidhaus (76.5 million m^3/day). Because of the physical location of storage facilities in relation to the predominant source of gas at VIP Brandov, this scenario obviously requires the largest quantity of assets for national transmission, in particular because of injection into storage facilities. This scenario also simulates the transient situation (spring and autumn) when gas injection into storage facilities plus meeting the country's demand amounts to approximately 54 million m^3/day. The scenario expressing the usage of the transmission system in the transient situation was therefore dropped.

Winter scenario D is based on the expected winter day seeing the country's peak consumption of 70 million m^3/day, determined on the basis of actual historical flows. With regard to the expected requirements for maximising transit flows in such a situation, this scenario also envisages maximised flows from VIP Brandov to Lanžhot (119.6 million m^3/day), to Český Těšín (2.7 million m^3/day), and to VIP Waidhaus (91.3 million m^3/day). This scenario requires withdrawing 40 million m^3/day from the storage facilities connected to the transmission system (Innogy Gas Storage, s.r.o.; MND Gas Storage a.s.; and Moravia Gas Storage a.s.) in order to cover the country's consumption. Thanks to withdrawal from storage facilities, this scenario places the lowest demands on the assets in the transit part of the

transmission system for the country's consumption (quite the contrary, purely national assets are used here), but this benefit nevertheless does not fully offset the challenging nature of injection into the storage facilities in the summer scenarios. This scenario therefore envisages storage facilities playing a role in transit gas transmission.

The following aspects also had to be taken into account when processing the results and creating each of the scenarios:

a) In the case of multiple pipelines running in parallel in the northern and southern branches of the transmission system, the national flow can either be considered in a selected pipeline, or the available capacity in parallel pipelines can be virtually combined and a single allocation ratio can be determined for all pipelines in a given section. In the light of the effort to find a long-term solution and to optimise the future condition of the transmission system (optimise the renovation of the system) and of the limited chances to identify correctly at all times the pipeline through which the national flow is supplied, the Office has decided to use virtualisation for the following sections: Slovak border – German border DN 900/1, Slovak border – German border DN 900/2 and the 001 junction point at Malešovice – the 002 transfer station at Hora Sv. Kateřiny DN 1000, Slovak border – the 02 junction point at Rozvadov DN 800/TPK, Břeclav compression station – German border DN 1000/TPK and Slovak border – the 02 junction point at Rozvadov DN 1400.

b) Where a scenario saw a low usage of a given transit asset, in particular due to a change of transit flows and the development of new infrastructure, this fact has been taken into account through allocation to national transmission on the basis of the relevant section's technical capacity rather than the capacity of the actually used national and transit transmission the way it is with sufficiently used infrastructure.

c) The scenarios' data on the usage of the various parts of infrastructure and the acceleration of the Capacity4Gas project (the full use of this capacity is expected from 1 January 2021) have made it possible to replace the overall inclusion of the individual parts of the new infrastructure in the Capacity4Gas project through an allocation ratio of 10%, set out in the TAR Decision, with the calculation of real allocation ratios for the individual components of this project. Following the procedure under b) above, the sections whose usage has been reduced through the implementation of this project have been omitted from the allocation ratios for national customers.

d) The Moravia Capacity Extension DZ-3-005 project, dimension DN 1000, has been allocated by an allocation coefficient of 95% for use by national users in the light of the required reinforcement and the future replacement of the DN 700 gas pipeline in the Tvrdonice–Bezměrov section. The remaining 5% reflect the use of this infrastructure for gas export through the STORK pipeline.

The result of the calculation of the above scenarios is the calculation of the individual allocation ratios that determine the proportion of a given part of the transit infrastructure which is allocated to national transmission. Since each of the scenarios expresses a snapshot

of a certain part of the year the Office has decided that the resulting value of an individual allocation ratio for each infrastructure will be the arithmetic average of the values from scenarios A, B and D. Thus, the allocation ratio reflects the usage of the transmission system's transit part that is required for supplying gas to national customers to the extent of the scenario used.

The following is the procedure for employing the individual allocation ratios, which are listed in Table 14, for calculating the proportion of national transmission in transit infrastructure:

1. The RAB and D&A entering allowed revenue will be calculated on the basis of the values planned for the purposes of calculating regulated prices for the relevant year, and subsequently correction factors will be calculated on the basis of actual data.
2. For the allocation of D&A of directly assignable assets, the planned/actual value of this D&A will be multiplied by the individual allocation ratio of the relevant infrastructure.
3. For the allocation of capitalised and book values of directly assignable assets, the planned/actual value of capitalised/book values will be multiplied by the individual allocation ratio of the relevant infrastructure.
4. For the allocation of directly assignable costs, the actual amount of these costs in respect of the relevant infrastructure will be multiplied by the individual allocation ratio.
5. For the allocation of operating overheads between the national and transit parts of the transmission system, the ratio of the costs directly assignable to these two parts of infrastructure will be used, excluding the costs of operating compression stations, with the exception of the components of operating overheads for which the Office sets, before the beginning of a given year, a different allocation ratio based on the TSO's duly reasoned proposal. The costs of the transit components will be allocated to national transmission through individual allocation ratios.
6. For the allocation of administrative overheads between the national and transit parts of the transmission system, the ratio of the costs directly assignable to these two parts of infrastructure will be used, with the exception of the components of administrative overheads for which the Office sets, before the beginning of a given year, a different allocation ratio based on the TSO's duly reasoned proposal. The costs of the transit components will be allocated to national transmission through individual allocation ratios.
7. Costs include D&A of support assets, and this D&A is therefore not part of allowed D&A and it is subjected to the same treatment as the allocation of operating costs.
8. For the allocation of D&A (solely for the purpose of the year-on-year change in the value of the regulatory asset base), capitalisations, and book values of ancillary assets, the planned/actual value of this D&A, capitalisations, and book values will be allocated on the basis of the ratio of the book values of assets directly assignable between the national and transit parts in the relevant year, and subsequently the transit part will be allocated to the national part on the basis of the average allocation ratio, which is the

result of the average of the individual allocation ratios weighted by the book values of the infrastructures attributable to them in the relevant year.

9. For the purpose of the plan of costs, the average allocation ratio of the relevant planned year will be used; however, the maximum is the ratio of the year preceding the capitalisation of the Moravia Capacity Extension project, which is the result of averaging the individual allocation ratios weighted by the book values of the infrastructures attributable to them. This measure is motivated by the fact that the increase in the average allocation ratio would not match the real increase in the proportion of the costs of transit infrastructure for national needs. At the same time, for the purpose of simplifying cost planning, a system other than the system for the allocation of actual costs described in points 4) to 7) is used. Planned costs will therefore be a simplification used for the purpose of ex-ante projections (plans) of allowed revenue, but they will not affect the allowed revenue calculated for each regulated year because the ex-post calculated actual costs will only enter those allowed revenues through the profit/loss sharing system.

In the case of additional changes that materially affect the calculation of the allocation ratio, the values of each of the allocation ratios will be adjusted and calculated on the basis of the new circumstances. This means, in particular, a situation where it is proved that the stated changes constitute a significant systemic and long-term modification in the usage of the transmission system versus the assumptions known when calculating the allocation ratios listed in Table 14.

The following Table 14 lists the allocation ratios determining the share of the given transit infrastructure taken by national users.

Table 14 Allocation ratios on transit infrastructure for the fifth regulatory period

Name of the infrastructure	Individual allocation coefficient
Slovak border - German border DN 900/1	48.11%
Slovak border - German border DN 900/2	48.11%
The transfer station no. 002 at Hora Sv. Kateřiny – German border (Olbernhau) DN 1000	82.32%
The transfer station no. 002 at Hora Sv. Kateřiny – German border DN 1000	82.32%
Slovak border – the junction point no. 02 at Rozvadov DN 800/TPK	1.95%
The junction point no. 03 at Hospozín – German border DN 900/west	5.77%
The junction point no. 13 at Libhošť – the junction point no. 243 at Třanovice USG facility	48.85%
The delivery station no. 010 at Hrušky – the junction point no. 167 at Kyselovice	82.71% *
The junction point no. 167 at Kyselovice – the junction point no. 13 at Libhošť	82.71% *
The delivery station no. 010 at Hrušky – the junction point no. 167 at Kyselovice	100% **
The junction point no. 167 at Kyselovice – the junction point no. 13 at Libhošť	77.96% **
The junction point no. 01 at Malešovice – the transfer station no. 002 at Hora Sv. Kateřiny DN 1000	47.41%
The junction point no. 157 at Tvrdonice – the junction point no. 166 at Bezměrov DN 1000	95.00%
The junction point no. 02 at Rozvadov – German border DN 900	0%
The transfer station no. 002 at Hora Sv. Kateřiny – German border (Olbernhau) DN 900	0%
Břeclav compression station – German border DN 1000/TPK	1.95%
Slovak border – Břeclav compression station DN 1200/TPK	0%
The junction point no. 02 at Rozvadov – German border DN 1200	0%
Slovak border – the junction point no. 02 at Rozvadov DN 1400	1.95%
German border – the junction point no. 05 at Přimda DN 1400	5.42%
STORK DN 500 pipeline	0%
Břeclav compression station	6.00%
Kouřim compression station	37.51%
Veselí nad Lužnicí compression station	3.06%
Kralice nad Oslavou compression station	32.85%
Otvice compression station	47.41%
The transfer station no. 002 at Hora Sv. Kateřiny	26.46%
The transfer station no. 001 at Lanžhot	0%
The transfer station no. 003 at Brandov	0%
The junction point no. 02 at Rozvadov	0%
Other transit infrastructure	0%

* The value applicable before the DZ-3-005 (the 157 junction point at Tvrdonice – the 166 junction point at Bezměrov DN 1000) project is commissioned

** The value applicable after the DZ-3-005 (the 157 junction point at Tvrdonice – the 166 junction point at Bezměrov DN 1000) project is commissioned

10.2. Gas transmission in Central and Northern Moravia

Central and Northern Moravia is a region with certain gas supply specificities; the reason is the historical development and configuration of the gas infrastructure in this region. The TSO has long indicated (since the TYNDP for 2011-2020) that the transmission system's current technical exit capacity provided by the DN 700 pipeline in the Hrušky – Mutěnice – Kyselovice – Libhošť – Děhylov corridor, which also partly supplies southern Moravia, is not sufficient for the region in certain off-take situations (high demand due to very cold weather) and therefore the demand must be met by simultaneously withdrawing gas from storage facilities in the region to minimise the risk and reduce the likelihood of interruptions in continuous gas transmission. In certain off-take situations it also is not possible to fully satisfy the demand for capacity for summer-time gas injection into the storage facilities situated in this region. This bottleneck in the transmission capacity also prevents the connection of additional supply points having fairly large demand for gas.

If new transmission infrastructure is built for supplying Central and Northern Moravia, only that part of the investment and operating costs which matches the needs of gas supply for the Czech Republic will be acknowledged as eligible costs, see Table 14.

10.2.1. Development and use of new infrastructures

If any new transmission infrastructure is built in the Czech Republic (except for the infrastructure listed in Table 14), only that part of the investment and operating costs which matches the needs of gas supply for the Czech Republic will be acknowledged as eligible costs for the purpose of calculating regulated prices for gas transmission to the delivery points between the transmission and distribution systems. The remaining costs will be regarded as those of infrastructure used for transit purposes.

10.3. International gas transmission pricing

Because of the considerably higher uncertainty of the transit flows, the prices for international gas transmission have historically been subject to price cap regulation. Under the TAR NC, the Office has changed the method for regulating the TSO's revenue from transit gas transmission. As of 2020, it has switched from the historical pricing based on benchmarking the comparable transmission routes over to a cost-driven methodology based on costs, D&A, and reasonable profit.

Price cap regulation has been preserved for international gas transmission and the TSO is compensated for the higher risk entailed in international gas transmission by a risk premium on the basic value of WACC. The allocation of the infrastructures required for national and international gas transmission is described in point 10.1.

The TAR Decision set out the detailed methodology for international transmission regulation and pricing.

Following the issuance of these Price Control Principles, the calculations and algorithms set out in the TAR Decision will take account of the new values of the allocation ratios and the

new value of WACC for national transmission for the fifth regulatory period; for the purpose of calculating revenue for the transit part of transmission, the latter will be marked up by the risk premium in accordance with the TAR Decision. This recalculation will also take into account the usage for national purposes of the entry interconnection capacities originally intended for transit purposes. Based on the values so adjusted, the price of international transmission for 2021-2025 will be calculated.

Pricing of transmission capacity booked for entry and exit interconnection and entry and exit virtual interconnection points in the regime of price cap regulation will be subject to the following price escalation during the regulatory period:

$$C_{Fi} = \left(C_{y0} \times \prod_{t=j}^{i} \frac{I_{t-1}}{100}\right) + AP + RP,$$

where

C_{y0} [CZK/MWh/day] is the price for booked firm transmission capacity set for the first year of the regulatory period,

AP [CZK/MWh/day] is, for auctions of standard bundled transmission capacity, the proportion of the auction premium attributable to the TSO achieved in auctions on auction booking platforms; for auctions of standard unbundled transmission capacity, it is the auction premium set in the auction on an auction booking platform,

RP [CZK/MWh/day] is the risk premium in cases of a fixed payable price,

i is the regulated year for which the price for booked standard firm transmission capacity is being set,

j is the first regulated year of the regulatory period,

t is a regulated year in the <j, i> interval,

I_{t-1} [%] is the value of the price escalation factor; for the years *j-1* and *j* it equals 100 and for the year *j+1* and subsequent tears it is calculated as

$$I_{t-1} = 0.7 \times IBS_{t-1} + 0.3 \times (CPI_{t-1} + 1),$$

IBS_{t-1} [%] is the value of the price index of business services, calculated as the weighted average of the following price indices:

62-Computer programming, consultancy and related services,

63-Information services,

68-Real estate services,

69-Legal and accounting services,

71-Architectural and engineering services; technical testing and analyses services,

73-Advertising and market research services,

74-Other professional, scientific and technical services,

77-Rental and leasing services,

78-Employment services,

80-Security and investigation services,

81-Services to buildings and landscape,

82-Office administrative, office support and other business support services

reported by the Czech Statistical Office in its Public Database in the table "Price index of market services (ratio of rolling averages)" (code CEN06B2) for March of year *t-1* on the basis of the ratio of rolling averages of basic indices, where the weights are the annual revenues for services provided in 2015,

CPI_{t-1} [%] is the value of the consumer price index calculated on the basis of the ratio of rolling averages of basic consumer price indices for the last 12 months and the preceding 12 months, reported by the Czech Statistical Office in the table "Consumer Price Index" (code 012018) for March of year *t-1.*

The option to use the fixed payable price for booked standard firm transmission capacity will also be subject to the conditions set out in the ERO's relevant price decision.

10.4. Variable component of the charge for the gas transmission service

10.4.1. General principles for determining the variable component

The basic principle for calculating the variable component of the price, which covers the costs of electricity and gas to fuel compression stations and the costs of gas to cover losses in the transmission system, and the related charges, the costs of taxes and the costs of emission allowances in excess of the allocated free allowances, is the principle of the TSO's cost neutrality for its national and transit gas transmission services.

The basic model for calculating the variable component of the price is the model approved in point 17.1 of the TAR Decision. Because of the material change of these quantities for the fifth regulatory period, the gas and electricity quantities to fuel compression stations will be derived from the energy quantity planned to be transported through the system and the resulting quantities of electricity and gas for fuelling based on hydraulic simulation. The planned losses for the regulated year are calculated as a rolling arithmetic average of a five-year series of the reported actual values of losses in the transmission system. For the first year of the fifth regulatory period the values will be set on the basis of the actual values of losses between 2015 and 2019. For the commodity component of the price, there will be ensured – as in the case of the allocation mechanism for transmission capacities – the minimisation of cross-subsidies for the costs of compression station fuelling and the costs of losses provided from the various groups of the transmission system users, who include users using exit interconnection points, the exit point to the virtual storage facility, and the exit point to the domestic zone, which is represented by the group of delivery points between the transmission and distribution systems, and customers connected directly to the transmission system. The principle therefore applies that each group of customers pays the costs of gas/electricity for compression station fuelling and the costs of losses depending on the needs they induce based on the respective group using the transmission system.

Another assumption is the economic and efficient operation of the transmission system, i.e. the gradual replacement of less efficient compressors with new, more efficient machines. A precondition for the full long-term eligibility of the costs of compression station fuelling, including the TSO's costs of the emission allowances in excess of the allocation of free allowances, is the economic and efficient operation of the transmission system.

This component of the price is shared by national and transit gas transmission and is independent of the other gas transmission costs, which are allocated to the fixed component of the price for booked capacity. In practice, this component is therefore independent of the costs, D&A, and profit related to the equipment of compression stations, in particular the costs of procuring more efficient compressors. The above-described approach can therefore mean that under certain circumstances, the regulated environment will not necessarily generate sufficient pressure for optimising the overall investment and operating costs, including the costs of fuel gas, the excise duty, and emission allowances. Additional investments in replacing old compressors with new and more efficient machines, or in retrofitting old compressors, will therefore be planned with a view to ensuring that the operating and investment costs are recoverable by the TSO while being advantageous (acceptable) for the customers from the perspective of the total price that they pay for gas transmission.

Pending the actual full operation of the Capacity4Gas project, all assumptions of the operation of compression stations are based on expectations only; for this reason it is currently not possible to calculate, and then firmly set out in these Principles, a plan for the replacement of the compressors that have a low efficiency from today's perspective. This will only be possible once we obtain and evaluated data from actual operation and calculate the economically optimum variants in terms of the ratio of fixed and variable costs and their impact on the gas transmission prices.

As part of ensuring the efficient and economic operation of the transmission system, the TSO will transmit by the end of 2023 (provided that the Capacity4Gas project has been sufficiently used for at least 18 months; otherwise, the date will be moved accordingly) to the Office for approval, its plan of the future retrofit/replacement of compressors, proposing the optimum variant in terms of both investment and operating costs. On the basis of the approved plan the Office will set out a firm plan of renovation, tied to the eligible costs of compression station operation, for the subsequent regulatory period.

10.4.2. Variable component of the charge for the gas transmission service

For the purpose of calculating the variable component of the price employing the model described in the TAR Decision, the planned annual price of gas will be determined using the average of the daily prices of the "Calendar + 1" forward product for gas supply [i.e. for the following year] at the Czech virtual trading point for September of the year in which the price is being determined; should this value be unavailable, the value for the German bidding zone (the single bidding zone; before the merger of the zones, the NCG zone) will be used. The annual price in EUR/MWh is converted to CZK/MWh at the EUR/CZK rate predicted by the

Czech National Bank in September for the following regulated year, published in the "*Financial market inflation expectations*" section, column "*1Y*", row "*average*". For the purpose of calculating the parameters under point 10.7, where the values are unavailable the values of the last known months will be used, provided that for the purpose of pricing, they will subsequently be replaced with the value for September.

For the exit interconnection points, the price will be set as a coefficient multiplied by the market operator's index for the transmission day concerned. The resulting daily price in EUR/MWh is converted to CZK/MWh using the daily rate published by the CNB on the current gas day *D*. Where the rate is unavailable the value of the daily rate on the nearest preceding day *D-n*, on which the daily rate was published, will be used.

For the exit point to the virtual storage facility, customers directly connected to the transmission system and the exit point via the group of delivery points between the transmission and distribution systems, the price will be set in CZK/MWh for the year concerned.

10.4.3. Adjustment of the variable component of the price

Since the time of the full use of exit interconnection points (in particular in relation to the time when NORD STREAM II is put into full operation) is still uncertain and because of the considerable volatility of the prices of gas and emission allowances, we can expect considerable differences between the TSO's actual revenue based on the planned input parameters included in the variable component of the price and the actual acknowledged costs of purchased electricity, gas and emission allowances, including the related taxes and charges. A correction mechanism will therefore exist to ensure the TSO's cost neutrality; it will be based on the standard annual correction applied to all points with a variable component of the price and a non-standard correction applied to the exit interconnection points, because it is the flow at the exit interconnection points which is the key variable in the total costs in the variable component of the price.

Non-standard correction will be admissible in case that the period for which this coefficient was set sees a considerable divergence of the values planned at the time of pricing from the values, and the related revenue, stemming from the current usage of the transmission system and the updated prediction of the volume of transmission via the concerned exit points of the transmission system. In such a case, on the basis of a comprehensive analysis the Office will decide to change the relevant coefficient for the exit interconnection points.

A correction factor calculated as the difference between the actually recovered revenue related to the variable component of the price and the actual acknowledged costs of the given type of point will be added to the foregoing price as part of pricing for the following year. For calculating the actually acknowledged costs related to the given type of point, the actually acknowledged costs will be allocated on the basis of the actual gas flow, employing the model in point 17.1 of the TAR Decision.

The correction factor for the actual costs in 2020 will be calculated based on the principles for the fifth regulatory period and set as an annual factor, provided that for the purpose of

calculating the costs of emission allowances, the difference between the allowances actually consumed at compression stations and the free allocated allowances for the whole fourth regulatory period will be taken into account.

10.5. Allocation of capacities from the transmission capacities at cross-border entry points

The Czech gas market is based on the implementation of the EU's third liberalisation package through a complete entry-exit model. The system users (the TSO's contracting parties) book transmission capacity separately for each entry and exit point of the transmission system (entry/exit). Thus, gas enters the transmission system through the entry interconnection points or the exit points of the virtual storage facilities. Gas exits the transmission system at exit interconnection points, exit points of customers directly connected to the transmission system, entry points to virtual storage facilities, and via delivery points to distribution systems.

In practice this solution means that the gas supplied into the system at any entry point is available at any exit point, in compliance with the third liberalisation package's requirements. Analogically, every exit point can be deemed to be supplied from any entry point.

The entry/exit system helps network users to book transmission capacity independently of the entry and exit points. This independence of entry and exit capacities is further supported by the virtual trading point, at which network users can sell and buy gas. In this configuration gas can change hands easily, which fact facilitates trading in gas and enhances liquidity in the Czech gas market.

Thus, revenue from capacity booking at entry interconnection points is shared by national gas transmission and international gas transmission. Because of the different systems for regulating the two business lines, the revenue has to be broken down to its national and international components. However, it is not that easy; the capacity booking system is the reason.

The system applied in the fourth regulatory period has become untenable due to the change in the users' behaviour. In particular, the originally transit capacities are being increasingly used for gas supply to national customers, and this change is profound.

In the light of the above the Office therefore proposes, for the purposes of both planning and correction, to determine for a given year (including 2019 and 2020) the size of the transmission capacities at entry interconnection points, which are required for ensuring gas supply to customers' supply points within the Czech entry/exit system on the basis of the planned or, if available, the actual consumption in the given year and the capacity usage coefficient.

The Office publishes actual gas consumption in the Czech Republic every year in its Yearly Report on the Operation of the Gas System.

A prerequisite for calculating the capacity usage coefficient is gas import for the needs of customers in the Czech Republic arriving evenly over 300 days in a year, which translates into

a usage of approximately 82.19% of the capacity in the transmission system. From the Office's perspective, this is a realistic view of the use of capacities for an importing country with a high capacity in storage facilities.

The fixed price (fixed within the meaning of the Czech law on prices) for transmission at the entry interconnection point via which gas will most likely be supplied to the Czech Republic will be used for calculating the revenue. This scenario matches the scenarios used for identifying the TSO's infrastructure required for supplying gas to the Czech Republic, see point 10.1.

Thus, in the case of gas transmission via entry interconnection points, there will be no settlement of the difference in revenue arising from the difference between the planned and actual quantities of transmission capacity bookings at these points; the difference between the planned and actual amounts of consumption will only be corrected.

The risk associated with using transit capacity for national purposes will be addressed by adjusting the prices for international gas transmission under point 10.3.

10.6. Pricing for the existing and planned entry and exit points of the transmission system

10.6.1. Summary

Under TAR NC, and applying the reference price methodology, a reference price serving for calculating capacity-based transmission tariffs will be calculated for the entry and exit points of the transmission system.

1. For the existing and planned points, a method for calculating reference prices was determined and published, together with the indicative levels of the reference prices, in the decision under Article 27 (4) TAR NC. The final prices will be calculated employing the same methodology and the principles for the fifth regulatory period.
2. For the envisaged points of the system, related to incremental capacity introduced in Commission Regulation (EU) 2017/459, prices have not been set and a reference price methodology has not been put in place to date. As in the case of the other parameters and prices the Office believes it to be necessary to meet the requirement for the consistency and transparency of the transmission tariff structures and of the procedures for determining them and to meet the requirements of Article 7 TAR NC.

On the basis of the above the Office shall determine the reference price methodology for the entry and exit points of the transmission system, at which incremental capacity is offered under Commission Regulation (EU) 2017/459 of 16 March 2017 establishing a network code on capacity allocation mechanisms in gas transmission systems and repealing Regulation (EU) No 984/2013. It applies to all potential incremental capacity projects that in the annual auction of yearly capacities in which incremental capacity is first offered, it shall be offered for a fixed payable price.

10.6.2. Objectives of the methodology

The approach to the reference price methodology must ensure that revenue from incremental capacity amounting to planned booked capacities will proportionally participate in the recovery of the costs of the whole system and also in the recovery of the costs incurred in the implementation of the incremental capacity project. The reference price for incremental capacity has therefore been set as a double-component price.

10.6.3. Description of the methodology

The first component of the reference price represents the share contributed by the newly envisaged point to the recovery of the costs of the whole system, taking into account the planned capacities and target revenues excluding the costs of incremental capacity. This meets the requirement that the relevant assumptions related to the offer of incremental capacity are included in the reference price methodology.

The other component represents the specific part of the fixed payable price, where the basis must be the projected investment and operating costs incurred for the given project, taking into account its planned incremental capacities. These costs and other parameters for pricing will be assessed and determined separately. Once the incremental capacity is commissioned, this part of the price shall be adjusted proportionally to the difference, irrespective whether positive or negative, between the projected investment costs and the actual investment costs, as required by Article 33 (2) TAR NC.

Additional capacity products related to capacity set aside under Article 8 CAM NC can be offered for a floating or fixed payable price that will be set out in the Office's respective price decision on regulated prices related to gas supply and based on the fixed payable price for which the incremental capacity of the given incremental capacity project was sold in an auction under Article 29 CAM NC, with the relevant escalation over time applied to the price.

10.7. Timetable of notifying the parameters for price calculation to the transmission system operator

The Office notifies the TSO of the values of the parameters for calculating the gas transmission service prices with the exception of the prices for interconnection points (national transmission) under point 10.7.1, and of the values of the parameters of the gas transmission service for calculating the prices for interconnection points (international transmission) under point 10.7.2.

The Office notifies the values of the parameters before the beginning of a regulatory period and before the beginning of a regulated year.

10.7.1. National transmission

10.7.1.1. Parameters for price calculation, notified before the beginning of a regulatory period

Not later than eight months before the beginning of a regulatory period or ten days following the issuance of these Principles, the Office shall notify the TSO of the values of the parameters of the regulatory formula to the following extent:

1. initial value of the regulatory asset base,
2. rate of return on the regulatory asset base,
3. annual value of the efficiency factor for national gas transmission,
4. values of individual allocation coefficients for allocating the transit infrastructure to national gas transmission.

10.7.1.2. Parameters for price calculation notified before the beginning of a regulated year

By 30 September of the calendar year preceding the regulated year, the Office shall notify the TSO of the calculated prices for the gas transmission service, with the exception of prices for the interconnection points that are subject to point 10.7.2 and with the exception of prices under point 10.7.3.

Not later than four months before the beginning of every regulated year the Office shall notify the TSO of the values of the parameters of the regulatory formula to the following extent:

1. planned level of the annual average allocation ratio based on the planned book values of assets, to which individual allocation ratios under point 10.7.1.1 are applied in the case of transit assets,
2. actual level of the annual average allocation ratio in year *i-2*, based on the actual book values of assets, to which individual allocation ratios under point 10.7.1.1 are applied in the case of transit assets,
3. eligible costs base,
4. value of profit/loss sharing,
5. weights of the wage index for each of the years, entering the calculation,
6. weights of the business services price index,
7. values of the wage index for each of the years, entering the calculation,
8. value of the business services price index,
9. value of the producers price index,
10. planned value of directly assignable D&A of non-current assets,

11. planned value of D&A of non-current assets,
12. planned value of D&A of non-current assets procured from subsidies,
13. D&A correction factor,
14. planned value of capitalised investments,
15. planned value of asset disposals,
16. planned book value of assets at 31 December of year *i*,
17. planned value of development investments in progress,
18. coefficient of the respective company's convergence of the value of the regulatory asset base to the book value of assets,
19. correction factor for the planned value expressing the annual convergence of the value of the regulatory asset base to the book value of assets,
20. correction factor for the regulatory asset base,
21. profit correction factor,
22. correction factor for development investments in progress,
23. value of the market factor,
24. level of the replacement and development fund,
25. planned booked firm transmission capacities at entry and exit points,
26. correction factor for the gas transmission service.

10.7.2. International transmission

10.7.2.1. Parameters for price calculation, notified before the beginning of a regulatory period

Not later than eight months before the beginning of a regulatory period or ten days following the issuance of these Principles, the Office shall notify the TSO of the values of the parameters to the following extent:

1. planned value of the regulatory asset base for each of the years of the regulatory period,
2. value of the risk premium on the basic rate of return on the regulatory asset base for international transmission,
3. ratio of allocation between revenue from capacity-based transmission tariffs at all entry points and revenue from capacity-based transmission tariffs at all exit points, such ratio being an input into the reference price methodology,
4. planned level of the average allocation ratio based on the planned book values of assets, to which individual allocation ratios under point 10.1 are applied in the case of transit assets for the allocation of the plan of operating costs,

5. weight of the consumer price index for transit transmission,
6. weight of the business services price index for transit transmission,
7. values of target revenue without the risk premium for each of the years of the regulatory period,
8. values of revenue from the risk premium for each of the years of the regulatory period,
9. values of the investments planned for transit transmission for each of the years of the regulatory period,
10. values of the operating costs planned for transit transmission for each of the years of the regulatory period,
11. planned value of directly assignable D&A of non-current assets,
12. values of planned D&A for transit transmission for each of the years of the regulatory period,
13. planned booked firm transmission capacities at entry and exit points for each of the years of the regulatory period.

10.7.2.2. Parameters for price calculation, notified before the beginning of a regulated year

In the case of information to be published and its form, and the time limits, the Office follows European legislation[9]. Not later than 30 days before the annual yearly capacity auction that starts on the first Monday of July each year unless otherwise specified in the auction calendar[10], the Office shall notify the TSO of the calculated prices for the gas transmission service for the interconnection points of the system.

10.7.3. Variable component of the price for national and international gas transmission

By 30 September of the calendar year preceding the regulated year, the Office shall notify the TSO of the calculated variable components of the prices for national and international gas transmission and the values of the parameters used in the calculation of these prices, to the following extent:

1. planned purchase price of the energy in gas for covering losses and for pricing fuel gas for compression stations in the transmission system,

[9] Commission Regulation (EU) 2017/460 of 16 March 2017 establishing a network code on harmonised transmission tariff structures for gas

[10] Under Commission Regulation (EU) 2017/459 of 16 March 2017 establishing a network code on capacity allocation mechanisms in gas transmission systems and repealing Regulation (EU) No 984/2013, the 'auction calendar' means a table displaying information relating to specific auctions which is published by ENTSOG by January of every calendar year for auctions taking place during the period of March until February of the following calendar year and consisting of all relevant timings for auctions, including starting dates and standard capacity products to which they apply.

2. planned amount of losses in the transmission system,
3. planned amount of energy (electricity and gas) for fuelling compression stations in the transmission system,
4. planned tax on gas consumption,
5. planned costs of procuring emission allowances in excess of the allocated free allowances,
6. correction factor for the variable component of the price for the gas transmission service, in respect of national transmission,
7. correction factor for the variable component of the price for the gas transmission service, in respect of international transmission,
8. transported gas quantity planned for each of the three types of exit points.

10.7.4. Notification of regulated prices and changes of parameters

The Office reserves the right to derogate from the principles described in the Price Control Principles in the fifth regulatory period, in particular in the following cases:

1. A change in the legislation directly applicable to the licence holder's licensed activity, which has a major impact on the parameters in the regulatory formula;
2. An extraordinary change in the electricity/gas market or other extraordinary changes in the country's economy meriting particular treatment;
3. A state of emergency, a state of danger to the country, or a state of war is declared;
4. Parameters have been set on the basis of incorrect, incomplete or untrue information;
5. Material changes on the part of regulated entities where such changes significantly affect the assumptions on the basis of which these Price Control Principles have been formulated, in particular those impacting on the structure and amount of eligible costs or book value of assets (such as insourcing/outsourcing or asset revaluation);
6. In cases of unforeseeable events and impossibility to correct the price development through correction factors in order to preserve price stability, it will be possible to reconsider the transition to the equalisation of RAB and NBVA for individual companies in order to prevent major year-on-year variations in prices.
7. For 2025 on the basis of the results of the regular final consultation on the reference price methodology in compliance with European legislation[11].

[11] Article 27 (5) of Commission Regulation (EU) 2017/460 of 16 March 2017 establishing a network code on harmonised transmission tariff structures for gas

11. Special section on gas distribution – regional distribution systems

Regional distribution systems are understood to be distribution systems directly connected to the transmission system.

11.1. Costs of gas for covering the allowed quantity of losses and own use (process) of gas

For each of the years of the fifth regulatory period, the costs of gas for covering the allowed quantity of losses and own use (process) of gas are calculated as the product of the allowed quantity of losses and own use (process) of gas and the annual unit maximum price of the supply of gas for losses and own use (process) of gas.

11.1.1. Allowed quantity of gas for covering losses and own use (process) of gas

For each of the years of the fifth regulatory period, the allowed quantity of gas for covering losses is set individually for each regional DSO as the arithmetic average of the actual values of losses for 2014 to 2018. Where the average quantity of losses based on the 2014–2018 period exceeds 2% of the average gas quantity that entered into a distribution system between 2014 and 2018, the value of precisely 2% of the average gas quantity that entered into the distribution system is used for calculating the allowed quantity of gas for covering losses.

For each of the years of the fifth regulatory period, the quantity of gas for covering own use (process) of gas is set individually for each regional DSO as the arithmetic average of the actual values of own use (process) of gas for 2014 to 2018.

11.1.2. Maximum price of supply of gas for covering losses and own use (process) of gas

The same price of the supply of gas for covering losses and own use (process) of gas is set for all regional DSOs for each individual regulated year depending on the development of the respective reference price at the NCG energy exchange, taking into account the current CZK/EUR rate.

11.2. Planned costs of distribution procurement from other distribution system operators

There are situations in the Czech gas system where a part of the distribution system operated by a particular operator of a regional distribution system is not directly connected to this operator's system. Gas is distributed to such parts from adjacent regional distribution systems operated by different entities, or through a delivery point on a cross-border gas pipeline. Distribution to the delivery point at which gas enters the isolated part of the system is paid for by the operator of the isolated part of the system to the entity that operates the adjacent regional distribution system or to the entity that is responsible for gas distribution

through the delivery point on the cross-border gas pipeline. In such a case, economically justified costs are understood to be the costs calculated using the procedure in the following paragraph and other related costs in a justified amount ensuring cost neutrality.

In the second to fourth regulatory periods, the prices set out in the Office's applicable price decision for the operator of the distribution system through which the gas is distributed to the isolated part were used when buying the distribution system service from other operators of regional distribution systems; the payment was calculated based on the quantity of the distributed technical units (MWh and thousands m^3). For the fifth regulatory period the Office will apply the rules set out in point 16.3.2 of these Price Control Principles.

11.3. Planned value of the regulated costs of rent for use of gas installations

This parameter was introduced during the third regulatory period, and it was first used when calculating adjusted allowed revenues for the regulated year 2015. The principle of calculating this parameter has been preserved for the fifth regulatory period, including the calculation of the equalising factor for the regulated costs of rent for using gas installations; however, some of the variables have been updated. The algorithm for calculating the regulated values of a gas installation and the algorithm for calculating the regulated costs of rent for using gas installations are set out in point 16.3.4 of the Price Control Principles.

The provisions of point 16.3.4 concerning rent will be used *mutatis mutandi* for the usufruct right or other right to use a gas installation to which the licence holder does not have an ownership title.

11.4. Timetable of notifying the parameters of the regulatory formula to distribution system operators

11.4.1. Parameters of the regulatory formula notified before the beginning of the regulatory period

Not later than four months before the beginning of the regulatory period the Office notifies the DSO of the values of the parameters in the regulatory formula as follows:

1. annual value of the efficiency factor,
2. rate of return on the regulatory asset base,
3. initial value of the regulatory asset base,
4. planned value of the difference between the book value of assets and the regulatory asset base for 2020,
5. the gas quantity allowed for covering losses and own use (process).

11.4.2. Parameters of the regulatory formula notified before the beginning of the regulated year

Not later than four months before the beginning of every regulated year the Office notifies the DSO of the values of the parameters in the regulatory formula as follows:

1. weights of the wage index for each of the years, entering the calculation,
2. weights of the business services price index,
3. values of the wage index for each of the years, entering the calculation,
4. value of the business services price index,
5. value of the producers price index,
6. the eligible costs base,
7. value of profit/loss sharing,
8. planned value of D&A of non-current assets,
9. planned value of D&A of non-current assets funded by subsidies,
10. the D&A correction factor,
11. planned value of capitalised investments,
12. planned value of asset disposals,
13. planned value of development investments in progress,
14. coefficient of the particular company's convergence of the value of the regulatory asset base to the book value of assets,
15. correction factor for the planned value expressing the annual convergence of the value of the regulatory asset base to the book value of assets,
16. the RAB correction factor,
17. the profit correction factor,
18. correction factor for the development investments in progress,
19. value of the market factor,
20. level in the replacement and development fund,
21. the annual unit maximum price of gas supply for losses and own use (process),
22. costs of gas to cover the allowed quantity of losses and own use (process),
23. planned costs of buying distribution from other DSOs,
24. correction factor for the distribution system service applied for the respective regulated year,
25. planned value of the regulated costs of rent for using gas installations,
26. equalising factor for the regulated costs of rent for using gas installations.

11.4.3. Notification of the regulated prices and changes of parameters

By 30 September of the calendar year preceding the regulated year the Office notifies the DSO of the price calculated for the distribution system service.

The Office reserves the right to derogate from the principles described in the Price Control Principles in the fifth regulatory period, in particular in the following cases:

1. A change in the legislation directly applicable to the licence holder's licensed activity, which has a major impact on the parameters in the regulatory formula;
2. An extraordinary change in the electricity/gas market or other extraordinary changes in the country's economy meriting particular treatment;
3. A state of emergency, a state of danger to the country, or a state of war is declared;
4. Parameters have been set on the basis of incorrect, incomplete or untrue information;
5. Material changes on the part of regulated entities where such changes significantly affect the assumptions on the basis of which these Price Control Principles have been formulated, in particular those impacting on the structure and amount of eligible costs or book value of assets (such as insourcing/outsourcing or asset revaluation);
6. In cases of unforeseeable events and impossibility to correct the price development through correction factors in order to preserve price stability, it will be possible to reconsider the transition to the equalisation of RAB and NBVA for individual companies in order to prevent major year-on-year variations in prices.

11.5. Methodology for pricing the distribution system service

The methodology for pricing the distribution system service for the fifth regulatory period is similar to that in the fourth regulatory period. The distribution system service prices are set for DSOs on the basis of adjusted allowed revenues, which comprise allowed revenues plus the costs of gas for covering the allowed quantities of losses and own use (process), plus the planned costs of buying distribution from other DSOs, plus the correction factor for the distribution system service, and plus the planned value of the regulated costs of rent for using gas installations.

For every regulated year of the fifth regulatory period, the prices for the household and low-demand business customer categories will rely on the tariff model based on the ratio between the gas quantity consumed and the capacities booked within the off-take bands, while those for the medium-demand and large-demand customer categories will be based on the size of booked capacities.

12. Special section on gas distribution – local distribution systems

A distribution system that is not directly connected to the transmission system is understood to be a local distribution system.

In the fifth regulatory period the principles and rules of regulation identical with the practice applicable in the fourth regulatory period will continue to apply. Local distribution system operators can therefore either accept the distribution system service prices up to the level of the distribution system service prices applicable to the higher-level distribution system, or request the ERO to set individual prices for them.

Where a local DSO requests different individual prices and the ERO decides on an individual calculation of the allowed revenues and variable costs of this local DSO under the Energy Act, the algorithm for calculating the allowed revenues for this particular local distribution system is similar to the one that is used to calculate the allowed revenues for the regional DSO under point 16.3.2, if possible.

The values of eligible costs and D&A, relying on reported data, are limited relative to the length of the system and the distributed quantity. These limits are set on the basis of comparing the values of regional distribution systems and have been updated for the fifth regulatory period. The value of profit has been limited by the updated percentage of total allowed revenues.

12.1. Costs of gas for covering the allowed quantity of losses and own use (process) of gas

The costs of gas for covering the allowed quantities of losses and own use (process) are set, for each of the years of the fifth regulatory period, as the product of the allowed quantities of gas for covering losses and own use (process) and the annual unit maximum price of gas supply for losses and own use (process).

12.1.1. Allowed quantity of gas for covering losses and own use (process) of gas

For each of the years of the fifth regulatory period the allowed quantity of gas for covering losses is set for each local DSO individually as the arithmetic average of the actual values of losses for 2014–2018. Should the average amount of losses based on 2014–2018 data exceed 2% of the gas that entered the respective distribution system in 2014-2018, precisely the 2% of the average quantity of gas that entered the respective distribution system will be used for calculating the allowed quantities of gas for covering losses. Where the difference between the gas quantity entering the system and exiting the system has a negative value in any of the reference years, a zero value will be used for that year for calculating the allowed quantities of losses.

In the event of a significant change of the scope or condition of an operated distribution system during the fifth regulatory period, the ERO may use a different method for calculating the allowed gas quantity for losses.

12.1.2. Maximum price of supply of gas for covering losses and own use (process) of gas

The price of the gas supply for losses and own use (process) for local DSOs is calculated as the sum of the price for the gas supply and the price for the service of the respective higher-level (regional) distribution system.

The price of the gas supply is set identically for all local DSOs for each individual regulated year depending on the development of the respective reference price at the NCG energy exchange, taking into account the prices for low-demand customers and the current CZK/EUR rate.

The price of the distribution system service is calculated individually for each local DSO on the basis of the gas quantity planned to be distributed and the planned booked distribution capacity at the delivery points of the respective local distribution system.

12.2. Timetable of the procedure and notification of charges for the distribution system service for a local distribution system operator

1. By 31 October of the calendar year preceding the regulated year, the Office notifies the local DSO for whom different prices for the distribution system service were set in the preceding year, of the calculated prices for the distribution system service provided by the local distribution system operated by this DSO.
2. The Office requests the local DSO who applied for different prices for the distribution system service during the calendar year preceding the regulated year to supply, within 15 calendar days from the delivery of the request, the financial and technical details required for calculating the different prices. Within 30 calendar days from receiving it, the Office assesses the information in terms of the scope and content of the data required for calculating different prices for the specific conditions of the local distribution system. The Office grants the application in whole or in part if the local DSO proves that the set method of price regulation prevents the DSO from covering reasonably spent costs of ensuring the reliable, safe and effective performance of its licensed activity for at least three consecutive years preceding the regulated year.
3. The Office notifies the local DSO that applied for different prices by 15 September of the calendar year preceding the regulated year, of the calculated prices for the distribution system service between 1 October and 30 November of the calendar year preceding the regulated year.
4. Where the local DSO applies for different prices for the distribution system service between 16 September and the end of the calendar year preceding the regulated year, the Office sets the prices for the distribution system service for this local DSO by 30 November of the regulated year, with effect from 1 January of the year following the regulated year.

5. The Office sets out the prices (except those under point 4 above) in its price decision by 30 November of the calendar year preceding the regulated year, with effect from 1 January of the regulated year.

13. Special section – prices of supply of last resort in the gas industry

Under Section 19a (5) of the Energy Act, the prices charged by the supplier of last resort are regulated as cost-plus prices. Where the supplier of last resort so requests, the Energy Regulatory Office shall decide that the prices of the supplier of last resort are the maximum prices.

In case of price controls via cost-plus prices, the Office sets out the conditions for pricing in its price decision by 30 November of the calendar year preceding the regulated year for which the conditions for pricing should be set out, with effect from 1 January of the regulated year.

Where the Office regulates prices with an effective date other than 1 January of the regulated year, it sets out the prices or the conditions for pricing in its price decision at least 30 calendar days before the effective date thereof.

14. Strategic directions in the gas industry

Being one of the most efficient European systems, the Czech gas system guarantees supply of large quantities of energy in a safe and reliable manner to the users. Its flexibility helps to change supply volumes and supports relatively easy connection of new customers. In connection with transporting natural gas, featuring a low emission burden and, later in the future, renewable gases (biomethane, hydrogen), this steadily and routinely operated infrastructure in a very good technical condition is naturally at hand as one of the means of reaching a low-carbon energy sector and meeting the national climate obligations, which will be the sector's heaviest challenges in the near future.

The strategic directions formulated for the gas industry for the fifth regulatory period and beyond follow up on the visions and strategic objectives presented by the ERO in the past, and on the documents and objectives of the Agency for Cooperation of Energy Regulators (ACER) and the Council of European Energy Regulators (CEER).

14.1. Vision

14.1.1. View from the outside

The Energy Regulatory Office must continue to be an independent body capable of carrying out, in an impartial, transparent and predictable manner, the competencies vested in it by the Energy Act. In the spirit of the direction followed by the European framework approach to the energy sector, the ERO will have the tools for the energy sector, which is becoming increasingly digitalised and flexible and teeming with innovations, to be able to dynamically respond to technical, economic and legislative developments. This regulatory approach will also follow the priority to protect customers' legitimate interests and their right to affordable energy supply, together with the protection of the legitimate interests of regulated licence holders.

14.1.2. Directions and challenges for regulation in the gas industry for the fifth regulatory period, extending to the subsequent regulatory periods

14.1.2.1. European level

The future challenges for the energy sector/the gas industry in the Czech Republic are primarily expected in relation to the ongoing implementation of European legislation in the national legislation, and also in connection with the starting debates on the Commission's extensive climate legislation package (EU Green Deal), which has the potential to redefine the regulatory framework as we have known up to now.

The following can be included among the main Europe-wide strategic directions and challenges in energy regulation:

- shorter investment cycles in energy and dynamic control responding to developments in energy markets, including the risks related to the expected roles and operation of the energy/gas infrastructure,
- transition to low-emission energy and development of renewable energy sources, including renewable gases,
- changes in the position and new needs of customers, intensified international integration of energy markets and their coupling on the commodity basis (electricity, gas, heat),
- preserving and using the natural advantages offered by the existing energy/gas infrastructure, in particular its flexibility and ability to accumulate energy, including the benefits from the future sectoral integration (sector coupling) and energy conversion,
- development of a legislative and regulatory environment for new technology rollout,
- ensuring accessible financing of the renovation and development of energy systems with a reasonable impact on final prices for consumers.

14.1.2.2. National level

At the national level, the following can be included among the future regulatory challenges for the gas industry:

- ensuring high standards of the safety, reliability and quality of energy transport and supply, including the adjustment of the relevant technical regulations and standards to, *inter alia*, the replacement of human work and the onset of new technologies,
- evaluating the plans and investments in the gas industry related to the strategy of the Czech Republic's gradual departure from coal, reflecting the results in a matching price control model while maintaining a reasonable impact of the prices on consumers,
- optimising the algorithms for pricing the related service in the gas industry and algorithms for calculating other regulated prices in the gas industry with a view to harmonising them with any new requirements of the European legislation and to reducing the dependence of regulated revenues in gas distribution on ambient temperatures,
- implementing a price control model reflecting a fair valuation of assets (a fair value model) and a fair valuation of the risks accepted by system operators,
- optimising the utilisation of capacities in gas systems in terms of their economical operation and their renovation and development, with a view to preventing the

hoarding/blocking of available free capacities and to streamlining the costs of connection to gas systems,

- continuously adjusting the secondary legislation within the ERO's competence to the future development in the gas market at the national and European levels,
- drafting a new Energy Act, preparing the legislation for the presence of renewable gases in terms of both the infrastructure and of their integration within the system of trading at energy markets,
- continuing cooperation with other governmental authorities (in particular MIT and OPC) and the academia as regards cost/benefit analyses and those of the related impacts of the changes expected in energy and as regards the adoption of the corresponding regulatory rules.

14.2. Plans of capitalised investments in the replacement and development of the gas infrastructure

Smooth and trouble-free energy supply to citizens and the whole national economy is one of the Czech Republic's strategic priorities. The TSO and DSOs must therefore meet stringent criteria for the operation, renovation and development of gas installations. An efficiently designed process of maintenance, renovation and development can help to ensure the safe, reliable and economical operation of all gas infrastructure components and sufficient capacity for gas transport to customers.

In the light of the large extent of the gas infrastructure and the amounts of funds spent on the maintenance, renovation and development of gas installations, a higher financial effectiveness must be continuously sought while preserving or increasing the safety of gas supply and equipment operation. The purpose of the maintenance, renovation and development process is a steadily reliable and failure-free operation of the installations, which will have a positive effect on the licence holders' cost structure.

The TSO and the DSOs that are directly connected to the transmission system have supplied data on their planned capitalised investments in system renovation and development; the data is shown in the following tables and relies on each of the companies' plans available as at the date of these Price Control Principles. The plans take into account the respective company's own view and estimate of the development of the macroeconomic ratios in the Czech Republic over the indicated periods. On the one hand, they reflect the required retrofit/replacement of the ageing network, mainly the part that was erected during the massive rollout of new connections to new gas supplies during the 1990s. On the other hand, they reflect the growing social and political pressure for reducing CO_2 emissions, which has turned decarbonisation into the main objective for all energy utilities. However, addressing the actual decarbonisation issue is not enough; another two factors, digitalisation and decentralisation, have to be included in the current energy trilemma. Digital technologies will therefore necessarily also transform the licensed activities in the gas industry so much that this energy industry is able to succeed in the conditions of Industry 4.0.

Another important parameter is the capacity of the specific market of infrastructure suppliers, which is not unlimited. The published plans should therefore support qualified discussion between the Office and the regulated companies on future investments.

Having regard to the dynamic development of these ratios/indicators, characterising economic development, which are burdened by a certain degree of uncertainty in the case of predictions, and to the potential expected and unexpected changes in the energy sector over the next ten years, the Office regards the data listed in the following tables as indicative. The regulated entities will supply the Office with the key and firm data in their regulatory returns and as part of the TSO's ten-year development plan in compliance with the Energy Act.

For the purpose of the information in the following tables, the renovation and development of the gas infrastructure is understood to be:

Development Construction of new and extension of existing installations in the distribution and transmission systems, carried out on the basis of the licence holder's decision, where the need to extend the network results from customers' requirements and the gradually rising load. This category also includes procurement of new installations so that the licence holder complies with the obligations laid down in the legislation. Development usually enlarges the extent of installations.

Renovation Anything except for development; for example, replacement of existing installations with new, although technically more sophisticated, installations so as to preserve their functioning in terms of safety, reliability, compliance with standards, and operating cost optimisation.

14.2.1. NET4GAS, s.r.o.

14.2.1.1. Development

Development investments include TYNDP projects; the details of the ten-year plan can be found on the company's website at https://www.net4gas.cz/files/rozvojove-plany/ntyndp20-29_cz_191209.pdf

14.2.1.2. Renovation

Investments in renovation include in particular:

a. investments in transit pipelines on the basis of results of regular inspections,
b. investments in compression stations to maintain their operability,
c. investments in the potential replacement of machines at the end of their lifetime or to meet the emission limits (in particular in 2028-2030),
d. investments in national pipelines based on results of regular inspections,
e. refurbishment of pipeline crossings over rivers,
f. investments in ancillary assets helping to maintain the operability and serviceability of the various installations.

14.2.1.3. Plan of investments 2021-2030

Table 15 Plan of capitalised investments – renovation

Plan of capitalised investments - renovation (outlook for 2021-2025) million CZK

Year	2021	2022	2023	2024	2025
Total gas transmission	874	834	505	528	530
Transit transmission	772	657	251	341	332
Directly assignable assets	742	556	210	340	305
Transit pipelines	741	556	46	303	252
Cross-border transfer stations	0	0	26	0	0
Compression stations	0	0	138	38	52
Ancillary and shared assets	30	101	41	1	28
National transmission	103	177	253	187	198
Directly assignable assets	93	132	235	187	185
Very high pressure pipelines	43	19	133	57	63
National delivery stations	0	15	45	0	0
Transit pipelines	50	97	28	123	112
Cross-border transfer stations	0	0	4	0	0
Compression stations	0	0	25	7	10
Ancillary and shared assets	10	45	18	0	13

Plan of capitalised investments - renovation (outlook for 2026-2030) million CZK

Year	2026	2027	2028	2029	2030
Total gas transmission	472	553	1,215	1,047	674

Source: NET4GAS, s.r.o.

Table 16 Plan of capitalised investments – development

Plan of capitalised investments - development (outlook for 2021-2025) million CZK

Year	2021	2022	2023	2024	2025
Total gas transmission	830	4,476	138	361	210
Transit transmission	788	227	93	93	130
Directly assignable assets	788	227	93	93	130
Transit pipelines	662	220	0	0	0
Cross-border transfer stations	0	3	64	65	90
Compression stations	125	3	29	29	40
Ancillary and shared assets	0	0	0	0	0
National transmission	42	4,249	45	268	81
Directly assignable assets	42	4,249	45	268	81
Very high pressure pipelines	0	0	0	0	0
National delivery stations	0	0	22	245	48
Transit pipelines	38	4,183	0	0	0
Cross-border transfer stations	0	1	16	16	23
Compression stations	4	65	7	7	10
Ancillary and shared assets	0	0	0	0	0

Plan of capitalised investments - development (outlook for 2026-2030) million CZK

Year	2026	2027	2028	2029	2030
Total gas transmission	73	78	786	677	236

Source: NET4GAS, s.r.o.

14.2.2. E.ON Distribuce, a.s.

14.2.2.1. Development

In the development category, the plan includes primarily three areas where new assets should be procured:

a. Construction of new and extension of existing installations in the gas distribution system, above all high-pressure security interconnections helping to supply larger areas that do not meet the N-1 security criterion, i.e. in case of a failure on high pressure, supply from the opposite direction cannot be provided;

b. Extension of local intermediate-pressure networks to supply gas to supply points in communities; backbone networks are mainly involved;

c. Buying installations (from other parties) for gas distribution.

14.2.2.2. Renovation

Anything except for development is renovation; for example, replacement of existing installations with new, although technically more sophisticated, installations so as to preserve their functioning in terms of safety, reliability, compliance with standards, and

operating cost optimisation. This covers all assets: pipelines, regulating stations, metering, cathode corrosion protection, centralised network control, etc.

The amount of renovations can be expected to increase due to the ending lifetime of installations erected some 30 to 40 years ago in the period of a relatively intensive drive for gas penetration through new connections.

14.2.2.3. Plan of investments 2021-2030

Table 17 Plan of capitalised investments – renovation

Plan of capitalised investments - renovation (outlook for 2021-2025) million CZK

Year	2021	2022	2023	2024	2025
Total distribution	229	310	321	285	294
High-pressure lines	72	121	125	105	105
Directly assignable assets	70	118	122	102	103
Gas pipelines	38	85	90	70	70
Regulating stations	30	30	30	30	30
Metering					
Other	2	3	2	2	3
Ancillary and shared assets	2	3	2	3	3
Local networks	157	190	197	180	188
Directly assignable assets	151	181	190	172	181
Gas pipelines	125	150	160	142	150
Regulating stations	4	7	7	7	7
Metering	17	17	17	17	17
Other	5	8	6	7	7
Ancillary and shared assets	6	8	7	8	8

Plan of capitalised investments - renovation (outlook for 2026-2030) million CZK

Year	2026	2027	2028	2029	2030
Total distribution	298	301	304	307	310

Source: E.ON Distribuce, a.s.

Table 18 Plan of capitalised investments – development

Plan of capitalised investments – development (outlook for 2021-2025) million CZK

Year	2021	2022	2023	2024	2025
Total distribution	122	42	35	75	70
High-pressure lines	60	0	0	45	50
Directly assignable assets	60	0	0	45	50
Gas pipelines	60			45	50
Regulating stations					
Metering					
Other					
Ancillary and shared assets					
Local networks	62	42	35	30	20
Directly assignable assets	62	42	35	30	20
Gas pipelines	62	42	35	30	20
Regulating stations					
Metering					
Other					
Ancillary and shared assets					

Plan of capitalised investments - development (outlook for 2026-2030) million CZK

Year	2026	2027	2028	2029	2030
Total distribution	70	71	71	72	73

Source: E.ON Distribuce, a.s.

14.2.3. GasNet, s.r.o.

14.2.3.1. Description of the context for developing the plan of investments

This indicative ten-year investment plan is based on a number of assumptions and predictions for the technical condition of the system and its components, including their ageing or technical degradation, and new equipment put to use. It also relies on the expected socio-economic developments, such as the regulatory framework, demand for natural gas, or the development of the prices of the equipment used and of refurbishment work. Thus, because of the dynamic developments in the technical and socio-economic areas, the ten years covered by the plan may see a number of changes that GasNet, s.r.o. ("GasNet") is unable to foresee at this moment. The company will therefore periodically update this indicative investment plan so that it reflects the changes in the assumptions on which the plan is based.

14.2.3.2. Renovation

Due to the level of gas penetration in the Czech Republic in general and GasNet's distribution area in particular, the vital core of investments is the renovation of gas installations. The proposed plan of renovations results from long-term models predicting the ageing of the

network. Another aspect is the even spreading of capital expenditure over the coming years and reducing the risk of an investment wave. Development investments make up only a very small part of the investment plan.

14.2.3.3. Renovation of steel pipelines from the 1980s to 1990s is pivotal for the coming years

The amount of renovation is growing every year, because steel pipelines built in the period of massive gas penetration in the 1980s to 1990s are being gradually slated for renovation. The plan envisages the spreading of the renovation of these gas installations so that the impact of the investment wave is spread over several periods. Besides other reasons, this approach is also motivated by the need to take into account the capacities of not only GasNet but also suppliers of renovation and designing work.

14.2.3.4. Greater emphasis on renovation in urban areas

The purpose of renovating gas installations is to prevent the number of subsurface leakages from increasing and emergencies from impacting on people's health and property. For this reason, the renovation of especially urban networks will continue, since these are some of the older networks and any problems in the network would have the heaviest impact in densely populated areas.

14.2.3.5. Development

The investment plans presented by GasNet for this period of time envisage only marginal costs of development, since organic growth in this area is very limited thanks to the high degree of gas penetration.

The expected major development programmes outlined below, motivated by decarbonisation and decentralisation, are currently at their early stages and it was not possible to quantify them with a sufficient degree of accuracy at the time when this plan was being prepared. In the event of their faster implementation or the emergence of any other programme that might affect the current investment plans, the presented plans may be changed in the future.

14.2.3.6. Expected transition of central heating from coal to natural gas

GasNet expects that in connection with meeting the climate targets over the next ten years, central heating plants will systematically switch over from coal to natural gas. This will require increased investments in the development of the system in terms of reinforcing its capacity locally and the connection of these plants (at the system-wide level, the networks are ready for this transition as regards their capacities). GasNet expects that all these investments will be accompanied by growing distributed volumes and increased overall usage of the system, and will therefore be financially effective for customers.

14.2.3.7. Preparations for green gas distribution

In the context of global greening, the era of natural gas greening is arriving. The gas grid will have to make it progressively possible to inject green gases, such as biomethane, hydrogen, and synthetic natural gas. GasNet has already connected the first biomethane station to its network and expects more to follow. The safe operation in these new conditions will require technological changes, which will gradually influence the method of designing and implementing system renovation and development. One of the first steps is the gradual transition from steel to PE piping, which is already under way and which enhances the system's readiness for the future mix of gases.

14.2.3.8. Digitalisation and IT development

Given the nature of natural gas distribution GasNet does not expect a significant increase in the need to roll out smart grids comparable with the situation in the electricity industry. GasNet nevertheless expects that the gas industry will also experience continued digitalisation to enhance the safety and reliability of operation while improving efficiency, in particular as follows:

- Human work replaced with sensors and remote data transmission, including the use of the Internet of Things, IoT; for example, replacing inspections with remote monitoring of the condition of equipment, or network monitoring using drones and satellite imaging of the terrain;
- Field operations supported by mobile devices, combined with an improved quality of identifying the condition of the operated equipment (mobile workforce), including support for optimising the management of these operations;
- Customer communication digitalised with a view to simplifying and accelerating the communication and introducing self-service processes;
- Data analysis used for more accurate targeting of refurbishment work and preventive maintenance;
- Development of digitalisation goes hand in hand with the need to ensure an adequate level of cyber security and personal data protection.

GasNet expects that investments in digitalisation will be offset by the benefits achieved in safety, reliability, and efficiency, and that they will help to gradually substitute for the traditional gas professionals, the shortage of which in the labour market will only increase in the next ten years.

14.2.3.9. Plan of investments 2021-2030

Table 19 Plan of capitalised investments – renovation

Plan of capitalised investments - renovation (outlook for 2021-2025) million CZK

Year	2021	2022	2023	2024	2025
Total distribution	3,951	4,001	4,197	4,398	4,489
High-pressure lines	957	1,095	1,190	1,313	1,238
Directly assignable assets	921	1,054	1,148	1,268	1,204
Gas pipelines	785	986	1,055	1,129	1,107
Regulating stations	114	46	70	116	75
Metering	21	21	22	22	21
Other	1	1	1	1	1
Ancillary and shared assets	36	41	43	45	34
Local networks	2,994	2,906	3,007	3,085	3,251
Directly assignable assets	2,881	2,797	2,900	2,980	3,163
Gas pipelines	2,411	2,299	2,325	2,470	2,673
Regulating stations	280	304	380	308	297
Metering	189	193	194	201	193
Other	1	1	1	1	1
Ancillary and shared assets	113	109	107	105	88

Plan of capitalised investments – renovation (outlook for 2026-2030) million CZK

Year	2026	2027	2028	2029	2030
Total distribution	4,554	4,722	4,874	5,103	5,326

Source: GasNet, s.r.o.

Table 20 Plan of capitalised investments – development

Plan of capitalised investments - development (outlook for 2021-2025) million CZK

Year	2021	2022	2023	2024	2025
Total distribution	101	93	93	94	93
High-pressure lines	2	2	2	2	2
Directly assignable assets	2	2	2	2	2
Gas pipelines	0	0	0	0	0
Regulating stations	0	0	0	0	0
Metering	1	1	1	1	1
Other	1	1	1	1	1
Ancillary and shared assets	0	0	0	0	0
Local networks	98	91	91	91	91
Directly assignable assets	98	91	91	91	91
Gas pipelines	86	78	78	78	78
Regulating stations	0	0	0	0	0
Metering	11	12	12	12	12
Other	1	1	1	1	1
Ancillary and shared assets	0	0	0	0	0

Plan of capitalised investments - development (outlook for 2026-2030) million CZK

Year	2026	2027	2028	2029	2030
Total distribution	93	94	94	94	94

Source: GasNet, s.r.o.

14.2.4. Pražská plynárenská Distribuce, a.s.

14.2.4.1. Renovation and development

The investment plan for upgrading the gas installations in Prague has been drawn up primarily on the basis of information about the technical degradation of the equipment and secondarily in response to the city's coordination requirements. In the coming years, the city's strategic projects will mainly focus on public space revitalisation, including greenery planting to mitigate the warming of the city. Other projects will concern the laying of conduits, repair of bridges over water streams (under the applicable technical standards, gas pipelines will have to be buried under water streams), refurbishment of major roads hiding backbone gas pipelines, etc. The need to invest in the renovation of gas installations every year translates into more than CZK 1 billion, but the opportunities to close roads while preserving the general traffic in the city, including the company's financial resources, make it possible to draw some CZK 800 million. At the same time, the coming years will see a pilot project for in-line inspection of HP pipelines inside the city; the reason is that following the evaluation of the defects so identified only targeted local repairs will have to be carried out rather than replacing/renewing tens of kilometres of HP gas pipelines. Such solutions are in line with pursuing the Smart Prague Policy with positive impacts on Prague residents' life: lower amounts of waste, lower levels of noise and dust, and reduced numbers of road

closures. The capital project to install smart meters for online reading at all large and medium-sized customers also fits within this policy.

14.2.4.2. Plan of investments 2021-2030

As early as 2016, the ERO started to modify the RAB value for Pražská plynárenská Distribuce, a.s., as an extraordinary measure. In the fifth regulatory period again, the approach to the equalisation of the RAB and NBVA values will be individualised with a view to maintaining the safe, reliable and economical operation of the system for the customers connected to this distribution system. The funds generated by this modified regulation will be spent on repairing and replacing primarily that part of the distribution network, which has aged to the end of its lifetime since it was developed in the 1970s and 1980s. One of the reasons for the quicker ageing of the distribution network inside Prague is the heavy density of buildings and infrastructure and intensive development activities in the city. This results in a higher frequency of failures. Their continuously rising number is evidence that the company was underfinanced between 2007 and 2015 and a major reason for the need of funds for the coming years. Although the company's capital expenditure has gradually doubled, from CZK 390 million in 2010 to CZK 796 million in 2019, and it is similar in system renovation, the trend of the rising number of gas leaks in the Prague distribution system has not yet been reversed: over the same period, the yearly number of subsurface leakages has risen by more than 35%. In recent years, the figure has even been over 1,600 leaks per year. Failures and leaks in the network are primarily a result of the progressively deteriorating quality of steel pipelines from the 1970s and 1980s. This group also includes backbone IP networks with DN 500 pipes, which are a specificity of Prague only; their refurbishment/replacement will constitute a major item in the budgets for the coming years.

The investment plan of Pražská plynárenská Distribuce, a.s., for the renovation of gas installations in Prague has been drawn up primarily on the basis of information about the technical degradation of equipment and secondarily in response to the city's coordination requirements. The budgetary value of the currently planned projects prepared for implementing over the next three years on the basis of diagnostics amounts to almost CZK 3 billion. Going forward, a number of modernisation projects are being planned for this gas system: encasing buried networks in conduits, relocating gas pipelines from bridges, renewing/replacing pipelines as part of the refurbishment of major roads, etc. The coming years will see a pilot project of in-line inspection of HP pipelines inside the city; following the evaluation of the identified defects it will help to carry out only targeted local repairs in the HP network. Another pilot project is installation of smart meters for remote readings at final customers.

Any neglecting or postponing of the required renovation of gas pipelines in Prague constitutes a large safety and operating risk. In this context, capital expenditure of Pražská plynárenská Distribuce, a.s., has recently exceeded the D&A level by hundreds of millions of crowns on a regular basis. From the perspective of price regulation and distribution operation, this approach is not tenable for a long time. Judging by the experience of the last few years it is organisationally, technically and administratively viable to spend some CZK 700

to 800 million per year in capital expenditure in Prague. The regulatory parameters for this company have been set for precisely these capital expenditure values for the fifth regulatory period.

Table 21 Plan of capitalised investments – renovation

Plan of capitalised investments - renovation (outlook for 2021-2025) million CZK

Year	2021	2022	2023	2024	2025
Total distribution	700	718	715	716	711
High-pressure lines	89	93	105	106	108
Directly assignable assets	87	92	104	105	107
Gas pipelines	84	88	100	102	104
Regulating stations	4	4	4	4	4
Metering	0	0	0	0	0
Other	0	0	0	0	0
Ancillary and shared assets	1	1	1	1	1
Local networks	611	624	610	609	602
Directly assignable assets	609	623	608	608	601
Gas pipelines	540	558	542	541	532
Regulating stations	18	18	18	18	18
Metering	51	48	49	50	51
Other	0	0	0	0	0
Ancillary and shared assets	2	1	1	2	1

Plan of capitalised investments - renovation (outlook for 2026-2030) million CZK

Year	2026	2027	2028	2029	2030
Total distribution	725	725	725	725	725

Source: Pražská plynárenská Distribuce, a.s.

Table 22 Plan of capitalised investments – development

Plan of capitalised investments - development (outlook for 2021-2025) million CZK

Year	2021	2022	2023	2024	2025
Total distribution	50	32	35	35	40
High-pressure lines	0	0	0	0	0
Directly assignable assets	0	0	0	0	0
Gas pipelines	0	0	0	0	0
Regulating stations	0	0	0	0	0
Metering	0	0	0	0	0
Other	0	0	0	0	0
Ancillary and shared assets	0	0	0	0	0
Local networks	50	32	35	35	40
Directly assignable assets	43	25	28	27	32
Gas pipelines	43	25	28	25	32
Regulating stations	0	0	0	0	0
Metering	0	0	0	2	0
Other	0	0	0	0	0
Ancillary and shared assets	7	7	7	8	8

Plan of capitalised investments - development (outlook for 2026-2030) million CZK

Year	2026	2027	2028	2029	2030
Total distribution	25	25	25	25	25

Source: Pražská plynárenská Distribuce, a.s.

15. Principles of price control for the fifth regulatory period for the market operator's services in the electricity industry and the gas industry

15.1. Key principles of the regulatory period

In the Price Control Principles, for the fifth regulatory period the Office has set price controls for the holder of the licence for the market operator services, which are based on the following key principles for each of the regulatory formula's parameters.

The published Price Control Principles apply to the fifth regulatory period beginning on 1 January 2021 and ending on 31 December 2025.

To regulate the market operator's services, the Office continues to apply the revenue cap method. The principles outlined in the following will be applied to the specified parameters of the regulatory formula every year.

The market operator's activities are regulated separately in the electricity industry and in the gas industry. In the electricity industry, separate controls apply to activities entailed in the clearing of imbalances, market organisation, the payment and administration of aid to renewable electricity sources ('POZE'), and the administration of the guarantees of origin.

In the gas industry, regulation related to the clearing of imbalances is not separated from the regulation of market organisation; the main reason is the small gas quantities traded (in comparison with the traded electricity amounts).

The market operator also provides data from the records of transactions for the electricity and gas industries.

It may happen during the fifth regulatory period that due to the dynamic environment in which the market operator is operating, regulation of additional, as yet unspecified activities will be introduced.

Further to the above-mentioned separation of the regulation of the various activities in the electricity industry, regulatory reporting has also been changed and the data for each of the activities is therefore reported separately. In regulatory reporting for the gas industry, the clearing of imbalances and the market organisation services are also reported separately.

15.1.1. Costs

From the perspective of the market operator's functioning in the fifth regulatory period, the determination of eligible costs is a crucial and special issue, in particular because of their structure and nature, including changes in the portfolio of the market operator's services during the third and fourth regulatory periods (such as payment of aid to RES) and the company's involvement in international European projects for market coupling (integration), such as the day-ahead and intraday market coupling, price coupling of regions (PCR), and Single Intraday Coupling (SIDC) to create a single intraday electricity market, and the influence of European network codes.

15.1.2. D&A

In connection with the Energy Act, the Office must determine the allowed D&A's value that, when factored into the regulated price, will be a source of financing for the renovation and development of the non-current assets required for licensed activities.

15.1.3. Profit

Section 19a(6) of the Energy Act requires the ERO to proceed so that the determined prices are at least cost-reflective prices. With regard to the nature of the company that carries out the market operating activities, the Office believes that profit should not be the main objective of the market operator's services. Nevertheless, the Office does grant a reasonable profit, which is the source of funding for developing the equipment needed for performing the licensed activities (but not for dividend payout). The profit has therefore been determined so as to reflect the market operator's specificities while respecting the rate of return set for the other regulated entities in the relevant industries, i.e. the electricity and gas industries.

15.2. Parameters of the regulatory formula for the market operator's services in the electricity industry

15.2.1. Parameters shared by all activities

15.2.1.1. Escalation factor

The escalation factor is an index that adjusts the costs spent in a certain preceding year for the following years with a view to reflecting the economic development.

In respect of regulating the market operator's activities the Office has set year-on-year escalation only for eligible costs. The Office decided to apply escalation through a compound escalation factor composed of the price index of programming and advisory services, having a weight of 50%, the wage index having a weight of 20%, and the price index of business services having a weight of 30%.

15.2.1.2. Efficiency factor

The purpose of the efficiency factor is to simulate the influence of market forces in the regulated industry, because this influence reflects the growth of productivity throughout the industry. Incentive regulation should motivate regulated companies to proactively seek cost savings.

The yearly value of the efficiency factor has been set at 0.511%. If the operating cost savings exceed the eligible costs for the fourth regulatory period (2016–2019) by more than 15% the yearly value will be set at 0.2%.

The efficiency factor for the fifth regulatory period is applied when calculating the eligible costs base, the profit/loss sharing, and the actual eligible costs for the regulated year.

The value of this factor is the same for all of the market operator's regulated activities and does not change during the regulatory period.

15.2.1.3. The time value of money for correction factors

All correction factors will be indexed by the time value of money using the product of the values of PPI for years *i-2* and *i-1*. The PPI is calculated every year on the basis of the ratios of the rolling averages of the PPI reported by the Czech Statistical Office for April of the relevant year.

15.2.2. Activities related to the clearing of imbalances

The Office regulates the price for the imbalance clearing service under 16.4.1(1). The price for the imbalance clearing service is determined as the quotient of adjusted allowed revenues from imbalance clearing services divided by the total number of supply points of customers taking electricity as at 31 December, multiplied by 12 months.

For the fifth regulatory period, the value of the adjusted allowed revenues is based on the value of the allowed revenues from imbalance clearing services, which is composed of the eligible costs, D&A, and profit. Additional components of adjusted allowed revenues from imbalance clearing services include the market factor and the correction factor related to imbalance clearing, determined under 16.4.2(2). The planned revenues from the market operator's other activities related to imbalance clearing are then deducted.

15.2.2.1. Eligible costs

The value of the eligible costs for the fifth regulatory period is derived from the actual values of economically justified costs adjusted by the value of profit/loss sharing. With regard to the availability of the market operator's relevant audited data, the Office has decided to determine, for every regulated year, the eligible costs base on the basis of the actual costs of three reference years. The costs acknowledged in the fourth regulatory period through the market factor, which have a permanent nature, will not reduce the economically justified costs included in the eligible costs base for the fifth regulatory period.

The values of the actual economically justified costs allocated to imbalance clearing are adjusted by the escalation factor to the time value of the year preceding the regulated year, and by the efficiency factor. For the first year of the fifth regulatory period, the arithmetic average of economically justified costs in 2017-2019, adjusted by the escalation factor and the efficiency factor, is used. Economically justified costs from the fourth regulatory period (actual values) included in the value of the costs in the fifth regulatory period are not adjusted by profit/loss sharing. The calculation will use the actual values in the above period, net of extraordinary costs in the fourth regulatory period. Extraordinary costs are those that are unrelated to the regulated entity's everyday operation and do not have a regular nature or have been incurred on a one-time basis.

The value of the eligible costs for each of the regulated years of the fifth regulatory period is determined as the arithmetic average of the adjusted values of the actual costs for the last three known years, plus the value of profit/loss sharing.

The difference between eligible and actual costs in the years of the fifth regulatory period is subject to profit/loss sharing. The value of profit/loss sharing is calculated as the three-year average of the acknowledged portions of the differences between eligible costs and actual economically justified costs in the preceding years, adjusted by the escalation factor, the efficiency factor, and the profit/loss sharing coefficient, the basic value of which was set at 0.5 for the years in the fifth regulatory period.

For the subsequent regulatory periods, the ERO expects to continue applying the above principles of profit/loss sharing for calculating eligible costs in order to even them out over the long term and to ensure a predictable regulated environment.

15.2.2.2. Market factor

In each of the years of the fifth regulatory period, the adjusted allowed revenues may be increased, at the market operator's request, by significant extraordinary costs that were not included in the calculation of eligible costs. In the case of the market operator, new costs incurred, e.g., in connection with the upcoming projects or responsibilities of the market operator (integration of the day-ahead and intraday markets, EU legislation) can primarily be expected.

The market factor will cover economically justified costs that will be included in allowed revenues *ex post*, i.e., only after such costs were actually spent and reported in regulatory returns, or after they were actually spent but before they are reported in regulatory returns. The market operator can apply for the eligibility of costs and the Office assesses the request from the perspective of the justifiability of the various requirements. If approved, such costs will be reflected in allowed revenues and prices for the following year or, in justified cases and following consultation with the market operator, spread over multiple regulated years in the case of allocating costs acknowledged in the market factor to prevent significant year-on-year changes in regulated prices.

The value of allowed revenues will be adjusted by the costs granted through the market factor to prevent dual reflection of costs. The eligible costs have been determined as a three-year rolling average with profit/loss sharing, which reduces the likelihood of covering costs through the market factor.

Where justifiable reasons necessitate a change to a parameter in the regulatory formula or to the principle of its setting, such change will be reflected in allowed revenues through the market factor. The market factor can assume both positive and negative values.

The adjustments to allowed revenues by the market factor will contain the time value of money amounting to the producer price index (PPI).

15.2.2.3. D&A

Eligible D&A for each of the years of the fifth regulatory period is determined on the basis of the planned value of the company's D&A allocated to the given activity for the given year.

The differences between the actual and planned values will then be taken into account through the correction factor, which will attract interest at the rate of the time value of money.

15.2.2.4. Profit

In the fifth regulatory period, the value of allowed profit will be recalculated every year, and is derived as follows:

$$Profit_{OTE\ electricity} = share\ capital_{i-2} \times 0.7 \times WACC_{\ electricity\ industry}$$

$$Profit_{OTE\ gas} = share\ capital_{i-2} \times 0.3 \times WACC_{\ gas\ industry}$$

WACC $_{\text{electricity industry}}$ is the value of WACC set for the electricity industry under 16.1.2.9.

WACC $_{\text{gas industry}}$ is the value of WACC set for the gas industry under 16.1.2.9.

In the electricity industry, the profit so calculated is allocated between imbalance clearing and market organisation so that at least 30% of the profit for the electricity industry is allocated to the price for imbalance clearing. The asymmetrical lopsided restriction for profit allocation in the electricity industry between the price for imbalance clearing and the price for market organisation is motivated by the European electricity market integration, which significantly increases the risk of decline in the electricity amount traded in spot electricity markets, which [the amount] is subject to the price for market organisation charged by the market operator.

Profit will be allocated to the price for market organisation on the basis of the benchmark charge for traded MWh in spot electricity markets, based on the charges billed by exchanges and other entities similar to the market operator in the EU, with a view to keeping the price for market organisation substantively at the level customary in the EU. The profit allocated to imbalance clearing is then calculated as the difference between the profit allocated to the electricity industry and the profit allocated to market organisation.

If in year *i-2* the holder of the licence for market operator activities pays out dividends exceeding 10% of its profit after tax, for year *i* the profit will be determined as the product of the risk-free rate of return plus the income tax rate, and share capital in year *i-2* while preserving the ratio of allocation between the electricity and the gas industries. The risk-free rate of return (R_f) as one of the parameters for calculating WACC (fixed value for the entire regulatory period) will be used as the risk-free rate of return.

15.2.2.5. Correction factor for imbalance clearing in the electricity industry

The correction factor for imbalance clearing in the electricity industry reflects the difference between the actual and allowed values of the parameters entering the calculation of the

price for imbalance clearing. The correction factor attracts interest at the rate of the time value of money.

15.2.2.6. Number of supply points

This is the total number of customers' supply points as at 31 December of year *i-2*.

15.2.3. Market organisation

The Office regulates the price for the market organisation service under 16.4.1(2). The price for the market organisation service is determined as the quotient of adjusted allowed revenues from the market organisation services divided by the electricity amount planned to be traded.

For the fifth regulatory period, the value of the adjusted allowed revenues is based on the values of eligible costs, D&A, profit, the market factor, and the correction factor related to the market organisation service calculated as per 16.4.2(4). The planned revenues from the market operator's other activities related to market organisation are then deducted.

15.2.3.1. Eligible costs

The value of the eligible costs for the fifth regulatory period for the market organisation service is calculated similarly as in the case of the service related to imbalance clearing, i.e. as per 15.2.2.1.

15.2.3.2. Market factor

The market factor, reflecting the current changes in the electricity market that have an impact on the market operator's activities and finances in connection with its market organisation service in the electricity industry, is calculated as per 15.2.2.2.

15.2.3.3. D&A

Eligible D&A for each of the years of the fifth regulatory period is determined on the basis of the planned value of the company's D&A allocated to the given activity for the given year.

The differences between the actual and planned values will then be taken into account through the correction factor, which will attract interest at the rate of the time value of money.

15.2.3.4. Profit

In the fifth regulatory period, the value of allowed profit will be recalculated every year, and is derived as follows:

$$Profit_{OTE\ electricity} = share\ capital_{i-2} \times 0.7 \times WACC_{electricity\ industry}$$

$$Profit_{OTE\ gas} = share\ capital_{i-2} \times 0.3 \times WACC_{gas\ industry}$$

$WACC_{electricity\ industry}$ is the value of WACC set for the electricity industry under 16.1.2.9.

$WACC_{gas\ industry}$ is the value of WACC set for the gas industry under 16.1.2.9.

In the electricity industry, the profit so calculated is allocated between imbalance clearing and market organisation so that at least 30% of the profit for the electricity industry is allocated to the price for imbalance clearing. The asymmetrical lopsided restriction for profit allocation in the electricity industry between the price for imbalance clearing and the price for market organisation is motivated by the European electricity market integration, which significantly increases the risk of decline in the electricity amount traded in spot electricity markets, which [the amount] is subject to the price for market organisation charged by the market operator.

Profit will be allocated to the price for market organisation on the basis of the benchmark charge for traded MWh in spot electricity markets, based on the charges billed by exchanges and other entities similar to the market operator in the EU, with a view to keeping the price for market organisation substantively at the level customary in the EU. The profit allocated to imbalance clearing is then calculated as the difference between the profit allocated to the electricity industry and the profit allocated to market organisation.

If in year *i-2* the holder of the licence for market operator activities pays out dividends exceeding 10% of its profit after tax, for year *i* the profit will be determined as the product of the risk-free rate of return plus the income tax rate, and share capital in year *i-2* while preserving the ratio of allocation between the electricity and the gas industries. The risk-free rate of return (R_f) as one of the parameters for calculating WACC (fixed value for the entire regulatory period) will be used as the risk-free rate of return.

15.2.3.5. Correction factor for the market organisation service

The correction factor for the market organisation service in the electricity industry reflects the difference between the actual and allowed values of the parameters entering the calculation of the price for the market organisation service. The correction factor attracts interest at the rate of the time value of money. The correction factor also reflects 'extraordinary' revenues (the revenue and cost balance) flowing from, e.g., the settlement of imbalance and other revenues and costs.

15.2.4. Activities related to the payment and administration of aid for supported energy sources

The Office regulates the price for the service entailing the payment and administration of aid to supported sources as per 16.4.1(3). The price for the service entailing the payment and administration of aid to supported sources is determined as the quotient of adjusted allowed revenues from the service entailing the payment and administration of aid to supported sources, divided by the total number of supply points of customers taking electricity as at 31 December for the calendar year, and multiplied by 12 months.

For the fifth regulatory period, the value of the adjusted allowed revenues is based on the market operator's eligible costs related to the service entailing the payment and administration of aid to supported sources, D&A, financial costs, the parameter reflecting the prices of the guarantees of origin for supported sources, the market factor, and the correction factor for the service entailing the payment and administration of aid to supported sources as per 16.4.2(6).

15.2.4.1. Eligible costs

The value of the eligible costs for the fifth regulatory period for the service entailing the payment and administration of aid to supported sources is calculated similarly as in the case of the service related to imbalance clearing, i.e. as per 15.2.2.1.

15.2.4.2. Parameter reflecting the prices of the guarantees of origin for supported sources

Since it is difficult to predict the number or the guarantees of origin that will be issued and since it is relatively costly to implement them as part of IT systems, the Office has introduced for the fifth regulatory period, the same as in the fourth regulatory period, a parameter reflecting the prices of guarantees of origin, which will help to cover that part of the costs of activities related to administering the guarantees of origin, which is not covered by prices for the guarantees of origin. This parameter is opposite to the 'parameter reflecting the prices of the guarantees of origin for supported sources of other EU member states' used in the price for activities related to administering the guarantees of origin for supported sources.

15.2.4.3. D&A

Eligible D&A for each of the years of the fifth regulatory period is determined on the basis of the planned value of the company's D&A allocated to the given activity for the given year.

The differences between the actual and planned values will then be taken into account through the correction factor, which will attract interest at the rate of the time value of money.

15.2.4.4. Correction factor for the service entailing the payment and administration of aid to supported sources

The correction factor for the service entailing the payment and administration of aid to supported sources reflects the difference between the actual and allowed values of the parameters entering the calculation of the price for the service entailing the payment and administration of aid to supported sources. The correction factor attracts interest at the rate of the time value of money.

15.2.4.5. Number of supply points

This is the total number of customers' supply points as at 31 December of year *i-2*.

15.2.5. Activities related to the administration of guarantees of origin for supported energy sources

The Office regulates the price for the administration of guarantees of origin for supported sources under 16.4.1(4). The price for the administration of guarantees of origin for supported sources is determined as the quotient of adjusted allowed revenues from the administration of guarantees of origin for supported sources divided by the planned number of the guarantees of origin that will be issued.

For the fifth regulatory period, the value of the adjusted allowed revenues is based on the eligible costs of the administration of guarantees of origin for supported sources, D&A, the parameter reflecting the prices of the guarantees of origin for supported sources in other EU member states, and the correction factor for the administration of guarantees of origin for supported sources calculated as per 16.4.2(8).

15.2.5.1. Activities under the Energy Act

Under Section 45(4) of the SES Act, the market operator keeps a register of guarantees of origin; this scheme makes it possible to issue, transfer, apply, recognise, and cancel guarantees of origin. Under Section 45(10), the account holder pays the price for the issue and transfer of a guarantee of origin within the Czech Republic, the transfer – associated with the recognition – of a guarantee of origin issued in a different EU member state, and for recording in the register of guarantees of origin, and the Office sets these prices.

15.2.5.2. Eligible costs

The value of the eligible costs for the fifth regulatory period for the service of issuing guarantees of origin is calculated similarly as in the case of the service related to imbalance clearing, i.e. as per 15.2.2.1.

15.2.5.3. Parameter reflecting the prices of the guarantees of origin for supported sources

Since it is difficult to predict the number or the guarantees of origin that will be issued and since it is relatively costly to implement them as part of IT systems, the Office has introduced for the fifth regulatory period, the same as in the fourth regulatory period, a parameter reflecting the prices of guarantees of origin in other EU member states, which will help to cover that part of the costs of activities related to administering the guarantees of origin, which is not covered by prices for the guarantees of origin. This parameter is opposite to the 'parameter reflecting the prices of the guarantees of origin for supported sources' used in the price for activities entailing the payment and administration of aid to supported sources. The price for the issue of a guarantee of origin is determined on the basis of comparing the prices of guarantees of origin issued in other EU member states.

15.2.5.4. D&A

Eligible D&A for each of the years of the fifth regulatory period is determined on the basis of the planned value of the company's D&A allocated to the given activity for the given year.

The differences between the actual and planned values will then be taken into account through the correction factor, which will attract interest at the rate of the time value of money.

15.2.5.5. Correction factor for the administration of guarantees of origin for supported sources

The correction factor for the administration of guarantees of origin for supported sources reflects the difference between the actual and allowed values of the parameters entailed in the administration of guarantees of origin. The correction factor attracts interest at the rate of the time value of money.

15.2.5.6. Planned number of issued guarantees of origin

The costs incurred in the issuance of guarantees of origin for supported sources are absorbed by the guarantees of origin planned to be issued.

15.3. Parameters of the regulatory formula for the market operator's services in the gas industry

Since the administration of gas trading is currently not self-financeable for the market operator because of the small gas quantities traded, the price for the market operator's services in the gas industry will continue to cover the current costs incurred in the imbalance clearing services and the costs incurred in market organisation in the gas industry.

However, all activities related to market organisation are reported separately for the Office to have information enabling it to consider options of any change in the regulation system.

15.3.1. Value of eligible costs

The value of the eligible costs for the fifth regulatory period is derived from the actual values of economically justified costs adjusted by the value of profit/loss sharing. With regard to the availability of the market operator's relevant audited data, the Office has decided to determine, for every regulated year, the eligible costs base on the basis of the actual costs of three reference years. The costs acknowledged in the fourth regulatory period through the market factor, which have a permanent nature, will not reduce the economically justified costs included in the eligible costs base for the fifth regulatory period.

The values of the actual economically justified costs allocated to imbalance clearing are adjusted by the escalation factor to the time value of the year preceding the regulated year, and by the efficiency factor. For the first year of the fifth regulatory period, the arithmetic mean of economically justified costs in 2017-2019, adjusted by the escalation factor and the efficiency factor, is used. Economically justified costs from the fourth regulatory period

(actual values) included in the value of the costs in the fifth regulatory period are not adjusted by profit/loss sharing. The calculation will use the actual values in the above period, net of extraordinary costs in the fourth regulatory period. Extraordinary costs are those that are unrelated to the regulated entity's everyday operation and do not have a regular nature or have been incurred on a one-time basis.

The value of the eligible costs for each of the regulated years of the fifth regulatory period is determined as the arithmetic average of the adjusted values of the actual costs for the last three known years, plus the value of profit/loss sharing.

The difference between eligible and actual costs in the years of the fifth regulatory period is subject to profit/loss sharing. The value of profit/loss sharing is calculated as the three-year average of the acknowledged portions of the differences between eligible costs and actual economically justified costs in the preceding years, adjusted by the escalation factor, the efficiency factor, and the profit/loss sharing coefficient, the basic value of which was set at 0.5 for the years in the fifth regulatory period.

For the subsequent regulatory periods, the ERO expects to continue applying the above principles of profit/loss sharing for calculating eligible costs in order to even them out over the long term and to ensure a predictable regulated environment.

15.3.2. Market factor

In each of the years of the fifth regulatory period, the adjusted allowed revenues may be increased, at the market operator's request, by significant extraordinary costs that were not included in the calculation of eligible costs through rolling averages with profit/loss sharing. In the case of the market operator, new costs incurred, e.g., in connection with the upcoming projects or responsibilities of the market operator can primarily be expected.

The market factor will cover economically justified costs that will be included in allowed revenues *ex post*, i.e. only after such costs were actually spent and reported in regulatory returns, or after they were actually spent but before they are reported in regulatory returns. The market operator can apply for the eligibility of costs and the Office assesses the request from the perspective of the justifiability of the various requirements. If approved, such costs will be reflected in allowed revenues and prices for the following year or, in justified cases and following consultation with the market operator, spread over multiple regulated years in the case of allocating costs acknowledged in the market factor to prevent significant year-on-year changes in regulated prices.

The value of allowed revenues will be adjusted by the costs granted through the market factor to prevent dual reflection of costs. The eligible costs have been determined as a three-year rolling average with profit/loss sharing, which reduces the likelihood of covering costs through the market factor.

Where justifiable reasons necessitate a change to a parameter in the regulatory formula or to the principle of its setting, such change will be reflected in allowed revenues through the market factor. The market factor can assume both positive and negative values.

The adjustments to allowed revenues by the market factor will contain the time value of money amounting to the producer price index (PPI).

15.3.3. Escalation factor

The escalation factor is an index that adjusts the costs spent in a certain preceding year for the following years with a view to reflecting the economic development.

In respect of regulating the market operator's activities the Office has set year-on-year escalation only for eligible costs. The Office decided to apply escalation through a compound escalation factor composed of the price index of programming and advisory services, having a weight of 50%, the wage index having a weight of 20%, and the price index of business services having a weight of 30%.

15.3.4. Efficiency factor

The purpose of the efficiency factor is to simulate the effect of market forces in the regulated industry, since it reflects the growth of productivity across the industry. At the same time the purpose of incentive regulation is to motivate the regulated companies proactively to seek savings in the various cost items.

The yearly value of the efficiency factor has been set at 0.511%. For companies that have achieved savings exceeding 15% in operating expenditure versus eligible costs for the fourth regulatory period (2016–2019), the yearly value of the efficiency factor will be set at 0.2%.

For the fifth regulatory period, the efficiency factor is applied when calculating the eligible costs base, profit/loss sharing, and the eligible costs for the regulated year.

The value of this factor remains unchanging during the regulatory period.

15.3.5. D&A

Eligible D&A for each of the years of the fifth regulatory period is determined on the basis of the planned value of the company's D&A allocated to the given activity for the given year.

The differences between the actual and planned values will then be taken into account through the correction factor, which will attract interest at the rate of the time value of money.

15.3.6. Profit

In the fifth regulatory period, the value of allowed profit will be recalculated every year, and is derived as follows:

$$Profit_{OTE\ gas} = share\ capital_{i-2} \times 0.3 \times WACC_{\ gas\ industry}$$

WACC $_{\text{gas industry}}$ is the value of WACC set for the gas industry under 16.1.2.9.

If in year *i-2* the holder of the licence for market operator activities pays out dividends exceeding 10% of its profit after tax, for year *i* the profit will be determined as the product of

the risk-free rate of return plus the income tax rate, and share capital in year *i-2* while preserving the ratio of allocation between the electricity and the gas industries. The risk-free rate of return (R_f) as one of the parameters for calculating WACC (fixed value for the entire regulatory period) will be used as the risk-free rate of return.

15.3.7. Time value of money for correction factors

All correction factors will be indexed by the time value of money using the product of the values of PPI for years *i-2* and *i-1*. The PPI is calculated every year on the basis of the ratios of the rolling averages of the PPI reported by the Czech Statistical Office for April of the relevant year.

15.3.8. Correction factor for services in the gas industry

The correction factor for the market operator's activities in the gas industry reflects the difference between the allowed and actual revenues from the market operator's activities in the gas industry. The correction factor attracts interest at the rate of the time value of money.

15.3.9. Planned gas quantity supplied to supply points

This is the planned quantity of energy in gas which is distributed to customers connected to all regional distribution systems and which is supplied to all customers connected directly to the transmission system, the quantity of energy in gas for driving compression stations (fuel gas), and for covering losses in the transmission system, and the quantity of energy in gas for covering losses and gas for own use (process) for all holders of the gas distribution licence.

15.4. Parameters of the regulatory formula for the provision of data from records of transactions (REMIT) in the electricity and gas industries

Under Regulation (EU) No 1227/2011 of the European Parliament and of the Council and Commission Implementing Regulation (EU) No 1348/2014, and under Section 20a(4)(z) of the Energy Act, at the market participant's request the market operator must conclude with this participant an agreement on data reporting and on providing data from the records of transactions, including orders to trade.

The Office regulates the price for the provision of data from records of transactions in the electricity and gas industries in accordance with 16.4.5. The price for the provision of data from records of transactions in the electricity and gas industries is calculated as the quotient of allowed revenues from the provision of data from records of transactions in the electricity and gas industries, divided by the planned number of entities subject to the obligation to pay this price, and multiplied by 12 months.

For the fifth regulatory period, the value of allowed revenues is derived from the values of the eligible costs incurred in the provision of data from records of transactions in

the electricity and gas industries, allowed D&A, and the correction factor for the provision of data from records of transactions in the electricity and gas industries as per 16.4.6.

15.4.1. Eligible costs

The value of the eligible costs for the fifth regulatory period for the provision of data from records of transactions is calculated similarly as in the case of the service related to imbalance clearing, i.e. as per 15.2.2.1.

15.4.2. D&A

Eligible D&A for each of the years of the fifth regulatory period is determined on the basis of the planned value of the company's D&A allocated to the provision of data from records of transactions for the relevant year.

The differences between the actual and planned values will then be taken into account through the correction factor, which will attract interest at the rate of the time value of money for correction factors.

15.4.3. Time value of money for correction factors

All correction factors will be indexed by the time value of money using the product of the values of PPI for years *i-2* and *i-1*. The PPI is calculated every year on the basis of the ratios of the rolling averages of the PPI reported by the Czech Statistical Office for April of the relevant year.

15.4.4. Correction factor for the provision of data from records of transactions

The correction factor for the provision of data from records of transactions reflects the difference between [the following values are for year *i-2*] the eligible costs, D&A, and the correction factor, and the actually achieved revenues from the provision of data from records of transactions. The correction factor attracts interest at the rate of the time value of money.

15.4.5. Number of entities

This is the total number of entities active in the market operator's spot markets, which must report data to ACER under REMIT.

15.5. Timetable of notifying the parameters of the regulatory formula to the holder of the licence for the market operator's services in the electricity and gas industries

15.5.1. Parameters of the regulatory formula notified before the beginning of the regulatory period

Not later than four months before the regulatory period, the Office notifies the holder of the licence for the market operator services of the following parameters of the regulatory formula:

1. the annual value of the efficiency factor,
2. the weight of the price index of business services,
3. the weight of the price index of programming and advisory services,
4. the weight of the wage index,
5. the value of the rate of return,
6. the value of the risk-free rate of return.

15.5.2. Parameters of the regulatory formula notified before the beginning of the regulated year

Not later than four months before each regulated year, the Office notifies the holder of the licence for the market operator services of the following parameters of the regulatory formula:

1. the eligible costs base for each of the activities,
2. the value of profit/loss sharing,
3. the value of the price index of business services,
4. the value of the price index of programming and advisory services,
5. the value of the wage index,
6. the value of the producers price index for years *i-2* and *i-1*,
7. the planned value of D&A of non-current assets separately for each of the activities,
8. the correction factors for D&A separately for each of the activities,
9. other correction factors separately for each of the activities,
10. the values of allowed profit for each of the relevant activities,
11. the planned number of supply points of customers taking electricity and the planned values of gas offtake and consumption for calculating the prices for the market operator's services,
12. planned values of revenues from the market operator's other activities in the electricity and gas industries,

13. market factors separately for each of the relevant activities,
14. the electricity and gas quantities planned to be traded in the spot market organised by the market operator,
15. the number of guarantees of origin planned to be issued,
16. the planned number of entities obliged to pay the price for the provision of data from records of transactions.

15.5.3. Notification of regulated prices and changes of parameters

By 30 September of the calendar year preceding the regulated year, the Office shall notify the holder of the licence for market operator services of the calculated prices for the market operator's services.

The Office reserves the right to derogate from the principles described in the Price Control Principles in the fifth regulatory period, in particular in the following cases:

1. A change in the legislation directly applicable to the licence holder's licensed activity, which has a major impact on the parameters in the regulatory formula;
2. An extraordinary change in the electricity/gas market or other extraordinary changes in the country's economy meriting particular treatment;
3. A state of emergency, a state of danger to the country, or a state of war is declared;
4. Parameters have been set on the basis of incorrect, incomplete or untrue information;
5. In cases of unforeseeable events and impossibility to correct the price development through correction factors in order to preserve price stability, it will be possible to reconsider the transition to the equalisation of RAB and NBVA for individual companies in order to prevent major year-on-year variations in prices.

16. Supplements – pricing algorithms

This chapter sets out the details of the method for calculating certain parameters and the method determining the adjusted allowed revenues and prices of the various licensed activities.

16.1. Procedure for determining the shared parameters for activities in the electricity and gas industries – electricity and gas transmission and distribution

16.1.1. The replacement and development fund

After the end of the relevant period, the balance in the replacement and development fund (RDF) will be evaluated and the outcome will be reflected in the value of adjusted D&A for the regulated years of the regulatory period immediately following the end of the relevant period, using the procedure below:

$$RDF = \sum_{2010}^{Y} \mathrm{D\&}A_{actu} - \sum_{2010}^{Y} CI_{actu} ,$$

if

$$RDF > 0 \wedge \frac{\sum_{2010}^{Y} CI_{actu}}{\sum_{2010}^{Y} D\&A_{actu}} < 0.95 ,$$

then

$$D\&A_{\mathrm{yrpadact}} = D\&A_{actui} \times p_{elig} ,$$

where

$$p_{elig} = \frac{\sum_{2010}^{Y} CI_{actu}}{\sum_{2010}^{Y} D\&A_{actu}} ,$$

while p_{elig} <0.95,

if

$$RDF \leq 0 \; or \; \frac{\sum_{2010}^{Y} CI_{actu}}{\sum_{2010}^{Y} D\&A_{actu}} \geq 0.95 ,$$

then

$$D\&A_{\mathrm{yrpadact}} = D\&A_{actui} \times p_{elig} ,$$

where

$$p_{elig} = 1$$

Y is the last year of the relevant period,

$D\&A_{actu}$ is the actual value of the D&A of non-current tangible and intangible assets,

CI_{actu} is the actual value of capitalised investments,

$\mathbf{p_{elig}}$ is the percentage of eligibility,

$\mathbf{D\&A_{yrpadact}}$ is the actual adjusted D&A in the respective regulated year of the regulatory period immediately following the end of the relevant period,

$\mathbf{D\&A_{actui}}$ is the actual D&A in the respective regulated year of the regulatory period following the end of the regulatory period.

For the purposes of record keeping, the relevant period has been set at 15 years, beginning on 1 January 2010 and ending on 31 December 2024. The result of the evaluation will be reflected in the relevant reduction in allowed D&A, provided that investments do not reach the amount of revalued D&A with a tolerance of 5 %. After the evaluation of the relevant period, the Office will reflect the final balance in the replacement and development fund in allowed revenues for each of the years of the sixth regulatory period.

16.1.2. Rate of return, Weighted Average Cost of Capital (WACC)

The following equation was used for calculating WACC:

$$WACC = \left(c_e \times \frac{E}{D+E}\right) + \left[\left(c_d \times \frac{D}{D+E}\right) \times (1-T)\right],$$

where

$\mathbf{c_e}$ is the cost of equity,

$\frac{\mathbf{E}}{\mathbf{D+E}}$ is the equity to total capital ratio,

$\mathbf{c_d}$ is the cost of debt,

$\frac{\mathbf{D}}{\mathbf{D+E}}$ is the debt to total capital ratio,

T is the corporate income tax rate (19%).

16.1.2.1. Cost of equity, c_e

The following equation was used for calculating cost of equity:

$$c_e = R_f + \beta_{levered} \times MRP,$$

where

$\mathbf{R_f}$ is the risk-free rate,

$\boldsymbol{\beta_{levered}}$ is the system risk parameter,

MRP is the market risk premium.

16.1.2.2. Risk-free rate, R_f

The risk-free rate is determined as the yield from a portfolio of the Czech Republic's government bonds denominated in CZK and having an average time to maturity of ten years.

A period of ten years was selected for calculating R_f, and the median (the midpoint value in the period under review) was found from the rates published by the CNB.

16.1.2.3. Unlevered beta of the peer group ($\beta_{unlevered}$)

On the basis of the peer group at 28 February 2019, the Office calculated the median of unlevered beta, corresponding to the sensitivity of the movement of the "unlevered" energy sector in relation to the movement of the capital market in which the selected companies were operating, for the period from 1 March 2009 to 28 February 2019.

The peer group was set up so as to include publicly traded companies in the EU's energy sector.

16.1.2.4. Levered beta by the market share D/E ($\beta_{levered}$)

In order to calculate the cost of equity, beta has to be levered to the level of the sector's leverage.

The median of the peer group companies' debt/equity was used for this purpose, employing the following equation:

$$\beta_{\text{levered}} = \beta_{\text{unlevered}} \times \left[1 + (1 - \text{T}) \times \left(\frac{\text{D}}{\text{E}}\right)\right],$$

where

$\boldsymbol{\beta_{levered}}$	is levered beta used for calculating cost of equity,
$\boldsymbol{\beta_{unlevered}}$	is unlevered beta of the peer group,
T	is the corporate income tax rate (19%),
$\boldsymbol{D/E}$	is debt/equity (the peer group's median over the last ten years).

16.1.2.5. Market risk premium, MRP

This is investors' premium for investing in the capital (equity) market, calculated as the difference between the expected equity market return and the return on risk-free assets.

MRP calculation relies on best practice, and it has therefore been derived from the world's largest and most developed capital market, the USA, research, and a recognised authority's, Professor Damodaran's, regularly updated data.

A period of ten years was selected for MRP calculation. Implied MRP was determined as the median (the midpoint of the whole period under review).

Since the risk premium based on Professor Damodaran's data has been designed for using risk-free yields from US government bonds, the Czech Republic's risk premium has been adequately restated by including the Czech Republic's risk premium, also using the median (the midpoint in the whole period under review) from the same source.

MRP is a premium for investments made in the company's equity (through acquiring its shares).

16.1.2.6. Cost of debt, c_d

The following equation was used for calculating cost of debt:

$$c_d = R_f + credit\ risk\ margin\ (CRM),$$

where

c_d is cost of debt,

R_f is the risk-free rate,

CRM is the sector's risk premium.

16.1.2.7. Credit risk margin (the sector's risk premium), CRM

The calculation is:

$$credit\ risk\ margin = 10Y\ EUR\ Corporate\ BBB - 10Y\ Euro\ Sovereign\ ,$$

where

10Y EUR Corporate BBB	is the yield of FTSE Euro Corporate Bonds BBB + 10Y Premium,
10Y Premium	is the premium for the ten-year maturity of the bonds,
10Y Euro Sovereign	is the yield from 10Y Euro Area Government Bonds with AAA ratings.

The sector's risk premium is based on the sector's rating (the median of the peer group's ratings ranges from BBB+ to BBB-) and corresponds to the median of the differences between the yields from 10Y Euro bonds, depending on the sector's rating, and the risk-free rate denominated in the same currency. The following indices have been selected for this purpose:

1. Risk-free rate: the yield curve for a portfolio of European 10Y Government Bonds issued by AAA countries, as published by the European Central Bank.
2. The sector's rate of return: FTSE Euro Corporate Bonds BBB (average yield) corresponds to the yield of BBB companies' bonds. Subsequently, the premium for maturity, calculated as the spread between the yield of the Europe Industrials BBB+, BBB, BBB- and BVAL curve and FTSE Euro Corporate Bonds BBB (average yield), was applied to the former curve.

In order to calculate CRM, the Office selected a ten-year period and found the median of the spreads between the values of the indices on the basis of the FTSE Euro Corporate Bonds BBB (+ 10Y Premium) and 10Y Euro Sovereign rates.

16.1.2.8. WACC before tax

For calculating the pre-tax WACC the following equation was used:

$$\mathrm{WACC}_{\mathrm{pre-tax}} = \frac{\mathrm{WACC}_{\mathrm{post-tax}}}{1 - \mathrm{T}},$$

where

$\mathrm{WACC}_{\mathrm{pre\text{-}tax}}$ is WACC before tax,

$\mathrm{WACC}_{\mathrm{post\text{-}tax}}$ is WACC after tax,

T is the corporate income tax rate.

16.1.2.9. Parameters for calculating WACC for the fifth regulatory period

Table 23 Parameters for calculating WACC

Parameters of the formula		
	Electricity industry distribution and transmission	**Gas industry** distribution and transmission
Risk-free rate of return (R_f)	2.04%	2.04%
Unlevered beta ($ß_{unlevered}$)	0.51	0.49
Levered beta ($ß_{levered}$)	0.90	0.87
Market risk premium (MRP)	6.54%	6.54%
Amount of debt (D)	48.92%	48.89%
Amount of equity (E)	51.08%	51.11%
Credit risk margin (CRM)	1.09%	1.09%
Tax rate (T)	19.00%	19.00%
Cost of debt after tax	2.54%	2.54%
Cost of equity (c_e)	7.94%	7.76%
WACC, nominal value (after tax)	5.30%	5.21%
WACC, nominal value adjusted by the tax effect (before tax)	**6.54%**	**6.43%**

The rate of return on the regulatory asset base for the fifth regulatory period will be the nominal value of WACC adjusted by the tax effect (before tax), i.e. 6.54% for the electricity industry and 6.43% for the gas industry.

16.2. Procedure for determining adjusted allowed revenues and prices in the electricity industry

The algorithm of pricing in the electricity industry for the fifth regulatory period may, during the fifth regulatory period, be modified or replaced to the extent of the technical units intended for the allocation of the system operators' adjusted allowed revenues and variable costs of losses. Such amendment, which does not influence the amount of the adjusted allowed revenues or the variable costs of losses, shall not be deemed to be a change to the Price Control Principles for the fifth regulatory period.

The algorithm of pricing in the electricity industry for the fifth regulatory period and a particular regulated year may also be changed by statutory instruments (secondary legislation) and also by ERO Price Decisions, for example, when such changes respond to amendments to legislation.

Correction factors for the last two years of the regulatory period beginning on 1 January 2016 and ending on 1 December 2020 were calculated in accordance with the annex to the ERO's price decision laying down the charge for the related services in the electricity industry for the respective regulated year for which the correction factors were calculated. Correction factors under the preceding sentence also mean corrections to values, which are not named as correction factors but their nature renders them correction factors (for example, correction by revenues from connection, from exceedance of reserved capacity and reserved power input and output, etc.).

16.2.1. Procedure for determining the charge for electricity transmission

The unit price for yearly reserved capacity, $\mathbf{p_{etyci}}$ in CZK/MW, is calculated as

$$p_{etyci} = \frac{AAR_{eti}}{\sum_{k=1}^{n} YRC_{(ETS-HV)ki}},$$

where

i is the serial number of the regulated year,

$\mathbf{AAR_{eti}}$ [CZK] is the value of the TSO's adjusted allowed revenues from electricity transmission for the regulated year, calculated as

$$AAR_{eti} = AR_{eti} + CF_{eti} - CF_{etosti} + IF_{eti} - F2_i ,$$

where

$\mathbf{AR_{eti}}$ [CZK] is the value of the TSO's allowed revenues from electricity transmission for the regulated year, calculated as

$$AR_{eti} = EC_{eti} + D\&A_{eti} + P_{eti} + MF_{eti} ,$$

where

$\mathbf{EC_{eti}}$ [CZK] is the TSO's eligible costs required for providing electricity transmission for the regulated year, calculated as

$$EC_{eti} = (EC_{etvi-1} + PS_{eti-1}) \times \prod_{t=L+i}^{L+i} \frac{I_{ett}}{100} \times (1 - X_i)\,,$$

where

EC_{etvi-1} [CZK] is the TSO's eligible costs, calculated as

$$EC_{etvi-1} = \frac{\begin{array}{r}\left(C_{etski-4} \times \prod_{t=L+i-3}^{L+i-1} \frac{I_{ett}}{100} \times (1 - X_i)^3\right) + \\ \left(C_{etski-3} \times \prod_{t=L+i-2}^{L+i-1} \frac{I_{ett}}{100} \times (1 - X_i)^2\right) + \\ \left(C_{etski-2} \times \prod_{t=L+i-1}^{L+i-1} \frac{I_{ett}}{100} \times (1 - X_i)\right)\end{array}}{3},$$

where

t is the date of the year in the regulatory period,

L is the date of the year preceding the first regulated year of the regulatory period,

C_{etski} [CZK] is the TSO's actual costs incurred in providing electricity transmission,

X_i [-] je yearly value of the efficiency factor for electricity transmission,

I_{ett} [%] is the value of the escalation factor for the TSO's costs in the relevant year *t*, calculated as

$$I_{ett} = (1 - w_{etIMt}) \times IPS_t + w_{etIMt} \times IM_t,$$

where

w_{etIMt} [-] is the weight of the TSO's wage index calculated as the ratio of actual personnel costs and total economically justified costs for electricity transmission in year *t-1*; where the values for year *t-1* are not known values for year *t-2* shall be used,

IPS_t [%] is the index of business service prices calculated as a weighted average of the following price indices: 62 - Computer programming, consultancy, and related services, 63 - Information services, 68 - Real estate services, 69 - Legal and accounting services, 71 - Architectural and engineering services; technical tests and analyses, 73 - Advertising and market research services, 74 - Other professional, scientific and technical activities, 77 - Rental and operating lease services, 78 - Employment services, 80 - Security and investigation services, 81 - Services related to buildings and landscape, 82 - Office administration and other business support services, as reported in the Czech Statistical Office's public database in the table "Price indices of market services" (code CEN06B2) for April of year *t-1,* on the basis of the ratio of rolling averages of basic indices, where the weights are annual revenues from the services provided in 2015,

IM_t [%] is the value of the wage index calculated as the average of the quarterly values of the average monthly wage (related to FTE), reported in the Czech Statistical Office's public database in table "Employees and average gross monthly wages by CZ-NACE sector (code: MZD02-A)" under point D "Electricity,

gas, steam and air conditioning supply" beginning with the second quarter of year *t-2* and ending with the first quarter of year *t-1*, published on 30 June of year *i-1*,

PS_{eti-1} [CZK] is the value of the profit/loss sharing of the TSO's costs calculated as

$$PS_{eti-1} = \frac{(PS_{eti-4} + PS_{eti-3} + PS_{eti-2})}{3},$$

$$PS_{eti-4} = (EC_{eti-4} - C_{etski-4}) \times \prod_{t=L+i-3}^{L+i-1} \frac{I_{ett}}{100} \times (1 - X_i)^3 \times c_{psi-4},$$

$$PS_{eti-3} = (EC_{eti-3} - C_{etski-3}) \times \prod_{t=L+i-2}^{L+i-1} \frac{I_{ett}}{100} \times (1 - X_i)^2 \times c_{psi-3},$$

$$PS_{eti-2} = (PN_{eti-2} - C_{etski-2}) \times \prod_{t=L+i-1}^{L+i-1} \frac{I_{ett}}{100} \times (1 - X_i) \times c_{psi-2},$$

where

c_{psi} [-] is the profit/loss sharing coefficient, which equals 0.5 for comparing the eligible and actual costs for the years in the fifth regulatory period; it equals zero for comparing the eligible and actual costs for the years in the fourth regulatory period,

$D\&A_{eti}$ [CZK] is the value of the allowed D&A of the TSO's non-current tangible and intangible assets serving for providing the electricity transmission service for the regulated year, calculated as

$$D\&A_{eti} = D\&A_{etpli} + CF_{etoi},$$

where

$D\&A_{etpli}$ [CZK] is the total planned value of D&A of the TSO's non-current tangible and intangible assets and assets financed from a subsidy serving for providing the electricity transmission service for regulated year *i,* calculated as

$$D\&A_{etpli} = D\&A_{etmpli} + D\&A_{etdmpli},$$

where

$D\&A_{etmpli}$ [CZK] is the planned value of D&A of the TSO's non-current tangible and intangible assets serving for the providing electricity transmission service for regulated year *i*,

$D\&A_{etdmpli}$ [CZK] is the planned value of the regulatory D&A of the assets financed from a subsidy for the TSO, serving for providing the electricity transmission service for regulated year *i*; the planned value of the D&A of non-current tangible and intangible assets financed from a subsidy for the TSO can be reduced by the Office so as to prevent the public aid from exceeding the maximum allowed level,

CF_{etoi} [CZK] is the correction factor for the TSO's D&A, which reflects the difference between the actual and planned D&A of non-current tangible and

intangible assets, including assets financed from a subsidy in year *i-2,* calculated as per 16.2.6, which can furthermore also contain backward corrections to the D&A of non-current tangible and intangible assets financed from a subsidy in case the public aid exceeded the maximum allowed level,

P_{eti} [CZK] is the TSO's profit for regulated year *i* calculated as

$$P_{eti} = \frac{RR_{eti}}{100} \times \left(RAB_{eti} + NI_{etpli}\right) + CF_{etpi} + CF_{penii} ,$$

where

RR_{eti} [%] is the rate of return on the regulatory asset base for electricity transmission, set by the Office for regulated year *i* using the method of weighted average costs of capital before taxation,

RAB_{eti} [CZK] is the value of the TSO's regulatory asset base for the regulated year as follows:

$$RAB_{eti} = RAB_{et0} + \sum_{t=L}^{L+i-2} \Delta RAB_{etskt-2} + \Delta RAB_{etpli-1} + \Delta RAB_{etpli}$$

where

RAB_{et0} [CZK] is the initial value of the regulatory asset base determined as the actual book value of the TSO's assets serving for providing electricity transmission reported under the public notice on regulatory reporting6 for year *L-1*,

$\Delta RAB_{etskt-2}$ [CZK] is the actual year-on-year change in the value of the TSO's regulatory asset base serving for providing electricity transmission in year *t-2*, which is zero for the first year of the regulatory period, calculated as

$$\Delta RAB_{etskt-2} = CI_{etskt-2} + CTA_{etskt-2} - AD_{etskt-2} - D\&A_{etmskt-2} ,$$

where

$CI_{etskt-2}$ [CZK] is the actual value of the TSO's capitalised investments for year *t-2*,

$CTA_{etskt-2}$ [CZK] is the actual value of the assets acquired by company transformation, approved by the Office for year *t-2*,

$AD_{etskt-2}$ [CZK] is the actual value of the TSO's asset disposals for year *t-2*,

$D\&A_{etmskt-2}$ [CZK] is the actual value of the D&A of the TSO's non-current tangible and intangible assets serving for providing the electricity transmission service for regulated year *t-2*,

$\Delta RAB_{etpli-1}$ [CZK] is the expected change in the value of the TSO's regulatory asset base serving for providing electricity transmission in year *i-1*, calculated as

$$\Delta RAB_{etpli-1} = CI_{etpli-1} + CTA_{etpli-1} - AD_{etpli-1} - D\&A_{etmpli-1} ,$$

where

$CI_{etpli-1}$ [CZK] is the expected value of the TSO's capitalised investments for year *i-1*,

$CTA_{etpli-1}$ [CZK] is the expected value of the assets acquired by company transformation, approved by the Office for year *i-1*,

$AD_{etpli-1}$ [CZK] is the expected value of the TSO's asset disposals for year *i-1*,

$D\&A_{etmpli-1}$ [CZK] is the expected value of the D&A of the TSO's non-current tangible and intangible assets serving for providing the electricity transmission service for regulated year *i-1*,

ΔRAB_{etpli} [CZK] is the planned change in the value of the TSO's regulatory asset base serving for providing electricity transmission in year *i*, calculated as

$$\Delta RAB_{etpli} = CI_{etpli} + CAT_{etpli} - AD_{etpli} - D\&A_{etmpli} ,$$

where

CI_{etpli} [CZK] is the planned value of the TSO's capitalised investments for year *i*,

CTA_{etpli} [CZK] is the planned value of the assets acquired by company transformation, approved by the Office for year *i*,

AD_{etpli} [CZK] is the planned value of the TSO's asset disposals for year *i*,

$D\&A_{etmpli}$ [CZK] is the planned value of the D&A of the TSO's non-current tangible and intangible assets serving for providing the electricity transmission service for regulated year *i*,

NI_{etpli} [CZK] is the planned aggregated value of the TSO's investments in progress [= capital work in progress], i.e. the various investments in progress with the planned procurement period, excluding preparations, longer than 2 years (24 months) and the value of the cumulated portion of a single investment in progress, net of any capitalisation of the individual parts of the investment, in excess of CZK 0.5 billion in the relevant year, subject to a negative value of the replacement and development fund, approved by the Office for year *i* at the TSO's prior request,

CF_{etpi} [CZK] is the TSO's profit correction factor that reflects the difference in profit set for year *i-2* using the method as per 16.2.6,

CF_{etnii} [CZK] is the profit correction factor from the value of the TSO's allowed investments in progress, reflecting the cumulated difference in profit calculated as the difference between the actual and planned values of investments in progress in year *i-2*, calculated as per 16.2.6,

MF_{eti} [CZK] is the value of the TSO's market factor set by the Office for year *i*,

CF_{eti} [CZK] is the TSO's correction factor for electricity transmission, calculated as per 16.2.6,

CF_{etosti} [CZK] is the correction factor for other revenues, calculated as per 16.2.6,

IF_{eti} [CZK] is the TSO's investment factor setting the amount of funds required for investment in the transmission system renovation and development under

the transmission system development plan, which are not covered by equity or debt capital; on the occasion of setting the value of the investment factor the Office will adjust the TSO's leverage so that the total interest-accruing debt equals 3xEBITDA; the investment factor can have positive or negative values:

a) a positive investment factor will first be applied at the TSO's request in the year and all subsequent years when the planned leverage exceeds 3x EBITDA,

b) a negative investment factor will first be applied in the year when the planned leverage drops under 3xEBITDA, and then in each subsequent year until the full repayment of the sum of the positive investment factor, i.e., the investment factor will also be applied in subsequent regulatory periods,

$F2_i$ [CZK] is a parameter introduced in the third regulatory period in the context of addressing the required increase in capital expenditure on the connection of new generating facilities; it can have only positive values,

n [-] is the number of electricity market participants connected to the transmission system who pay the charge for reserved capacity,

$YRC_{(ETS\text{-}HV)ki}$ [MW] is the yearly capacity reserved in the transmission system by the k^{th} electricity market participant connected to the transmission system for the regulated year; the capacity of the transmission system installations is reserved for electricity market participants connected to the transmission system (excluding export, transit, offtake of pumped-storage hydroelectric stations from the transmission system in the pumping mode, and offtake of generators, except for second-category generators to cover the consumption on the premises of the generating facility), including regional distribution systems; for regional distribution system operators, reserved capacity is determined by the average of the balances of the hourly power maximums at the interface between the transmission and the distribution systems over the four winter months (November to February) for the last three complete winter seasons before the regulated year.

The unit price for network use in the transmission system, **p_{etsni}** in CZK/MWh, is calculated as

$$p_{etsni} = \frac{VC_{eti}}{RPQE2_{etoi}},$$

where

VC_{eti} [CZK] is the TSO's variable costs for the regulated year, calculated as

$$VC_{eti} = PE_{eti} \times PLT_{eti} + CF_{etsni},$$

where

PE_{eti} [CZK/MWh] is the price of electrical energy for covering losses in the transmission system for the regulated year, set by the Office,

PLT_{eti} [MWh] is the planned amount of losses in the transmission system for the regulated year,

CF_{etsni} [CZK] is the TSO's correction factor for use of transmission networks in year *i-2*, adjusted to the level of year *i* using the time value of money, set as per 16.2.6,

$RPQE2_{etoi}$ [MWh] is the electricity quantity planned to be transmitted (electricity offtake from the transmission system for the regulated year to which the charge for using the transmission system applies); it is comprised of direct offtake from the transmission system (excluding transit and export), offtake of pumped-storage hydroelectric stations in the pumping mode and generators' offtake, including their offtake for electricity generation or electricity and heat generation, and the balance of transformation at the interface between the transmission system and regional distribution systems.

The yearly payment for capacity reserved in the transmission network by the k^{th} customer, **$YPRC_{(ETS\text{-}HV)ki}$** in CZK, is calculated as

$$YPRC_{(ETS-HV)ki} = p_{etyci} \times YRC_{(ETS-HV)ki} .$$

The design average single-component price for electricity transmission, **p_{eti}** in CZK/MWh, including the correction factor, is calculated as an indicative price as follows: +

$$p_{eti} = \frac{AAR_{eti}}{RPQE1_{etoi}} + p_{etsni} ,$$

where

$RPQE1_{etoi}$ [MWh] is the electricity quantity planned to be transmitted (electricity offtake from the transmission system) for the regulated year, which is comprised of direct offtake from the transmission system (excluding export, offtake of pumped-storage hydroelectric stations in the pumping mode, transit and generators, except for second-category generators to cover the consumption on the premises of the generating facility) and the balance of transformation at the interface between the transmission system and regional distribution systems.

The level of the TSO's replacement and development fund, **RDF_{eti}**, for regulated year *i* is calculated as:

$$RDF_{eti} = \sum_{t=2012}^{L+i} D\&A_{etmskt-2} - \sum_{t=2012}^{L+i} CI_{etskt-2} ,$$

where

$D\&A_{etmskt\text{-}2}$ [CZK] is the actual value of the D&A of the TSO's non-current tangible and intangible assets, which is acknowledged in price regulation,

$CI_{etskt\text{-}2}$ [CZK] is the actual value of the TSO's capitalised investments reported under a different regulation6 for year *t-2*.

No rounding is done during calculations.

Depending on the unit, the input values are rounded as follows:

a) CZK to whole Czech crowns,
b) MW and MWh to three decimal places,
c) CZK/MWh to two decimal places,
d) percentages, to three decimal places, with the exception of the rate of return on the regulatory asset base, which is rounded to two decimal places,
e) ratios, to five decimal places.

The resulting monthly price for yearly reserved capacity, in CZK/MW/month, is rounded to whole CZK.

The resulting price for network use in the transmission system, in CZK/MWh, is rounded to two decimal places.

16.2.2. Procedure for determining the charge for system services

The charge for system services, $\mathbf{p_{ssi}}$ in CZK/MW, is calculated as

$$p_{ssi} = \frac{AAR_{ssi}}{RQESS1_i},$$

where

i is the serial number of the regulated year,

$\mathbf{AAR_{ssi}}$ [CZK] is the value of adjusted allowed revenues from system service provision for the regulated year, calculated as

$$AAR_{ssi} = AR_{ssi} + PTC_{asi} - PS_{settli} + CF_{ssi} + MF_{ssi},$$

where

$\mathbf{AR_{ssi}}$ [CZK] is the value of allowed revenues for system service provision for the regulated year, calculated as

$$AR_{ssi} = EC_{ssi} + D\&A_{ssi} + P_{ssi},$$

where

$\mathbf{EC_{ssi}}$ [CZK] is the value of eligible fixed costs required for trading in system services for the regulated year, calculated as

$$EC_{ssi} = (EC_{ssvi-1} + PS_{ssi-1}) \times \prod_{t=L+i}^{L+i} \frac{I_{sst}}{100} \times (1 - X_i),$$

where

$\mathbf{EC_{ssvi-1}}$ [CZK] is the TSO's eligible cost base calculated as

$$EC_{ssvi-1} = \frac{\begin{array}{c}\left(C_{sssk i-4} \times \prod_{t=L+i-3}^{L+i-1} \frac{I_{sst}}{100} \times (1 - X_i)^3\right) + \\ \left(C_{sssk i-3} \times \prod_{t=L+i-2}^{L+i-1} \frac{I_{sst}}{100} \times (1 - X_i)^2\right) + \\ \left(C_{sssk i-2} \times \prod_{t=L+i-1}^{L+i-1} \frac{I_{sst}}{100} \times (1 - X_i)\right)\end{array}}{3},$$

where

t is the date of the year in the regulatory period,

L is the date of the year preceding the first regulated year of the regulatory period,

$\mathbf{C_{sssk i}}$ [CZK] is the TSO's actual costs incurred in system service provision,

$\mathbf{X_i}$ [-] is the yearly value of the efficiency factor for system service provision,

$\mathbf{I_{sst}}$ [%] is the value of the escalation factor for the TSO's costs in the relevant year *t* for system services, calculated as

$$I_{sst} = (1 - w_{ssIMt}) \times IPS_t + w_{ssIMt} \times IM_t,$$

where

w_{sslMt} [-] is the weight of the TSO's wage index for system service provision calculated as the ratio of actual personnel costs and total economically justified costs for system service provision in year *t-1*; where the values for year *t-1* are not known values for year *t-2* shall be used,

IPS_t [%] is the index of business service prices calculated as a weighted average of the following price indices: 62 - Computer programming, consultancy, and related services, 63 - Information services, 68 - Real estate services, 69 - Legal and accounting services, 71 - Architectural and engineering services; technical tests and analyses, 73 - Advertising and market research services, 74 - Other professional, scientific and technical activities, 77 - Rental and operating lease services, 78 - Employment services, 80 - Security and investigation services, 81 - Services related to buildings and landscape, 82 - Office administration and other business support services, as reported in the Czech Statistical Office's public database in the table "Price indices of market services" (code CEN06B2) for April of year *t-1,* on the basis of the ratio of rolling averages of basic indices, where the weights are annual revenues from the services provided in 2015,

IM_t [%] is the value of the wage index calculated as the average of the quarterly values of the average monthly wage (related to FTE), reported in the Czech Statistical Office's public database in table "Employees and average gross monthly wages by CZ-NACE sector (code: MZD02-A)" under point D "Electricity, gas, steam and air conditioning supply" beginning with the second quarter of year *t-2* and ending with the first quarter of year *t-1*, published on 30 June of year *i-1*,

PS_{ssi-1} [CZK] is the value of profit/loss sharing of the TSO's costs calculated as

$$PS_{ssi-1} = \frac{(PS_{ssi-4} + PS_{ssi-3} + PS_{ssi-2})}{3},$$

$$PS_{ssi-4} = (EC_{ssi-4} - C_{ssski-4}) \times \prod_{t=L+i-3}^{L+i-1} \frac{I_{sst}}{100} \times (1 - X_i)^3 \times c_{ssi-4},$$

$$PS_{ssi-3} = (EC_{ssi-3} - C_{ssski-3}) \times \prod_{t=L+i-2}^{L+i-1} \frac{I_{sst}}{100} \times (1 - X_i)^2 \times c_{ssi-3},$$

$$PS_{ssi-2} = \left(EC_{ssi-2} - C_{ssski-2}\right) \times \prod_{t=L+i-1}^{L+i-1} \frac{I_{sst}}{100} \times (1 - X_i) \times c_{ssi-2},$$

where

c_{ssi} [-] is the profit/loss sharing coefficient, which equals 0.5 for comparing the eligible and actual costs for the years in the fifth regulatory period; it equals zero for comparing the eligible and actual costs for the years in the fourth regulatory period,

$D\&A_{ssi}$ [CZK] is the value of the allowed D&A of the TSO's non-current tangible and intangible assets serving for system service provision for the regulated year, calculated as

$$D\&A_{ssi} = D\&A_{sspli} + CF_{ssoi},$$

where

$D\&A_{sspli}$ [CZK] is the planned value of the D&A of non-current tangible and intangible assets serving for system service provision in year *i*,

CF_{ssoi} [CZK] is the correction factor for D&A, determined as the difference between the actual and planned D&A of non-current tangible and intangible assets for system service provision in year *i-2*, calculated as per 16.2.6, which can furthermore also contain backward corrections to the D&A of non-current tangible and intangible assets financed from a subsidy in case the public aid exceeded the maximum allowed level,

P_{ssi} [CZK] is the TSO's allowed profit from system service provision for the regulated year, calculated as

$$P_{ssi} = P_{ssro} + P_{ssBi-2}\ ,$$

where

P_{ssro} [CZK] is the allowed profit for system service provision, constant throughout the regulatory period and set by the Office on the basis of the fixed value of profit set for the fourth regulatory period,

P_{ssBi-2} [CZK] is the incentive component of profit set at 40% of the positive difference between the planned and actual average yearly costs of buying BS multiplied by the actual yearly volume of reserves bought in year *i-2*,

MF_{ssi} [CZK] is the value of the market factor for system service provision, set by the Office for year *i*,

PTC_{asi} [CZK] is the total value of the costs planned for buying ancillary services for the regulated year, calculated as

$$PTC_{asi} = PQS_{ssi} \times PPS_{ssi}\ ,$$

where

PQS_{ssi} [MW.h] is the yearly volume of BS planned to be bought, set by the TSO regardless of whether the BS are bought under forward contracts or in the day-ahead market,

PPS_{ssi} [CZK/MW.h] is the planned average yearly price for BS, determined as the arithmetic average of the actual average yearly prices for BS over the last three known calendar years,

PS_{settli} [CZK] is the planned sum of the difference in revenues from the settlement of differences arising from the clearing of imbalance costs under the Electricity Market Rules, plus the related costs, and the difference between the revenues from and costs of balancing energy, procurement of non-frequency ancillary services, *ad hoc* electricity supply from and to other countries as part of the TSO's cooperation, remedial actions, and planned compensations for

electricity not taken in the case of grid operation control under a different regulation[12],

CF_{ssi} [CZK] is the TSO's correction factor for system service provision in year *i-2* calculated as per 16.2.6,

$RQESS1_i$ [MWh] is the electricity quantity planned to be taken by customers, electricity generators, and operators of the transmission and/or distribution systems for these system operators' 'other use' for the regulated year, excluding offtake for own use for process purposes, electricity for pumping at pumped-storage hydroelectric power stations, electricity supplied to other countries, except for electricity supply to a delineated island operation in another country connected to the Czech grid, and excluding electricity for covering losses in the transmission and distribution systems.

No rounding is done during calculations.

Depending on the unit, the input values are rounded as follows:

a) CZK to whole Czech crowns,
b) MW and MWh to three decimal places,
c) CZK/MWh to two decimal places,
d) percentages, to three decimal places,
e) ratios, to five decimal places.

The resulting price in CZK/MWh is rounded to two decimal places.

[12] Section 26 (6) of Act No 458/2000, the Energy Act, as amended

16.2.3. Procedure for determining the charge for electricity distribution

For the purposes of regulating the charges for electricity distribution, the distribution system is divided into the following levels:

a) the HV level,
b) the MV level, including HV/MV transformation, and
c) the LV level, including MV/LV transformation.

The unit price for yearly reserved capacity at the HV and MV levels, s_{dxerci} in CZK/MW/year, is calculated as

$$s_{dxerci} = \frac{AAR_{dxei}}{TC_{CCxei-2} + CTR_{xi}},$$

where

i is the serial number of the regulated year,

x is the serial number of the voltage level (HV, MV, LV),

AAR_{dxei} [CZK] is the value of the DSO's adjusted allowed revenues at each of the voltage levels for the regulated year, calculated as

$$AAR_{dxei} = AR_{dxei} \times c_{arxi} + AR_{d(x+1)ei} \times \left(1 - c_{ar(x+1)i}\right) + CF_{dxei} + CF_{dxehi} - CF_{dxeosti} - CF_{dxeAsSi} + Q_{dxei},$$

where

AR_{dxei} [CZK] is the value of the DSO's allowed revenues at each of the voltage levels for the regulated year, calculated as

$$AR_{dxei} = EC_{dxei} + D\&A_{dxei} + P_{dxei} + MF_{dxei},$$

where

EC_{dxei} [CZK] is the DSO's eligible costs at each of the voltage levels incurred in providing electricity distribution for the regulated year, calculated as

$$EC_{dxei} = (EC_{dxevi-1} + PS_{dxei-1}) \times \prod_{t=L+i}^{L+i} \frac{I_{det}}{100} \times (1 - X_i),$$

where

$EC_{dxevi-1}$ [CZK] is the DSO's eligible costs base calculated as

$$EC_{dxevi-1} = \frac{\left(C_{dxeski-4} \times \prod_{t=L+i-3}^{L+i-1} \frac{I_{det}}{100} \times (1 - X_i)^3\right) + \left(C_{dxeski-3} \times \prod_{t=L+i-2}^{L+i-1} \frac{I_{det}}{100} \times (1 - X_i)^2\right) + \left(C_{dxeski-2} \times \prod_{t=L+i-1}^{L+i-1} \frac{I_{det}}{100} \times (1 - X_i)\right)}{3},$$

where

t is the date of the year in the regulatory period,

L is the date of the year preceding the first regulated year of the regulatory period,

C_{dxeski} [CZK] is the DSO's actual costs incurred in electricity distribution at each of the voltage levels,

X_i [-] is the yearly value of the efficiency factor for electricity distribution,

I_{det} [%] is the value of the escalation factor for the DSO's costs in the relevant year *t*, calculated as

$$I_{det} = (1 - w_{deIMt}) \times IPS_t + w_{deIMt} \times IM_t \,,$$

where

w_{deIMt} [-] is the individual weight of the DSO's wage index calculated as the ratio of actual personnel costs and total economically justified costs for electricity distribution in year *t-1*; where the values for year *t-1* are not known values for year *t-2* shall be used,

IPS_t [%]is the index of business service prices calculated as a weighted average of the following price indices: 62 - Computer programming, consultancy, and related services, 63 - Information services, 68 - Real estate services, 69 - Legal and accounting services, 71 - Architectural and engineering services; technical tests and analyses, 73 - Advertising and market research services, 74 - Other professional, scientific and technical activities, 77 - Rental and operating lease services, 78 - Employment services, 80 - Security and investigation services, 81 - Services related to buildings and landscape, 82 - Office administration and other business support services, as reported in the Czech Statistical Office's public database in the table "Price indices of market services" (code CEN06B2) for April of year *t-1,* on the basis of the ratio of rolling averages of basic indices, where the weights are annual revenues from the services provided in 2015,

IM_t [%]is the value of the wage index calculated as the average of the quarterly values of the average monthly wage (related to FTE), reported in the Czech Statistical Office's public database in table "Employees and average gross monthly wages by CZ-NACE sector (code: MZD02-A)" under point D "Electricity, gas, steam and air conditioning supply" beginning with the second quarter of year *t-2* and ending with the first quarter of year *t-1*, published on 30 June of year *i-1*,

PS_{dxei-1} [CZK] is the value of the profit/loss sharing of the DSO's costs at each of the voltage levels, calculated as

$$PS_{dxei-1} = w_{dxeNi-1} \times PS_{dei-1} \,,$$

where

$w_{dxeNi-1}$ [-] is the weight of each of the voltage levels in profit/loss sharing, calculated as the ratio of the DSO's eligible costs base at each of the voltage levels for year *i-1* and the DSO's total eligible costs base for year *i-1*,

PS_{dei-1} [CZK] is the value of profit/loss sharing of the DSO's costs, calculated as

$$PS_{dei-1} = \frac{(PS_{dei-4} + PS_{dei-3} + PS_{dei-2})}{3},$$

$$PS_{dei-4} = (EC_{dei-4} - C_{deski-4}) \times \prod_{t=L+i-3}^{L+i-1} \frac{I_{det}}{100} \times (1 - X_i)^3 \times c_{dsi-4}\ ,$$

$$PS_{dei-3} = (EC_{dei-3} - C_{deski-3}) \times \prod_{t=L+i-2}^{L+i-1} \frac{I_{det}}{100} \times (1 - X_i)^2 \times c_{dsi-3}\ ,$$

$$PS_{dei-2} = (EC_{dei-2} - C_{deski-2}) \times \prod_{t=L+i-1}^{L+i-1} \frac{I_{det}}{100} \times (1 - X_i) \times c_{dsi-2}\ ,$$

where

c_{dsi} [-]is the profit/loss sharing coefficient, which equals 0.5 for comparing the eligible and actual costs for the years in the fifth regulatory period; it equals zero for comparing the eligible and actual costs for the years in the fourth regulatory period,

$D\&A_{dxei}$ [CZK] is the value of the allowed D&A of the DSO's non-current tangible and intangible assets serving for providing electricity distribution at each of the voltage levels for the regulated year, calculated as

$$D\&A_{dxei} = D\&A_{dxepli} + CF_{dxeoi}\ ,$$

where

$D\&A_{dxepli}$ [CZK] je total planned value of the D&A of the DSO's non-current tangible and intangible assets and assets financed from a subsidy at each of the voltage levels, serving for electricity distribution for regulated year *i*, calculated as

$$D\&A_{dxepli} = D\&A_{dxempli} + D\&A_{dxedmpli}\ ,$$

where

$D\&A_{dxempli}$ [CZK] is the planned value of the D&A of the DSO's non-current tangible and intangible assets at each of the voltage levels, serving for distribution provision for regulated year *i*,

$D\&A_{dxedmpli}$ [CZK] is the planned value of the regulatory D&A of the assets financed from a subsidy for the DSO at each of the voltage levels, serving for distribution provision for regulated year *i*; the planned value of the D&A of non-current tangible and intangible assets financed from a subsidy for the DSO can be reduced by the Office so as to prevent the public aid from exceeding the maximum allowed level,

CF_{dxeoi} [CZK] is the correction factor for the DSO's D&A at each of the voltage levels, which reflects the difference between the actual and planned D&A of non-current tangible and intangible assets in year *i-2*, calculated as per 16.2.6, which can furthermore also contain backward corrections to the D&A of non-current tangible and intangible assets financed from a subsidy in case the public aid exceeded the maximum allowed level,

P_{dxei} [CZK] is the DSO's profit at each of the voltage levels for the regulated year, calculated as

$$P_{dxei} = \frac{RR_{dei}}{100} \times \left(RAB_{dxei} + NI_{dxepli}\right) + CF_{dxezi} + CF_{dxenii}\ ,$$

where

RR_{dei} [%] is the rate of return on the regulatory asset base for the electricity distribution licence holder, set by the Office for regulated year *i* using the method of weighted average costs of capital before taxation,

RAB_{dxei} [CZK] is the value of the DSO's regulatory asset base serving for providing electricity distribution at each of the voltage levels for the regulated year, calculated as

$$RAB_{dxei} = RAB_{dei} \times c_{dxei-2} .$$

If the planned revaluation coefficient c_{deplt} set for the DSO for 2020 was lower than one, then

$$RAB_{dei} = RAB_{de0} + \sum_{t=L+1}^{L+i} \Delta RAB_{deplt} + \sum_{t=L+1}^{L+i} CF_{deRABt} ,$$

where

RAB_{de0} [CZK] is the initial value of the DSO's regulatory asset base serving for providing electricity distribution, set by the Office,

ΔRAB_{deplt} [CZK] is the planned year-on-year change in the value of the DSO's regulatory asset base in year *t*, calculated as

$$\Delta RAB_{deplt} = CI_{deplt} + CTA_{deplt} - AD_{deplt} - D\&A_{demplt} + ConverNBVA_{det} ,$$

where

CI_{deplt} [CZK] is the planned value of the DSO's capitalised investments for year *t*,

CTA_{deplt} [CZK] is the planned value of the assets acquired by company transformation, approved by the Office for year *t*,

AD_{deplt} [CZK] is the planned value of the DSO's asset disposals for year *t*,

$D\&A_{demplt}$ [CZK] is the planned value of the D&A of the DSO's non-current tangible and intangible assets serving for providing electricity distribution for regulated year *t*,

$ConverNBVA_{det}$ [CZK] is the value (1) expressing the annual convergence of the value of the regulatory asset base to the book value of assets, based on the difference between the planned book value of assets and the regulatory asset base for 2020, which is multiplied by a coefficient reflecting the percentage granted in year *t*; that value (1) will be adjusted to the later known actual value applicable to year *t* and calculated as

$$ConverNBVA_{det} = ConverNBVA_{de0t} + CF_{ConverNBVAt} ,$$

where

$ConverNBVA_{de0t}$ [CZK] is the planned value expressing the annual convergence of the value of the regulatory asset base to the book value of assets, calculated as

$$ConverNBVA_{de0t} = \left(NBVA_{deplL} - RAB_{deL} - CF_{deRABL+1}\right) \times c_{deindt},$$

where

$NBVA_{deplL}$ [CZK] is the planned book value of assets for 2020 from the preceding year,

RAB_{deL} [CZK] is the planned value of the regulatory asset base for 2020,

$CF_{deRABL+1}$ [CZK] is the correction factor for the regulatory asset base for 2019, calculated as per point 9.2.6 of the Price Control Principles for the Electricity Industry, the Gas Industry and for the Market Operator's Services in the Electricity Industry and the Gas Industry for 2016-2018, with effect extended to 2020,

c_{deindt} [%] is the coefficient of individual convergence calculated as per **Chyba! Nenalezen zdroj odkazů.**,

$CF_{ConverNBVAt}$ [CZK] is the correction factor for the planned value expressing the annual convergence of the value of the regulatory asset base to the book value of assets, calculated as

$$CF_{ConverNBVAt} = \left(NBVA_{deskL} - NBVA_{deplL} - CF_{deRABL+2}\right) \times (c_{deindt-1} + c_{deindt}),$$

provided that

for year *t* = 2021, **$CF_{ConverNBVAt}$** equals 0, and

for year *t* >2022, **$c_{deindt-1}$** equals 0,

where

$NBVA_{deskL}$ [CZK] is the actual value of the book value of assets in 2020,

$CF_{deRABL+2}$ [CZK] is the correction factor for the regulatory asset base for 2020, calculated as per point 9.2.6 of the Price Control Principles for the Electricity Industry, the Gas Industry and for the Market Operator's Services in the Electricity Industry and the Gas Industry for 2016-2018, with effect extended to 2020,

CF_{deRABt} [CZK] is the correction factor for the regulatory asset base, which reflects the difference between the actual and planned changes in the book value of the DSO's assets in year *t-2,* applied from year *t=L+i* and calculated as per 16.2.6.

If the planned revaluation coefficient **k_{deplt}** set for the DSO for 2020 was equal to or greater than one, then

$$RAB_{dei} = RAB_{de0} + \sum_{t=L}^{L+i-2} \Delta RAB_{deskt-2} + \Delta RAB_{depli-1} + \Delta RAB_{depli}$$

where

RAB_{de0} [CZK] is the initial value of the regulatory asset base determined as the actual book value of the DSO's assets serving for providing electricity

distribution reported under the public notice on regulatory reporting6 for year *L-1*,

ΔRAB$_{deskt-2}$ [CZK] is the actual year-on-year change in the value of the DSO's regulatory asset base serving for providing electricity distribution in year *t-2*, which is zero for the first year of the regulatory period, calculated as

$$\Delta RAB_{deskt-2} = CI_{deskt-2} + CTA_{deskt-2} - AD_{deskt-2} - D\&A_{demskt-2}\ ,$$

where

CI$_{deskt-2}$ [CZK] is the actual value of the DSO's capitalised investments for year *t-2*,

CTA$_{deskt-2}$ [CZK] is the actual value of the assets acquired by company transformation, approved by the Office for year *t-2*,

AD$_{deskt-2}$ [CZK] is the actual value of the DSO's asset disposals for year *t-2*,

D&A$_{demskt-2}$ [CZK] is the actual value of the D&A of the DSO's non-current tangible and intangible assets serving for providing distribution services for regulated year *t-2*,

ΔRAB$_{depli-1}$ [CZK] is the expected change in the value of the DSO's regulatory asset base serving for providing electricity distribution in year *i-1*, calculated as

$$\Delta RAB_{depli-1} = CI_{depli-1} + CTA_{depli-1} - AD_{depli-1} - D\&A_{dempli-1}\ ,$$

where

CI$_{depli-1}$ [CZK] is the expected value of the DSO's capitalised investments for year *i-1*,

CTA$_{depli-1}$ [CZK] is the expected value of the assets acquired by company transformation, approved by the Office for year *i-1*,

AD$_{depli-1}$ [CZK] is the expected value of the DSO's asset disposals for year *i-1*,

D&A$_{dempli-1}$ [CZK] is the expected value of the D&A of the DSO's non-current tangible and intangible assets serving for providing distribution services for regulated year *i-1*,

ΔRAB$_{depli}$ [CZK] is the planned change in the value of the DSO's regulatory asset base serving for providing electricity distribution in year *i*, calculated as

$$\Delta RAB_{depli} = CI_{depli} + CTA_{depli} - AD_{depli} - D\&A_{dempli}\ ,$$

where

CI$_{depli}$ [CZK] is the planned value of the DSO's capitalised investments for year *i*,

CTA$_{depli}$ [CZK] is the planned value of the assets acquired by company transformation, approved by the Office for year *i*,

AD$_{depli}$ [CZK] is the planned value of the DSO's asset disposals for year *i*,

D&A$_{dempli}$ [CZK] is the planned value of the D&A of the DSO's non-current tangible and intangible assets serving for providing distribution services for regulated year *i*,

NI_{dxepli} [CZK] is the planned aggregated value of the DSO's investments in progress [= capital work in progress], i.e. the various investments in progress with the planned procurement period, excluding preparations, longer than 2 years (24 months) and the value of the cumulated portion of a single investment in progress, net of any capitalisation of the individual parts of the investment, in excess of CZK 0.5 billion in the relevant year, subject to a negative value of the replacement and development fund, approved by the Office for year *i* at the DSO's prior request,

w_{dxei-2} [-] is the weight of each of the voltage levels for the actual book values of assets in year *i-2*, calculated as the ratio of the actual book values of assets at each of the voltage levels to the total actual book value of assets in year *i-2*,

CF_{dxezi} [CZK] is the DSO's profit correction factor at each of the voltage levels, which reflects the difference in profit, calculated as the difference between the actual and planned changes in the value of the regulatory asset base in year *i-2*, calculated as per 16.2.6,

CF_{dxenii} [CZK] is the profit correction factor from the value of the DSO's allowed investments in progress at each of the voltage levels, reflecting the cumulated difference in profit calculated as the difference between the actual and planned values of investments in progress in year *i-2*, calculated as per 16.2.6,

MF_{dxei} [CZK] is the value of the DSO's market factor at each of the voltage levels, set by the Office for year *i*,

c_{ARxi} [-] is the coefficient of adjustment to allowed revenues at the x^{th} voltage level for the regulated year, set by the Office to stabilise prices in the regulatory period; it equals one for the LV level,

$AR_{d(x+1)ei}$ [CZK] is the value of allowed revenues for electricity distribution for the voltage level just above the x^{th} voltage level, except for the HV level,

$c_{AR(x+1)i}$ [-]is the coefficient of adjustment to allowed revenues for the voltage level just above the x^{th} voltage level, except for the HV level, for the regulated year,

CF_{dxei} [CZK] is the DSO's correction factor for electricity distribution assigned to a voltage level, calculated as per 16.2.6 and set for *i-2*,

CF_{dxehi} [CZK] is the DSO's correction factor for electricity distribution assigned to a voltage level, calculated as per 16.2.6 and containing correction for year *i-3* and earlier years,

$CF_{dxeosti}$ [CZK] is the correction factor for the DSO's other revenues, assigned to the respective voltage level and calculated as per 16.2.6,

CF_{dxeASi} [CZK] is the DSO's correction factor for non-frequency ancillary services provided in the distribution system, assigned to the respective voltage level and calculated as per 16.2.6,

Q_{dxei} [CZK] is the quality factor at each of the voltage levels, reflecting the achieved quality of electricity distribution services in years *i-2* and *i-3* in relation to the required levels of quality indicators for year *i-2*, calculated as

$$Q_{dxei} = Q_{dei} \times q_{dxe} ,$$

where

Q_{dei} [CZK] is the quality factor reflecting the achieved level of quality of the electricity distribution services in years *i-2* and *i-3* in relation to the defined standards for the whole distribution system year *i-2*, calculated as

$$Q_{dei} = Q_{de1i} + Q_{de2i} ,$$

where

Q_{de1i} [CZK] is the quality factor reflecting the number of electricity distribution interruptions at the supply points of the distribution system's customers,

Q_{de2i} [CZK] is the quality factor reflecting the duration of electricity distribution interruptions at the supply points of the distribution system's customers.

Each of the above quality factors is calculated as

$$Q_{de1,2i} = \frac{P_{dei-2}}{2} \times \frac{MAX_{i-2}}{DQ_{maxi-2} - HHNP_{i-2}} \times (DQ_u - HHNP_{i-2}) ,$$

for $HHNP_{i-2} > DQ_u > DQ_{maxi-2}$,

$$Q_{de1,2i} = \frac{P_{dei-2}}{2} \times \frac{MAX_{i-2}}{DHNP_{i-2} - DQ_{mini-2}} \times (DQ_u - DHNP_{i-2}) ,$$

for $DHNP_{i-2} < DQ_u < DQ_{mini-2}$,

$$Q_{de1,2i} = \frac{P_{dei-2}}{2} \times MAX_{i-2} ,$$

for $DQ_u \leq DQ_{maxi-2}$,

$$Q_{de1,2i} = \frac{-Z_{dei-2}}{2} \times MAX_{i-2} ,$$

for $DQ_u \geq DQ_{mini-2}$, and

$$Q_{de1,2i} = 0 ,$$

for $DHNP_{i-2} \geq DQ_u \geq HHNP_{i-2}$,

where

P_{dei-2} [CZK] is the DSO's planned profit for year *i-2*,

MAX_{i-2} [-] is a ratio expressing the maximum value of the bonus or penalty on the DSO's profit for year *i-2*, **Z_{dei-2}**,

DQ_{maxi-2} is the limit value of the quality indicator for year *i-2*, from which the maximum value of the bonus for the achieved quality of services is applied,

DQ_{mini-2} is the limit value of the quality indicator for year *i-2*, from which the maximum value of the penalty for the achieved quality of services is applied,

$HHNP_{i-2}$ and $DHNP_{i-2}$ are the upper and lower limits of the dead band for year *i-2*, within which the bonus or penalty for a quality indicator are not applied,

DQ_u is the acknowledged value of the quality indicator, calculated as

$$DQ_u = DQ_v \text{ for } DQ_v \leq DHNP_{i-2} ,$$

$$DQ_u = DQ_v \text{ for } DQ_v > DHNP_{i-2} \text{ and simultaneously } DQ_{cat213} = 0 ,$$

$$DQ_u = DQ_v\text{-}DQ_{cat213}$$

for $DQ_v > DHNP_{i-2}$ and simultaneously $DQ_{cat213} > 0$ and simultaneously

$$DQ_{cat213} < DQ_v\text{-}DHNP_{i-2} ,$$

$$DQ_u = DHNP_{i-2}$$

for $DQ_v > DHNP_{i-2}$ and simultaneously $DQ_{cat213} > 0$ and simultaneously

$$DQ_{cat213} \geq DQ_v\text{-}DHNP_{i-2} ,$$

where

DQ_{cat213} is the average individual value of the achieved level of the quality indicator for category 213 interruptions under the public notice on the quality of the supply of electricity and related services in the electricity industry, calculated as

$$DQ_{cat213} = \frac{DQ_{cat213i-2}+DQ_{cat213i-3}}{2},$$

where

$DQ_{cat213i-2}$ is the individual value of the achieved level of the quality indicator in year *i-2*, while for calculating **Q_{de1i}** it is the average frequency of electricity distribution interruptions at the system's customers, $SAIFI_S$, in year *i-2* calculated from category 213 interruptions under the public notice on the quality of the supply of electricity and related services in the electricity industry, while for calculating **Q_{de2i}** it is the average total duration of electricity distribution interruptions at the system's customers, $SAIDI_S$, in year *i-2* calculated from category 213 interruptions under the public notice on the quality of the supply of electricity and related services in the electricity industry,

$DQ_{cat213i-3}$ is the individual value of the achieved level of the quality indicator in year *i-3*, while for calculating **Q_{de1i}** it is the average frequency of electricity distribution interruptions at the system's customers, $SAIFI_S$, in year *i-3* calculated from category 213 interruptions under the public notice on the quality of the supply of electricity and related services in the electricity industry, while for calculating **Q_{de2i}** it is the average total duration of electricity distribution interruptions at the system's customers, $SAIDI_S$, in year *i-3* calculated from category 213 interruptions under the public notice on the quality of the supply of electricity and related services in the electricity industry,

DQ_v is the average value of the achieved level of the quality indicator for categories 11 and 2 under the public notice on the quality of the supply of electricity and related services in the electricity industry, calculated as

$$DQ_v = \frac{DQ_{i-2}+DQ_{i-3}}{2},$$

where

DQ_{i-2} is the value of the achieved level of the quality indicator in year *i-2*, while for calculating **Q_{de1i}** it is the average frequency of electricity distribution interruptions at the system's customers, $SAIFI_s$, in year *i-2* calculated from categories 11 and 2 interruptions under the public notice on the quality of the supply of electricity and related services in the electricity industry, while for calculating **Q_{de2i}** it is the average total duration of electricity distribution interruptions at the system's customers, $SAIDI_s$, in year *i-2* calculated from categories 11 and 2 interruptions under the public notice on the quality of the supply of electricity and related services in the electricity industry,

DQ_{i-3} is the value of the achieved level of the quality indicator in year *i-3*, while for calculating **Q_{de1i}** it is the average frequency of electricity distribution interruptions at the system's customers, $SAIFI_s$, in year *i-3* calculated from categories 11 and 2 interruptions under the public notice on the quality of the supply of electricity and related services in the electricity industry, while for calculating **Q_{de2i}** it is the average total duration of electricity distribution interruptions at the system's customers, $SAIDI_s$, in year *i-3* calculated from categories 11 and 2 interruptions under the public notice on the quality of the supply of electricity and related services in the electricity industry,

q_{dxe} [-] is the coefficient for allocating the quality factor to each of the voltage levels, set by the Office,

$$DQ_{maxi-2} = STQ_{i-2} \times \left(1 - \frac{q_{max}}{100}\right),$$

$$DQ_{mini-2} = STQ_{i-2} \times \left(1 + \frac{q_{max}}{100}\right),$$

$$HHNP_{i-2} = STQ_{i-2} \times \left(1 - \frac{q_{UL}}{100}\right),$$

$$DHNP_{i-2} = STQ_{i-2} \times \left(1 + \frac{q_{UL}}{100}\right),$$

where

STQ_{i-2} is the value of the set level of the quality indicator for year *i-2*, while for calculating **Q_{de1i}** it is the average frequency of electricity distribution interruptions at the system's customers, $SAIFI_s$, in year *i-2* calculated from categories 11 and 2 interruptions under the public notice on the quality of the supply of electricity and related services in the electricity industry, while for calculating **Q_{de2i}** it is the average total duration of electricity distribution interruptions at the system's customers, $SAIDI_s$, in year *i-2* calculated from categories 11 and 2 interruptions under the public notice on the quality of the supply of electricity and related services in the electricity industry,

q_{max} [%] is a ratio expressing the limit value of the quality indicator, from which the maximum value of the bonus/penalty for the achieved quality is applied,

q_{UL} [%] is a ratio expressing the value of the upper and lower limits of the dead band,

$TC_{CCxei-2}$ [MW] is the total average reserved capacity of customers, including local distribution system operators (excluding export, except for electricity offtake by delineated island operations in other countries connected to the Czech grid, and excluding offtake of pumped-storage hydroelectric stations in the pumping mode, transit, and offtake of generators, except for second-category generators to cover consumption on the premises of the generating facility) for the HV or MV levels, reported by the DSO in year *i-2*; in justifiable cases, the determination of the total average reserved capacity of customers, including local distribution system operators and second-category generators, can be premised on the plans of reserved capacity reported by the DSO for year *i*,

CTR_{xi} [MW] are the design values of the reserved capacity of transformation from HV and MV levels to a lower voltage level for the regulated year, calculated as

$$CTR_{HVi} = \frac{RC_{CCMVei-2} \times TE_{TRHVei}}{YQE_{CCMVei}},$$

$$CTR_{MVi} = \frac{RC_{CMVei-2} \times TE_{TRMVei}}{RQE_{CCMVei}},$$

where

TE_{TRHVei} and **TE_{TRMVei}** [MWh] are the yearly electricity quantities transformed from the HV and MV levels to a lower voltage level planned by the DSO for the regulated year,

RQE_{CCMVei} [MWh] is the yearly electricity quantity taken by customers at the MV level planned by the DSO for the regulated year.

The unit price for monthly reserved capacity, **sm_{dxerci}** in CZK/MW/month, for the HV and MV levels, including the correction factor for electricity distribution, is calculated as

$$sm_{dxerci} = \frac{s_{dxerci} \times c_{disi}}{12},$$

where

c_{disi} [-] is the coefficient of disadvantage for monthly reserved capacity at the HV and MV levels for the regulated year, calculated as

$$c_{disi} = c_{irri} + \frac{pp_{irri}}{100},$$

where

c_{irri} [-] is the coefficient of irregularity, calculated as the ratio of the sum of the maximum yearly and maximum monthly reserved capacity and the sum of the average yearly and average monthly reserved capacity, actually booked by customers at the HV and MV levels in year *i-2*,

pp_{irri} [%] is the percentage premium on the coefficient of irregularity for the regulated year, set by the Office on the basis of experience and the values set for the fourth regulatory period.

The unit price for network use at voltage levels, **s_{dxepzi}** in CZK/MWh, is calculated as

$$s_{dxepzi} = \frac{VC_{dxei}}{RDQE2_{xi}},$$

where

VC_{dxei} [CZK] is the DSO's variable costs of electricity distribution for voltage level *x* for regulated year *i*, calculated as

$$VC_{dxei} = PE_{dei} \times PLT_{dxei} + CF_{dxepsi},$$

where

PE_{dei} [CZK/MWh] is the price of electricity for covering losses in the distribution system for the regulated year, set for the DSO by the Office on the basis of the development of electricity prices in the wholesale market,

PLT_{dxei} [MWh] is the allowed quantity of losses at a voltage level for the regulated year, set by the Office on the basis of the company's planned values, provided that

$$PLT_{dxei} \leq PLT_{dxeimax} = \frac{k_{Ldxei} \times RDQE_{pzdxi}}{100},$$

where

k_{Ldxei} [%] is the allowed rate of total losses at the x^{th} voltage level of the distribution system for the regulated year, set by the Office on the basis of the relevant DSO's actual values, taking into account the planned evolution of losses, related to the electricity flowing into this voltage level of the distribution system,

$RDQE_{pzdxi}$ [MWh] is the planned electricity quantity for the regulated year at input into the x^{th} voltage level of the DSO's distribution system (supply from generating facilities connected to the distribution system, supply from the transmission system, and supply from adjacent distribution systems, including imports from abroad, except for supply not subject to the network use charge due to the effect of the location of metering),

CF_{dxepsi} [CZK] is the correction factor for using distribution network in year *i-2* for the x^{th} voltage level in the distribution system, adjusted to the level of year *i* applying the time value of money, determined as per 16.2.6,

$RDQE2_{xi}$ [MWh] is the electricity quantity for the regulated year planned to be distributed over the x^{th} voltage level; it is the electricity quantity taken by all customers, including offtake by local distribution system operators, the electricity quantity transformed into lower voltage levels (except LV), the electricity quantity taken for the DSO's 'other use', the electricity quantity taken into delineated island operations in other countries connected to the Czech grid, offtake of pumped-storage hydroelectric stations in the pumping

mode, and offtake of generators, including their own use for process purposes, except for offtake not subject to the charge for distribution network use due to the location of metering.

The design average single-component price for electricity distribution for separately treated HV and MV levels, s_{dxei} in CZK/MWh, including the correction factor for electricity distribution, is calculated as an indicative price as follows:

$$s_{dxei} = \frac{s_{dxerci} \times RC_{CCxei}}{RQE_{CCxei}} + s_{dxepzi},$$

and for the LV level, s_{dLVei} in CZK/MWh, including the correction factor for electricity distribution, is calculated as an indicative price as follows:

$$s_{dLVei} = \frac{AAR_{dLVei}}{RDQE_{CCLVei}} + s_{dLVepzi},$$

where

RQE_{CCxei} [MWh] is the electricity quantity planned to be taken by customers at each of the voltage levels for the regulated year.

The charge for electricity distribution is comprised of a charge for reserved capacity, in CZK/MW/month, determined as the price for yearly reserved capacity divided by 12, and a charge for network use in the distribution system at a given voltage level, in CZK/MWh.

The prices for reserved capacity in CZK/MW/year and for network use in the distribution system in CZK/MWh at the HV level are calculated as

$$p_{dHVerci} = s_{dHVerci} + p_{etyci} \times \frac{YRC_{(ETS-HV)ei} + \sum_{k=1}^{n} YRC_{(HVk-HV)ei-2}}{RC_{CCHVei-2} + CTR_{HVi}},$$

$$p_{dHVepzi} = s_{dHVepzi} + p_{etsni} \times \frac{FE_{(ETS-HV)ei} + \sum_{k=1}^{n} FE_{(HVk-HV)ei}}{RDQE2_{HVi}}.$$

The prices for reserved capacity in CZK/MW/year and for network use in the distribution system in CZK/MWh at the MV level are calculated as

$$p_{dMVerci} = s_{dMVerci} + p_{dHVerci} \times \frac{YRC_{HVi}}{RC_{CCMVei-2} + CTR_{MVi}},$$

$$p_{dMVepzi} = s_{dMVepzi} + p_{dHVepzi} \times \frac{FE_{TRHVei}}{RDQE2_{MVi}},$$

where

i is the serial number of the regulated year,

$s_{dHVerci}$ and **$s_{dMVerci}$** [CZK/MW] are unit prices for yearly reserved capacities at the HV and MV levels for the regulated year,

p_{etyci} [CZK/MW] is the price for yearly reserved capacity in the transmission system calculated as per 16.2.1,

$YRC_{(ETS-HV)ei}$ [MW] is the reserved capacity in the transmission system for the relevant distribution system connected to the transmission system for the regulated year, calculated as per 16.2.1,

n is the number of adjacent distribution systems,

$YRC_{(HVk-HV)ei-2}$ [MW] is the reserved capacity balancing difference between the HV level of the k^{th} operator of the adjacent distribution system and of the relevant electricity distribution licence holder, who are connected to the transmission system, calculated as the average of actually metered monthly hourly maximums of power in the four winter months at the turn of years *i-2* and *i-1*,

$TC_{CCHVei-2}$ and **$TC_{CCMVei-2}$** [MW] are the total average capacities reserved by customers, including local distribution system operators (excluding export, except for electricity offtake by delineated island operations in other countries connected to the Czech grid, and excluding offtake of pumped-storage hydroelectric stations in the pumping mode, transit, and offtake of generators, except for second-category generators to cover consumption on the premises of the generating facility), at the HV and MV levels, reported by the DSO in year *i-2;* in justifiable cases, the determination of the total average reserved capacity of customers, including local distribution system operators and second-category generators, can be premised on the plans of reserved capacity reported by the DSO for year *i*,

CTR_{HVi} and **CTR_{MVi}** [MW] are the design values of the reserved capacity of transformation from HV and MV levels to a lower voltage level for the regulated year,

$s_{dHVepzi}$, $s_{dMVepzi}$, $s_{dLVepzi}$ [CZK/MWh] are unit prices for voltage level use for the regulated year,

p_{etsni} [CZK/MWh] is the price for network use in the transmission system, calculated as per 16.2.1,

$FE_{(ETS-HV)ei}$, FE_{TRHVei}, FE_{TRMVei} [MWh] are the electricity flows expected for the regulated year between the transmission system and the HV level in the distribution system, and, possibly, the expected electricity flows via transformation from the HV and MV levels to a lower voltage level; the flow in transformation between voltage levels (at input into transformation, i.e., including the losses in transformation between voltage levels) is considered; the losses in transformation from the transmission system to the HV level in the distribution system are included in losses in the transmission system,

$FE_{(HVk-MV)ei}$ [MWh] is the expected electricity balancing difference for the regulated year between the HV level of the k^{th} operator of the adjacent distribution system and the DSO, whose distribution systems are connected to the transmission system,

$RDQE2_{HVi}$, $RDQE2_{MVi}$, $RDQE2_{LVi}$ [MWh] are the expected electricity flows for the regulated year at output from a voltage level in the distribution system; they are offtake of customers connected to the given voltage level, flows into electricity transformation into lower voltage levels (except LV), offtake of local distribution

system operators, offtake by delineated island operations in other countries connected to the Czech grid, and offtake of pumped-storage hydroelectric stations in the pumping mode and offtake of generators, including their offtake for electricity generation or electricity and heat generation at the given voltage level.

For an electricity quantity unit, the average price for network use at the LV level, in CZK/MWh, is calculated as

$$p_{dLVepzi} = s_{dLVepzi} + p_{dMVepzi} \times \frac{FE_{TRMVei}}{RDQE2_{LVi}}.$$

At the LV level, the prices of electricity distribution provision to customers are calculated directly from the adjusted allowed revenues and the variable costs attributable to the LV level, including a part of the costs of higher voltage levels. The fixed component of the price, in CZK, is related to the planned yearly reserved capacity in A, expressed by the rated current of the main circuit breaker upstream of the electricity meter (the technical maximum) of customers for the regulated year; the variable component of the price, in CZK/MWh, is related to the electricity quantity taken, in MWh, for the regulated year, and can be split into rates in the high and low tariffs.

The single-component average price for electricity distribution per electricity quantity unit at the HV level, in CZK/MWh, is calculated as

$$p_{dHVei} = \frac{p_{dHVerci} \times RC_{CCHVei-2}}{RQE_{CCHVei}} + p_{dHVepzi}.$$

The single-component average price for electricity distribution per electricity quantity unit at the MV level, in CZK/MWh, is calculated as

$$p_{dMVei} = \frac{p_{dMVerci} \times RC_{CCMVei-2}}{RQE_{CCMVei}} + p_{dMVepzi},$$

where

RQE_{CCHVei} and **RQE_{CCMVei}** [MWh] are the yearly electricity quantities expected to be taken by customers at the HV and MV levels for the regulated year.

The single-component average price for electricity distribution per electricity quantity unit at the LV level, in CZK/MWh, is calculated as

$$p_{dLVei} = s_{dLVei} + \left(p_{dMVei} - p_{dMVepzi}\right) \times \frac{FE_{TRMVei}}{RDQE1_{LVi}} + p_{dMVepzi} \times \frac{FE_{TRMVei}}{RDQE2_{LVi}},$$

where

s_{dLVei} [CZK/MWh] is the price for electricity distribution at the LV level,

$RDQE1_{LVi}$ [MWh] is the electricity quantity for the regulated year expected to be taken from the LV level by customers, generators, and distribution system operators, and the electricity quantity taken by delineated island operations in other countries connected to the Czech grid.

The balance in the DSO's replacement and development fund, **RDF_{dei}**, for regulated year *i* is calculated as

$$RDF_{dei} = \sum_{t=2012}^{L+i} D\&A_{demskt-2} - \sum_{t=2012}^{L+i} CI_{deskt-2} \ ,$$

where

$D\&A_{demskt-2}$ [CZK] is the actual value of the D&A of the DSO's non-current tangible and intangible assets, which is acknowledged in regulation,

$CI_{deskt-2}$ [CZK] is the actual value of the DSO's capitalised investments reported under a different regulation6 for year *t-2*.

Overflows between the HV networks of the various regional distribution system operators are subject to the charge for electricity transmission. Overflows between the MV and LV networks of the various regional distribution system operators are subject to the regional DSO's charge for electricity distribution. When calculating the charge for electricity distribution, the costs of and revenues from the capacity reserved for electricity overflows are factored into the charge for reserved capacity, while the costs of and revenues from network use for electricity overflows are factored into the charge for network use.

No rounding is done during calculations.

Depending on the unit, the input values are rounded as follows:

a) CZK to whole Czech crowns,
b) MW and MWh to three decimal places,
c) CZK/MWh to two decimal places,
d) percentages, to three decimal places, with the exception of the rate of return on the regulatory asset base, which is rounded to two decimal places,
e) ratios, to five decimal places.

The resulting price for reserved capacity, in CZK/MW/month, is rounded to whole crowns; the resulting price for power input by the rated current of the main circuit breaker upstream of the electricity meter, in CZK/month, is rounded to whole crowns; the resulting price for power input by the rated current of the main circuit breaker upstream of the electricity meter, in CZK/A/month, is rounded to two decimal places.

The resulting price for network use in the distribution system, in CZK/MWh, or the resulting price for the distributed electricity quantity, in CZK/MWh, is rounded to two decimal places.

16.2.4. Procedure for determining the charge for the mandatory buyer's activity

The charge for the mandatory buyer's activity, p_{MBi} in CZK/MWh, is calculated as

$$p_{MBi} = \frac{AAR_{MBi}}{PQE_{MBi}},$$

where

i is the serial number of the regulated year,

AAR_{MBi} [CZK] is the adjusted allowed revenues for the mandatory buyer's activity, calculated as

$$AAR_{MBi} = AC_{MBi} + D\&A_{MBpli} + CIMB_{MBi} + FC_{MBi} + CF_{MBi} + MF_{MBi},$$

where

AC_{MBi} [CZK] is the mandatory buyer's planned administrative costs incurred in support for electricity from renewables, set by the Office,

$D\&A_{MBpli}$ [CZK] is the planned value of the D&A of the mandatory buyer's non-current tangible and intangible assets serving for the mandatory buyer's activity, set by the Office for regulated year *i*,

$CIMB_{MBi}$ [CZK] is the mandatory buyer's planned extra costs of imbalances associated with electricity purchase from renewables at feed-in tariffs in regulated year *i*, set by the Office on the basis of the actual extra costs of imbalances in the last fiscally closed calendar year preceding the regulated year, adjusted on the basis of the planned evolution of the installed capacity of the various types of renewable sources supported through feed-in tariffs and the electricity quantity planned to be generated from renewable sources and bought by the mandatory buyer,

FC_{MBi} [CZK] is the mandatory buyer's planned costs incurred in support for electricity from renewables, set by the Office as the product of the average actual financial cost per MWh of electricity bought by the mandatory buyer for year *i-2* times the electricity quantity planned to be generated from renewables and bought by the mandatory buyer in regulated year *i*,

CF_{MBi} [CZK] is the correction factor for the mandatory buyer's activity calculated as per 16.2.6,

MF_{MBi} [CZK] is the market factor for the mandatory buyer's activity, set by the Office,

PQE_{MBi} [MWh] is the quantity of electricity from renewables planned to be bought by the mandatory buyer in regulated year *i*, set by the Office.

No rounding is done during calculations. Depending on the unit, the input values are rounded as follows:

a) CZK to whole Czech crowns,
b) MWh to three decimal places.

The resulting price for the mandatory buyer's activity, in CZK/MWh, is rounded to two decimal places.

16.2.5. Procedure for determining the price component for aid to electricity from supported energy sources

The price component for aid to electricity from supported energy sources, p_{vozki} in CZK/MW/month and in CZK/A/month, is calculated as

$$p_{vozki} = \frac{\sum_{j=1}^{n} TC_{MBij} + TC_{MOtzbei} - \left(P_{fiski} - P_{fiskti} + CFP_{fiskti}\right)}{RP_i} ,$$

where

i is the serial number of the regulated year,

n is the number of mandatory buyers,

j is the serial number of the mandatory buyer,

$\mathbf{TC_{MBij}}$ [CZK] is the j^{th} mandatory buyer's total planned costs in year *i* calculated as

$$TC_{MBij} = C_{MBij} + C_{MBozij} ,$$

where

$\mathbf{C_{MBij}}$ [CZK] is the planned costs of the j^{th} mandatory buyer's activity, calculated as per 16.2.4,

$\mathbf{C_{MBozij}}$ [CZK] is the planned costs incurred in the payment of aid to electricity from renewables by the j^{th} mandatory buyer through feed-in tariffs, which this mandatory buyer is to bill to the market operator; the costs are calculated as

$$C_{MBozij} = \sum_{s=1}^{m} \left(p_{fitozis} - p_i\right) \times PQE_{MBozijs} ,$$

where

m is the number of the types of renewable sources aided through feed-in tariffs,

s is the type of renewable sources,

$\mathbf{p_{fitozis}}$ [CZK/MWh] is the feed-in tariff for electricity from the s^{th} type of renewable sources for regulated year *i*, set by the Office,

$\mathbf{p_i}$ [CZK/MWh] is the expected average price of electricity in the day-ahead market in year *i*, set by the Office on the basis of the average of hourly prices of electrical energy in the day-ahead market organised by the market operator. The predictions follow different algorithms for facilities generating power from solar energy and for those generating power from other types of renewables. The input data for predicting the price of electrical energy for regulated year *i* is the data from trading on the day-ahead market organised by the market operator, OTE, a.s., from October of year *i-2* to September of year *i-1* (the

reference period). The price of electrical energy from facilities generating power from solar energy is determined as the arithmetic average of the hourly prices in the 'sunshine hours' of the day. Sunshine hours of the day are defined as the hours when the Czech Republic experiences the strongest irradiance and facilities of this type generate the largest part of the electricity they generate. The prices of electrical energy for facilities generating power from other types of renewables are determined on the basis of the simple arithmetic average of the prices for all trading hours over the reference period, since electricity generation in those facilities does not depend on the time of the day.

$PQE_{MBozijs}$ [MWh] is the planned quantity of aided electricity from the s^{th} type of renewable sources, bought by the j^{th} mandatory buyer at feed-in tariffs for regulated year *i*, set by the Office.

In the case of aid to low-rate and high-rate operation, the value of the costs for the low rate and the value of the costs for the high rate are calculated separately and the total cost then equals the sum of the two calculated values.

TC_{MOzbei} [CZK] is the market operator's total planned costs incurred in aid to electricity in regulated year *i*, which may also include the costs of aid to electricity in the case of generating facilities that have not received a notification of the European Commission's positive decision, provided that it is expected that the European Commission will actually notify its positive decision. These costs are calculated as

$$TC_{MOzbei} = C_{MOzbei} + CF_{MOzbei} ,$$

where

C_{MOzbei} [CZK] is the market operator's planned costs incurred in the payment of aid to electricity generated in regulated year *i*, which are calculated as

$$C_{MOzbei} = C_{hzbi} + C_{rzbi} + C_{ki} + C_{dzi} ,$$

where

C_{hzbi} [CZK] is the market operator's planned costs incurred in the payment of aid to electricity generation from RES, in the form of hourly green premiums, which are calculated as

$$C_{hzbi} = \sum_{s=1}^{mp} \sum_{h=1}^{p} c_{ppzbhis} \times PQE_{pzbhis} ,$$

where

mp is the number of the types of renewables with aid in the form of hourly green premiums,

$c_{ppzbhis}$ [CZK/MWh] is the expected amount of the hourly green premium for electricity generated by the s^{th} type of renewables in hour *h* for regulated year *i*, which is calculated as

$$c_{ppzbhis} = \left(p_{fitozis} - p_{predhi}\right) + p_{pimbis} ,$$

where

$p_{fitozis}$ [CZK/MWh] is the feed-in tariff for electricity from the s^{th} type of renewables, set by the Office,

p_{predhi} [CZK/MWh] is the expected hourly price of electricity on the day-ahead market in hour *h* in regulated year *i*, set by the Office,

p_{pimbis} [CZK/MWh] is the average expected price of the imbalance of the s^{th} type of renewables, set by the Office,

PQE_{pzbhis} [MWh] is the planned electricity quantity from the s^{th} type of renewables in hour *h* for regulated year *i*, to be aided in the form of hourly green premiums, set by the Office,

C_{rzbi} [CZK] is the market operator' planned costs incurred in the payment of aid to electricity generation from renewables in the form of annual green premiums, calculated as

$$C_{rzbi} = \sum_{s=1}^{o} c_{rzbis} \times PQE_{rzbis} ,$$

where

o is the number of the types of renewables receiving aid through annual green premiums,

c_{rzbis} [CZK/MWh] is the annual green premium for electricity generated from the s^{th} type of renewables for regulated year *i*, set by the Office,

PQE_{rzbis} [MWh] is the planned electricity quantity from the s^{th} type of renewables for regulated year *i*, aided in the form of annual green premiums, set by the Office.

In the case of double-rate support, the value of the costs for the low rate and the value of the costs for the high rate are calculated separately and the total cost then equals the sum of the two calculated values.

C_{ki} [CZK] is the market operator's planned costs incurred in the payment of aid to electricity generated from high-efficiency combined heat & power generation, calculated as

$$C_{ki} = \sum_{r=1}^{u} c_{pKir} \times PQE_{Kir} ,$$

where

u is the number of high-efficiency combined heat and power generation categories,

r is a high-efficiency combined heat & power generation category,

$\mathbf{c_{pKir}}$ [CZK/MWh] is the green premium for electricity generated by the r^{th} high-efficiency combined heat & power generation category for regulated year *i*, set by the Office,

$\mathbf{PQE_{Kir}}$ [MWh] is the planned aided electricity quantity from the r^{th} high-efficiency combined heat & power generation category for regulated year *i*, set by the Office,

$\mathbf{C_{dzi}}$ [CZK] is the market operator's planned costs incurred in the payment of aid to electricity generated from secondary sources, calculated as

$$C_{dzi} = \sum_{q=1}^{v} c_{pDziq} \times PQE_{Diq} ,$$

where

v is the number of categories of secondary sources,

q is a secondary source category,

$\mathbf{c_{pDziq}}$ [CZK/MWh] is the green premium for electricity generated by the q^{th} secondary source category for regulated year *i*, set by the Office,

$\mathbf{PQE_{Diq}}$ [MWh] is the planned aided electricity quantity from the q^{th} secondary source category for regulated year *i*, set by the Office,

$\mathbf{CF_{MOzbei}}$ [CZK] is the market operator's correction factor related to aid to electricity from renewable and secondary sources and high-efficiency combined heat & power generation, calculated as per 16.2.6,

$\mathbf{P_{fiski}}$ [CZK] is the national budget's funds for subsidies to the market operator for paying the component of the price for distribution system service and the component of the price for the transmission system service intended for aid to electricity, and for paying operating aid to heat and compensation for electricity consumed by customers in the Czech Republic and generated from renewables in another EU member state, in a contracting party to the Agreement on the European Economic Area or in The Swiss Confederation, for year *i*, set by a government edict,

$\mathbf{P_{fiskti}}$ [CZK] is the national budget's planned funds for subsidies to the market operator for paying the costs incurred in operating aid to heat for year *i*, and also for compensation for electricity consumed by customers in the Czech Republic and generated from renewables in another EU member state, in a contracting party to the Agreement on the European Economic Area or in The Swiss Confederation under a different regulation[13], set by the Office, and for paying the costs incurred in the planned aid to heat from biogas,

[13] Section 28a of Act No 165/2012 on Supported Energy Sources and Amending Certain Laws, as amended

CFP_{fiskti} [CZK] is the correction factor for the national budget's funds for subsidies to the market operator for paying operating aid to heat, including that from biogas, and for compensation for electricity consumed by customers in the Czech Republic and generated from renewables in another EU member state, in a contracting party to the Agreement on the European Economic Area or in The Swiss Confederation under a different regulation[13], set by the Office as the difference between the national budget's planned funds for subsidies for the payment of the costs incurred in operating aid to heat, including that from biogas, and for compensation for electricity, on the one hand, and, on the other hand, the sum of actually paid operating aid to heat, including that from biogas, and compensation for electricity in year *i-2* and the market operator's actual costs incurred in paying operating aid to heat, including that from biogas, in year *i-2*,

RP_i [MW] is the planned reserved input power for the regulated year, subject to the price component for aid to electricity from supported energy sources.

The price resulting from the above algorithm is then run through iterations with a view to equalising the planned revenues from this price, taking into account the cap on the customer's and DSO's payments under a different regulation[14], with the planned costs.

The price component for aid to electricity from supported energy sources, in CZK/MW/month, is then converted to a price in CZK/A/month using the formula

$$p_{vozkiA} = \frac{p_{vozkiMW} \times 230}{1{,}000{,}000} ,$$

where

p_{vozkiA} [CZK/A/month] is the price component for aid to electricity from supported energy sources for supply points and delivery points connected to the distribution system at the LV level for regulated year *i*,

$p_{vozkiMW}$ [CZK/MW/month] is the price component for aid to electricity from supported energy sources for supply points and delivery points connected to the transmission system or a distribution system at the HV and MV levels for regulated year *i*.

Where the calculated price component for aid to electricity from supported energy sources is negative, the default price component for aid to electricity from supported energy sources equals zero.

No rounding is done during calculations.

Depending on the unit, the input values are rounded as follows:

a) CZK to whole Czech crowns,
b) MW and MWh to three decimal places,
c) CZK/MWh to two decimal places.

[14] Section 28 (5) and (6) of Act No 165/2012 on Supported Energy Sources and Amending Certain Laws, as amended

The resulting price in CZK/MW/month and the resulting price in CZK/A/month are rounded to two decimal places.

16.2.6. Procedure for determining the correction factors in the electricity industry

Correction factors for the last two years of the regulatory period beginning on 1 January 2016 and ending on 31 December 2020 were calculated in accordance with the annex to the ERO's price decision laying down the charge for the related services in the electricity industry for the respective regulated year for which the correction factors were calculated. Correction factors under the preceding sentence also mean corrections to values, which are not named as correction factors but their nature renders them correction factors (for example, correction by revenues from connection, from exceedance of reserved capacity and reserved power input and output, etc.).

A) Correction factor for electricity transmission

(1) Correction factor for the TSO's D&A, **CF_{etoi}** in CZK, reflecting the difference between the actual and planned D&A of non-current tangible and intangible assets, including the D&A of assets financed from a subsidy, in year *i-2* is calculated as follows:

if

$$\frac{D\&A_{etpli-2}}{D\&A_{etski-2}} > 1.05\ ,$$

then

$$CF_{etoi} = CF_{etoPPIi} + CF_{etoRRi} - CF_{etoPAi} \times \frac{PPI_{i-2}}{100} \times \frac{PPI_{i-1}}{100}$$

for i≥3,

where

$CF_{etoPPIi}$ [CZK] is the portion of the correction factor for the TSO's D&A related to that part of the planned D&A, which does not exceed by more than 5% the value of the actual D&A of the TSO's non-current tangible assets, including assets financed from a subsidy, calculated as

$$CF_{etoPPIi} = (D\&A_{etski-2} - 1.05 \times D\&A_{etski-2}) \times \frac{PPI_{i-2}}{100} \times \frac{PPI_{i-1}}{100}$$

for i≥3,

where

$D\&A_{etski-2}$ [CZK] is the actual value of the D&A of the TSO's non-current tangible and intangible assets, including the D&A of assets financed from a subsidy, serving for providing electricity transmission services for year *i-2*; the D&A of non-current tangible and intangible assets financed from a subsidy for the TSO can be reduced by the Office so as to prevent the public aid from exceeding the maximum allowed level,

PPI_{i-2} [%] is the producer price index set on the basis of the ratio of the rolling averages of the basic producer price indices over the last 12 months and over the preceding 12 months, published by the Czech Statistical Office in the table "Producer Price Index" (code 011044) for April of year *i-2*,

PPI_{i-1} [%]is the producer price index set on the basis of the ratio of the rolling averages of the basic producer price indices over the last 12 months and over the preceding 12 months, published by the Czech Statistical Office in the table "Producer Price Index" (code 011044) for April of year *i-1*,

CF_{etoRRi} [CZK] is the portion of the correction factor of the TSO's D&A related to that part of the planned D&A, which exceeds by more than 5% the value of the actual D&A of the TSO's non-current tangible assets, including assets financed from a subsidy, calculated as

$$CF_{etoRRi} = \left(1.05 \times D\&A_{etski-2} - D\&A_{etpli-2}\right) \times \frac{100+RR_{eti-2}}{100} \times \frac{100+RR_{eti-1}}{100},$$

for i≥3,

where

$D\&A_{etpli-2}$ [CZK] is the planned value of the D&A of the TSO's non-current tangible and intangible assets, including the D&A of assets financed from a subsidy, serving for providing electricity transmission services for year *i-2*; the D&A of non-current tangible and intangible assets financed from a subsidy for the TSO can be reduced by the Office so as to prevent the public aid from exceeding the maximum allowed level,

RR_{eti-2} [%] is the rate of return on the regulatory asset base for the electricity transmission licence holder for the regulated year, set by the Office using the method of weighted average costs of capital before taxation for year *i-2*,

RR_{eti-1} [%] is the rate of return on the regulatory asset base for the electricity transmission licence holder for the regulated year, set by the Office using the method of weighted average costs of capital before taxation for year *i-1*,

CF_{etoRAi} [CZK] is the TSO's correction factor that reflects the allocation of a part of revenues from auctions, including the infrastructure part of ITC, and the system development fund to D&A,

if

$$\frac{D\&A_{etpli-2}}{D\&A_{etski-2}} \leq 1.05,$$

then

$$CF_{etoi} = \left(D\&A_{etski-2} - D\&A_{etpli-2} - CF_{etoRAi}\right) \times \frac{PPI_{i-2}}{100} \times \frac{PPI_{i-1}}{100},$$

for i≥3.

(2) The TSO's profit correction factor, **CF_{etzi}** in CZK, reflecting the difference in profit, determined as the difference between the actual value of the regulatory asset base and the planned value of the regulatory asset base in year *t-2*, applied from year *i ≥ 3*, is calculated as follows:

$RAB_{etplt-2}$ [CZK] is the value of the TSO's regulatory asset base serving for providing electricity transmission, entering the calculation of profit in year *t-2*,

$RAB_{etskt-2}$ [CZK] is the actual value of the TSO's regulatory asset base serving for providing electricity transmission in year *t-2*, calculated as

$$RAB_{etskt-2} = RAB_{pe0} + \sum_{t=L}^{L+i-2} \Delta RAB_{etskt-2} ,$$

where

RAB_{et0} [CZK] is the initial value of the regulatory asset base determined as the actual book value of the TSO's assets serving for providing electricity transmission, reported under the public notice on regulatory reporting6 for year *L-1*,

$\Delta RAB_{etskt-2}$ [CZK] is the actual year-on-year change in the value of the TSO's regulatory asset base serving for providing electricity transmission in year *t-2*, calculated as

$$\Delta RAB_{etskt-2} = CI_{etskt-2} + CTA_{etskt-2} - AD_{etskt-2} - D\&A_{etmskt-2} ,$$

where

$CI_{etskt-2}$ [CZK] is the actual value of the TSO's capitalised investments for year *t-2*,

$CTA_{etskt-2}$ [CZK] is the actual value of the assets acquired by company transformation, approved by the Office for year *t-2*,

$AD_{etskt-2}$ [CZK] is the actual value of the TSO's asset disposals for year *t-2*,

$D\&A_{etmskt-2}$ [CZK] is the actual value of the D&A of the TSO's non-current tangible and intangible assets serving for providing the electricity transmission service for regulated year *t-2*,

$$\Delta RAB_{etplt-2} = CI_{etplt-2} + CTA_{etplt-2} - AD_{etplt-2} - D\&A_{etmplt-2} ,$$

where

$CI_{etplt-2}$ [CZK] is the planned value of the TSO's capitalised investments for year *t-2*,

$CTA_{etplt-2}$ [CZK] is the planned value of the assets acquired by company transformation, approved by the Office for year *t-2*,

$AD_{etplt-2}$ [CZK] is the planned value of the TSO's asset disposals for year *t-2*,

$D\&A_{etmplt-2}$ [CZK] is the planned value of the D&A of the TSO's non-current tangible and intangible assets serving for providing the electricity transmission service for regulated year *t-2*,

a) if

$$\Delta RAB_{etskt-2} \leq 0 \; and \; simultaneously \; \Delta RAB_{etplt-2} > 0.95 \times \Delta RAB_{etskt-2}$$

then

$$CF_{etzi} = CF_{etzPPIi} + CF_{etzRRi} ,$$

where

$CF_{etzPPIi}$ [CZK] is the portion of the TSO's profit correction factor for the part of the planned value of the regulatory asset base, which does not exceed the actual value of the TSO's regulatory asset base by more than 5%, calculated as

$$CF_{etzPPI} = 0.05 \times \Delta RAB_{etskt-2} \times \frac{RAB_{etskt-2} - RAB_{etplt-2}}{\Delta RAB_{etskt-2} - \Delta RAB_{etplt-2}} \times \frac{RR_{eti-2}}{100} \times \frac{PPI_{i-2}}{100} \times \frac{PPI_{i-1}}{100},$$

CF_{etzRRi} [CZK] is the portion of the TSO's profit correction factor for the part of the planned value of the regulatory asset base, which exceeds the actual value of the TSO's regulatory asset base by more than 5%, calculated as

$$CF_{etzRRi} = \left(0.95 \times \Delta RAB_{etskt-2} - \Delta RAB_{etplt-2}\right) \times \frac{RAB_{etskt-2} - RAB_{etplt-2}}{\Delta RAB_{etskt-2} - \Delta RAB_{etplt-2}} \times \frac{RR_{eti-2}}{100} \times \frac{100 + RR_{eti-2}}{100} \times \frac{100 + RR_{eti-1}}{100},$$

b) if

$$\Delta RAB_{etskt-2} > 0 \; and \; simultaneously \; \Delta RAB_{etplt-2} > 1.05 \times \Delta RAB_{etskt-2}$$

then

$$CF_{etzi} = CF_{etzPPIi} + CF_{etzRRi},$$

$$CF_{etzPPIi} = -0.05 \times \Delta RAB_{etskt-2} \times \frac{RAB_{etskt-2} - RAB_{etplt-2}}{\Delta RAB_{etskt-2} - \Delta RAB_{etplt-2}} \times \frac{RR_{eti-2}}{100} \times \frac{PPI_{i-2}}{100} \times \frac{PPI_{i-1}}{100},$$

$$CF_{etzRRi} = \left(1.05 \times \Delta RAB_{etskt-2} - \Delta RAB_{etplt-2}\right) \times \frac{RAB_{etskt-2} - RAB_{etplt-2}}{\Delta RAB_{etskt-2} - \Delta RAB_{etplt-2}} \times \frac{RR_{eti-2}}{100} \times \frac{100 + RR_{eti-2}}{100} \times \frac{100 + RR_{eti-1}}{100},$$

c) in other cases

$$CF_{etzi} = \left(RAB_{etskt-2} - RAB_{etplt-2}\right) \times \frac{RR_{eti-2}}{100} \times \frac{PPI_{i-2}}{100} \times \frac{PPI_{i-1}}{100}$$

for i≥3.

(3) The profit correction factor from the value of the TSO's investments in progress, **CF_{etnii}** in CZK, reflecting the cumulated difference in profit due to the difference between the actual and planned values of investments in progress in year *i-2*, applied from year *i ≥ 3*.

$$CF_{penii} = \left(NI_{etski-2} - NI_{etpli-2}\right) \times \frac{RR_{eti-2}}{100} \times \frac{PPI_{i-2}}{100} \times \frac{PPI_{i-1}}{100}$$

for i≥3,

where

$NI_{etski-2}$ [CZK] is the actual cumulated value of the TSO's investments in progress, which were approved by the Office in year *i-2*,

$NI_{etpli-2}$ [CZK] is the planned cumulated value of the TSO's investments in progress, which were approved by the Office in year *i-2*.

(4) The TSO's correction factor for electricity transmission, **CF_{eti}**

a) The TSO's correction factor for electricity transmission **CF_{eti}** is calculated as the product of the producer price indices determined for years *i-2* and *i-1* times the difference between the adjusted allowed revenues for year *i-2* and actual revenues from electricity transmission. Actual revenues from electricity transmission are calculated as the sum of revenues from reserved capacity, exceedance of reserved capacity, and exceedance of reserved power input and output from and to regional distribution system operators, customers, and second-category electricity generators or first-category electricity generators in the case of a long-term outage of the power generating facility. The correction factor also includes any other revenues and costs deriving from the charges set in the ERO price decision laying down the prices for related services in the electricity industry, unless they are recognised in the cost base or in other correction factors, or other revenues under a different regulation[15] concerning Q Management,

b) The TSO's correction factor for electricity transmission under a) is added to the TSO's adjusted allowed revenues for electricity transmission.

(5) Correction factor for other revenues, **CF_{etosti}**

a) The correction factor for the TSO's other revenues is calculated as the product of the producer price index determined for year *i-1*, and then *i-2*, times the sum of the book value of the account of the TSO's proceeds from connection on an accrual basis as at 31 December in year *i-2*, proceeds from the sale of non-current assets and material hitherto serving for the licensed activities, determined as 60% of the positive difference between the proceeds from the sale of non-current assets and material and the book values of the sold non-current assets and material reported by the TSO in year *i*-2, and the basic value $V1_{etpi-2}$ for year *i-2* in case that its value is negative;

b) The correction factor for other revenues under a) is deducted from the TSO's adjusted allowed revenues from electricity transmission.

(6) The correction factor for use of the transmission system networks, **CF_{etsni}** in CZK, is calculated as follows:

a) The correction factor for network use in the transmission system **CF_{etsni}** is calculated as the product of the producer price indices determined for years *i-2* and *i-1* times the sum of

1. the difference between the cost of electrical energy bought to cover losses in the transmission system, including related costs set out in point 5.1.3 of the Price Control Principles, and the actual revenues from network use in the transmission system adjusted by the correction factor for ETS use for year *i-4*,

[15] Public notice 16/2016 on the Conditions of Connection to the Electrical Grid

2. the incentive component of profit subject to the conditions for the grant thereof set out in point 5.1.3 of the Price Control Principles on the methodology for pricing electrical energy to cover losses in the transmission system, and
3. the balance of the costs and revenues (compensation and contributions) for losses from ITC mechanism clearing5, including the operating costs related to the ITC mechanism clearing5,

b) the correction factor for use of transmission system networks under a) is added to the variable eligible costs of electricity bought to cover losses in the transmission system for the regulated year.

B) Correction factors for system services

(1) Correction factor for D&A for system service provision, **CF_{ssoi}** in CZK, is determined as

$$CF_{ssoi} = \left(D\&A_{ssski-2} - D\&A_{sspli-2}\right) \times \frac{PPI_{i-2}}{100} \times \frac{PPI_{i-1}}{100},$$

for i≥3,

where

$D\&A_{ssski-2}$ [CZK] is the actual value of the D&A of non-current tangible and intangible assets serving for system service provision in year *i-2;* the value of the D&A of the non-current tangible and intangible assets financed from a subsidy for the TSO can be reduced by the Office so as to prevent the public aid from exceeding the maximum allowed level,

$D\&A_{sspli-2}$ [CZK] is the planned value of the D&A of non-current tangible and intangible assets serving for system service provision in year *i-2*; the value of the D&A of the non-current tangible and intangible assets financed from a subsidy for the TSO can be reduced by the Office so as to prevent the public aid from exceeding the maximum allowed level,

PPI_{i-2} [%] is the producer price index set on the basis of the ratio of the rolling averages of the basic producer price indices over the last 12 months and over the preceding 12 months, published by the Czech Statistical Office in the table "Producer Price Index" (code 011044) for April of year *i-2*,

PPI_{i-1} [%] is the producer price index set on the basis of the ratio of the rolling averages of the basic producer price indices over the last 12 months and over the preceding 12 months, published by the Czech Statistical Office in the table "Producer Price Index" (code 011044) for April of year *i-1*.

(2) The correction factor for system service provision, **CF_{ssi}** in CZK, is calculated as the product of the producer price indices determined for years *i-2* and *i-1* times the difference between the total actual costs and total actual revenues for system services in year *i-2*.

The total actual costs of system services are the sum of

a) the actual costs of ancillary services (BS and non-frequency services),
b) the actual costs of remedial actions, which were not covered from the balance of revenues and costs related to congestion or from the system development fund,

c) the actual costs of balancing energy from abroad,
d) the actual costs of the TSO's imbalances paid to the market operator,
e) the actual costs of settling the differences resulting from settling the costs of imbalances,
f) the actual costs of *ad hoc* supply from and to abroad as part of the cooperation between TSOs,
g) the actual compensation for electricity not taken during grid operation control under a different regulation[12],
h) ERO-allowed costs and D&A related to the organisation of trade in ancillary and system services in year *i-2*,
i) ERO-allowed profit in year *i-2*,
j) the correction factor for system service provision from year *i-4*.

The total actual revenues from system services are the sum of

a) the total revenues from system services in year *i-2*,
b) revenues from remedial actions,
c) revenues from balancing energy sent abroad,
d) revenues from the TSO's imbalances paid to the market operator,
e) revenues from settling the differences resulting from settling the costs of imbalances,
f) revenues from *ad hoc* supply from and to abroad as part of the cooperation between TSOs,
g) other revenues related to system service provision, such as fines and penalties levied as part of the organising of the ancillary service market.

The correction factor $\mathbf{CF_{ssi}}$ is added to the TSO's adjusted allowed revenues from system service provision for the regulated year.

C) Correction factor for electricity distribution

(1) Correction factor for the DSO's D&A, $\mathbf{CF_{dxeoi}}$ in CZK, at each of the voltage levels, reflecting the difference between the actual and planned D&A of non-current tangible and intangible assets, including the D&A of assets financed from a subsidy, in year *i-2* is calculated as

$$CF_{dxeoi} = CF_{deoi} \times w_{dxei-2}\,,$$

where

if

$$\frac{D\&A_{depli-2}}{D\&A_{deski-2}} > 1.05$$

then

$$CF_{deoi} = CF_{deoPPIi} + CF_{deoRRi}\,,$$

for i≥3,

where

$\mathbf{CF_{deoPPIi}}$ [CZK] is the portion of the correction factor of the DSO's planned D&A that does not exceed by more than 5% the value of the actual D&A of the DSO's non-current tangible assets, including assets financed from a subsidy, calculated as

$$CF_{deoPPIi} = (D\&A_{deski-2} - 1.05 \times D\&A_{deski-2}) \times \frac{PPI_{i-2}}{100} \times \frac{PPI_{i-1}}{100},$$

for i≥3,

where

$D\&A_{deski-2}$ [CZK] is the actual value of the D&A of the DSO's non-current tangible and intangible assets, including the D&A of assets financed from a subsidy, serving for providing electricity distribution for year *i-2*; the D&A of non-current tangible and intangible assets financed from a subsidy for the DSO can be reduced by the Office so as to prevent the public aid from exceeding the maximum allowed level,

PPI_{i-2} [%] is the producer price index set on the basis of the ratio of the rolling averages of the basic producer price indices over the last 12 months and over the preceding 12 months, published by the Czech Statistical Office in the table "Producer Price Index" (code 011044) for April of year *i-2*,

PPI_{i-1} [%] is the producer price index set on the basis of the ratio of the rolling averages of the basic producer price indices over the last 12 months and over the preceding 12 months, published by the Czech Statistical Office in the table "Producer Price Index" (code 011044) for April of year *i-1*,

CF_{deoRRi} [CZK] is the portion of the correction factor of the DSO's D&A related to the part of the planned D&A, which exceeds by more than 5% the value of the actual D&A of the TSO's non-current tangible assets, including assets financed from a subsidy, calculated as

$$CF_{deoRRi} = \left(1.05 \times D\&A_{deski-2} - D\&A_{depli-2}\right) \times \frac{100 + RR_{dei-2}}{100} \times \frac{100 + RR_{dei-1}}{100}$$

for i≥3,

where

$D\&A_{depli-2}$ [CZK] is the planned value of the D&A of the DSO's non-current tangible and intangible assets, including the D&A of assets financed from a subsidy, serving for providing electricity transmission services for year *i-2*; the D&A of non-current tangible and intangible assets financed from a subsidy for the TSO can be reduced by the Office so as to prevent the public aid from exceeding the maximum allowed level,

RR_{dei-2} [%] is the rate of return on the regulatory asset base for the electricity distribution licence holders, set by the Office using the method of weighted average costs of capital before taxation for year *i-2*,

RR_{dei-1} [%] is the rate of return on the regulatory asset base for the electricity distribution licence holders, set by the Office using the method of weighted average costs of capital before taxation for year *i-1*,

if

$$\frac{D\&A_{depli-2}}{D\&A_{deski-2}} \leq 1.05$$

then

$$CF_{deoi} = \left(D\&A_{deski-2} - D\&A_{depli-2}\right) \times \frac{PPI_{i-2}}{100} \times \frac{PPI_{i-1}}{100},$$

for i≥3,

where

w_{dxei-2} [-] is the weight of each of the voltage levels for the actual book values of assets in year *i-2*, calculated as the ratio of the actual book values of assets at each of the voltage levels to the total actual book value of assets in year *i-2.*

(2) Correction faktor for the regulatory asset base, **CF_{deRABt}** in CZK, reflecting the difference between the actual and planned changes in the value of the DSO's regulatory asset base in year *t-2*, is – in the case where the planned revaluation coefficient k_{deplt} set for the DSO for 2020 was lower than one – applied from year *t = L + i*, *i ≥ 3*, using the formula

$$CF_{deRABt} = (CI_{deskt-2} + CTA_{deskt-2} - AD_{deskt-2} - D\&A_{demskt-2}) - \left(CI_{deplt-2} + CTA_{deplt-2} - AD_{deplt-2} - D\&A_{demplt-2}\right),$$

where

$CI_{deskt-2}$ [CZK] is the actual value of the DSO's capitalised investments for year *t-2*,

$CTA_{deskt-2}$ [CZK] is the actual value of the assets acquired by company transformation, approved by the Office for year *t-2*,

$AD_{deskt-2}$ [CZK] is the actual value of the DSO's asset disposals for year *t-2*,

$D\&A_{demskt-2}$ [CZK] is the actual value of the D&A of the DSO's non-current tangible and intangible assets serving for electricity distribution for year *t-2*,

$CI_{deplt-2}$ [CZK] is the planned value of the DSO's capitalised investments for year *t-2*,

$CTA_{deplt-2}$ [CZK] is the planned value of the assets acquired by company transformation, approved by the Office for year *t-2*,

$AD_{deplt-2}$ [CZK] is the planned value of the DSO's asset disposals for year *t-2*,

$D\&A_{demplt-2}$ [CZK] is the planned value of the D&A of the DSO's non-current tangible and intangible assets serving for electricity distribution for year *t-2*.

(3) The DSO's profit correction factor, **CF_{dxezi}** in CZK, at each of the voltage levels, reflecting the difference in profit which is determined as the difference between the actual and planned changes in the value of the regulatory asset base in year *i-2*, is – in the case where the planned revaluation coefficient k_{deplt} set for the DSO for 2020 was lower than one – applied from year *i ≥ 3* using the formula

$$CF_{dxezi} = CF_{dezi} \times w_{dxei-2},$$

where

CF_{dezi} [CZK] is the DSO's profit correction factor which reflects the difference in profit which is determined as the difference between the actual and planned changes in the value of the regulatory asset base in year *i-2*, applied from year *i ≥ 3*,

w_{dxei-2} [-] is the weight of each of the voltage levels for the actual book values of assets in year *i-2*, calculated as the ratio of the actual book values of assets at each of the voltage levels to the total actual book value of assets in year *i-2*,

$\Delta RAB_{deplt-2}$ [CZK] is the planned year-on-year change in the value of the DSO's regulatory asset base serving for electricity distribution in year *t-2*, calculated as

$$\Delta RAB_{deplt-2} = CI_{deplt-2} + CTA_{deplt-2} - AD_{deplt-2} - D\&A_{demplt-2},$$

$\Delta RAB_{deskt-2}$ [CZK] is the actual year-on-year change in the value of the DSO's regulatory asset base serving for electricity distribution in year *t-2*, calculated as

$$\Delta RAB_{deskt-2} = CI_{deskt-2} + CTA_{deskt-2} - AD_{deskt-2} - D\&A_{demskt-2},$$

a) if

$$\Delta RAB_{deskt-2} < 0 \; and \; simultanously \; \Delta RAB_{deplt-2} > 0.95 \times \Delta RAB_{deskt-2}$$

then

$$CF_{dezi} = CF_{dezPPIi} + CF_{dezRRi},$$

where

$CF_{dezPPIi}$ [CZK] is the portion of the DSO's profit correction factor for the part of the planned value of the regulatory asset base, which does not exceed the actual value of the DSO's regulatory asset base by more than 5%, calculated as

$$CF_{dezPPI} = 0.05 \times \Delta RAB_{deskt-2} \times \frac{RR_{dei-2}}{100} \times \frac{PPI_{i-2}}{100} \times \frac{PPI_{i-1}}{100} + 0.05 \times \Delta RAB_{deskt-2} \times \frac{RR_{dei-1}}{100} \times \frac{PPI_{i-1}}{100},$$

CF_{dezRRi} [CZK] is the portion of the DSO's profit correction factor for the part of the planned value of the regulatory asset base, which exceeds the actual value of the DSO's regulatory asset base by more than 5%, calculated as

$$CF_{dezRRi} = \left(0.95 \times \Delta RAB_{deskt-2} - \Delta RAB_{deplt-2}\right) \times \frac{RR_{dei-2}}{100} \times \frac{100 + RR_{dei-2}}{100} \times \frac{100 + RR_{dei-1}}{100} + \left(0.95 \times \Delta RAB_{deskt-2} - \Delta RAB_{deplt-2}\right) \times \frac{RR_{dei-1}}{100} \times \frac{100 + RR_{dei-1}}{100},$$

b) if

$$\Delta RAB_{deskt-2} > 0 \; and \; simultaneously \; \Delta RAB_{deplt-2} > 1.05 \times \Delta RAB_{deskt-2},$$

then

$$CF_{dezi} = CF_{dezPPIi} + CF_{dezRRi},$$

$$CF_{dezPPIi} = (\Delta RAB_{deskt-2} - 1.05 \times \Delta RAB_{deskt-2}) \times \frac{RR_{dei-2}}{100} \times \frac{PPI_{i-2}}{100} \times \frac{PPI_{i-1}}{100} + (\Delta RAB_{deskt-2} - 1.05 \times \Delta RAB_{deskt-2}) \times \frac{RR_{dei-1}}{100} \times \frac{PPI_{i-1}}{100},$$

$$CF_{dezRRi} = \left(1.05 \times \Delta RAB_{deskt-2} - \Delta RAB_{deplt-2}\right) \times \frac{RR_{dei-2}}{100} \times \frac{100 + RR_{dei-2}}{100} \times \frac{100 + RR_{dei-1}}{100} + \left(1.05 \times \Delta RAB_{deskt-2} - \Delta RAB_{deplt-2}\right) \times \frac{RR_{dei-1}}{100} \times \frac{100 + RR_{dei-1}}{100},$$

c) in other cases,

$$CF_{dezi} = CF_{deRABt} \times \frac{RR_{dei-2}}{100} \times \frac{PPI_{i-2}}{100} \times \frac{PPI_{i-1}}{100} + CF_{deRABt} \times \frac{RR_{dei-1}}{100} \times \frac{PPI_{i-1}}{100}.$$

In the case where the planned revaluation coefficient k_{deplt} set for the DSO for 2020 was greater than or equal to one, the DSO's profit correction factor, **CF_{dxezi}** in CZK, reflecting the difference in profit, which is determined as the difference between the actual value of the regulatory asset base and the planned value of the regulatory asset base in year *t-2*, applied from year *i ≥ 3*, is calculated as follows:

$$CF_{dxezi} = CF_{dezi} \times w_{dxei-2},$$

where

CF_{dezi} [CZK] is the DSO's profit correction factor,

w_{dxei-2} [-] is the weight of each of the voltage levels for the actual book values of assets in year *i-2*, calculated as the ratio of the actual book values of assets at each of the voltage levels to the total actual book value of assets in year *i-2*,

$RAB_{deplt-2}$ [CZK] is the planned value of the DSO's regulatory asset base serving for electricity distribution, entering into the calculation of profit in year *t-2*,

$RAB_{deskt-2}$ [CZK] is the actual value of the DSO's regulatory asset base serving for electricity distribution in year *t-2*, calculated as

$$RAB_{deskt-2} = RAB_{de0} + \sum_{t=L}^{L+i-2} \Delta RAB_{deskt-2},$$

where

RAB_{de0} [CZK] is the initial value of the regulatory asset base determined as the actual book value of the DSO's assets serving for electricity distribution, reported under a different regulation for year *L-1*,

$\Delta RAB_{deskt-2}$ [CZK] is the actual year-on-year change in the value of the DSO's regulatory asset base serving for electricity distribution in year *t-2*, calculated as

$$\Delta RAB_{deskt-2} = CI_{deskt-2} + CTA_{deskt-2} - AD_{deskt-2} - D\&A_{demskt-2},$$

where

$CI_{deskt-2}$ [CZK] is the actual value of the DSO's capitalised investments for year *t-2*,

$CTA_{deskt-2}$ [CZK] is the actual value of the assets acquired by company transformation, approved by the Office for year *t-2*,

$AD_{deskt-2}$ [CZK] is the actual value of the DSO's asset disposals for year *t-2*,

$D\&A_{demskt-2}$ [CZK] is the actual value of the D&A of the DSO's non-current tangible and intangible assets serving for electricity distribution for regulated year *t-2*,

$\Delta RAB_{deplt-2}$ [CZK] is the actual year-on-year change in the value of the DSO's regulatory asset base serving for electricity distribution in year *t-2*, calculated as

$$\Delta RAB_{deplt-2} = CI_{deplt-2} + CTA_{deplt-2} - AD_{deplt-2} - D\&A_{demplt-2},$$

where

$CI_{deplt-2}$ [CZK] is the planned value of the DSO's capitalised investments for year *t-2*,

$CTA_{deplt-2}$ [CZK] is the planned value of the assets acquired by company transformation, approved by the Office for year *t-2*,

$AD_{deplt-2}$ [CZK] is the planned value of the DSO's asset disposals for year *t-2*,

$D\&A_{demplt-2}$ [CZK] is the planned value of the D&A of the DSO's non-current tangible and intangible assets serving for electricity distribution for regulated year *t-2*,

a) if

$$\Delta RAB_{deskt-2} \leq 0 \; and \; simultaneously \; \Delta RAB_{deplt-2} > 0.95 \times \Delta RAB_{deskt-2}$$

then

$$CF_{dezi} = CF_{dezPPIi} + CF_{dezRRi},$$

where

$CF_{dezPPIi}$ [CZK] is the portion of the DSO's profit correction factor for the part of the planned value of the regulatory asset base, which does not exceed the actual value of the DSO's regulatory asset base by more than 5%, calculated as

$$CF_{dezPPI} = 0.05 \times \Delta RAB_{deskt-2} \times \frac{RAB_{deskt-2} - RAB_{deplt-2}}{\Delta RAB_{deskt-2} - \Delta RAB_{deplt-2}} \times \frac{RR_{dei-2}}{100} \times \frac{PPI_{i-2}}{100} \times \frac{PPI_{i-1}}{100},$$

CF_{dezRRi} [CZK] is the portion of the DSO's profit correction factor for the part of the planned value of the regulatory asset base, which exceeds the actual value of the DSO's regulatory asset base by more than 5%, calculated as

$$CF_{dezRRi} = \left(0.95 \times \Delta RAB_{deskt-2} - \Delta RAB_{deplt-2}\right) \times \frac{RAB_{deskt-2} - RAB_{deplt-2}}{\Delta RAB_{deskt-2} - \Delta RAB_{deplt-2}} \times \frac{RR_{dei-2}}{100} \times \frac{100 + RR_{dei-2}}{100} \times \frac{100 + RR_{dei-1}}{100}.$$

b) if

$$\Delta RAB_{deskt-2} > 0 \; and \; simultaneously \; \Delta RAB_{deplt-2} > 1.05 \times \Delta RAB_{deskt-2}$$

then

$$CF_{dezi} = CF_{dezPPIi} + CF_{dezRRi},$$

$$CF_{dezPPIi} = -0.05 \times \Delta RAB_{deskt-2} \times \frac{RAB_{deskt-2} - RAB_{deplt-2}}{\Delta RAB_{deskt-2} - \Delta RAB_{deplt-2}} \times \frac{RR_{dei-2}}{100} \times \frac{PPI_{i-2}}{100} \times \frac{PPI_{i-1}}{100},$$

$$CF_{dezRRi} = \left(1.05 \times \Delta RAB_{deskt-2} - \Delta RAB_{deplt-2}\right) \times \frac{RAB_{deskt-2} - RAB_{deplt-2}}{\Delta RAB_{deskt-2} - \Delta RAB_{deplt-2}} \times \frac{RR_{dei-2}}{100} \times \frac{100 + RR_{dei-2}}{100} \times \frac{100 + RR_{dei-1}}{100},$$

c) in other cases

$$CF_{dezi} = \left(RAB_{deskt-2} - RAB_{deplt-2}\right) \times \frac{RR_{dei-2}}{100} \times \frac{PPI_{i-2}}{100} \times \frac{PPI_{i-1}}{100}$$

for i≥3.

(4) The profit correction factor from the value of the DSO's investments in progress at each of the voltage levels, **CF_{dxenii}** in CZK, reflecting the difference in profit due to the difference between the actual and planned cumulated values of investments in progress in year *i-2*, applied from year *i ≥ 3*.

$$CF_{dxenii} = \left(NI_{dxeski-2} - NI_{dxepli-2}\right) \times \frac{RR_{dei-2}}{100} \times \frac{PPI_{i-2}}{100} \times \frac{PPI_{i-1}}{100}$$

for i≥3,

where

$NI_{dxeski-2}$ [CZK] is the actual cumulated value of the DSO's investments in progress at each of the voltage levels, which were approved by the Office in year *i-2*,

$NI_{dxepli-2}$ [CZK] is the planned cumulated value of the DSO's investments in progress at each of the voltage levels, which were approved by the Office in year *i-2*.

(5) The DSO's correction factor for electricity distribution assigned to a voltage level, **CF_{dxei}** and **CF_{dxehi}** in CZK, is calculated as follows:

a) The following are calculated for electricity distribution: design revenues at each of the voltage levels and the total design revenues in aggregate for all voltage levels in year *i-2*; the design revenues are calculated using the set prices for yearly and monthly reserved capacity and the actual values of reserved capacities of customers, second-category electricity generators, operators of local distribution systems and operators of island operations abroad, which are connected to the HV and MV levels, revenues from the single-component prices for the service of HV and MV networks, net of revenues calculated from the price for network use in the distribution system, and revenues from electricity distribution at the LV level calculated using the actual values of the relevant technical units from the tariff statistics adjusted to yearly electricity offtake reported for

year *i-2* under a separate regulation6, and the prices for electricity distribution at the LV level set by the Office for year *i-2* net of revenues from the price for network use in the distribution system; the calculation of the design revenues for each of the voltage levels for year *i-2* takes into account electricity flows through transformations between voltage levels; the design revenues at each of the voltage levels include payments by adjacent distribution systems for reserved capacity, and revenues from payments by first-category electricity generators in the case of a long-term outage of the generating facility; the design revenues at each of the voltage levels also include revenues from the price for reserved capacity exceedance and from the price for exceedances of reserved power input and power output; design revenues also contain any balance of other revenues and costs deriving from the charges set out in the ERO price decision laying down the prices for related services in the electricity industry, unless they are recognised in the cost base or in other correction factors.

b) Reference revenues are calculated from the design revenues at each of the voltage levels determined under a) as follows: payments for reserved capacity in the transmission system and payments to adjacent distribution systems for reserved capacity at the HV and MV levels are deducted from the design revenues at the HV level.
c) The reference revenues totalled over all voltage levels are the sum of the reference revenues at each of the voltage levels.
d) The correction factor for electricity distribution, $\mathbf{CF_{dei-2}}$, is the difference between the Office-determined adjusted allowed revenues and the total reference revenues in year *i-2*.
e) The correction factor for electricity distribution under d) is allocated in proportion to the difference between the adjusted allowed revenues for each of the voltage levels set by the Office for year *i-2* and reference revenues for each of the voltage levels under b) and then these shares of the correction factor are multiplied by the PPI determined for year *i-2* and then by the PPI determined for year *i-1*; the correction factors, $\mathbf{CF_{dxei}}$ in CZK, so determined are added to the allowed revenues of voltage levels for the regulated year.

In the fifth regulatory period, the correction factor for electricity distribution set for *i-2* will be rectified in year *i-3* following the billing of the entire supplied electricity quantity relating to year *i-3,* also including all supply points with non-continuous metering, on the basis of the year *i-3* electricity quantity actually billed to customers connected to the LV level. The rectification for year *i-3* will be also based on the actual spread of the supplied electricity quantity over customer groups by distribution tariff and the actual billed number of supply points during the year. As part of calculating the correction factor for year *i-3* the metered values will also be rectified. The exact method of rectification will be designed depending on the outputs from the ongoing project in which the stakeholder parties are participating.

The fifth regulatory period may also see the rectification of the inaccuracies in the calculation of the correction factor for electricity distribution for the fourth regulatory period, which result from the inaccurate completion of the regulatory returns. Any adjustments extending into the fourth regulatory period will preserve all the principles and procedures for price controls as set and applicable for the fourth regulatory period.

(6) the correction factor for the DSO's other revenues, assigned to the respective voltage level, $\mathbf{CF_{dxeosti}}$, is calculated as follows:

a) The correction factor for the DSO's other revenues is calculated as the product of the PPI determined for years *i-2* and *i-1* times the sum of actual proceeds from connection, proceeds from the sale of non-current assets and material hitherto serving for the licensed activities, determined as 60% of the positive difference between proceeds from sold non-current assets and materials and the book value of sold non-current assets and materials, reported by the DSO in year *i-2,* and 60% of the proceeds from damages in the event of illegal off-take at the various voltage levels,

b) The correction factor for the DSO's other revenues under a) is deducted from the allowed revenues from the voltage level for the regulated year.

(7) The DSO's correction factor for non-frequency ancillary services provided at the distribution system level and assigned to a voltage level, $\mathbf{CF_{dxeASi}}$, is calculated as follows:

a) The DSO's correction factor for non-frequency ancillary services provided at the distribution system level is calculated as the product of the PPI determined for years *i-2* and *i-1* times the sum of

   1. the difference between the actual revenues from the charge for failure to keep the power factor and the charge for unsolicited supply of reactive power, or alternatives thereto upon a change in the charge for reactive power during the fifth regulatory period, and the actual costs of non-frequency ancillary services,

   2. any revenues under a different regulation4 related to Q Management.

b) The DSO's correction factor for non-frequency ancillary services provided at the distribution system level under a) is deducted from the allowed revenues from the voltage level for the regulated year, allocated by the ratio of the DSO's respective allowed revenues at each of the voltage levels and the total allowed revenues for the regulated year.

(8) The DSO's correction factor for use of distribution networks, $\mathbf{CF_{dxepsi}}$ in CZK, is calculated as the product of the difference between the design cost of electricity bought for covering losses in the distribution system and calculated as per a) below and the DSO's reference revenues from network use, which are calculated as per b) below, times PPI determined for year *i-2* and then by PPI determined for year *i-1*:

a) design costs are, for the purposes of calculating the correction factor, determined on the basis of the cost of electrical energy for covering losses set by the Office for year *i-2* and the actual quantity of losses reported for year *i-2*; the actual costs also include the costs of the charge for network use in the transmission system and the costs of the charge for network use in adjacent distribution systems;
b) reference revenues from network use are determined by adjusting the actual revenues from network use by the correction factor for network use for year *i-4*; the DSO's actual revenues from network use are calculated as the sum of the products of the charges for network use and the electricity quantity taken from the distribution system by electricity market participants at each of the voltage levels, reported for year *i-2;* the actual revenues from network use also include the revenues from network use in adjacent distribution systems;
c) the calculated correction factor is allocated to the various voltage levels at the ratio of the differences between the actual and planned losses for year *i-2* at each of the voltage levels and the correction factor so determined, $\mathbf{CF_{dxepsi}}$, is added to the variable eligible

costs of electricity bought for covering losses in the distribution system for regulated year *i*.

In the fifth regulatory period, the correction factor for distribution network use in year *i-3* will be rectified. Following the billing of the entire supplied electricity quantity relating to year *i-3,* also including all supply points with non-continuous metering, the electricity quantity taken by customers connected to the LV level will be replaced with the year *i-3* electricity quantity actually billed to customers connected to the LV level and the value of the losses at the LV level will be adjusted, possibly together with the quantity of losses at the MV level and the electricity quantity flowing into the LV level, while respecting the principle of the preservation of the balance sheet equation. As part of calculating the correction factor for year *i-3* the metered values will also be rectified.

This rectification for year *i-3* will enter, in the subsequent year *i*, into the calculation of the correction factor as adjustment to the actual revenues from network use and related costs pertaining to year *i-4*.

No rounding is done during calculations.

Depending on the unit, the input values are rounded as follows:

a) CZK to whole Czech crowns,
b) MW and MWh to three decimal places,
c) CZK/MWh to two decimal places,
d) percentages, to three decimal places, with the exception of the rate of return on the regulatory asset base, which is rounded to two decimal places,
e) ratios, to five decimal places.

Correction factors are rounded to whole CZK.

D) Correction factor for the mandatory buyer's activity

(1) Correction factor for the mandatory buyer's activity, $\mathbf{CF_{MBi}}$ in CZK, is calculated as

$$CF_{MBi} = (C_{MBski-2} - C_{MBski-2}) \times \frac{PPI_{i-2}}{100} \times \frac{PPI_{i-1}}{100},$$

for i ≥ 3,

where

$\mathbf{C_{MBski-2}}$ [CZK] is the actual costs of the mandatory buyer's activity in year *i-2*, calculated as

$$C_{MBski-2} = AC_{MBski-2} + D\&A_{MBski-2} + CIMB_{MBi-2} + FC_{MBski-2} + DIFF_{MBski-2} + CF_{MBi-2} + MF_{MB-2},$$

where

$\mathbf{AC_{MBski-2}}$ [CZK] is the mandatory buyer's actual administrative costs incurred in support for electricity from renewable sources by way of feed-in tariffs and in support for electricity8, assessed and set by the Office,

$\mathbf{D\&A_{MBski-2}}$ [CZK] is the value of the actual D&A of the mandatory buyer's non-current tangible and intangible assets serving for the mandatory buyer's activity for regulated year *i-2*,

$CIMB_{MBi-2}$ [CZK] is the mandatory buyer's extra costs of imbalances associated with electricity purchase from renewable sources at feed-in tariffs and electricity purchase8 in year *i-2*, calculated as

$$CIMB_{MBi-2} = CIMB_{MBski-2} + PS_{MBi-2},$$

$CIMB_{MBski-2}$ [CZK] is the mandatory buyer's actual extra costs of imbalances associated with electricity purchase from renewable sources at feed-in tariffs and electricity purchase8 in year *i-2*,

PS_{MBi-2} [CZK] is the value of profit/loss sharing of the mandatory buyer's extra costs, determined as

$$PS_{MBi-2} = \sum_{s=1}^{2} (-CIMB_{MBsksi-2} + CIMB_{MBlimsi-2} \times k_{MBsi-2}) \times k_{MBpsi-2},$$

s [-] are groups of renewables subject to a cap on unit extra cost of imbalances for the fifth regulatory period; these are photovoltaic plants and other renewables, except for wind power plants,

$CIMB_{MBsksi-2}$ [CZK] is the value of the mandatory buyer's actual extra costs of imbalances of the s^{th} group of renewables related to electricity purchase from renewables at feed-in tariffs and electricity purchase8 in year *i-2*,

$CIMB_{MBlimsi-2}$ [CZK] is the cap on the mandatory buyer's actual extra costs of imbalances of the s^{th} group of renewables, related to electricity purchase from renewables at feed-in tariffs and electricity purchase8 in year *i-2*, which is calculated on the basis of the average of the two lowest values of the unit extra costs of the s^{th} group of renewables for 2013 to 2018, multiplied by the actual electricity quantity from the s^{th} group of renewables bought by the mandatory buyer at feed-in tariffs in year *i-2*,

k_{MBsi-2} [-] is the coefficient of change in the unit extra cost of the imbalance of the whole system, i.e. the sum of the products of the value of the system imbalance times the difference between the price of the imbalance and the price at the day-ahead market, divided by the sum of the absolute values of the system imbalance in year *i-2*, versus the arithmetic average of unit extra costs of the imbalances of the whole system in 2017 and 2018; for extra costs from photovoltaic plants: if the calculated value of the coefficient of change is greater than or equal to 0.9 and lower than or equal to 1.1, a coefficient of change equalling one shall be applied, and in other cases the calculated value is applied; for extra costs from other renewables, except for wind power plants to which the profit/loss sharing system does not apply, this coefficient has the value one,

$c_{MBpsi-2}$ [-] is the profit/loss sharing coefficient of 0.5,

$FC_{MBski-2}$ [CZK] is the mandatory buyer's actual financial costs incurred in support of electricity from renewables by way of feed-in tariffs and support of electricity under Section 11 (7) of the law on supported energy sources in year *i-2*, set by the Office as interest accruing on the cumulated difference between the actual income and expenses related to support for electricity from renewables by way

of feed-in tariffs and support of electricity8. In each of the months, negative values of the cumulated difference attract interest equalling the average monthly value of 1Y PRIBOR for year *i-2* plus 1 pp. Should in the relevant months the actual interest rates for loans documented by the mandatory buyer exceed the average monthly value of 1Y PRIBOR for year *i-2* plus 1 pp, the Office will assess the actual interest rates for loans and may decide to accept the actual interest rates. Positive values of the cumulated differences attract, in each of the months, interest amounting to the actual rate on deposits documented by the mandatory buyer,

$DIFF_{MBski-2}$ [CZK] is the mandatory buyer's actually incurred costs in year *i-2* under Section 11 (7) of the law on supported energy sources, arising from the payment of the difference between the feed-in tariff and the green premium to the electricity generator aided by green premiums, which offered its generated electricity to the mandatory buyer, less the related revenues from the electricity so bought,

CF_{MB-2} [CZK] is the correction factor for the mandatory buyer's activity set for year *i-4* and factored into the price for the mandatory buyer's activity for year *i-2*,

MF_{MBi-2} [CZK] is the market factor for the mandatory buyer's activity set for year *i-2*,

$c_{MBpsi-2}$[-] is the profit/loss sharing coefficient,

$R_{MBski-2}$ [CZK] is the actual revenues from the mandatory buyer's activity in year *i-2*, calculated as

$$R_{MBski-2} = p_{MBi-2} \times PQE_{MBski-2} + \sum_{j=2013}^{i-3} p_{MBj} \times PQE_{MBskj} ,$$

where

p_{MBi-2} [CZK/MWh] is the price for the mandatory buyer's activity for year *i-2*,

$PQE_{MBski-2}$ [MWh] is the actual electricity quantity from renewables bought by the mandatory buyer at feed-in tariffs in year *i-2*,

p_{MBj} [CZK/MWh] is the price for the mandatory buyer's activity for year *j*,

PQE_{MBskj} [MWh] is an adjustment to the actual electricity quantity from renewables bought by the mandatory buyer at feed-in tariffs in year *j*,

PPI_{i-2} [%] is the producer price index set on the basis of the ratio of the rolling averages of the basic producer price indices over the last 12 months and over the preceding 12 months, published by the Czech Statistical Office in the table "Producer Price Index" (code 011044) for April of year *i-2*,

PPI_{i-1} [%] is the producer price index set on the basis of the ratio of the rolling averages of the basic producer price indices over the last 12 months and over the preceding 12 months, published by the Czech Statistical Office in the table "Producer Price Index" (code 011044) for April of year *i-1*.

No rounding is done during calculations.

Depending on the unit, the input values are rounded as follows:

a) CZK to whole Czech crowns,
b) MWh to three decimal places,
c) CZK/MWh to two decimal places,
d) percentages, to three decimal places.

Correction factor for the mandatory buyer's activity is rounded to whole crowns.

E) Correction factors related to aid to electricity from supported energy sources

(1) The market operator's correction factor related to aid to electricity, $\mathbf{CF_{MOzbei}}$, is calculated as

$$CF_{MOzbei} = TC_{MOski-2} - R_{MOeski-2} ,$$

where

$\mathbf{TC_{MOski-2}}$ is the market operator's total actual costs incurred in support for electricity in year *i-2*, calculated as

$$TC_{MOski-2} = \sum_{j=1}^{n} C_{MBozskji-2} + \sum_{j=1}^{n} C_{MBskji-2} + NC_{MOzbeski-2} + C_{MOprechi-2} + CF_{vdvi} + R_{MOeozi-2} ,$$

where

n [-] is the number of mandatory buyers-traders,

j [-] is the serial number of the mandatory buyer,

$\mathbf{C_{MBozskji-2}}$ [CZK] is the total actual costs incurred in the payment of aid to electricity from renewables by the j^{th} mandatory buyer by way of feed-in tariffs, generated in year *i-2*, which this mandatory buyer bills to the market operator; the costs are calculated as

$$C_{MBozskji-2} = \sum_{s=1}^{m} \sum_{h=1}^{p} \left(p_{fitsi-2} - p_{skhi-2}\right) \times PQE_{MBskhjsi-2} ,$$

where

$\mathbf{p_{fitsi-2}}$ [CZK/MWh] is the feed-in tariff for electricity from the s^{th} type of renewables for year *i-2* set by the Office,

$\mathbf{p_{skhi-2}}$ [CZK/MWh] is the hourly price of electricity achieved at the day-ahead market in hour *h* in year *i-2*, published by the market operator in a way allowing remote access,

$\mathbf{PQE_{MBskhjsi-2}}$ [MW] is the actual supported electricity quantity from the s^{th} type of renewables bought by the j^{th} mandatory buyer at feed-in tariffs in hour *h* in year *i-2*,

$C_{MBskji-2}$ [CZK] is the actual costs of the j^{th} mandatory buyer's activity, which the market operator paid to the mandatory buyer through the price for the mandatory buyer's activity,

$NC_{MOzbeski-2}$ [CZK] is the market operator's actual costs incurred in support for electricity by way of green premiums in year *i-2*, calculated as

$$NC_{MOzbeski-2} = C_{MOzbeski-2} + CF_{MOzbei-2}\,,$$

where

$C_{MOzbeski-2}$ [CZK] is the market operator's actual costs incurred in the payment of support for electricity by way of green premiums, generated in year *i-2*, calculated as

$$C_{MOzbeski-2} = C_{zbpski-2} + C_{zbrski-2} + C_{kvski-2} + C_{dzski-2}\,,$$

where

$C_{zbpski-2}$ [CZK] is the market operator's actual costs incurred in the payment of support for electricity generation from renewables in the mode of hourly green premiums, calculated as

$$C_{zbpski-2} = \sum_{s=1}^{mp}\sum_{h=1}^{t} p_{zbpskhsi-2} \times PQE_{zbpskhsi-2}\,,$$

where

$p_{zbpskhsi-2}$ [CZK/MWh] is the actual amount of the hourly green premium for electricity generated by the s^{th} type of renewables in hour *h* for regulated year *i-2*,

$PQE_{zbpskhsi-2}$ [MWh] is the actual electricity quantity supported by way of hourly green premiums from the s^{th} type of renewables in hour *h* for regulated year *i-2*,

$C_{zbrski-2}$ [CZK] is the market operator's actual costs incurred in the payment of support for electricity generation from renewables by way of annual green premiums, calculated as

$$C_{zbrski-2} = \sum_{s=1}^{o} p_{zbrsi-2} \times PQE_{zbrsksi-2}\,,$$

where

$p_{zbrsi-2}$ [CZK/MWh] is the annual green premium for electricity generated from the s^{th} type of renewables, set by the Office for regulated year *i-2*,

$PQE_{zbrsksi-2}$ [MWh] is the actual yearly electricity quantity supported by way of annual green premiums from the s^{th} type of renewables for regulated year *i-2*,

$C_{kvski-2}$ [CZK] is the market operator's actual costs incurred in the payment of support for electricity generation from high-efficiency combined heat & power generation, calculated as

$$C_{kvski-2} = \sum_{r=1}^{u} p_{kvri-2} \times PQE_{kvskri-2} ,$$

where

p_{kvri-2} [CZK/MWh] is the green premium for electricity generated from the r^{th} category of high-efficiency combined heat & power generation for regulated year *i-2*, set by the Office,

$PQE_{kvskri-2}$ [MWh] is the actual supported electricity quantity generated from the r^{th} category of high-efficiency combined heat & power generation for year *i-2*,

$C_{dzski-2}$ [CZK] is the market operator's actual costs incurred in the payment of support for electricity generation from secondary sources, calculated as

$$C_{dzski-2} = \sum_{q-1}^{v} p_{dzqi-2} \times PQE_{dzskqi-2} ,$$

where

p_{dzqi-2} [CZK/MWh] is the green premium for electricity generated by the q^{th} type of secondary source in year *i-2*, set by the Office,

$PQE_{dzskqi-2}$ [MWh] is the actually supported electricity quantity from the q^{th} type of secondary source for year *i-2*,

$CF_{MOzbei-2}$ [CZK] is the correction factor of the market operator related to support for electricity from renewable and secondary sources and from high-efficiency combined heat & power generation, set for year *i-4* and factored into the regulated prices of year *i-2*,

$C_{MOprechi-2}$ [CZK] is the market operator's costs arising from the duty to accept an obligation to pay support under a different regulation[16],

CF_{vdvi} [CZK] is the correction factor for the market operator's costs related to support for decentralised electricity generation,

$R_{MOeozi-2}$ [CZK] is the return of the surplus funds to the national budget under a different regulation[17],

$R_{MOeski-2}$ [CZK] is the market operator's actual revenues from support for electricity in year *i-2*, calculated as

$$R_{MOeski-2} = R_{MOeozski-2} + \left(P_{fiski-2} - P_{fiskti-2} + CFP_{fiskti-2}\right) + ILL_{npi-2} ,$$

where

$R_{MOeozski-2}$ [CZK] is the market operator's actual revenues from collecting the price component for aid to electricity from supported sources, reported by the market operator for year *i-2*,

[16] Section 54 (12) and (13) of Act No 165/2012 on Supported Energy Sources and Amending Certain Laws, as amended

[17] Act No 218/2000 on Budgetary Rules and Amending Certain Related Laws (Budgetary Rules), as amended

$P_{fiski-2}$ [CZK] is the cap on the national budget's funds for subsidies to the market operator for paying the component of the price for distribution system services and the component of the price for the transmission system's services intended for aid to electricity, and for paying operating aid to heat and compensation for electricity consumed by customers in the Czech Republic and generated from renewables in another EU member state, in a contracting party to the Agreement on the European Economic Area or in The Swiss Confederation, for year *i-2*, set by a Government edict,

$P_{fiskti-2}$ [CZK] is the national budget's planned funds for subsidies to the market operator for paying the costs incurred in operating aid to heat for year *i*, and also for compensation for electricity consumed by customers in the Czech Republic and generated from renewables in another EU member state, in a contracting party to the Agreement on the European Economic Area or in The Swiss Confederation for year *i-2*, set by the Office, and for paying the costs incurred in the planned aid to heat from biogas,

$CFP_{fiskti-2}$ [CZK] is the correction factor of the national budget's funds for subsidies to the market operator for paying operating aid to heat, including that from biogas, and for compensation for electricity consumed by customers in the Czech Republic and generated from renewables in another EU member state, in a contracting party to the Agreement on the European Economic Area or in The Swiss Confederation, set for year *i-4* and factored into the regulated prices for year *i-2*,

ILL_{npi-2} [CZK] is illegally drawn aid and the penalty paid to the market operator in year *i-2*.

The market operator's correction factor related to support for electricity may be split into multiple regulated years; the correction factor will take into account the funds returned by the market operator to the national budget under a different regulation[17]. The correction factor may also contain additional accounting for and correction of values reported in earlier years.

No rounding is done during calculations.

Depending on the unit, the input values are rounded as follows:

a) CZK to whole Czech crowns,
b) MW and MWh to three decimal places,
c) CZK/MWh to two decimal places,
d) percentages, to three decimal places,
e) ratios, to five decimal places.

Correction factors are rounded to whole CZK.

16.3. Procedure for determining adjusted allowed revenues and prices in the gas industry

Pricing procedures in the gas industry for the fifth regulatory period and for a particular regulated year may be changed by statutory instruments (secondary legislation) and also by ERO Price Decisions, for example, when such changes respond to amendments to legislation.

16.3.1. Procedure for determining charges for gas transmission services

The equations and algorithms for pricing gas transmission (adjusted allowed revenues and correction factors) set out in the following relate to national gas transmission. Because of the considerably higher uncertainty of the transit flows the price for international gas transmission has historically been controlled on the price cap principle using the procedure in point 10.3 above and in the TAR Decision.

The allocation of costs, D&A, capitalised investments, asset disposals, and book values of assets concerning the assets used for both international and national transmission is based on the procedures set out in point 10.1.

A) Adjusted allowed revenues for national gas transmission

Unless specified otherwise, the parameters in this section concern only national gas transmission.

The TSO's adjusted allowed revenues for national gas transmission, **AAR_{gti}** in CZK, are calculated for the calendar year for which the Office controls prices ("regulated year") as follows:

$$AAR_{gti} = AR_{gti} + CF_{gti} \,,$$

where

i [-] is the serial number of the regulated year,

AR_{gti} [CZK] is the value of the TSO's allowed revenues from the gas transmission service for regulated year *i* calculated as

$$AR_{gti} = EC_{gti} + D\&A_{gti} + P_{gti} + MF_{gti} \,,$$

where

EC_{gti} [CZK] is the TSO's eligible costs required for providing the gas transmission service for regulated year *i*. Eligible costs are understood to be economically justified costs calculated as

$$EC_{gti} = \left(C_{gtkli} + N_{gtplsi}\right) \times \prod_{\mathrm{t=L+i}}^{\mathrm{L+i}} \frac{I_{gtt}}{100} \times \left(1 - X_{gt}\right) ,$$

where

C_{gtkli} [CZK] is the TSO's eligible costs base required for providing the gas transmission service, calculated as

$$C_{gtkli} = \frac{\left(C_{gtski-4} \times \prod_{t=L+i-3}^{L+i-1} \frac{I_{gtt}}{100} \times \left(1 - X_{gt}\right)^3\right) + \left(C_{gtski-3} \times \prod_{t=L+i-2}^{L+i-1} \frac{I_{gtt}}{100} \times \left(1 - X_{gt}\right)^2\right) + \left(C_{gtski-2} \times \prod_{t=L+i-1}^{L+i-1} \frac{I_{gtt}}{100} \times \left(1 - X_{gt}\right)\right)}{3}$$

where

C_{gtski} [CZK] is the TSO's actual economically justified costs required for gas transmission in year *i* after the application of the individual allocation ratios of year *i*,

t [-] is the date of the year in the regulatory period,

L [-] is the date of the year preceding the first regulated year of the regulatory period,

I_{gtt} [%] is the value of the escalation factor for the costs of the respective year, calculated as

$$I_{gtt} = p_{gtIMt} \times IM_t + \left(1 - p_{gtIMt}\right) \times IPS_t,$$

where

p_{gtMt} [-] is the weight of the TSO's wage index calculated as the ratio of actual personnel costs and total economically justified costs for national and international gas transmission in year *t-1;* where the values for year *t-1* are not known values for year *t-2* shall be used;

IM_t [%] is the value of the wage index calculated as the average of the quarterly values of the average monthly wage (related to FTE), reported in the Czech Statistical Office's public database in table "Employees and average gross monthly wages by CZ-NACE sector (code: MZD02-A)" under point D "Electricity, gas, steam and air conditioning supply" beginning with the second quarter of year *t-2* and ending with the first quarter of year *t-1*, published on 30 June of year *i-1*,

IPS_t [%] is the index of business service prices calculated as a weighted average of the following price indices: 62 - Computer programming, consultancy, and related services, 63 - Information services, 68 - Real estate services, 69 - Legal and accounting services, 71- Architectural and engineering services; technical tests and analyses, 73 - Advertising and market research services, 74 - Other professional, scientific and technical activities, 77 - Rental and operating lease services, 78 - Employment services, 80 - Security and investigation services, 81 - Services related to buildings and landscape, 82 - Office administration and other business support services, as reported in the Czech Statistical Office's public database in the table "Price indices of market services" (code CEN06B2) for

April of year *t-1,* on the basis of the ratio of rolling averages of basic indices, where the weights are annual revenues from the services provided in 2015,

X_{gt} [-] is the yearly value of the efficiency factor for the gas transmission service;

C_{gtplsi} [CZK] is the value of the profit/loss sharing of the TSO's costs calculated as

$$C_{gtplsi} = \frac{\left(C_{gtplsi-4} + C_{gtplsi-3} + C_{gtplsi-2}\right)}{3},$$

where

$$C_{gtplsi-4} = \left(EC_{gti-4} - C_{gtski-4}\right) \times \prod_{t=L+i-3}^{L+i-1} \frac{I_{gtt}}{100} \times \left(1 - X_{gt}\right)^3 \times c_{gtplsi-4},$$

$$C_{gtplsi-3} = \left(EC_{gti-3} - C_{gtski-3}\right) \times \prod_{t=L+i-2}^{L+i-1} \frac{I_{gtt}}{100} \times \left(1 - X_{gt}\right)^2 \times c_{gtplsi-3},$$

$$C_{gtplsi-2} = \left(EC_{gti-2} - C_{gtski-2}\right) \times \prod_{t=L+i-1}^{L+i-1} \frac{I_{gtt}}{100} \times \left(1 - X_{gt}\right) \times c_{gtplsi-2},$$

c_{gtplsi} [-] is the profit/loss sharing coefficient, which equals 0.5 for comparing the eligible and actual costs for the years in the fifth regulatory period; it equals zero for comparing the eligible and actual costs for the years in the fourth regulatory period;

$D\&A_{gti}$ [CZK] is the value of the allowed D&A of the TSO's non-current tangible and intangible assets serving for providing the gas transmission service for the regulated year *i* as follows:

$$D\&A_{gti} = D\&A_{gtpdmpli} + CF_{gtoi},$$

where

$D\&A_{gtpdmpli}$ [CZK] is the planned value of directly allocable D&A of the TSO's non-current tangible and intangible assets, including the planned D&A of non-current assets financed from a subsidy, serving for providing the gas transmission service for regulated year *i*; the planned value of the D&A of non-current tangible and intangible assets financed from a subsidy for the TSO can be reduced by the Office so as to prevent the public aid from exceeding the maximum allowed level,

CF_{gtoi} [CZK] is the correction factor for the TSO's D&A, which reflects the difference between the actual and planned directly allocable D&A of non-current tangible and intangible assets, including assets financed from a subsidy in year *i-2,* calculated as per 16.3.3, which can furthermore also contain backward corrections to the D&A of non-current tangible and intangible assets financed from a subsidy in case the public aid exceeded the maximum allowed level,

P_{gti} [CZK] is the TSO's profit for regulated year *i* as follows:

$$P_{gti} = \frac{RR_{gti}}{100} \times \left(RAB_{gti} + NI_{gtpli}\right) + CF_{gtpi} + CF_{gtNIi},$$

where

RR_{gti} [%] is the rate of return on the regulatory asset base for the gas transmission service, set by the Office for regulated year *i*,

RAB_{gti} [CZK] is the value of the TSO's regulatory asset base serving for providing the gas transmission service for regulated years *i=1 to i=4* as follows:

$$RAB_{gti} = RAB_{gt0} + \sum_{t=L+1}^{L+i} \Delta RAB_{gtt} + \sum_{t=L+3}^{L+i} CF_{gtRABt} \ ,$$

and for regulated year *i=5* as follows:

$$RAB_{gti} = BVA_{gtpli},$$

where

BVA_{gtpli} [CZK] is the planned book value of the TSO's assets for national gas transmission at the end of year *i*,

RAB_{gt0} [CZK] is the initial value of the TSO's regulatory asset base serving for providing the gas transmission service; due to the transition to the system of direct allocation, with the setting of the individual allocation ratios for specific infrastructural elements of the system, the Office will set RAB_0 on the basis of the planned book values of these elements serving for national gas transmission as at 31 December 2021, applying to them a revaluation coefficient of 68.01% based on the ratio of RAB and BVA in 2020, as follows:

$$RAB_{gt0} = BVA_{gtplL+1} \times 0.6801 \ ,$$

where

$BVA_{gtplL+1}$ [CZK] is the planned book value of assets as at 31 December 2021,

ΔRAB_{gtt} [CZK] is the planned year-on-year change in the value of the TSO's regulatory asset base serving for providing the gas transmission service, set

for year *t=L+1* as

$$\Delta RAB_{gtt} = ApproxBVA_{gtt},$$

for year *t>L+1* as

$$\Delta RAB_{gtt} = CI_{gtplt} + CTA_{gtplt} - AD_{gtplt} - D\&A_{gtplt} + ApproxBVA_{gtt},$$

where

CI_{gtplt} [CZK] is the planned value of the TSO's capitalised investments for year *t*,

CTA_{gtplt} [CZK] is the planned value of the assets acquired by company transformation, approved by the Office for year *t*,

AD_{gtplt} [CZK] is the planned value of the TSO's asset disposals for year *t* under the public notice on regulatory reporting6,

$D\&A_{gtplt}$ [CZK] is the planned value of the D&A of the TSO's non-current tangible and intangible assets serving for providing the transmission service for year *t,*

ApproxBVA$_{gtt}$ [CZK] is the value that expresses the annual convergence of the value of the regulatory asset base to the book value of assets, based on the difference between the planned book value of assets for 2021 and RAB$_{gt0}$, which is multiplied by a coefficient reflecting the percentage granted in year *t*; that value will be adjusted to the later known actual value calculated

for years *t=L+1* and *t=L+2* as

$$ApproxBVA_{gtt} = BVA_{gtplL+1} \times (1 - 0.6801) \times c_{gtindt},$$

for year *t=L+3* as

$$ApproxBVA_{gtt} = \left(\left(BVA_{gtskL+1} - RAB_{gt0} - CF_{RABL+3}\right) \times c_{gtindt}\right) + \left(\left(BVA_{gtskL+1} - BVA_{gtplL+1} - CF_{RABL+3}\right) \times \left(c_{gtindL+1} + c_{gtindL+2}\right)\right),$$

and for year *t=L+4* as

$$ApproxBVA_{gtt} = \left(\left(BVA_{gtskL+1} - RAB_{gt0} - CF_{RABL+3}\right) \times c_{gtindt}\right),$$

where

BVA$_{gtskL+1}$ [CZK] is the actual book value of assets as at 31 December 2021,

c$_{gtindt}$ [%] is the coefficient of individual convergence for the given year, calculated as per **Chyba! Nenalezen zdroj odkazů.**,

CF$_{gtRABt}$ [CZK] is the correction factor of the regulatory asset base, which reflects the difference between the actual and planned change in the book value of the TSO's assets in year *t-2,* applied from year *t=L+i, i≥1*, and calculated as per 16.3.3,

NI$_{gtpli}$ [CZK] is the planned value of the TSO's development investments in progress in year *i*. Subject to the TSO's prior request, this value can also include the various development investments in progress approved by the Office, with a planned time to completion of more than two years and the total planned amount of the investments exceeding CZK 500 million. The planned value of development investments in progress may only be used subject to a negative balance in the TSO's replacement and development fund,

CF$_{gtpi}$ [CZK] is the TSO's profit correction factor, which reflects the difference in profit caused by the difference between the actual and planned changes in the book value of assets in year *i-2*, applied from regulated year *i≥1* and calculated as per 16.3.3,

CF$_{gtNIi}$ [CZK] is the correction factor of the TSO's development investments in progress, which reflects the difference in profit caused by the difference between the actual and planned values of development investments in progress in year *i-2,* calculated as per 16.3.3,

MF$_{gti}$ [CZK] is the value of the TSO's market factor for regulated year *i* set by the Office,

CF_{gti} [CZK] is the correction factor for the gas transmission service for regulated year *i* calculated as per 16.3.3. Further to the TSO's request or in justified cases subject to agreement with the TSO, the Office may spread the application of the correction factor over multiple regulated years, however, no more than five consecutive regulated years, applying the principle of the time value of money based on the PPI values for the respective years.

B) The replacement and development fund

The balance in the TSO's replacement and development fund, **RDF_{gti}** for regulated year *i* of the regulatory period beginning on 1 January 2021, is calculated as

$$RDF_{gti} = \sum_{t=2012}^{L+i} D\&A_{gtskt-2} - \sum_{t=2012}^{L+i} CI_{gtskt-2},$$

where

$D\&A_{gtskt-2}$ [CZK] is the actual value of the D&A of the TSO's non-current tangible and intangible assets serving for providing the gas transmission service for year *t-2*

$CI_{gtskt-2}$ [CZK] is the actual value of the TSO's capitalised investments for year *t-2*

C) Rounding rules

No rounding is done during calculations.

Depending on the unit, the input values are rounded as follows:

a) CZK to whole Czech crowns,

b) thousands of m^3 to whole values,

c) MWh to three decimal places,

d) percentages, to three decimal places, with the exception of the rate of return on the regulatory asset base, which is rounded to two decimal places, and also with the exception of the average allocation ratio, which is rounded to two decimal places,

e) ratios, to five decimal places,

f) CZK/MWh to two decimal places,

g) CZK/thousand m^3 to two decimal places.

The resulting price is rounded to two decimal places.

16.3.2. Procedure for determining charges for the distribution system service

A) Adjusted allowed revenues

The DSO's adjusted allowed revenues, **AAR_{gdi}** in CZK, from the distribution system service for regulated year *i* are calculated as

$$AAR_{gdi} = AR_{gdi} + CL_{gdi} + ND_{gdpli} + CF_{gdi} + C_{gdnpli}\ ,$$

where

i [-] is the serial number of the regulated year,

AR_{gdi} [CZK] is the value of the DSO's allowed revenues from the distribution system service for regulated year *i* calculated as

$$AR_{gdi} = EC_{gdi} + D\&A_{gdi} + P_{gdi} + MF_{dpi}\ ,$$

where

EC_{gdi} [CZK] is the DSO's eligible costs required for providing the distribution system service for regulated year *i*. Eligible costs are understood to be economically justified costs calculated as

$$EC_{gdi} = \left(C_{gdkli} + C_{gdplsi}\right) \times \prod_{\mathrm{t=L+i}}^{\mathrm{L+i}} \frac{I_{gdt}}{100} \times \left(1 - X_{gd}\right),$$

where

C_{gdkli} [CZK] is the DSO's eligible costs base required for providing the gas distribution service, calculated as

$$C_{gdkli} = \frac{\begin{array}{c}\left(C_{gdski-4} \times \prod_{\mathrm{t=L+i-3}}^{\mathrm{L+i-1}} \frac{I_{gdt}}{100} \times \left(1 - X_{gd}\right)^3\right) + \\ \left(C_{gdski-3} \times \prod_{t=L+i-2}^{L+i-1} \frac{I_{gdt}}{100} \times \left(1 - X_{gd}\right)^2\right) + \\ \left(C_{gdski-2} \times \prod_{\mathrm{t=L+i-1}}^{\mathrm{L+i-1}} \frac{I_{gdt}}{100} \times \left(1 - X_{gd}\right)\right)\end{array}}{3},$$

where

C_{gdski} [CZK] is the DSO's actual economically justified costs required for gas distribution in year *i*,

t [-] is the date of the year in the regulatory period,

L [-] is the date of the year preceding the first regulated year of the regulatory period,

I_{gdt} [%] is the value of the escalation factor for the costs of the respective year, calculated as

$$I_{gdt} = p_{gdIMt} \times IM_t + \left(1 - p_{gdIMt}\right) \times IPS_t\ ,$$

where

p_{gdlMt} [-] is the weight of the DSO's wage index calculated as the ratio of actual personnel costs and total economically justified costs for gas distribution in year *t-1*; where the values for year *t-1* are not known values for year *t-2* shall be used,

IM_t [%] is the value of the wage index calculated as the average of the quarterly values of the average monthly wage (related to FTE) reported in the Czech Statistical Office's public database in table "Employees and average gross monthly wages by CZ-NACE sector (code: MZD02-A)" under point D "Electricity, gas, steam and air conditioning supply", beginning with the second quarter of year *t-2* and ending with the first quarter of year *t-1*, published on 30 June of year *i-1*,

IPS_t [%] is the index of business service prices calculated as a weighted average of the following price indices: 62 - Computer programming, consultancy, and related services, 63 - Information services, 68 - Real estate services, 69 - Legal and accounting services, 71- Architectural and engineering services; technical tests and analyses, 73 - Advertising and market research services, 74 - Other professional, scientific and technical activities, 77 - Rental and operating lease services, 78 - Employment services, 80 - Security and investigation services, 81 - Services related to buildings and landscape, 82 - Office administration and other business support services, as reported in the Czech Statistical Office's public database in the table "Price indices of market services" (code CEN06B2) for April of year *t-1* on the basis of the ratio of rolling averages of basic indices, where the weights are annual revenues from the services provided in 2015,

X_{gd} [-] is the yearly value of the efficiency factor for the distribution system service,

C_{gdplsi} [CZK] is the value of the profit/loss sharing of the DSO's costs, calculated as

$$C_{gdplsi} = \frac{\left((C_{gdplsi-4} + C_{gdplsi-3} + C_{gdplsi-2})\right)}{3},$$

where

$$C_{gdplsi-4} = \left(EC_{gdi-4} - C_{gdski-4}\right) \times \prod_{t=L+i-3}^{L+i-1} \frac{I_{gdt}}{100} \times \left(1 - X_{gd}\right)^3 \times c_{gdplsi-4},$$

$$C_{gdplsi-3} = \left(EC_{gdi-3} - C_{gdski-3}\right) \times \prod_{t=L+i-2}^{L+i-1} \frac{I_{gdt}}{100} \times \left(1 - X_{gd}\right)^2 \times c_{gdplsi-3},$$

$$C_{gdplsi-2} = \left(EC_{gdi-2} - C_{gdski-2}\right) \times \prod_{t=L+i-1}^{L+i-1} \frac{I_{gdt}}{100} \times \left(1 - X_{gd}\right) \times c_{gdplsi-2},$$

c_{gdplsi} [-] is the profit/loss sharing coefficient, which equals 0.5 for comparing the eligible and actual costs for the years in the fifth regulatory period; it equals zero for comparing the eligible and actual costs for the years in the fourth regulatory period,

$D\&A_{gdi}$ [CZK] is the value of the allowed D&A of the DSO's non-current tangible and intangible assets serving for providing the gas distribution service for the regulated year *i* as follows:

$$D\&A_{gdi} = D\&A_{gdpli} + CF_{gdoi},$$

where

$D\&A_{gdpli}$ [CZK] is the planned value of D&A of the DSO's non-current tangible and intangible assets, including the planned D&A of non-current assets financed from a subsidy, serving for providing the gas distribution service for regulated year *i*; the planned value of the D&A of non-current tangible and intangible assets financed from a subsidy for the DSO can be reduced by the Office so as to prevent the public aid from exceeding the maximum allowed level,

CF_{gdoi} [CZK] is the correction factor of the DSO's D&A, which reflects the difference between the actual and planned directly allocable D&A of non-current tangible and intangible assets, including assets financed from a subsidy in year *i-2,* and calculated as per 16.3.3, which can furthermore also contain backward corrections to the D&A of non-current tangible and intangible assets financed from a subsidy in case the public aid exceeded the maximum allowed level,

P_{gdi} [CZK] is the DSO's profit for regulated year *i* as follows:

$$P_{gdi} = \frac{RR_{gdi}}{100} \times \left(RAB_{gdi} + NI_{gdpli}\right) + CF_{gdpi} + CF_{gdNIi},$$

where

RR_{gdi} [%] is the rate of return on the regulatory asset base for the distribution system service, set by the Office for regulated year *i*,

RAB_{gdi} [CZK] is the value of the DSO's regulatory asset base serving for providing the distribution system service for regulated year *i* as follows:

$$RAB_{gdi} = RAB_{gd0} + \sum_{t=L+1}^{L+i} \Delta RAB_{gdplt} + \sum_{t=L+1}^{L+i} CF_{gdRABt},$$

where

RAB_{gd0} [CZK] is the initial value of the DSO's regulatory asset base serving for providing the distribution system service, set by the Office at the level of the regulatory asset base for 2020,

ΔRAB_{gdplt} [CZK] is the planned year-on-year change in the value of the DSO's regulatory asset base serving for providing the distribution system service in year *t*, calculated as

$$\Delta RAB_{gdplt} = CI_{gdplt} + CTA_{gdplt} - AD_{gdplt} - D\&A_{gdplt} + ApproxBVA_{gdt},$$

where

CI_{gdplt} [CZK] is the planned value of the DSO's capitalised investments for year *t*,

CTA_{gdplt} [CZK] is the planned value of the assets acquired by company transformation, approved by the Office for year *t*,

AD_{gdplt} [CZK] is the planned value of the DSO's asset disposals for year *t* under the public notice on regulatory reporting6,

$D\&A_{gdplt}$ [CZK] is the planned value of D&A of the DSO's non-current tangible and intangible assets serving for providing the distribution system service for year *t,*

$ApproxBVA_{gdt}$ [CZK] is the value expressing the annual convergence of the value of the regulatory asset base to the book value of assets, based on the difference between the planned book value of assets and the regulatory asset base for 2020, which is multiplied by a coefficient reflecting the percentage granted in year *t*; that value will be adjusted to the later known actual value, applicable to year *t* and calculated as

$$ApproxBVA_{gdt} = ApproxBVA_{gd0t} + CF_{ApproxBVAt}\ ,$$

where

$ApproxBVA_{gd0t}$ [CZK] is the planned value expressing the annual convergence of the value of the regulatory asset base to the book value of assets, calculated as

$$ApproxBVA_{gd0t} = \left(BVA_{gdplL} - RAB_{gdL} - CF_{gdRABL+1}\right) \times c_{gdindt},$$

where

BVA_{gdplL} [CZK] is the planned book value of assets for 2020 from the preceding year,

RAB_{gdL} [CZK] is the planned value of the regulatory asset base for 2020,

$CF_{gdRABL+1}$ [CZK] is the correction factor of the regulatory asset base for 2019, calculated as per point 9.3.3 of the Price Control Principles for 2016-2018 for the Electricity Industry, the Gas Industry and for the Market Operator's Services in the Electricity Industry and the Gas Industry with effect extended to 2020,

c_{gdindt} [%] is the coefficient of individual convergence calculated as per **Chyba! Nenalezen zdroj odkazů.**,

$CF_{ApproxBVAt}$ [CZK] is the correction factor of the planned value expressing the annual convergence of the value of the regulatory asset base to the book value of assets, calculated as

$$CF_{ApproxBVAt} = \left(BVA_{gdskL} - BVA_{gdplL} - CF_{gdRABL+2}\right) \times \left(c_{gdindt-1} + c_{gdindt}\right),$$

provided that

for year *t* = 2021, **$CF_{ApproxBVAt}$** equals 0, and

for year *t* >2022, $c_{gdindt-1}$ equals 0,

where

BVA_{gdskL} [CZK] is the actual book value of assets in 2020,

$CF_{gdRABL+2}$ [CZK] is the correction factor of the regulatory asset base for 2020 calculated as per point 9.3.3 of the Price Control Principles for 2016-2018 for the Electricity Industry, the Gas Industry and for the Market Operator's Services in the Electricity Industry and the Gas Industry with effect extended to 2020,

CF_{gdRABt} [CZK] is the correction factor of the regulatory asset base, which reflects the difference between the actual and planned changes in the book value of the DSO's assets in year *t-2,* applied from year *t=L+i, i≥1*, and calculated as per 16.3.3,

NI_{gdpli} [CZK] is the planned value of the DSO's development investments in progress in year *i*. Subject to the DSO's prior request, this value can also include the various development investments in progress approved by the Office with a planned time to completion of more than two years and the total planned amount of the investments exceeding CZK 500 million. The planned value of development investments in progress may only be used subject to a negative balance in the DSO's replacement and development fund,

CF_{gdzi} [CZK] is the DSO's profit correction factor, which reflects the difference in profit caused by the difference between the actual and planned changes in the book value of assets in year *i-2*, applied from regulated year *i≥1* and calculated as per 16.3.3,

CF_{gdNIi} [CZK] is the correction factor of the DSO's development investments in progress, which reflects the difference in profit caused by the difference between the actual and planned values of development investments in progress in year *i-2,* calculated as per 16.3.3,

MF_{gdi} [CZK] is the value of the DSO's market factor for regulated year *i* set by the Office,

CL_{gdi} [CZK] is the cost of gas purchase to cover the allowed quantities of losses and own use (process) in the distribution system for regulated year *i*, as follows:

$$CL_{gdi} = AQ_{gdi} \times YMP_{gdi} ,$$

where

AQ_{gdi} [MWh] is the allowed quantity of energy in gas for covering the DSO's losses and own use (process) for regulated year *i*, calculated as the arithmetic average of the sums of the actual values of losses and own use (process) over the period 2014-2018; should the average quantity of losses determined for the period 2014–2018 exceed 2% of the average quantity of the gas that entered the given distribution system in the period 2014–2018, a value equalling 2% of the average quantity of the gas that entered the given distribution system shall be used for calculating the allowed quantities of gas for covering losses,

YMP_{gdi} [CZK/MWh] is the yearly unit maximum price of gas supply for losses and own use (process) for regulated year *i*, as follows:

$$YMP_{gdi} = (NCG_{cali} + C) \times ER\ ,$$

where

NCG_{cali} [EUR/MWh] is the basic price of energy in gas for regulated year *i* calculated as the arithmetic average of the settlement prices of the product *Cal-i* for ten trading days preceding the third Wednesday in June of year *i-1*, as posted on the website of European Energy Exchange AG,

C [EUR/MWh] is the cost of gas purchase and transport to the Czech Republic plus a reasonable margin. Cost **C** has been set at EUR 2/MWh,

ER [CZK/EUR] is the arithmetic average of exchange rates for ten trading days preceding the third Wednesday in June of year *i-1*, as posted by the Czech National Bank,

CD_{gdpli} [CZK] is the planned cost of buying distribution for regulated year *i* from other DSOs, set as a parameter for calculating the average price of the distribution system service on the basis of the volume of distribution services bought in preceding years,

CF_{gdi} [CZK] is the correction factor of the distribution system service for regulated year *i* calculated as per 16.3.3. Further to the DSO's request or in justified cases subject to agreement with the DSO, the Office may spread the application of the correction factor over multiple regulated years, however, no more than five consecutive regulated years, applying the principle of the time value of money based on the PPI values for the respective years,

R_{gdnpli} [CZK] is the planned value of the controlled costs of the rent paid for using gas installations under lease agreements for regulated year *i*, as follows:

$$R_{gdnpli} = R_{gdnpli-1} + EF_{gdni}\ ,$$

where

$R_{gdnpli-1}$ [CZK] is the planned value of the controlled costs of the rent paid for using gas installations in year *i-1* calculated under lease agreements effective as at 15 August of the year preceding regulated year *i*, calculated as per 16.3.4,

EF_{gdni} [CZK] is the equalising factor of the controlled costs of the rent paid for using gas installations, reflecting the difference between the actually spent controlled costs of the rent paid for using gas installations for year *i-2* and the amount of the controlled costs of the rent paid for using gas installations, which is included in the prices of the distribution system service in year *i-2,* including the costs of creating easements over gas installations rented from third parties in year *i-2*, as follows:

$$EF_{gdni} = R_{gdnski-2} - R_{gdnpli-2} + \left(LAC_{gdi-2} - LAR_{gdi-2}\right)\ ,$$

where

$R_{gdnski-2}$ [CZK] is the actual value of the controlled costs of the rent paid for using gas installations under lease agreements, calculated as per 16.3.4 for year *i-2*,

$R_{gdnpli-2}$ [CZK] is the planned value of the controlled costs of the rent paid for using gas installations in year under lease agreements, calculated as per 16.3.4 for year *i-2*,

LAC_{gdi-2} [CZK] is the lessee's actual cost in year *i-2* spent in the customary amount on activities associated with additional arrangements for easements over the plots of land affected by the leased gas installations where such easement was not created by the lessor,

LAR_{dgd-2} [CZK] are the actual revenues of the lessee paid by the lessor in year *i-2* and intended for cover the lessee's earlier costs incurred in additional arrangements for easements over the plots of land affected by the leased gas installations.

B) The replacement and development fund

The balance in the DSO's replacement and development fund, **RDF_{gdi}**, for regulated year *i* of the regulatory period beginning on 1 January 2021 is calculated as

$$RDF_{gdi} = \sum_{t=2012}^{L+i} D\&A_{gdskt-2} - \sum_{t=2012}^{L+i} CI_{gdskt-2},$$

where

$D\&A_{gdskt-2}$ [CZK] is the actual value of the D&A of the DSO's non-current tangible and intangible assets serving for providing the gas distribution service for year *t-2*

$CI_{gdskt-2}$ [CZK] je actual value of the DSO's capitalised investments for year *t-2*

C) Rounding rules

No rounding is done during calculations.

Depending on the unit, the input values are rounded as follows:

a) CZK to whole Czech crowns,

b) MWh to three decimal places,

c) percentages, to three decimal places, with the exception of the rate of return on the regulatory asset base, which is rounded to two decimal places,

d) ratios, to five decimal places,

h) CZK/MWh to two decimal places.

The resulting price is rounded to two decimal places.

16.3.3. Procedure for determining correction factors in the gas industry

Correction factors for 2019 and 2020 are determined under point 9.3.3 of the Price Control Principles for 2016-2018 for the Electricity Industry, the Gas Industry and for the Market Operator's Services in the Electricity Industry and the Gas Industry with effect extended to 2020, and will equalise over the regulatory period beginning on 1 January 2021.

The correction factor of the TSO's regulatory asset base will not be determined from the last two years of the fourth regulatory period. The correction of profit and D&A, which is based on the difference between the actual and planned D&A and investments in 2019 and 2020, will be determined on the basis of the allocation ratios adopted for the purposes of the TAR Decision.

A) Correction factors for the TSO

(1) The correction factor of the TSO's D&A, $\mathbf{CF_{gtoi}}$ in CZK, which reflects the difference between the actual and planned directly allocable D&A of non-current tangible and intangible assets, including assets financed from a subsidy in year *i-2*, is applied from year *i≥3*.

a) If $\left(D\&A_{gtppmski-2} - D\&A_{gtppmpli-2}\right) \leq 0$ while $\frac{D\&A_{gtppmpli-2}}{D\&A_{gtppmski-2}} > 1.05$,

the correction factor of the TSO's D&A, $\mathbf{CF_{gtoi}}$, is calculated as:

$$CF_{gtoi} = CF_{gtoPPIi} + CF_{gtoRRi}\ ,$$

where

i [-] is the serial number of the regulated year,

$\mathbf{CF_{gtoPPIi}}$ [CZK] is the part of the D&A correction factor which is escalated by the time value of money, calculated as

$$CF_{gtOPPIi} = \left(D\&A_{gtppmski-2} - 1.05 \times D\&A_{gtppmski-2}\right) \times \frac{PPI_{i-2}}{100} \times \frac{PPI_{i-1}}{100}\ ,$$

where

$\mathbf{D\&A_{gtppmski-2}}$ [CZK] is the actual value of directly allocable D&A of the TSO's non-current tangible and intangible assets, including the D&A of assets financed from a subsidy and serving for providing the gas transmission service, for year *i-2;* the value of the D&A of non-current tangible and intangible assets financed from a subsidy for the TSO can be reduced by the Office so as to prevent the public aid from exceeding the maximum allowed level,

$\mathbf{PPI_{i-2}}$ [%] is the producer price index set on the basis of the ratio of the rolling averages of the basic producer price indices over the last 12 months and over the preceding 12 months, published by the Czech Statistical Office in the table "Producer Price Index" (code 011044) for April of year *i-2*,

$\mathbf{PPI_{i-1}}$ [%] is the producer price index set on the basis of the ratio of the rolling averages of the basic producer price indices over the last 12 months and over

the preceding 12 months, published by the Czech Statistical Office in the table "Producer Price Index" (code 011044) for April of year *i-1,*

CF_{gtoRRi} [CZK] is the part of the D&A correction factor which is escalated by the rate of return on assets, calculated as

$$CF_{gtoRRi} = \left(1.05 \times D\&A_{gtppmski-2} - D\&A_{gtppmpli-2}\right) \times \frac{\left(100+RR_{gti-2}\right)}{100} \times \frac{\left(100+RR_{gti-1}\right)}{100},$$

where

$D\&A_{gtppmpli-2}$ [CZK] is the planned value of directly allocable D&A of the TSO's non-current tangible and intangible assets, including the D&A of assets financed from a subsidy and serving for providing the gas transmission service, for year *i-2;* the value of the D&A of non-current tangible and intangible assets financed from a subsidy for the TSO can be reduced by the Office so as to prevent the public aid from exceeding the maximum allowed level,

RR_{gti-2} [%] is the rate of return on the regulatory asset base for the gas transmission service for regulated year *i-2*,

RR_{gti-1} [%] is the rate of return on the regulatory asset base for the gas transmission service for regulated year *i-1*.

b) If $\left(D\&A_{gtppmski-2} - D\&A_{gtppmpli-2}\right) > 0$ or $\frac{D\&A_{gtppmpli-2}}{D\&A_{gtppmski-2}} \leq 1.05$, the correction factor of the TSO's D&A, **CF_{gtoi}**, is calculated as

$$CF_{gtoi} = (D\&A_{gtppmski-2} - D\&A_{gtppmpli-2}) \times \frac{PPI_{i-2}}{100} \times \frac{PPI_{i-1}}{100}.$$

(2) The correction factor of the regulatory asset base, **CF_{gtRABt}** in CZK, which reflects the difference between the actual and planned changes in the book value of the TSO's assets in year *t-2,* applied from year *t=L+i, i≥3,* is calculated as

$$CF_{gtRABt} = \left(CI_{gtskt-2} + CTA_{gtskt-2} - AD_{gtskt-2} - C\&A_{gtskt-2}\right) - \left(CI_{gtplt-2} + CTA_{gtpl-2} - AD_{gtplt-2} - C\&A_{gtplt-2}\right),$$

where

L [-] is the date of the year preceding the first regulated year of the regulatory period,

$CI_{gtskt-2}$ [CZK] is the actual value of the TSO's capitalised investments for year *t-2*,

$CTA_{gtskt-2}$ [CZK] je actual value of the assets acquired by company transformation, approved by the Office for year *t-2*,

$AD_{gtskt-2}$ [CZK] is the actual value of the TSO's asset disposals for year *t-2* under the public notice on regulatory reporting 6,

D&A$_{gtskt-2}$ [CZK] is the actual value of D&A of the TSO's non-current tangible and intangible assets serving for providing the gas transmission service for year *t-2*,

CI$_{gtplt-2}$ [CZK] is the planned value of the TSO's capitalised investments for year *t-2*,

CTA$_{gtplt-2}$ [CZK] is the planned value of the assets acquired by company transformation, approved by the Office for year *t-2*,

AD$_{gtplt-2}$ [CZK] is the planned value of the TSO's asset disposals for year *t-2* under the public notice on regulatory reporting 6,

D&A$_{gtplt-2}$ [CZK] is the planned value of D&A of the TSO's non-current tangible and intangible assets serving for providing the gas transmission service for year *t-2*.

(3) The TSO's profit correction factor, **CF$_{gtzi}$** in CZK, reflects the difference in profit caused by the difference between the actual and planned changes in the book value of assets in year *i-2.* **CF$_{gtzi}$** is applied from year *i≥3*. Because of the change in the algorithm for RAB calculation during the regulatory period, different equations apply for each of the years of the regulatory period:

<u>For i=3 to i=5:</u>

a) If

$$\Delta RAB_{gtskt} < 0 \text{ while } \Delta RAB_{gtplt} > 0.95 \times \Delta RAB_{gtskt} ,$$

where

ΔRAB$_{gtskt}$ [CZK] is the actual yearly change in the value of the TSO's regulatory asset base for year *t=L+i*, calculated as

$$\Delta RAB_{gtskt} = CI_{gtskt-2} + CTA_{gtskt-2} - AD_{gtskt-2} - D\&A_{gtskt-2},$$

where

CI$_{gtskt-2}$ [CZK] is the actual value of the TSO's capitalised investments for year *t-2*,

CTA$_{gtskt-2}$ [CZK] is the actual value of the assets acquired by company transformation, approved by the Office for year *t-2*,

AD$_{gtskt-2}$ [CZK] je actual value of the TSO's asset disposals for year *t-2* under the public notice on regulatory reporting 6,

D&A$_{gtskt-2}$ [CZK] is the actual value of D&A of the TSO's non-current tangible and intangible assets serving for providing the gas transmission service for year *t-2,*

ΔRAB$_{gtplt}$ [CZK] is the planned yearly change in the value of the TSO's regulatory asset base for year *t=L+i*, calculated as

$$\Delta RAB_{gtplt} = CI_{gtplt-2} + CTA_{gtplt-2} - AD_{gtplt-2} - D\&A_{gtplt-2},$$

where

$CI_{gtplt-2}$ [CZK] is the planned value of the TSO's capitalised investments for year *t-2*,

$CTA_{gtplt-2}$ [CZK] is the planned value of the assets acquired by company transformation, approved by the Office for year *t-2*,

$AD_{gtplt-2}$ [CZK] is the planned value of the TSO's asset disposals for year *t-2* under the public notice on regulatory reporting 6,

$D\&A_{gtplt-2}$ [CZK] is the planned value of D&A of the TSO's non-current tangible and intangible assets serving for providing the gas transmission service for year *t-2,*

then the TSO's profit correction factor, **CF_{gtzi}**, is calculated as

$$CF_{gtzi} = CF_{gtzPPIi} + CF_{gtzRRi},$$

where

$CF_{gtzPPIi}$ [CZK] is the part of the profit correction factor, which is escalated by the time value of money, calculated as

$$CF_{gtzPPIi} = 0.05 \times \Delta RAB_{gtskt} \times \frac{RR_{gti-2}}{100} \times \frac{PPI_{i-2}}{100} \times \frac{PPI_{i-1}}{100} + 0.05 \times \Delta RAB_{gtskt} \times \frac{RR_{gti-1}}{100} \times \frac{PPI_{i-1}}{100},$$

CF_{gtzRRi} [CZK] is the part of the profit correction factor, which is escalated by the rate of return on assets, calculated as

$$CF_{gtzRRi} = \left(0.95 \times \Delta RAB_{gtskt} - \Delta RAB_{gtplt}\right) \times \frac{RR_{gti-2}}{100} \times \frac{100+RR_{gti-2}}{100} \times \frac{100+RR_{gti-1}}{100} + \left(0.95 \times \Delta RAB_{gtskt} - \Delta RAB_{gtplt}\right) \times \frac{RR_{gti-1}}{100} \times \frac{100+RR_{gti-1}}{100}.$$

b) If

$$\Delta RAB_{gtskt} > 0 \text{ while } \Delta RAB_{gtplt} > 1.05 \times \Delta RAB_{gtskt},$$

the TSO's profit correction factor, **CF_{gtzi}**, is calculated as

$$CF_{gtzi} = CF_{gtzPPIi} + CF_{gtzRRi},$$

where

$CF_{gtzPPIi}$ [CZK] is the part of the profit correction factor, which is escalated by the time value of money, calculated as

$$CF_{gtzPPIi} = \left(\Delta RAB_{gtskt} - 1.5 \times \Delta RAB_{gtskt}\right) \times \frac{RR_{gti-2}}{100} \times \frac{PPI_{i-2}}{100} \times \frac{PPI_{i-1}}{100} + \left(\Delta RAB_{gtskt} - 1.05 \times \Delta RAB_{gtskt}\right) \times \frac{RR_{gti-1}}{100} \times \frac{PPI_{i-1}}{100},$$

where

CF_{gtzRRi} [CZK] is the part of the profit correction factor, which is escalated by the rate of return on assets, calculated as

$$CF_{gtzRRi} = \left(1.05 \times \Delta RAB_{gtskt} - \Delta RAB_{gtplt}\right) \times \frac{RR_{gti-2}}{100} \times \frac{100+RR_{gti-2}}{100} \times \frac{100+RR_{gti-1}}{100} + \left(1.05 \times \Delta RAB_{gtskt} - \Delta RAB_{gtplt}\right) \times \frac{RR_{gti-1}}{100} \times \frac{100+RR_{gti-1}}{100}.$$

c) In other cases,

the TSO's profit correction factor, **CF_{gtzi}**, is calculated as

$$CF_{gtzi} = CF_{gtRABt} \times \frac{RR_{gti-2}}{100} \times \frac{PPI_{i-2}}{100} \times \frac{PPI_{i-1}}{100} + CF_{gtRABt} \times \frac{RR_{gti-1}}{100} \times \frac{PPI_{i-1}}{100}.$$

<u>For i=6:</u>

a) If

$$\Delta RAB_{gtskt} < 0 \text{ while } \Delta RAB_{gtplt} > 0.95 \times \Delta RAB_{gtskt},$$

the TSO's profit correction factor, **CF_{gtzi}**, is calculated as

$$FC_{gtzi} = CF_{gtzPPIi} + CF_{gtzRRi},$$

where

$CF_{gtzPPIi}$ [CZK] is the part of the profit correction factor, which is escalated by the time value of money, calculated as

$$CF_{gtzPPIi} = 0.05 \times \Delta RAB_{gtskt} \times \frac{RR_{gti-2}}{100} \times \frac{PPI_{i-2}}{100} \times \frac{PPI_{i-1}}{100},$$

CF_{gtzRRi} [CZK] is the part of the profit correction factor, which is escalated by the value of the rate of return on assets, calculated as

$$CF_{gtzRRi} = \left(0.95 \times \Delta RAB_{gtskt} - \Delta RAB_{gtplt}\right) \times \frac{RR_{gti-2}}{100} \times \frac{100+RR_{gti-2}}{100} \times \frac{100+RR_{gti-1}}{100}.$$

b) If

$$\Delta RAB_{gtskt} > 0 \text{ while } \Delta RAB_{gtplt} > 1.05 \times \Delta RAB_{gtskt},$$

the TSO's profit correction factor, **CF_{gtzi}**, is calculated as

$$CF_{gtzi} = CF_{gtzPPIi} + CF_{gtzRRi},$$

where

$CF_{gtzPPIi}$ [CZK] is the part of the profit correction factor, which is escalated by the time value of money, calculated as

$$CF_{gtzPPIi} = \left(\Delta RAB_{gtskt} - 1.05 \times \Delta RAB_{gtskt}\right) \times \frac{RR_{gti-2}}{100} \times \frac{PPI_{i-2}}{100} \times \frac{PPI_{i-1}}{100},$$

CF_{gtzRRi} [CZK] is the part of the profit correction factor, which is escalated by the value of the rate of return on assets, calculated as

$$CF_{gtzRRi} = \left(1.05 \times \Delta RAB_{gtskt} - \Delta RAB_{gtplt}\right) \times \frac{RR_{gti-2}}{100} \times \frac{100+RR_{gti-2}}{100} \times \frac{100+RR_{gti-1}}{100}.$$

c) In other cases,

the TSO's profit correction factor, **CF_{gtzi}**, is calculated as

$$CF_{gtzi} = CF_{gtRABt} \times \frac{RR_{gti-2}}{100} \times \frac{PPI_{i-2}}{100} \times \frac{PPI_{i-1}}{100}.$$

For i=7:

a) If

$$\Delta BVA_{gtskt} < 0,$$

where

ΔBVA_{gtskt} [CZK] is the actual yearly change in the book value of the TSO's assets for year *t=L+i*, calculated as

$$\Delta BVA_{gtskt} = BVA_{gtskt-2} - BVA_{gtplt-2},$$

where

$BVA_{gtskt-2}$ [CZK] is the actual book value of the TSO's assets for national gas transmission at the end of year *t-2*,

$BVA_{gtplt-2}$ [CZK] is the planned book value of the TSO's assets for national gas transmission at the end of year *t-2*,

ΔBVA_{gtplt} [CZK] is the planned yearly change in the book value of the TSO's assets for year *t=L+i*, calculated as

$$\Delta BVA_{gtplt} = BVA_{gtplt-2} - BVA_{gtplt-3},$$

where

$BVA_{gtplt-3}$ [CZK] is the planned book value of the TSO's assets for national gas transmission at the end of year *t-3*,

then the TSO's profit correction factor, **CF_{gtzi}** [CZK], is calculated as

$$CF_{gtzi} = CF_{gtzPPIi} + CF_{gtzRRi},$$

where

$CF_{gtzPPIi}$ [CZK] is the part of the profit correction factor, which is escalated by the time value of money, calculated as

$$CF_{gtzPPIi} = \max[\Delta BVA_{gtskt}; -\left|0.05 \times \Delta BVA_{gtplt}\right|] \times \frac{RR_{gti-2}}{100} \times \frac{PPI_{i-2}}{100} \times \frac{PPI_{i-1}}{100},$$

CF_{gtzRRi} [CZK] is the part of the profit correction factor, which is escalated by the value of the rate of return on assets, calculated as

$$CF_{gtzRRi} = \min[\Delta BVA_{gtskt} + \left|0.05 \times \Delta BVA_{gtplt}\right|; 0] \times \frac{RR_{gti-2}}{100} \times \frac{100+RR_{gti-2}}{100} \times \frac{100+RR_{gti-1}}{100}.$$

b) If $\Delta BVA_{gtskt} > 0$ the TSO's profit correction factor, **CF_{gtzi}**, is calculated as

$$\mathrm{CF_{gtzi}} = \Delta \mathrm{BVA_{gtskt}} \times \frac{\mathrm{RR_{gti-2}}}{100} \times \frac{\mathrm{PPI_{i-2}}}{100} \times \frac{\mathrm{PPI_{i-1}}}{100}.$$

Since the correction factors **CF_{gtzi}** for years *i=6* and *i=7* will depend on the algorithm for calculating RAB and on the determination of any additional parameters for the following regulatory period into which they will extend in terms of their effectiveness, it will have to be assessed, when developing the rules for that period, whether or not due to those changes the above algorithm for correcting the profit will still determine the difference between the TSO's planned and justified profit in a fair manner.

(4) The correction factor of the TSO's development investments in progress, **CF_{gtNIi}**, which reflects the difference between the actual and planned values of the development investments in progress in year *i-2*, is applied from year *i≥3* and calculated as

$$CF_{gtNIi} = \left(NI_{gtski-2} - NI_{gtpli-2}\right) \times \frac{RR_{gti-2}}{100} \times \frac{PPI_{i-2}}{100} \times \frac{PPI_{i-1}}{100},$$

where

$NI_{gtski-2}$ [CZK] is the actual value of the TSO's development investments in progress approved by the Office in year *i-2,*

$NI_{gtpli-2}$ [CZK] is the planned value of the TSO's development investments in progress approved by the Office in year *i-2.*

(5) The correction factor, **CF_{gti}** in CZK, for the national gas transmission service is applied from year *i≥2* and calculated as

$$CF_{gti} = \left(AR_{gti-2} + CF_{gti-2} - TR_{gti-2} + ODC_{gtski-2} - ODR_{gtski-2}\right) \times \frac{PPI_{i-2}}{100} \times \frac{PPI_{i-1}}{100},$$

where

AR_{gti-2} [CZK] is the value of allowed revenues set for year *i-2*,

CF_{gti-2} [CZK] is the value of the TSO's correction factor determined for year *i-2*,

TR_{gti-2} [CZK] is the total revenues from the national gas transmission service, net of payments for the variable component of the price and net of revenues related to the commercial/physical settling/balancing of imbalances, which also include revenues from the use of capacities at the entry interconnection points for ensuring gas supply to customers' supply points within the Czech entry-exit system on the basis of the actual consumption for year *i-2* and of the capacity usage coefficient under point 10.5,

$ODC_{gtski-2}$ [CZK] is the actual costs incurred in the commercial/physical settling/balancing of imbalances in year *i-2*,

$ODR_{gtski-2}$ [CZK] is the actual revenues recovered in the commercial/physical settling/balancing of imbalances in year *i-2*.

(6) The correction factor of the variable costs of national gas transmission, **CF_{gtNi}** in CZK, is applied from year i≥2 and calculated as

$$CF_{gtNi} = \left(CL_{gtNski-2} + CEG_{gtNski-2} - AcR_{gtNski-2}\right)$$

where

$CL_{gtNski-2}$ [CZK] is the actual cost of buying gas for covering losses in the transmission system for regulated year *i-2,* allocated to national transmission using the model approved in point 17.1 of the TAR Decision,

$CEG_{gtNski-2}$ [CZK] is the actual cost of buying electricity and gas for running compression stations and the related charges, of taxes, and of emission allowances in excess of the free allocation for the respective year (for year i=1, the difference for the whole fourth regulatory period) for regulated year *i-2,* allocated to national transmission using the model approved in point 17.1 of the TAR Decision,

$AcR_{gtNski-2}$ [CZK] is the actual revenues from the variable component of the price for the exit points into the virtual storage facility, customers directly connected to the transmission system, and the exit point via the aggregate of the delivery points between the transmission and distribution systems for regulated year *i-2.*

(7) The correction factor of the variable costs of international gas transmission, **CF_{gtIi}** in CZK, is applied from year i≥2 and calculated as

$$CF_{gtIi} = \left(CL_{gtIski-2} + CEG_{gtIski-2} - AcR_{gtIski-2}\right),$$

where

$CL_{gtIski-2}$ [CZK] is the actual cost of buying gas for covering losses in the transmission system for regulated year *i-2,* allocated to international transmission using the model approved in point 17.1 of the TAR Decision,

$CEG_{gtIski-2}$ [CZK] is the actual cost of buying gas and electricity for running compression stations and the related charges, of taxes, and of emission allowances in excess of the free allocation for the respective year (for year *i=1*, the difference for the whole fourth regulatory period) for regulated year *i-2,* allocated to international transmission using the model approved in point 17.1 of the TAR Decision,

$AcR_{gtIski-2}$ [CZK] is the actual revenue from the variable component of the price at the exit interconnection points for regulated year *i-2.*

B) Correction factors for DSOs

(1) The correction factor of the DSO's D&A, $\mathbf{CF_{gdoi}}$ in CZK, which reflects the difference between the actual and planned directly allocable D&A of non-current tangible and intangible assets, including assets financed from a subsidy in year *i-2*, is applied from year *i≥3*.

a) If $\left(D\&A_{gdski-2} - D\&A_{gdpli-2}\right) \leq 0$ while $\frac{D\&A_{gdpli-2}}{D\&A_{gdski-2}} > 1.05$, the correction factor of the DSO's D&A, $\mathbf{CF_{gdoi}}$, is calculated as:

$$CF_{gdoi} = CF_{gdoPPIi} + CF_{gdoRRi}\ ,$$

where

i [-] is the serial number of the regulated year,

$\mathbf{CF_{gdoPPIi}}$ [CZK] is the part of the D&A correction factor, which is escalated by the time value of money, calculated as

$$CF_{gdoPPIi} = \left(D\&A_{gdski-2} - 1.05 \times D\&A_{gdski-2}\right) \times \frac{PPI_{i-2}}{100} \times \frac{PPI_{i-1}}{100}\ ,$$

where

$\mathbf{D\&A_{gdski-2}}$ [CZK] is the actual value of the D&A of the DSO's non-current tangible and intangible assets, including the D&A of assets financed from a subsidy and serving for providing the distribution system service for year *i-2*; the value of the D&A of non-current tangible and intangible assets financed from a subsidy for the DSO can be reduced by the Office so as to prevent the public aid from exceeding the maximum allowed level,

$\mathbf{PPI_{i-2}}$ [%] is the producer price index set on the basis of the ratio of the rolling averages of the basic producer price indices over the last 12 months and over the preceding 12 months, published by the Czech Statistical Office in the table "Producer Price Index" (code 011044) for April of year *i-2*,

$\mathbf{PPI_{i-1}}$ [%] is the producer price index set on the basis of the ratio of the rolling averages of the basic producer price indices over the last 12 months and over the preceding 12 months, published by the Czech Statistical Office in the table "Producer Price Index" (code 011044) for April of year *i-1*,

$\mathbf{CF_{gdoRRi}}$ [CZK] is the part of the D&A correction factor, which is escalated by the rate of return on assets, calculated as

$$CF_{gdoRRi} = \left(1.05 \times D\&A_{gdski-2} - D\&A_{gdpli-2}\right) \times \frac{\left(100+RR_{gdi-2}\right)}{100} \times \frac{\left(100+RR_{gdi-1}\right)}{100}\ ,$$

where

$\mathbf{D\&A_{gdpli-2}}$ [CZK] is the planned value of D&A of the DSO's non-current tangible and intangible assets, including the D&A of assets financed from a subsidy and serving for providing the distribution system service for year *i-2*; the value of the D&A of non-current tangible and intangible assets financed from a subsidy

for the DSO can be reduced by the Office so as to prevent the public aid from exceeding the maximum allowed level,

RR_{gdi-2} [%] is the rate of return on the regulatory asset base for the distribution system service for regulated year *i-2*,

RR_{gdi-1} [%] is the rate of return on the regulatory asset base for the distribution system service for regulated year *i-1*.

b) If $\left(D\&A_{gdski-2} - D\&A_{gdpli-2}\right) \leq 0$ or $\frac{D\&A_{gdpli-2}}{D\&A_{gdski-2}} \leq 1.05$, the correction factor of the DSO's D&A, **CF_{gdoi}**, is calculated as

$$CF_{gdoi} = \left(D\&A_{gdski-2} - D\&A_{gdpli-2}\right) \times \frac{PPI_{i-2}}{100} \times \frac{PPI_{i-1}}{100}.$$

(2) The correction factor of the regulatory asset base, **CF_{gdRABt}** in CZK, which reflects the difference between the actual and planned changes in the book value of the DSO's assets in year *t-2,* is applied from year *t=L+i, i≥3I,* and calculated as

$$CF_{gdRABt} = \left(CI_{gdskt-2} + CTA_{gdskt-2} - AD_{gdskt-2} - D\&A_{gdskt-2}\right) - \left(CI_{gdplt-2} + CTA_{gdplt-2} - AD_{gdplt-2} - D\&A_{gdplt-2}\right),$$

where

$CI_{gdskt-2}$ [CZK] is the actual value of the DSO's capitalised investments for year *t-2*,

$CTA_{gdskt-2}$ [CZK] is the actual value of the assets acquired by company transformation, approved by the Office for year *t-2*,

$AD_{gdskt-2}$ [CZK] is the actual value of the DSO's asset disposals for year *t-2* under the public notice on regulatory reporting 6,

$D\&A_{gdskt-2}$ [CZK] is the actual value of D&A of the DSO's non-current tangible and intangible assets serving for providing the distribution system service for year *t-2*,

$CI_{gdplt-2}$ [CZK] is the planned value of the DSO's capitalised investments for year *t-2*,

$CTA_{gdplt-2}$ [CZK] is the planned value of the assets acquired by company transformation, approved by the Office for year *t-2*,

$AD_{gdplt-2}$ [CZK] is the planned value of the DSO's asset disposals for year *t-2* under the public notice on regulatory reporting 6,

$D\&A_{gdplt-2}$ [CZK] is the planned value of D&A of the DSO's non-current tangible and intangible assets serving for providing the distribution system service for year *t-2*.

(3) The DSO's profit correction factor, **CF_{gdzi}** in CZK, which reflects the difference in profit caused by the difference between the actual and planned changes in the book value of assets in year *i-2*, is applied from year *i≥3*.

a) If

$$\Delta RAB_{gdskt} < 0 \text{ while } \Delta RAB_{gdplt} > 0.95 \times \Delta RAB_{gdskt} \text{ ,}$$

where

ΔRAB$_{gdskt}$ [CZK] is the actual yearly change in the value of the DSO's regulatory asset base, calculated as

$$\Delta RAB_{gdskt} = CI_{gdskt-2} + CTA_{gdskt-2} - AD_{gdskt-2} - D\&A_{gdskt-2},$$

where

CI$_{gdskt-2}$ [CZK] is the actual value of the DSO's capitalised investments for year *t-2*,

CTA$_{gdskt-2}$ [CZK] is the actual value of the assets acquired by company transformation, approved by the Office for year *t-2*,

AD$_{gdskt-2}$ [CZK] is the actual value of the DSO's asset disposals for year *t-2* under the public notice on regulatory reporting 6,

D&A$_{gdskt-2}$ [CZK] is the actual value of D&A of the DSO's non-current tangible and intangible assets serving for providing the distribution system service for year *t-2,*

ΔRAB$_{gdplt}$ [CZK] is the planned yearly change in the value of the DSO's regulatory asset base, calculated as

$$\Delta RAB_{gdplt} = CI_{gdplt-2} + CTA_{gdplt-2} - AD_{gdplt-2} - D\&A_{gdplt-2},$$

where

CI$_{gdplt-2}$ [CZK] is the planned value of the DSO's capitalised investments for year *t-2*,

CTA$_{gdplt-2}$ [CZK] is the planned value of the assets acquired by company transformation, approved by the Office for year *t-2*,

AD$_{gdlt-2}$ [CZK] is the planned value of the DSO's asset disposals for year *t-2* under the public notice on regulatory reporting 6,

D&A$_{gdlt-2}$ [CZK] is the planned value of D&A of the DSO's non-current tangible and intangible assets serving for providing the gas distribution service for year *t-2,*

then the DSO's profit correction factor, **CF$_{gdzi}$**, is calculated as

$$CF_{gdzi} = CF_{gdzPPIi} + CF_{gdzRRi},$$

where

CF$_{gdzPPIi}$ [CZK] is the part of the profit correction factor, which is escalated by the time value of money, calculated as

$$CF_{gdzPPIi} = 0.05 \times \Delta RAB_{gdskt} \times \frac{RR_{gdi-2}}{100} \times \frac{PPI_{i-2}}{100} \times \frac{PPI_{i-1}}{100} + 0.05 \times \Delta RAB_{gdskt} \times \frac{RR_{gdi-1}}{100} \times \frac{PPI_{i-1}}{100},$$

CF_{gdzRRi} [CZK] is the part of the profit correction factor, which is escalated by the value of the rate of return on assets, calculated as

$$CF_{gdzRRi} = \left(0.95 \times \Delta RAB_{gdskt} - \Delta RAB_{gdplt}\right) \times \frac{RR_{gdi-2}}{100} \times \frac{100+RR_{gdi-2}}{100} \times \frac{100+RR_{gdi-1}}{100} + \left(0.95 \times \Delta RAB_{gdskt} - \Delta RAB_{gdplt}\right) \times \frac{RR_{gdi-1}}{100} \times \frac{100+RR_{gdi-1}}{100}.$$

b) If

$$\Delta RAB_{gdskt} > 0 \text{ while } \Delta RAB_{gdplt} > 1.05 \times \Delta RAB_{gdskt},$$

the DSO's profit correction factor, **CF_{gdzi}**, is calculated as

$$CF_{gdzi} = CF_{gdzPPIi} + CF_{gdzRRi},$$

where

$CF_{gdzPPIi}$ [CZK] is the part of the profit correction factor, which is escalated by the time value of money, calculated as

$$CF_{gdzPPIi} = \left(\Delta RAB_{gdskt} - 1.5 \times \Delta RAB_{gdskt}\right) \times \frac{RR_{gdi-2}}{100} \times \frac{PPI_{i-2}}{100} \times \frac{PPI_{i-1}}{100} + \left(\Delta RAB_{gdskt} - 1.05 \times \Delta RAB_{gdskt}\right) \times \frac{RR_{gdi-1}}{100} \times \frac{PPI_{i-1}}{100},$$

CF_{gdzRRi} [CZK] is the part of the profit correction factor, which is escalated by the value of the return on assets, calculated as

$$CF_{gdzRRi} = \left(1.05 \times \Delta RAB_{gdskt} - \Delta RAB_{gdplt}\right) \times \frac{RR_{gdi-2}}{100} \times \frac{100+RR_{gdi-2}}{100} \times \frac{100+RR_{gdi-1}}{100} + \left(1.05 \times \Delta RAB_{gdskt} - \Delta RAB_{gdplt}\right) \times \frac{RR_{gdi-1}}{100} \times \frac{100+RR_{gdi-1}}{100}.$$

c) In other cases,

the DSO's profit correction factor, **CF_{gdzi}**, is calculated as

$$CF_{gdzi} = CF_{gdRABt} \times \frac{RR_{gdi-2}}{100} \times \frac{PPI_{i-2}}{100} \times \frac{PPI_{i-1}}{100} + CF_{gdRABt} \times \frac{RR_{gdi-1}}{100} \times \frac{PPI_{i-1}}{100}.$$

(4) The correction factor of the DSO's development investments in progress, **CF_{gdNIi}** in CZK, which reflects the difference between the actual and planned values of the development investments in progress in year *i-2*, is applied from year *i≥3* and calculated as

$$CF_{gdNIi} = \left(NI_{gdski-2} - NI_{gdpli-2}\right) \times \frac{RR_{gdi-2}}{100} \times \frac{PPI_{i-2}}{100} \times \frac{PPI_{i-1}}{100},$$

where

$NI_{gdski-2}$ [CZK] is the actual value of the DSO's development investments in progress in year *i-2*,

$NI_{gdpli-2}$ [CZK] is the planned value of the DSO's development investments in progress approved by the Office in year *i-2*.

(5) The correction factor for the distribution system service, **CF_{gdi}** in CZK, is applied from year *i≥3* and calculated as

$$CF_{gdi} = \left(AR_{gdi-2} + CF_{gdi-2} + CL_{gdi-2} + CD_{gdi-2} + CT_{gdi-2} + R_{gdnpli-2} - TR_{gdi-2}\right) \times \frac{PPI_{i-2}}{100} \times \frac{PPI_{i-1}}{100},$$

where

AR_{gdi-2} [CZK] is the value of allowed revenues set for year *i-2*,

CF_{gdi-2} [CZK] is the value of the correction factor determined for year *i-2*,

CL_{gdi-2} [CZK] is the cost of gas bought for covering the allowed quantities of losses and own use (process) in the distribution system for regulated year *i-2*, calculated as

$$CL_{gdi-2} = AQ_{gdi-2} \times \left(YMP_{gdi-2} + s_{oti-2}\right),$$

where

AQ_{gdi-2} [CZK] is the allowed quantity of energy in gas for covering the DSO's losses and own use (process) for regulated year *i-2*,

YMP_{gdi-2} [CZK/MWh] is the yearly unit maximum price of gas supply for losses and own use (process) for regulated year *i-2*,

s_{oti-2} [CZK/MWh] is the price for the market operator's services in the gas industry for regulated year *i-2*,

CD_{gdi-2} [CZK] is the actual value of the cost of buying distribution system services from other DSOs in year *i-2*,

CT_{gdi-2} [CZK] is the cost of the gas transmission service paid by the DSO for year *i-2* and related to the gas quantity supplied to the supply points connected to the distribution system, to the delivery points of other operators of regional and local distribution systems, and to the delivery points on cross-border gas pipelines, and the allowed quantity of gas to cover the DSO's losses and own use (process), excluding the gas quantity entering the distribution system from production facilities, calculated as

$$CT_{gdi-2} = T_{fcapi-2} + s_{gti-2} \times AcQ_{gdski-2},$$

where

$T_{fcapi-2}$ [CZK] is the cost of the booked firm transmission capacity, which the DSO paid for the service of gas transmission from the transmission system to delivery points for year *i-2*,

s_{gti-2} [CZK/MWh] is the commodity component of the price, determined analytically by the Office for the service of gas transmission to the domestic point for year *i-2*,

$AcQ_{gdski-2}$ [MWh] is the actual quantity of energy in gas, distributed by the respective licence holder in year *i-2* and including the overall quantity of the energy in gas, which was distributed to customers' supply points, to the delivery points of other operators of regional and local distribution systems, and to the delivery points on cross-border gas pipelines, and the allowed quantity of gas to cover the DSO's losses and own use (process), excluding the gas quantity entering the distribution system from production facilities,

$R_{gdnpli-2}$ [CZK] is the planned value of the controlled costs of the rent paid for using gas installations under lease agreements for regulated year *i-2*,

TR_{gdi-2} [CZK] is the total revenue from the distribution system service, including the revenue from the service of gas transmission to the domestic point for year *i-2*, net of the revenue for the market operator's services, reported under the public notice on regulatory reporting 6.

C) Rounding rules

No rounding is done during calculations.

Depending on the unit, the input values are rounded as follows:

a) CZK to whole Czech crowns,
b) MWh to three decimal places,
c) percentages, to three decimal places, with the exception of the rate of return on the regulatory asset base, which is rounded to two decimal places,
d) ratios, to five decimal places,
e) thousands of m^3 to whole numbers,
f) CZK/MWh to two decimal places.

The resulting value of the correction factor is rounded to whole CZK.

16.3.4. Procedure for determining the regulated value of a gas installation and procedure for determining regulated costs of leasing a gas installation

A. Procedure for determining the regulated value of a gas installation

The regulated value of a gas installation is a value that can be added to the licence holder's regulatory asset base in the case of acquiring such installation. The regulated value of a gas

installation must be determined for gas installations acquired by the DSO from third parties and from its customers. The regulated value of a gas installation must be determined for gas installations acquired through the DSO's own investment in the case of the quantitative development of the distribution system. It does not concern investment in the qualitative development and renovation of the distribution system. For the purposes of determining the regulated value of a gas installation, the quantitative development of the distribution system is understood to be the construction of new/the expansion of existing installations in the distribution system, which does not replace, in whole or in part, the existing installations and which is related to the growth in the number of supply points. The qualitative development of the distribution system is understood to be the construction of new/the expansion of existing installations in the distribution system, which does not replace, in whole or in part, the existing installations and which is undertaken by the licence holder in order to comply with legal obligations. The renovation of the distribution system is understood to be investments in the distribution system that constitute neither quantitative nor qualitative development of the distribution system; for example, the replacement of existing installations with new, although technically more sophisticated, installations so as to preserve their functioning in terms of safety, reliability, compliance with standards, and operating cost optimisation.

1. Algorithm for calculating the regulated value of a gas installation

The DCF (discounted cash flow) method is employed for calculating the regulated value of gas installations. This method is based on calculating the positive and the negative cash flows generated by operating the gas installation in question. The cash flows are discounted and the net present value (NPV) is derived from the difference between them.

For calculating the regulated value of a gas installation, the payback period parameter has been determined. The regulated value of a gas installation is calculated so that the NPV of the difference between the positive and negative cash flows generated by operating the gas installation equals zero in a predetermined payback period.

Cash flows and NPV of the gas installation

	Positive flow	Year 1	Year 2	Year 3	Sub-sequent year...	Year when the required payback is achieved
	Net profit	H	H	H		H
+	Accounting D&A of the regulated value of the gas installation	X	X	X		X
=	Positive flow	V	V	V		V
X	Discount rate	H	H	H		H
1	Discounted positive flow	V	V	V		V
	Negative flow					
	The regulated value of the gas installation	X				
=	Negative flow	V				
X	Discount rate	H				
2	Discounted negative flow	V				
1-2	Net present value	V	V	V		V

H is a value
V is a calculation
X is the result of the iterative calculation

Profit calculation

	Revenue from the distribution system service
-	Operating expenditure
-	Costs of the balancing difference
-	Accounting D&A of the regulated value of the gas installation
=	Gross profit
-	Difference between accounting and tax D&A of the regulated value of the gas installation
	Amount liable to income tax
x	Income tax rate
=	Income tax

	Profit before tax
-	Income tax
	Net profit

The positive cash flow includes the net profit generated by operating the gas installation in question and the accounting D&A of the regulated value of the gas installation in the same amount in which it was used for calculating profit.

The negative cash flow consists of the calculated regulated value of the gas installation.

2. Inputs to the calculation of the regulated value of gas installations

a) Revenues from the distribution system services

Revenues generated by the distribution system services from the gas installation in question are included in the calculation, and broken down by year over a period of 30 years from the start of sales.

For the gas installations whose useful life is shorter than the above period for calculating the regulated value of a set of gas installations, the calculation includes the expectation of investment in the renovation of such installations and the expectation of its operation until the end of the period.

Revenues from distribution system services are determined on the basis of the quantity of gas taken from the gas installation in question. If there are good reasons to expect a change in the number of connected customers and in the quantity of the gas taken, this shall be factored into the calculation of the revenues from distribution system services.

Revenues from distribution system services for customers in the high-demand, medium-demand and low-demand categories are calculated from the expected quantity of distributed gas and the average price of distribution system services. Revenues from distribution system services for customers in the household category are calculated on the basis of the number of customers and the nature of their supply points. Specific consumption rates and the DSO's average prices for distribution system services are assigned to supply points on the basis of their nature.

In the following years, the average prices for distribution system services will be increased in line with the determined rate of inflation. The prices for distribution system services are adjusted by any correction factors set for the DSO.

The minimum breakdown of households by nature of consumption:

a) only cooking,
b) cooking and water heating,
c) a single-generation detached house,
d) a two-generation detached house,
e) a housing unit,
f) a terraced house,
g) a recreational property.

b) Costs of the balancing difference

The revenues from distribution system services are reduced by the costs of losses in the distribution system.

c) The customary cost of procurement

The customary cost of procuring the gas installation, which is used by the DSO, constitutes the maximum possible level of the regulated value of the gas installation.

The customary cost of procurement includes the cost of design documents, geodetic surveying, and easements, and other capital expenditure and other expenses on the construction, alteration or acquisition of the gas installation. In respect of the connection of a supply point, the cost of gas installation procurement is understood to be the costs incurred in the connection and in providing gas supply. The included capex costs are at the level customary for DSOs. The DSO shall document the customary level of capex costs by its list of capex costs in the required breakdown.

d) Operating expenditure

The DSO's opex costs related to the gas installation in question are calculated as a percentage of the customary cost of procurement of the gas installation in question.

e) Accounting and tax D&A

The basis for calculating D&A is the customary cost of gas installation procurement and the applicable regulatory and tax D&A rates. The D&A calculated from the customary cost of gas installation procurement is restated in line with the resulting regulated value of the gas installation.

3. <u>Parameters in the calculation of the regulated value of gas installations</u>

The parameters in the calculation of the regulated value of gas installations are as follows:

a) The discount rate is set at the same level as the rate of return on the DSO's regulatory asset base after taxation;

b) Operating expenditure equals 1.2% of the cost of procurement of the gas installation in question, and the customary cost of procurement is the basis;

c) The rate of inflation is 2.3%, i.e. the arithmetic average of the monthly rates of inflation expressed as the growth of the average annual consumer price index published by the Czech Statistical Office, for the period from August 2018 to July 2019;

d) The investment payback period is 30 years from the year of starting sales from the gas installation in question, if there are good reasons to expect that the gas installation will ensure the safe and reliable provision of distribution system services for at least that period.

4. Simplified calculation of the regulated value of a separate gas service pipe

Simplified calculation of the regulated value of a gas installation can be used for regulated values of separate intermediate-pressure and low-pressure service pipes laid to connect to an existing distribution system.

In this case, the regulated value of the gas service pipe is calculated as a percentage of the customary cost of procuring the gas service pipe under review.

The percentage is derived from the planned or actual gas off-take and the length of the gas service pipe in question. In the case of the household category, gas off-take is based on the specific consumption rate intended for the given nature of the customer's supply point.

The parameters in the simplified calculation of the regulated values of gas service pipes include interval rating of the load on the gas service pipe in m^3/m per year and, pertaining to these intervals, the percentages for calculating the share of the customary cost of procurement. The basis for determining the parameters for the simplified calculation of the regulated value of a gas service pipe is calculations for the various load intervals, carried out employing the above-described DCF method in the full extent, using all the parameters set.

The simplified calculation of the regulated value of a separate gas service pipe cannot be used where the gas service pipe is being built together with the gas network.

5. The difference between the cost of procurement and the regulated value of a gas installation

In the case of acquiring a gas installation from a third party or the DSO's customer, the difference between the regulated value of the gas installation and the price paid by the DSO in excess of the regulated value cannot be included in the value of the DSO's operating assets.

In the case of procuring a gas installation through the DSO's own investment, the difference between the regulated value of the gas installation and the cost of procurement spent by the DSO cannot be included in the value of the DSO's operating assets.

6. Adjusting the regulated value of a gas installation by regulated costs of rent payment

In the case of a DSO acquiring a gas installation from a third party or the DSO's customer, the regulated value of the gas installation is reduced by the sum of the controlled costs of renting the gas installation, which were calculated as per 16.3.4 and were paid to the third party or customer before the sale of the gas installation to the DSO.

B. Algorithm for the controlled costs of renting gas installations owned by third parties

For a gas installation owned by a third party and operated by the DSO under a contract, the controlled cost of renting the gas installation is set as the maximum amount of the cost of renting, which can be included in allowed revenues. Controlled costs of renting are only determined where the regulated value of the gas installation is greater than zero.

Yearly controlled costs of renting are calculated for the whole subsequent regulatory period in advance, using the algorithm in 16.3.4 carried out in the last year of the preceding regulatory period on the basis of known parameters of regulation and the distribution conditions for the gas installation in question in the subsequent regulatory period. Where the lease agreement is signed during a regulatory period, the controlled costs of renting are calculated until the end of that regulatory period on the basis of the current parameters of regulation applicable to the DSO. Where the lease agreement is signed during the last two years of the regulatory period, the calculated rent will also stay in place in the subsequent regulatory period.

1. Algorithm for controlled costs of renting gas installations

The value of the controlled costs of renting is based on the regulated value of the gas installation calculated as per 16.3.4. The value of the controlled costs of renting is calculated as the sum of the annual D&A of the regulated value of the gas installation and the average yearly profit from the book regulated value of the gas installation, as follows:

The annual D&A is calculated as the ratio of the regulated value of the gas installation and its useful life, which has been set at 30 years for the purposes of calculating the controlled costs of renting; a useful life of 30 years is used for D&A calculation whenever the controlled costs of renting are being determined, regardless of the duration of the lease;

In the respective year, the book regulated value of the gas installation is calculated by deducting accumulated D&A from the regulated value of the gas installation; accumulated D&A is calculated as the product of the number of lease years and the annual D&A; the number of lease years is understood to be the number of all years for which the controlled costs of renting were calculated as per 16.3.4;

The profit for the respective year of the regulatory period is calculated as the product of the calculated book regulated value of the gas installation in the respective year and the interest rate set for the purpose of calculating the controlled costs of renting; the value of the annual average profit is the average of the profits in each of the years in the regulatory period;

The interest rate is 1.1%. This value has been calculated as the arithmetic average of the rates of interest accruing on non-financial enterprises' deposits, denominated in Czech crowns, accepted by banks between July 2006 and June 2011.

2. Operation and maintenance of rented gas installations

Costs of the operation and maintenance of rented gas installations are part of the DSO's total eligible costs determined by the Office.

16.3.5. Procedure for determining the prices upon the establishment or transformation of a licence holder and procedure upon the purchase or lease of a gas installation

1. Where a licence is granted to a juristic person having no legal predecessor or where a licence is granted to a natural person during a regulated year and this licence holder was not carrying on the licensed activity in the preceding regulated year, the Office *mutatis mutandis* follows the provisions of Chapter 11 to set regulated prices.
2. Where the operator of the gas installation is transformed during a regulated year[18], the prices set for its legal predecessor for each of its delineated areas shall apply for the new operator of the gas installation until the end of the regulated year.
3. Where the regulated year sees the transfer or usufruct lease of an enterprise, or a part thereof, which includes a gas installation serving for the licensed activities, or the transfer or lease of a gas installation serving for the licensed activities, the prices of the regulated activities charged by the transferor, lessor, usufructuary lessor or another person who has let the gas installation for use in the delineated area shall apply for the transferee, lessee or usufructuary or another person otherwise entitled to use the gas installation for licensed activities until the end of the regulated year.
4. Where a situation described in point 2 or 3 above emerges after 30 November of a regulated year, the prices set for its legal predecessor for each of its delineated areas shall also apply for the new operator of the gas installation until the end of the subsequent regulated year, unless the Office decides otherwise in justifiable cases.
5. Where an operator of a gas installation buys a gas installation in his delineated area, the Office reflects the price paid for the asset so acquired in the regulatory asset base, however, up to no more than the regulated value of the gas installation calculated as per 16.3.4. The allowed D&A is then calculated from the regulatory asset base so determined.
6. Where an operator of a gas installation signs a lease agreement on a gas installation during a regulated year, the Office reflects the paid rent in eligible costs, however, up to no more than the controlled costs of renting calculated as per 16.3.4.

[18] Act No 125/2008 on Transformations of Commercial Companies and Cooperatives, as amended

16.4. Procedure for determining adjusted allowed revenues and charges for the market operator's services in the electricity and gas industries

The procedure for pricing the market operator's services for the fifth regulatory period and for a particular regulated year may be changed by statutory instruments (secondary legislation) and also ERO Price Decisions, for example, when such changes respond to amendments to legislation.

16.4.1. Procedure for determining the charge for the market operator's services in the electricity industry

(1) The price for imbalance clearing in the electricity industry, p_{otzui} in CZK/supply point/month, is calculated as

$$p_{otsi} = \frac{AAR_{otzui}}{SP \times 12},$$

where

index **ot** means the market operator,

index **zu** means the imbalance clearing service,

index **pl** means the planned value,

i is the serial number of the regulated year,

AAR_{otzui} [CZK] is the market operator's adjusted allowed revenues from imbalance clearing in the electricity industry for regulated year *i* calculated as

$$AAR_{otzui} = AR_{otzui} + MF_{otzui} + CF_{otzui} - R_{otzupli},$$

where

AR_{otzui} [CZK] is the market operator's allowed revenues from imbalance clearing in the electricity industry for regulated year *i* calculated as

$$AR_{otzui} = EC_{otzui} + D\&A_{otzui} + P_{otzui},$$

where

EC_{otzui} [CZK] is the market operator's eligible costs of imbalance clearing in the electricity industry for regulated year *i* calculated as

$$EC_{otzui} = \left(C_{otzuzi-1} + C_{otzuplsi-1}\right) \times \prod_{t=L+i}^{L+i} \frac{I_t}{100} \times (1 - X_{otzu}),$$

where

t is the date of the year in the regulatory period,

L is the date of the year preceding the first regulated year of the regulatory period,

$C_{otzuzi-1}$ [CZK] is the market operator's eligible costs base of imbalance clearing in the electricity industry, calculated as

$$C_{otzuzi-1} = \frac{\begin{array}{c}\left(C_{otzuski-4} \times \prod_{t=L+i-3}^{L+i-1} \frac{I_t}{100} \times (1 - X_{otzu})^3\right) + \\ \left(C_{otzuski-3} \times \prod_{t=L+i-2}^{L+i-1} \frac{I_t}{100} \times (1 - X_{otzu})^2\right) + \\ \left(C_{otzuski-2} \times \prod_{t=L+i-1}^{L+i-1} \frac{I_t}{100} \times (1 - X_{otzu})\right)\end{array}}{3},$$

where

$C_{otzuski}$ [CZK] is the market operator's actual economically justified costs of imbalance clearing in the electricity industry,

X_{otzu} [-] is the yearly value of the efficiency factor for the market operator's imbalance clearing in the electricity industry, set by the Office,

I_t [%] is the value of the escalation factor of the costs of the relevant year *t*; the escalation factor is calculated (provided that the sum of the weights equals one) as

$$I_t = p_{IIT} \times IIT_t + p_{IPS} \times IPS_t + p_{IM} \times IM_t ,$$

where

p_{IIT} [-] is the weight of the price index for programming and advisory services,

p_{IPS} [-] is the weight of the price index for business services,

p_{IM} [-] is the weight of the wage index,

IIT_t [%] is the index of the growth of the prices of programming and advisory services (item 62 Programming and Advice), set on the basis of the ratio of the rolling averages of the basic price indices of market services over the last 12 months and over the preceding 12 months, as reported in the Czech Statistical Office's public database in the table CEN06B2 "Price indices of market services – ratio of rolling averages of basic indices", code J62, for April of year *t-1*,

IPS_t [%] is the price index of business services set as the arithmetic average of the price indices published in the Czech Statistical Office's public database in the table CEN06B2 "Price indices of market services – ratio of rolling averages of basic indices", codes J63, K64, M69, M74, N78 and N82 for April of year *t-1*,

IM_t [%] is the wage index calculated as the average of the quarterly values of the average monthly wage (related to FTE) reported in the Czech Statistical Office's public database in Table "Employees and average gross monthly wages by CZ-NACE sector (code: MZD02-A) under point D "Electricity, gas, steam and air conditioning supply" beginning with the second quarter of year *t-2* and ending with the first quarter of year *t-1*, published on 30 June of year *i-1*,

$C_{otzuplsi-1}$ [CZK] is the value of profit/loss sharing of the licence holder's costs of imbalance clearing in the electricity industry, calculated as

$$C_{otzuplsi-1} = \frac{\left(C_{otzuplsi-4} + C_{otzuplsi-3} + C_{otzuplsi-2}\right)}{3},$$

where

$$C_{otzuplsi-4} = (EC_{otzui-4} - C_{otzuski-4}) \times \prod_{t=L+i-3}^{L+i-1} \frac{I_t}{100} \times (1 - X_{otzu})^3 \times c_{otzuplsi-4},$$

$$C_{otzuplsi-3} = (EC_{otzui-3} - C_{otzuski-3}) \times \prod_{t=L+i-2}^{L+i-1} \frac{I_t}{100} \times (1 - X_{otzu})^2 \times c_{otzuplsi-3},$$

$$C_{otzuplsi-2} = (EC_{otzui-2} - C_{otzuski-2}) \times \prod_{t=L+i-1}^{L+i-1} \frac{I_t}{100} \times (1 - X_{otzu}) \times c_{otzuplsi-2},$$

$c_{otzuplsi}$ [-] is the ratio of allocating the balance of the costs between the licence holder and the customer, which equals 0.5 for comparing the eligible and actual costs for the years in the fifth regulatory period; it equals zero for comparing the eligible and actual costs for the years in the fourth regulatory period.

$D\&A_{otzui}$ [CZK] is the value of the allowed D&A of the market operator's non-current tangible and intangible assets serving for providing imbalance clearing in regulated year *i*, calculated as

$$D\&A_{otzui} = D\&A_{otzupli} + CF_{otzuoi},$$

where

$D\&A_{otzupli}$ [CZK] is the planned value of D&A of the market operator's non-current tangible and intangible assets serving for providing imbalance clearing set by the Office for regulated year *i,*

CF_{otzuoi} [CZK] is the correction factor for the market operator's D&A, which reflects the difference between the actual and planned D&A of non-current tangible and intangible assets serving for providing imbalance clearing in year *i-2,* set as per 16.4.2(1),

P_{otzui} [CZK] is the market operator's allowed profit from imbalance clearing in the electricity industry for regulated year *i* provided that in year *i-2* dividends exceeding 10% of its profit after tax were not paid out, calculated as

$$P_{otzui} = (SC_{oti-2} \times 0.7) \times \frac{RR_{otzui}}{100} - P_{otori},$$

where

RR_{otzui} [%] is the market operator's rate of return in the electricity industry, calculated as per **Chyba! Nenalezen zdroj odkazů.**,

SC_{oti-2} [CZK] is the value of the market operator's share capital in year *i-2*,

P_{otori} [CZK] is the market operator's allowed profit from its market organisation service in the electricity industry for regulated year *i*.

If dividends exceeding 10% of profit after tax were paid out in year *i-2*, profit for regulated year *i* is calculated as

$$P_{otzui} = (SC_{oti-2} \times 0.7) \times \frac{\frac{R_f}{100}}{\left(1 - \frac{T}{100}\right)} - P_{otori},$$

where

R_f [%] is the risk-free rate of interest,

T [%] is the rate of corporate income tax,

P_{otori} [CZK] is the market operator's allowed profit from its market organisation service in the electricity industry for regulated year *i*,

MF_{otzui} [CZK] is the market factor reflecting the current changes in the electricity market that have an impact on the market operator's activities and finances in connection with imbalance clearing or European integration projects in the electricity industry, set by the Office for regulated year *i*,

CF_{otzui} [CZK] is the market operator's correction factor related to imbalance clearing, determined as per 16.4.2(2),

$R_{otzupli}$ [CZK] is the planned revenues from the market operator's other activities related to imbalance clearing, such as the registration of the balance responsible parties (cleared entities) and the annual payments for the clearing service in regulated year *i*,

SP [-] is the total number of supply points of customers in the Czech Republic taking electricity based on data as at 31 December, transmitted by system operators to the market operator for the calendar year preceding the calendar year that sees the drafting of the 'Energy Regulatory Office Budget Title' for the following budgetary year, provided that all supply points were registered with the market operator as at 31 December; otherwise, the number of supply points may be determined on the basis of data from regulatory returns.

(2) The price for the market organisation service in the electricity industry, p_{otori} in CZK/MWh, is calculated as

$$p_{otori} = \frac{AAR_{otori}}{TEA_{pli}},$$

where

index **or** means the activities related to market organisation,

AAR_{otori} [CZK] is the market operator's adjusted allowed revenues from the market organisation service for regulated year *i*, calculated as

$$AAR_{otori} = AR_{otori} - R_{otorpli} + MF_{otori} + CF_{otori}\,,$$

where

AR_{otori} [CZK] is the market operator's allowed revenues from the market organisation service for regulated year *i* calculated as

$$AR_{otori} = EC_{otori} + D\&A_{otori} + P_{otori}\,,$$

where

EC_{otori} [CZK] is the market operator's eligible costs of the market organisation service for regulated year *i* calculated as

$$EC_{otori} = \left(C_{otorzi-1} + C_{otorplsi-1}\right) \times \prod_{t=L+i}^{L+i} \frac{I_t}{100} \times (1 - X_{otor})\,,$$

where

$N_{otorzi-1}$ [CZK] is the market operator's eligible costs base related to the market organisation service, i.e. the operation of the OTE system, payroll costs, leases, and other operating expenditure,

$$C_{otorzi-1} = \frac{\begin{array}{c}\left(C_{otorski-4} \times \prod_{t=L+i-3}^{L+i-1} \frac{I_t}{100} \times (1 - X_{otor})^3\right) + \\ \left(C_{otorski-3} \times \prod_{t=L+i-2}^{L+i-1} \frac{I_t}{100} \times (1 - X_{otor})^2\right) + \\ \left(C_{otorski-2} \times \prod_{t=L+i-1}^{L+i-1} \frac{I_t}{100} \times (1 - X_{otor})\right)\end{array}}{3}\,,$$

where

$C_{otorski}$ [CZK] is the market operator's actual economically justified costs incurred in the market organisation service,

X_{otor} [-] is the yearly value of the efficiency factor related to the market organisation service, set by the Office,

I_t [%] is the value of the escalation factor of the costs in the respective year *t*, as per paragraph 1 of this point,

$C_{otorplsi-1}$ [CZK] is the value of profit/loss sharing of the licence holder's costs for services related to market organisation in the electricity industry, calculated as

$$C_{otorplsi-1} = \frac{\left(C_{otorplsi-4} + C_{otorplsi-3} + C_{otorplsi-2}\right)}{3}\,,$$

where

$$C_{otorplsi-4} = (EC_{otori-4} - C_{otorski-4}) \times \prod_{t=L+i-3}^{L+i-1} \frac{I_t}{100} \times (1 - X_{otor})^3 \times c_{otorplsi-4}\,,$$

$$C_{otorplsi-3} = (EC_{otori-3} - C_{otorski-3}) \times \prod_{t=L+i-2}^{L+i-1} \frac{I_t}{100} \times (1 - X_{otor})^2 \times c_{otorplsi-3} ,$$

$$C_{otorplsi-2} = (EC_{otori-2} - C_{otorski-2}) \times \prod_{t=L+i-1}^{L+i-1} \frac{I_t}{100} \times (1 - X_{otor}) \times c_{otorplsi-2} ,$$

$c_{otorplsi}$ [-] is the ratio for splitting the difference in costs between the licence holder and the customer; for comparing the eligible and actual costs for the years in the fifth regulatory period it equals 0.5; for comparing the eligible and actual costs for the years in the fourth regulatory period it equals zero.

$D\&A_{otori}$ [CZK] is the value of allowed D&A of the market operator's non-current tangible and intangible assets serving for providing the market operator's market organisation service for regulated year *i*, calculated as

$$D\&A_{otori} = D\&A_{otorpli} + CF_{otoroi} ,$$

where

$D\&A_{otorpli}$ [CZK] is the planned value of D&A of the market operator's non-current tangible and intangible assets serving for providing the market organisation service, set by the Office for regulated year *i,*

CF_{otoroi} [CZK] is the correction factor of the market operator's D&A reflecting the difference between the actual and planned D&A of non-current tangible and intangible assets serving for providing the market organisation service in year *i-2,* calculated as per 16.4.2(3),

P_{otori} [CZK] is the market operator's allowed profit from the market organisation service in the electricity industry for regulated year *i* set on the basis of the benchmark charge for traded MWh in spot electricity markets, based on the charges billed by exchanges and other entities similar to the market operator in the EU, with a view to keeping the price for market organisation substantively at the level customary in the EU; if in year *i-2* dividends exceeding 10% of the profit after tax were not paid out, its maximum value is calculated as

$$P_{otoriMAX} = (SC_{oti-2} \times 0.7) \times \frac{RR_{otori}}{100} \times 0.7 ,$$

where

SC_{oti-2} [CZK] is the value of the market operator's share capital in year *i-2*,

RR_{otori} [%] is the market operator's rate of return on the market organisation service in the electricity industry, determined as per **Chyba! Nenalezen zdroj odkazů.**,

If dividends exceeding 10% of profit after tax were paid out in year *i-2*, the maximum profit for regulated year *i* is calculated as

$$P_{otoriMAX} = (SC_{oti-2} \times 0.7) \times \frac{\frac{R_f}{100}}{\left(1 - \frac{T}{100}\right)} \times 0.7,$$

where

R_f [%] is the risk-free rate of interest,

T [%] is the rate of corporate income tax,

$R_{otorpli}$ [CZK] is the planned revenues from the market operator's other related activities, which include additional revenues related to organising the spot electricity market, flowing from payments for the provision of actual values to the electricity market participants under a separate regulation[19], and other activities, e.g. lecturing, for regulated year *i*,

MF_{otori} [CZK] is the market factor reflecting the current changes in the electricity market that have an impact on the market operator's activities and finances in connection with the market organisation service in the electricity industry, set by the Office for regulated year *i*,

CF_{otori} [CZK/MWh] is the market operator's correction factor for the market organisation service, determined as per 16.4.2(4),

TEA_{pli} [MWh] is the electricity amount planned to be traded by holders of licences for trading in year *i* set by the Office.

(3) The price for the service entailing the payment and administration of aid to supported sources in the electricity industry, p_{otpozi} in CZK/supply point/month, is calculated as

$$p_{otpozi} = \frac{AAR_{otpozi}}{SP \times 12},$$

where

index **poz** means the activity related to the payment and administration of aid to supported sources,

AAR_{otpozi} [CZK] is the market operator's adjusted allowed revenues related to the payment and administration of aid to supported sources for regulated year *i* calculated as

$$AAR_{otpozi} = AR_{otpozi} + FC_{otpozpli} + P_{otpozi} + MF_{otpozi} + CF_{otpozi},$$

where

AR_{otpozi} [CZK] is the market operator's allowed revenues from the payment and administration of aid to supported sources in the electricity industry for regulated year *i* calculated as

$$AR_{otpozi} = EC_{otpozi} + D\&A_{otpozi},$$

[19] Section 20a (4) (i) of Act No 458/2000, as amended

where

EC_{otpozi} [CZK] is the market operator's eligible costs of the payment and administration of aid to supported sources in the electricity industry for regulated year *i*, excluding financial costs, calculated as

$$EC_{otpozi} = \left(C_{otpozzi-1} + C_{otpozplsi-1}\right) \times \prod_{t=L+i}^{L+i} \frac{I_t}{100} \times \left(1 - X_{otpoz}\right),$$

where

$C_{otpozzi-1}$ [CZK] is the market operator's eligible costs base related to the payment and administration of aid to supported sources in the electricity industry, calculated as

$$C_{otpozzi-1} = \frac{\begin{array}{r}\left(C_{otpozski-4} \times \prod_{t=L+i-3}^{L+i-1} \frac{I_t}{100} \times \left(1 - X_{otpoz}\right)^3\right) + \\ \left(C_{otpozski-3} \times \prod_{t=L+i-2}^{L+i-1} \frac{I_t}{100} \times \left(1 - X_{otpoz}\right)^2\right) + \\ \left(C_{otpozski-2} \times \prod_{t=L+i-1}^{L+i-1} \frac{I_t}{100} \times \left(1 - X_{otpoz}\right)\right)\end{array}}{3},$$

where

$C_{otpozski}$ [CZK] is the market operator's actual economically justified costs incurred in the payment and administration of aid to supported sources in the electricity industry, excluding financial costs,

X_{otpoz} [-] is the yearly value of the efficiency factor related to the service entailing the payment and administration of aid to supported sources in the electricity industry, set by the Office,

I_t [%] is the value of escalation factor of costs in the respective year *t*, as per paragraph 1 of this point,

$C_{otpozplsi-1}$ [CZK] is the value of profit/loss sharing of the licence holder's costs for the service entailing the payment and administration of aid to supported sources in the electricity industry, calculated as

$$C_{otpozplsi-1} = \frac{\left(C_{otpozplsi-4} + C_{otpozplsi-3} + C_{otpozplsi-2}\right)}{3},$$

where

$$C_{otpozplsi-4} = \left(EC_{otpozi-4} - C_{otpozski-4}\right) \times \prod_{t=L+i-3}^{L+i-1} \frac{I_t}{100} \times \left(1 - X_{otpoz}\right)^3 \times c_{otpozplsi-4},$$

$$C_{otpozplsi-3} = \left(EC_{otpozi-3} - C_{otpozski-3}\right) \times \prod_{t=L+i-2}^{L+i-1} \frac{I_t}{100} \times \left(1 - X_{otpoz}\right)^2 \times c_{otpozplsi-3},$$

$$C_{otpozplsi-2} = \left(EC_{otpozi-2} - C_{otpozski-2}\right) \times \prod_{t=L+i-1}^{L+i-1} \frac{I_t}{100} \times \left(1 - X_{otpoz}\right) \times c_{otpozplsi-2} \,,$$

$c_{otpozplsi}$ [-]is the ratio for splitting the difference in costs between the licence holder and the customer; for comparing the eligible and actual costs for the years in the fifth regulatory period it equals 0.5; for comparing the eligible and actual costs for the years in the fourth regulatory period it equals zero.

$D\&A_{otpozi}$ [CZK] is the value of allowed D&A of the market operator's non-current tangible and intangible assets serving for providing the market operator's service entailing the payment and administration of aid to supported sources v electricity industry for regulated year *i* calculated as

$$D\&A_{otpozi} = D\&A_{otpozpli} + CF_{otpozoi} \,,$$

where

$D\&A_{otpozpli}$ [CZK] is the planned value of D&A of the market operator's non-current tangible and intangible assets serving for providing the service entailing the payment and administration of aid to supported sources in the electricity industry, set by the Office for regulated year *i*,

$CF_{otpozoi}$ [CZK] is the correction factor of D&A related to the service entailing the payment and administration of aid to supported sources, calculated as per 16.4.2(5),

$FC_{otpozpli}$ [CZK] is the market operator's planned financial costs related to the payment and administration of aid to supported sources v electricity industry, set by the Office for regulated year *i* as interest accruing on the cumulated difference between the planned income and expenses, including the related charges paid to banks or other financial institutions,

P_{otpozi} [CZK] is the parameter reflecting the prices of guarantees of origin for supported sources, which have an impact on the market operator's activities and finances in connection with the payment and administration of aid to supported sources v electricity industry, set by the Office for regulated year *i*,

MF_{otpozi} [CZK] is the market factor reflecting the current changes in the electricity market that impact on the market operator's activities and finances in connection with the service entailing the payment and administration of aid to supported sources in the electricity industry, set by the Office for regulated year *i*,

CF_{otpozi} [CZK] is the correction factor for the service entailing the payment and administration of aid to supported sources, determined as per 16.4.2(6),

SP [-] is the total number of supply points of customers in the Czech Republic taking electricity based on data as at 31 December transmitted by system operators to the market operator for the calendar year preceding the calendar

year that sees the drafting of the 'Energy Regulatory Office Budget Title' for the following budgetary year, provided that all supply points were registered with the market operator as at 31 December; otherwise, the number of supply points may be determined on the basis of data from regulatory returns.

(4) The price for the service of guarantees of origin issuance for supported sources in the electricity industry, p_{otzpi} in CZK/MWh, is calculated as

$$p_{otzpi} = \frac{AAR_{otzpi}}{PGO_{pli}},$$

where

index **zp** means an activity related to the guarantees of origin issuance for supported electricity sources,

AAR_{otzpi} [CZK] is the value of the market operator's adjusted allowed revenues from the guarantees of origin issuance for regulated year, calculated as

$$AAR_{otzpi} = AR_{otzpi} + P_{otzpi} + CF_{otzpi},$$

where

AR_{otzpi} [CZK] is the market operator's allowed revenues from the guarantees of origin issuance for supported sources in the electricity industry for regulated year *i* calculated as

$$AR_{otzpi} = EC_{otzpi} + D\&A_{otzpi},$$

where

EC_{otzpi} [CZK] is the market operator's eligible costs of the guarantees of origin issuance for supported sources in the electricity industry for regulated year *i* calculated as

$$EC_{otzpi} = \left(C_{otzpzi-1} + C_{otzpplsi-1}\right) \times \prod_{t=L+i}^{L+i} \frac{I_t}{100} \times \left(1 - X_{otzp}\right),$$

where

$C_{otzpzi-1}$ [CZK] is the market operator's eligible costs base related to the guarantees of origin issuance for supported sources in the electricity industry, calculated as

$$C_{otzpzi-1} = \frac{\begin{array}{c}\left(C_{otzpski-4} \times \prod_{t=L+i-3}^{L+i-1} \frac{I_t}{100} \times \left(1 - X_{otzp}\right)^3\right) + \\ \left(C_{otzpski-3} \times \prod_{t=L+i-2}^{L+i-1} \frac{I_t}{100} \times \left(1 - X_{otzp}\right)^2\right) + \\ \left(C_{otzpski-2} \times \prod_{t=L+i-1}^{L+i-1} \frac{I_t}{100} \times \left(1 - X_{otzp}\right)\right)\end{array}}{3},$$

where

$C_{otzpski}$ [CZK] is the market operator's actual economically justified costs incurred in the guarantees of origin issuance for supported sources in the electricity industry,

X_{otzp} [-] je yearly value of the efficiency factor related to the guarantees of origin issuance for supported sources in the electricity industry, set by the Office,

I_t [%] is the value of escalation factor of the costs in the respective year *t*, as per paragraph 1 of this point,

$C_{otzpplsi-1}$ [CZK] is the value of profit/loss sharing of the licence holder's costs related to the guarantees of origin issuance for supported sources in the electricity industry, calculated as

$$C_{otzpplsi-1} = \frac{\left(C_{otzpplsi-4} + C_{otzpplsi-3} + C_{otzpplsi-2}\right)}{3},$$

where

$$C_{otzpplsi-4} = \left(EC_{otzpi-4} - C_{otzpski-4}\right) \times \prod_{t=L+i-3}^{L+i-1} \frac{I_t}{100} \times \left(1 - X_{otzp}\right)^3 \times c_{otzpplsi-4},$$

$$C_{otzpplsi-3} = \left(EC_{otzpi-3} - C_{otzpski-3}\right) \times \prod_{t=L+i-2}^{L+i-1} \frac{I_t}{100} \times \left(1 - X_{otzp}\right)^2 \times c_{otzpplsi-3},$$

$$C_{otzpplsi-2} = \left(EC_{otzpi-2} - C_{otzpski-2}\right) \times \prod_{t=L+i-1}^{L+i-1} \frac{I_t}{100} \times \left(1 - X_{otzp}\right) \times c_{otzpplsi-2},$$

$c_{otzpplsi}$ [-] is the ratio for splitting the difference in costs between the licence holder and the customer; for comparing the eligible and actual costs for the years in the fifth regulatory period it equals 0.5; for comparing the eligible and actual costs for the years in the fourth regulatory period it equals zero.

$D\&A_{otzpi}$ [CZK] allowed D&A of the market operator's non-current tangible and intangible assets serving for activities related with guarantees of origin issuance for regulated year *i* calculated as

$$D\&A_{otzpi} = D\&A_{otzppli} + CF_{otzpoi},$$

where

$D\&A_{otzppli}$ [CZK] is the planned value of D&A of the market operator's non-current tangible and intangible assets serving for activities related with guarantees of origin issuance, set by the Office for regulated year *i*,

CF_{otzpoi} [CZK] is the correction factor of D&A related to the guarantees of origin issuance, set as per 16.4.2(7),

P_{otzpi} [CZK] is a parameter reflecting the prices of other EU member states' guarantees of origin, which have an impact on the market operator's activities and finances in connection with the issuance thereof, set by the Office for regulated year *i*,

CF_{otzpi} [CZK] is the correction factor related to the guarantees of origin issuance, determined as per 16.4.2(8),

PGO_{pli} [MWh] is the number of guarantees of origin planned to be issued in regulated year *i* set by the Office.

No rounding is done during calculations.

Depending on the unit, the input values are rounded as follows:

a) CZK to whole Czech crowns,

b) MWh to three decimal places,

c) percentages, to three decimal places, with the exception of the rate of return, which is rounded to two decimal places,

d) ratios, to five decimal places,

e) CZK/MWh to two decimal places.

The final prices for the activities related to imbalance clearing, in CZK/supply point/month, and for the service entailing the payment and administration of aid to supported sources in the electricity industry, in CZK/supply point /month, are rounded to two decimal places.

The final prices for the market organisation service in the electricity industry, in CZK/MWh, and for guarantees of origin issuance for supported sources in the electricity industry, in CZK/MWh, are rounded to two decimal places.

16.4.2. Determining correction factors for the market operator for its services in the electricity industry

Correction factors for the last two years of the regulatory period beginning on 1 January 2016 and ending on 1 December 2020 were calculated in accordance with the annex to the ERO's price decision laying down the charge for the related services in the electricity industry for the respective regulated year for which the correction factors were calculated.

(1) Correction factor for the market operator's D&A related to imbalance clearing in the electricity industry, CF_{otzuoi} in CZK, is calculated as

$$CF_{otzuoi} = \left(D\&A_{otzuski-2} - D\&A_{otzupli-2}\right) \times \frac{PPI_{i-2}}{100} \times \frac{PPI_{i-1}}{100},$$

for i ≥ 3,

where

index **sk** means actual values,

index **D&A** means D&A,

$D\&A_{otzuski-2}$ [CZK] is the value of the actual D&A of the market operator's non-current tangible and intangible assets serving for providing the service of imbalance clearing in the electricity industry for regulated year *i-2*,

$D\&A_{otzupli-2}$ [CZK] is the value of the planned D&A of the market operator's non-current tangible and intangible assets serving for providing the service of imbalance clearing for regulated year *i-2*,

PPI_{i-2} [%]is the producer price index set on the basis of the ratio of the rolling averages of the basic producer price indices over the last 12 months and over the preceding 12 months, published by the Czech Statistical Office in the table "Producer Price Index" (code 011044) for April of year *i-2*,

PPI_{i-1} [%]is the producer price index set on the basis of the ratio of the rolling averages of the basic producer price indices over the last 12 months and over the preceding 12 months, published by the Czech Statistical Office in the table "Producer Price Index" (code 011044) for April of year *i-1*.

(2) The market operator's correction factor for the service of imbalance clearing, CF_{otzui} in CZK, is calculated as

$$CF_{otzui} = (AR_{otzui-2} + MF_{otzui-2} + CF_{otzui-2} + PNB_{otzui-2} - R_{otzuski-2}) \times \frac{PPI_{i-2}}{100} \times \frac{PPI_{i-1}}{100},$$

for i ≥ 3,

where

$AR_{otzui-2}$ [CZK] is the market operator's allowed revenues from imbalance clearing for regulated year *i-2* calculated as

$$AR_{otzui-2} = EC_{otzui-2} + D\&A_{otzui-2} + P_{otzui-2},$$

where

$EC_{otzui-2}$ [CZK] is the market operator's eligible costs of the service of imbalance clearing for regulated year *i-2*,

$D\&A_{otzui-2}$ [CZK] is the value of allowed D&A of the market operator's non-current tangible and intangible assets serving for providing the market operator's service of imbalance clearing for regulated year *i-2*,

$P_{otzui-2}$ [CZK] is the market operator's allowed profit from its service of imbalance clearing in the electricity industry for regulated year *i-2*,

$MF_{otzui-2}$ [CZK] is the market factor reflecting the current changes in the electricity market that have an impact on the market operator's activities and finances in connection with imbalance clearing, in year *i-2*,

$CF_{otzui-2}$ [CZK] is the market operator's correction factor related to imbalance clearing, determined for year *i-4* and factored into regulated prices for year *i-2*,

PNB_{oti-2} [CZK] is the actual amount of the payment to the national budget under Section 17d(4) of the Energy Act, for regulated year *i-2*,

$R_{otzuski-2}$ [CZK] is the total revenues actually achieved from the market operator's service of imbalance clearing for regulated year *i-2*, including the balance of the items "Receipts for goods – settlement of imbalances" minus "Sold goods – settlement of imbalances" and the items "Other operating income" minus "Other operating costs". The actually achieved revenues will include 60% of the positive difference between proceeds from sold non-current assets and materials and the book value of sold non-current assets and materials, if any proceeds are realised from the sale of the non-current assets and materials hitherto serving for the licensed activities.

(3) Correction factor for the market operator's D&A related to market organisation, CF_{otoroi} in CZK, is calculated as

$$CF_{otoroi} = \left(D\&A_{otorski-2} - D\&A_{otorpli-2}\right) \times \frac{PPI_{i-2}}{100} \times \frac{PPI_{i-1}}{100},$$

for i ≥ 3,

where

$D\&A_{otorski-2}$ [CZK] is the value of the actual D&A of the market operator's non-current tangible and intangible assets serving for providing the service of market organisation in the electricity industry for regulated year *i-2*,

$D\&A_{otorpli-2}$ [CZK] is the value of the planned D&A of the market operator's non-current tangible and intangible assets serving for providing the service of market organisation for regulated year *i-2*.

(4) The market operator's correction factor for the market organisation service, CF_{otori} in CZK, is calculated as

$$CF_{otori} = (AR_{\ otori-2} + MF_{otori-2} + CF_{otori-2} - R_{otorski-2}) \times \frac{PPI_{i-2}}{100} \times \frac{PPI_{i-1}}{100},$$

for i ≥ 3,

where

$AR_{otori-2}$ [CZK] is the market operator's allowed revenues from the market organisation service for regulated year *i-2* calculated as

$$AR_{otori-2} = EC_{otori-2} + D\&A_{otori-2} + P_{otori-2},$$

where

$EC_{otori-2}$ [CZK] is the market operator's eligible costs of the market organisation service for regulated year *i-2*,

$D\&A_{otori-2}$ [CZK] is the value of allowed D&A of the market operator's non-current tangible and intangible assets serving for providing its market organisation service for regulated year *i-2*,

$P_{otori-2}$ [CZK] is the market operator's allowed profit from the market organisation service in the electricity industry for regulated year *i-2*,

$MF_{otori-2}$ [CZK] is the market factor reflecting the current changes in the electricity market that have an impact on the market operator's activities and finances and the market organisation service, in year *i-2*,

$CF_{otori-2}$ [CZK] is the market operator's correction factor for the market organisation service, determined for year *i-4* and factored into regulated prices for year *i-2*,

$R_{otorski-2}$ [CZK] is the total revenues actually achieved from the market operator's service of market organisation for regulated year *i-2*, including the balance of the items "Receipts for goods – spot market settlement" minus "Sold goods – spot market settlement". The actually achieved revenues will include 60% of the positive difference between proceeds from sold non-current assets and materials and the book value of sold non-current assets and materials, if any proceeds are realised from the sale of the non-current assets and materials hitherto serving for the licensed activities.

(5) Correction factor for the market operator's D&A related to the service entailing the payment and administration of aid to supported sources, $CF_{otpozoi}$ in CZK, is calculated as

$$CF_{otpozoi} = \left(D\&A_{otpozski-2} - D\&A_{otpozpli-2}\right) \times \frac{PPI_{i-2}}{100} \times \frac{PPI_{i-1}}{100} ,$$

for i ≥ 3,

where

D&A$_{otpozski-2}$ [CZK] is the value of the actual D&A of the market operator's non-current tangible and intangible assets serving for providing the service entailing the payment and administration of aid to supported sources for regulated year *i-2*,

D&A$_{otpozpli-2}$ [CZK] is the value of the planned D&A of the market operator's non-current tangible and intangible assets serving for providing the service entailing the payment and administration of aid to supported sources for regulated year *i-2*.

(6) The market operator's correction factor for the service entailing the payment and administration of aid to supported sources, CF$_{otpozi}$ in CZK, is calculated as

$$CF_{otpozi} = \left(AR_{otpozi-2} + FC_{otpozski-2} + MF_{otpozi-2} + CF_{otpozi-2} - R_{otpozski-2}\right) \times \frac{PPI_{i-2}}{100} \times \frac{PPI_{i-1}}{100} ,$$

for i ≥ 3,

where

AR$_{otpozi-2}$ [CZK] is the market operator's allowed revenues from the service entailing the payment and administration of aid to supported sources in the electricity industry for regulated year *i-2*, calculated as

$$AR_{otpozi-2} = EC_{otpozi-2} + D\&A_{otpozi-2} ,$$

where

EC$_{otpozi-2}$ [CZK] is the market operator's eligible costs of the service entailing the payment and administration of aid to supported sources in the electricity industry for regulated year *i-2*,

D&A$_{otpozi-2}$ [CZK] is the value of allowed D&A of the market operator's non-current tangible and intangible assets serving for providing its service entailing the payment and administration of aid to supported sources in the electricity industry for regulated year *i-2*,

FC$_{otpozski-2}$ [CZK] is the market operator's actual financial costs incurred in support for electricity, determined as cumulated deposit and credit interest in regulated year *i-2* and any other related costs, including the related charges paid to banks or other financial institutions, which do not include the costs that are recognised in the market factor and related to the payment and administration of aid to supported sources in the electricity industry,

MF$_{otpozi-2}$ [CZK] is the market factor reflecting the current changes in the electricity market that have an impact on the market operator's finances as part

of its service entailing the payment and administration of aid to supported sources in the electricity industry for year *i-2*,

$CF_{otpozi-2}$ [CZK] is the market operator's correction factor for the service entailing the payment and administration of aid to supported sources, determined for year *i-4* and factored into regulated prices for year *i-2*,

$R_{otpozski-2}$ [CZK] is the total revenues actually achieved from the market operator's service entailing the payment and administration of aid to supported sources for regulated year *i-2*. The actually achieved revenues will include 60% of the positive difference between proceeds from sold non-current assets and materials and the book value of sold non-current assets and materials, if any proceeds are realised from the sale of the non-current assets and materials hitherto serving for the licensed activities.

(7) Correction factor for the market operator's D&A related to the service of guarantees of origin issuance for supported sources, CF_{otzpoi} in CZK, is calculated as

$$CF_{otzpoi} = \left(D\&A_{otzpski-2} - D\&A_{otzppli-2}\right) \times \frac{PPI_{i-2}}{100} \times \frac{PPI_{i-1}}{100},$$

for i ≥ 3,

where

$D\&A_{otzpski-2}$ [CZK] is the value of the actual D&A of the market operator's non-current tangible and intangible assets serving for providing the service of guarantees of origin issuance for supported sources for regulated year *i-2*,

$D\&A_{otzppli-2}$ [CZK] is the value of the planned D&A of the market operator's non-current tangible and intangible assets serving for providing the service of guarantees of origin issuance for supported sources for regulated year *i-2*.

(8) The market operator's correction factor for the service guarantees of origin issuance for supported sources, CF_{otzpi} in CZK, is calculated as

$$CF_{otzpi} = \left(AR_{otzpi-2} + CF_{otzpi-2} - R_{otzpski-2}\right) \times \frac{PPI_{i-2}}{100} \times \frac{PPI_{i-1}}{100},$$

for i ≥ 3,

where

$AR_{ozpui-2}$ [CZK] is the market operator's allowed revenues from the service of guarantees of origin issuance for supported sources for regulated year *i-2*, calculated as

$$AR_{otzpi-2} = EC_{otzpi-2} + D\&A_{otzpi-2},$$

$EC_{otzpi-2}$ [CZK] is the market operator's eligible costs of the service of guarantees of origin issuance for supported sources for regulated year *i-2*,

$D\&A_{otzpi-2}$ [CZK] is the value of allowed D&A of the market operator's non-current tangible and intangible assets serving for providing its service of guarantees of origin issuance for supported sources for regulated year *i-2*,

$CF_{otzpi-2}$ [CZK] is the market operator's correction factor for the service of guarantees of origin issuance for supported sources, determined for year *i-4* and factored into the price for the guarantees of origin issuance for year *i-2*,

$R_{otzpski-2}$ [CZK] is the total revenues actually achieved from the market operator's service of guarantees of origin issuance for supported sources for regulated year *i-2*, including revenues from transfers of guarantees of origin and revenues from keeping accounts of guarantees of origin. The actually achieved revenues will include 60% of the positive difference between proceeds from sold non-current assets and materials and the book value of sold non-current assets and materials, if any proceeds are realised from the sale of the non-current assets and materials hitherto serving for the licensed activities.

No rounding is done during calculations.

Depending on the unit, the input values are rounded as follows:

a) CZK to whole Czech crowns,

b) percentages, to three decimal places.

Correction factors are rounded to whole Czech crowns.

16.4.3. Procedure for determining the charges for the market operator's services in the gas industry

The price for the market operator's services in the gas industry, **s_{moi}** in CZK/MWh, is

$$s_{moi} = \frac{AAR_{moi}}{PlQ_{mopi}} + s_{osrpi} ,$$

where

i is the serial number of the regulated year,

AAR_{moi} [CZK] is the market operator's adjusted allowed revenues for the market operator's services in the gas industry for regulated year *i* calculated as

$$AAR_{moi} = AR_{moi} + MF_{moi} - R_{moosti} + CF_{moi} ,$$

where

AR_{moi} [CZK] is the market operator's allowed revenues for the market operator's services in the gas industry for regulated year *i* calculated as

$$AR_{moi} = EC_{moi} + D\&A_{moi} + P_{moi} ,$$

where

EC_{moi} [CZK] is the market operator's eligible costs for the market operator's services in the gas industry for regulated year *i* calculated as

$$EC_{moi} = \left(C_{mozi} + C_{moplsi}\right) \times \left(1 - X_{mp}\right) \times \prod_{t=L+i}^{L+i} \frac{I_t}{100},$$

where

t is the date of the year in the regulatory period,

L is the date of the year preceding the first regulated year of the regulatory period,

C_{mozi} [CZK] is the market operator's base of eligible costs incurred in the market operator's services in the gas industry, calculated as

$$C_{mozi} = \frac{\begin{array}{c}\left(C_{moski-4} \times \prod_{\mathrm{t=L+i-3}}^{\mathrm{L+i-1}} \frac{I_t}{100} \times (1 - X_{mo})^3\right) + \\ \left(C_{moski-3} \times \prod_{t=L+i-2}^{L+i-1} \frac{I_t}{100} \times (1 - X_{mo})^2\right) + \\ \left(C_{moski-2} \times \prod_{\mathrm{t=L+i-1}}^{\mathrm{L+i-1}} \frac{I_t}{100} \times (1 - X_{mo})\right)\end{array}}{3},$$

where

C_{moski} [CZK] is the market operator's actual economically justified costs of the market operator's services in the gas industry,

I_t [%] is the value of the escalation factor of the costs of the respective year *t*; the value of the escalation factor is (provided that the sum of the weights equals one) calculated as

$$I_t = p_{IIT} \times IIT_t + p_{IPS} \times IPS_t + p_{IM} \times IM_t \,,$$

where

p_{IIT} [-] is the weight of the index of the prices of programming and advisory services,

p_{IPS} [-] is the weight of the index of the prices of business services,

p_{IM} [-] is the weight of the wage index,

IIT_t [%]is the index of the growth of the prices of programming and advisory services (item 62 Programming and Advice), set on the basis of the ratio of the rolling averages of the basic price indices of market services over the last 12 months and over the preceding 12 months, as reported in the Czech Statistical Office's public database in the table CEN06B2 "Price indices of market services – ratio of rolling averages of basic indices", for April of year *t-1*,

IPS_t [%] is the price index of business services set as the arithmetic average of the price indices published in the Czech Statistical Office's public database in the table CEN06B2 "Price indices of market services – ratio of rolling averages of basic indices", codes J63, K64, M69, M74, N78 and N82 for April of year *t-1*,

IM_t [%] is the wage index calculated as the average of the quarterly values of the average monthly wage (related to FTE) reported in the Czech Statistical Office's public database in Table "Employees and average gross monthly wages by CZ-NACE sector (code: MZD02-A) under point D "Electricity, gas, steam and air conditioning supply" beginning with the second quarter of year *t-2* and ending with the first quarter of year *t-1*, published on 30 June of year *i-1*,

X_{mo} [-] is the yearly value of the efficiency factor for the market operator's services in the gas industry, set by the Office,

C_{moplsi} [CZK] is the value of profit/loss sharing of the licence holder's costs, calculated as

$$C_{moplsi} = \frac{\left(C_{moplsi-4} + C_{moplsi-3} + C_{moplsi-2}\right)}{3},$$

$$C_{moplsi-4} = \left(EC_{moi-4} - C_{moski-4}\right) \times \prod_{t=L+i-3}^{L+i-1} \frac{I_t}{100} \times (1 - X_{mo})^3 \times c_{moplsi-4},$$

$$C_{moplsi-3} = \left(EC_{moi-3} - C_{moski-3}\right) \times \prod_{t=L+i-2}^{L+i-1} \frac{I_t}{100} \times (1 - X_{mo})^2 \times c_{moplsi-3},$$

$$C_{moplsi-v} = \left(EC_{moi-2} - C_{moski-2}\right) \times \prod_{t=L+i-1}^{L+i-1} \frac{I_t}{100} \times (1 - X_{mo}) \times c_{moplsi-2},$$

c_{moplsi} [-] is the ratio for splitting the difference in costs between the licence holder and the customer; for comparing the eligible and actual costs for the years in the fifth regulatory period it equals 0.5; for comparing the eligible and actual costs for the years in the fourth regulatory period it equals zero,

$D\&A_{moi}$ [CZK] is the value of allowed D&A of the market operator's non-current tangible and intangible assets serving for providing the market operator's services in the gas industry for regulated year *i*, calculated as

$$D\&A_{moi} = D\&A_{mopli} + CF_{mooi},$$

where

$D\&A_{mopli}$ [CZK] is the planned value of D&A of the market operator's non-current tangible and intangible assets serving for providing the market operator's services in the gas industry for regulated year *i,*

CF_{mooi} [CZK] is the correction factor of the market operator's D&A, which reflects the difference between the actual and planned D&A of the non-current tangible and intangible assets serving for providing the market operator's services in the gas industry in year *i-2,* calculated as per 16.4.4,

P_{moi} [CZK] is the market operator's allowed profit for the market operator's services in the gas industry for regulated year *i*, calculated as

$$P_{moi} = (RC_{moi-2} \times 0.3) \times \frac{RR_{moi}}{100},$$

RR_{moi} [%] is the rate of return on the market operator's services as per **Chyba! Nenalezen zdroj odkazů.**,

RC_{moi-2} [CZK] is the value of the market operator's registered capital in year *i-2*,

If in year *i-2* dividends exceeding 10% of the profit after tax are paid out, the profit for regulated year *i* is calculated as

$$P_{moi} = (RC_{moi-2} \times 0.3) \times \frac{\frac{R_f}{100}}{\left(1 - \frac{T}{100}\right)},$$

where

R_f [%] is the risk-free rate of return,

T [%] is the corporate income tax rate,

MF_{moi} [CZK] is the market factor reflecting the changes in the gas market that impact on the market operator's activities and finances in the gas industry, set by the Office for regulated year *i*,

R_{moosti} [CZK] is the planned revenues from the market operator's other activities, comprising revenues from the organisation of the spot gas market, revenues from the registration of cleared entities (balance responsible parties), the yearly payments for the service of clearing and payments for the provision of actual values to gas market participants for regulated year *i*,

CF_{moi} [CZK] is the correction factor of the market operator's services in the gas industry as per 16.4.4,

PlQ_{mopi} [MWh] is the planned quantity of energy in gas which is distributed to customers connected to all regional distribution systems and which is supplied to all customers connected directly to the transmission system, the quantity of energy in gas for covering losses in the transmission system, and the quantity of energy in gas for covering losses and gas for own use (process) for all holders of the gas distribution licence who operate regional distribution systems, for regulated year *i*,

s_{osrpi} [CZK/MWh] is a special charge under Section 17d of Act No 458/2000, as amended.

No rounding is done during calculations.

Depending on the unit, the input values are rounded as follows:

a) CZK to whole Czech crowns,

b) MWh to three decimal places,

c) percentages, to three decimal places, with the exception of the rate of return, which is rounded to two decimal places,

d) ratios, to five decimal places,

e) CZK/MWh to two decimal places.

The resulting price is rounded to two decimal places.

16.4.4. Determining the correction factors for the market operator for its services in the gas industry

Correction factors for 2019 and 2020 are determined under points 9.4.4 and 9.4.6 of the Price Control Principles for 2016-2018 for the Electricity Industry, the Gas Industry and for the Market Operator's Services in the Electricity Industry and the Gas Industry with effect extended to 2020, and will equalise over the regulatory period beginning on 1 January 2021.

(1) The correction factor of the market operator's D&A in the gas industry, $\mathbf{CF_{mooi}}$ in CZK, is calculated as

$$CF_{mooi} = \left(D\&A_{moski-2} - D\&A_{mopli-2}\right) \times \frac{PPI_{i-2}}{100} \times \frac{PPI_{i-1}}{100} ,$$

for i≥3,

where

D&A$_{moski-2}$ [CZK] is the value of the actual D&A of the market operator's non-current tangible and intangible assets serving for providing the market operator's services in the gas industry in year *i-2*,

D&A$_{mopli-2}$ [CZK] is the value of the planned D&A of the market operator's non-current tangible and intangible assets serving for providing the market operator's services in the gas industry in year *i-2*,

PPI$_{i-2}$ [%] is the producer price index set on the basis of the ratio of the rolling averages of the basic producer price indices over the last 12 months and over the preceding 12 months, published by the Czech Statistical Office in the table "Producer Price Index" (code 011044) for April of year *i-2*,

PPI$_{i-1}$ [%] is the producer price index set on the basis of the ratio of the rolling averages of the basic producer price indices over the last 12 months and over the preceding 12 months, published by the Czech Statistical Office in the table "Producer Price Index" (code 011044) for April of year *i-1*.

(2) The correction factor of the market operator's services in the gas industry, $\mathbf{CF_{moi}}$ in CZK, is calculated as

$$CF_{moi} = (AR_{moi-2} + MF_{moi-2} + CF_{moi-2} + NBP_{MOi-2} - TR_{moi-2}) \times \frac{PPI_{i-2}}{100} \times \frac{PPI_{i-1}}{100},$$

for i≥3,

where

AR_{moi-2} [CZK] is the market operator's allowed revenues from the market operator's services in the gas industry in year *i-2*, calculated as

$$AR_{moi-2} = EC_{moi-2} + D\&A_{moi-2} + P_{moi-2},$$

where

EC_{moi-2} [CZK] is the market operator's eligible costs of the market operator's services in the gas industry for regulated year *i-2*, calculated as per 16.4.3,

$D\&A_{moi-2}$ [CZK] is the value of allowed D&A of the market operator's non-current tangible and intangible assets serving for providing the market operator's services in the gas industry for regulated year *i-2*, calculated as per 16.4.3,

P_{moi-2} [CZK] is the market operator's allowed profit from the market operator's services in the gas industry for regulated year *i-2*, calculated as per 16.4.3,

MF_{moi-2} [CZK] is the market factor reflecting the current changes in the gas market that impact on the market operator's services and results in the gas industry, in year *i-2,*

CF_{moi-2} [CZK] is the correction factor of the market operator's services in the gas industry in year *i-2*,

NBP_{MOi-2} [CZK] is the actual amount of the payment to the national budget under Section 17d (4) of Act No 458/2000, as amended, for year *i-2*,

TR_{moi-2} [CZK] is the total revenues actually achieved from the market operator's regulated services in the gas industry for year *i-2*. The actually achieved revenues will include 60% of the positive difference between proceeds from sold non-current assets and materials and the book value of sold non-current assets and materials, if any proceeds are realised from the sale of the non-current assets and materials hitherto serving for the licensed activities.

No rounding is done during calculations.

Depending on the unit, the input values are rounded as follows:

a) CZK to whole Czech crowns,

b) percentages, to three decimal places.

The resulting value of the correction factor is rounded to whole CZK.

16.4.5. Procedure for determining the charge for the provision of data from records of transactions in the electricity and gas industries

The charge for the service of the provision of data from records of transactions by the market operator in the electricity and gas markets, $\mathbf{r_{moi}}$ in CZK/month, is calculated as

$$r_{moi} = \frac{AR_{mori}}{\left(PNE_{morpi} \times 12\right)},$$

where

i is the serial number of the regulated year,

r means the service of the provision of data from records of transactions (REMIT),

$\mathbf{AR_{mori}}$ [CZK] is the market operator's allowed revenues from the market operator's service of the provision of data from records of transactions in the electricity industry and the gas industry for regulated year *i*, calculated as

$$AR_{mori} = EC_{mori} + D\&A_{mori} + CF_{mori},$$

where

$\mathbf{EC_{mori}}$ [CZK] is the market operator's eligible costs of the service of the provision of data from records of transactions for regulated year *i*, calculated as

$$EC_{mori} = \left(C_{morzi-1} + C_{morplsi-1}\right) \times \prod_{t=L+i}^{L+i} \frac{I_t}{100} \times (1 - X_{mor}),$$

where

$\mathbf{C_{morzi\text{-}1}}$ [CZK] is the market operator's eligible costs incurred in the service of the provision of data from records of transactions, calculated as

$$C_{morzi-1} = \frac{\begin{array}{c}\left(C_{morski-4} \times \prod_{t=L+i-3}^{L+i-1} \frac{I_t}{100} \times (1 - X_{mor})^3\right) + \\ \left(C_{morski-3} \times \prod_{t=L+i-2}^{L+i-1} \frac{I_t}{100} \times (1 - X_{mor})^2\right) + \\ \left(C_{morski-2} \times \prod_{t=L+i-1}^{L+i-1} \frac{I_t}{100} \times (1 - X_{mor})\right)\end{array}}{3},$$

where

$\mathbf{C_{morski}}$ **[CZK]** is the market operator's actual economically justified costs incurred in the service of the provision of data from records of transactions,

$\mathbf{X_{mor}}$ [-] is the yearly value of the efficiency factor related to the service of the provision of data from records of transactions, set by the Office,

$\mathbf{I_t}$ [%] is the value of the escalation factor of the costs in the respective year *t*, as per 16.4.1 (1),

$C_{morplsi-1}$ [CZK] is the value of profit/loss sharing of the costs of the holder of the licence for services related to the provision of data from records of transactions, calculated as

$$C_{morplsi-1} = \frac{\left(C_{morplsi-4} + C_{morplsi-3} + C_{morplsi-2}\right)}{3},$$

where

$$C_{morplsi-4} = (EC_{mori-4} - C_{morski-4}) \times \prod_{t=L+i-3}^{L+i-1} \frac{I_t}{100} \times (1 - X_{mor})^3 \times c_{morplsi-4},$$

$$C_{morplsi-3} = (EC_{mori-3} - C_{morski-3}) \times \prod_{t=L+i-2}^{L+i-1} \frac{I_t}{100} \times (1 - X_{mor})^2 \times c_{morplsi-3},$$

$$C_{morplsi-2} = (EC_{mori-2} - C_{morski-2}) \times \prod_{t=L+i-1}^{L+i-1} \frac{I_t}{100} \times (1 - X_{mor}) \times c_{morplsi-2},$$

$c_{morplsi}$ [-] is the ratio for splitting the difference in costs between the licence holder and the customer; for comparing the eligible and actual costs for the years in the fifth regulatory period it equals 0.5; for comparing the eligible and actual costs for the years in the fourth regulatory period it equals zero,

$D\&A_{mori}$ [CZK] is the value of allowed D&A of the market operator's non-current tangible and intangible assets serving for providing the market operator's service of the provision of data from records of transactions for regulated year *i*, calculated as

$$D\&A_{mori} = D\&A_{morpli} + CF_{moroi},$$

where

$D\&A_{morpli}$ [CZK] is the planned D&A of the market operator's non-current tangible and intangible assets serving for providing the service of the provision of data from records of transactions in the electricity industry and the gas industry in year *i,*

CF_{moroi} [CZK] is the correction factor of D&A related to providing the service of the provision of data from records of transactions in the electricity industry and the gas industry for regulated year *i* set as per 16.4.6(1),

CF_{mori} [CZK] is the correction factor of the service of the provision of data from records of transactions in the electricity industry and the gas industry for regulated year *i* calculated as per 16.4.6 (2),

PNE_{morpi} [-] is the planned number of entities that are obliged to pay this charge for regulated year *i*.

No rounding is done during calculations.

Depending on the unit, the input values are rounded as follows:

a) CZK to whole Czech crowns,

b) MWh to three decimal places,

c) percentages, to three decimal places,

d) ratios, to five decimal places,

e) CZK/MWh to two decimal places.

The resulting charge for the service of the provision of data from records of transactions, in CZK/month, is rounded to whole CZK.

16.4.6. Determining the correction factors for the provision of data from records of transactions in the electricity and gas industries

(1) The correction factor of D&A related to the service of the provision of data from records of transactions in the electricity industry and the gas industry, **CF_{moroi}** in CZK, is calculated as

$$CF_{moroi} = \left(D\&A_{morski-2} - D\&A_{morpli-2}\right) \times \frac{PPI_{i-2}}{100} \times \frac{PPI_{i-1}}{100} ,$$

for i≥3,

where

$D\&A_{morski-2}$ [CZK] is the value of the actual D&A of the market operator's non-current tangible and intangible assets serving for providing the service of the provision of data from records of transactions in the electricity industry and the gas industry in year *i-2*,

$D\&A_{morpli-2}$ [CZK] is the value of the planned D&A of the market operator's non-current tangible and intangible assets serving for providing the service of the provision of data from records of transactions in the electricity industry and the gas industry in year *i-2*,

PPI_{i-2} [%] is the producer price index set on the basis of the ratio of the rolling averages of the basic producer price indices over the last 12 months and over the preceding 12 months, published by the Czech Statistical Office in the table "Producer Price Index" (code 011044) for April of year *i-2*,

PPI_{i-1} [%] is the producer price index set on the basis of the ratio of the rolling averages of the basic producer price indices over the last 12 months and over the preceding 12 months, published by the Czech Statistical Office in the table "Producer Price Index" (code 011044) for April of year *i-1,*

(2) The correction factor for the service of the provision of data from records of transactions in the electricity industry and the gas industry, **CF_{mori}** in CZK, is calculated as

$$CF_{mori} = [EC_{mori-2} + D\&A_{mori-2} + CF_{mori-2} - TR_{mori-2}] \times \frac{PPI_{i-2}}{100} \times \frac{PPI_{i-1}}{100},$$

for i≥3,

where

EC_{mori-2} [CZK] is the market operator's eligible costs of the service of the provision of data from records of transactions for regulated year *i-2*,

$D\&A_{mori-2}$ [CZK] is the value of allowed D&A of the market operator's non-current tangible and intangible assets serving for providing the market operator's service of the provision of data from records of transactions in year *i-2*,

CF_{mori-2} [CZK] is the correction factor of the service of the provision of data from records of transactions in the electricity industry and the gas industry in year *i-2*,

TR_{mori-2} [CZK] is the total revenues actually achieved from the service of the provision of data from records of transactions in the electricity industry and the gas industry for year *i-2*. The actually achieved revenues will include 60% of the positive difference between proceeds from sold non-current assets and materials and the book value of sold non-current assets and materials, if any proceeds are realised from the sale of the non-current assets and materials hitherto serving for the licensed activities,

PPI_{i-2} [%] is the producer price index set on the basis of the ratio of the rolling averages of the basic producer price indices over the last 12 months and over the preceding 12 months, published by the Czech Statistical Office in the table "Producer Price Index" (code 011044) for April of year *i-2*,

PPI_{i-1} [%] is the producer price index set on the basis of the ratio of the rolling averages of the basic producer price indices over the last 12 months and over the preceding 12 months, published by the Czech Statistical Office in the table "Producer Price Index" (code 011044) for April of year *i-1*.

No rounding is done during calculations.

Depending on the unit, the input values are rounded as follows:

a) CZK to whole Czech crowns,

b) percentages, to three decimal places.

The resulting value of the correction factor is rounded to whole CZK.

17. Expected development of the regulatory formula parameters

The following tables show the expected development of the allowed revenues for the various system operators and the market operator in the electricity industry and the gas industry on the basis of the methodology described in these Price Control Principles for the fifth regulatory period and the planned values transmitted to licence holders.

17.1. Expected development of allowed revenues in the electricity industry

Table 24 Allowed revenues expected in the fifth regulatory period – the electricity industry

Electricity industry Allowed revenues (CZK th)	fourth regulatory period			fifth regulatory period					
	2019	2020	Sum for 4th RP	2021	2022	2023	2024	2025	Sum for 5th RP
ČEZ Distribuce, a.s.	24,786,416	25,821,856	**120,925,483**	24,433,931	25,542,363	26,466,563	27,308,080	28,168,359	**131,919,296**
E.ON Distribuce, a.s.	9,605,220	10,153,139	**45,846,373**	10,243,625	10,545,170	10,686,240	11,076,428	11,469,532	**54,020,996**
PREdistribuce, a.s.	4,906,015	5,034,611	**24,064,268**	4,991,174	5,238,987	5,382,422	5,569,427	5,738,343	**26,920,354**
UCED Chomutov s.r.o.	52,615	44,046	**236,808**	46,089	44,861	46,423	46,591	46,801	**230,766**
ČEPS, a.s. *)	6,490,820	6,674,747	**30,716,943**	6,517,699	6,877,591	7,149,851	7,554,382	7,955,879	**36,055,402**
OTE, a.s. **)	316,485	257,960	**1,556,115**	257,464	309,482	313,503	318,868	329,028	**1,528,345**
Total	**46,157,570**	**47,986,358**	**223,345,989**	**46,489,982**	**48,558,455**	**50,045,002**	**51,873,777**	**53,707,944**	**250,675,159**
ČEZ Distribuce, a.s.				-5.4%	4.5%	3.6%	3.2%	3.2%	**9.1%**
E.ON Distribuce, a.s.				0.9%	2.9%	1.3%	3.7%	3.5%	**17.8%**
PREdistribuce, a.s.				-0.9%	5.0%	2.7%	3.5%	3.0%	**11.9%**
UCED Chomutov s.r.o.				4.6%	-2.7%	3.5%	0.4%	0.5%	**-2.6%**
ČEPS, a.s. *)				-2.4%	5.5%	4.0%	5.7%	5.3%	**17.4%**
OTE, a.s. **)				-0.2%	20.2%	1.3%	1.7%	3.2%	**-1.8%**
Total				**-3.1%**	**4.4%**	**3.1%**	**3.7%**	**3.5%**	**12.2%**

*) The values for the TSO do not contain revenues from system service provision.

**) The values for the market operator in the electricity industry contain data only for activities related to the settlement of imbalances, the activity of market organisation, and activities related to the payment and administration of aid for supported sources, including the market factor.

17.2. Expected development of allowed revenues in the gas industry

Table 25 Allowed revenues expected in the fifth regulatory period – the gas industry

Gas industry Allowed revenues (CZK th)	fourth regulatory period			fifth regulatory period					
	2019	2020	Sum for 4th RP	2021	2022	2023	2024	2025	Sum for 5th RP
E.ON Distribuce, a.s.	983,484	1,022,235	**4,786,778**	973,773	969,254	995,739	1,021,093	1,032,320	**4,992,179**
Pražská plynárenská Distribuce, a.s.	1,913,422	2,003,408	**9,574,528**	2,139,161	2,146,437	2,250,622	2,375,638	2,480,442	**11,392,301**
GasNet, s.r.o.	11,638,342	11,930,879	**58,195,186**	11,548,547	11,916,314	12,277,518	12,442,951	12,723,716	**60,909,047**
NET4GAS, s.r.o.	1,656,860	1,670,896	**8,145,567**	1,517,148	2,103,821	2,158,459	2,181,691	2,223,474	**10,184,593**
OTE, a.s.	82,771	94,660	**430,804**	96,358	92,731	94,228	96,196	97,279	**476,792**
Total	**16,274,879**	**16,722,078**	**81,132,863**	**16,274,987**	**17,228,557**	**17,776,566**	**18,117,568**	**18,557,233**	**87,954,911**
E.ON Distribuce, a.s.				-4.7%	-0.5%	2.7%	2.5%	1.1%	**4.3%**
Pražská plynárenská Distribuce, a.s.				6.8%	0.3%	4.9%	5.6%	4.4%	**19.0%**
GasNet, s.r.o.				-3.2%	3.2%	3.0%	1.3%	2.3%	**4.7%**
NET4GAS, s.r.o.				-9.2%	38.7%	2.6%	1.1%	1.9%	**25.0%**
OTE, a.s.				1.8%	-3.8%	1.6%	2.1%	1.1%	**10.7%**
Total				**-2.7%**	**5.9%**	**3.2%**	**1.9%**	**2.4%**	**8.4%**

18. Abbreviations

ACER
Agency for Cooperation of Energy Regulators

AMM
Automated Meter Management

CAPM
Capital Asset Pricing Model

CEER
Council of European Energy Regulators

CNB
Czech National Bank

CR
Czech Republic

DECE
Decentralised generating plants

Licence holder(s), regulated entity(ies)
Holder of a licence for electricity transmission, gas transmission, electricity distribution, gas distribution, and the activities of the market operator and mandatory buyers

RCD
Remotely controlled devices

NCS
Network control system

DS
Distribution system

DTS
Distribution transformer station

EBITDA
Earnings before Interest, Tax, Depreciation and Amortisation; an indicator showing a company's operating performance. Financial indicator of profitability unburdened by taxes

EEX
The European Energy Exchange

EC
European Commission

Energy Act
Act No 458/2000 on Conditions of Business and State Administration in Energy Industries and Amending Certain Laws, as amended

ERO, Office
The Energy Regulatory Office

EU, Union
The European Union

€, **EUR**
The common European currency

EG CR
Electricity Grid of the Czech Republic

PV
Photovoltaic power plant

GCC
Grid Control Cooperation (projects for cross-border exchanges of balancing energy at the level of electricity transmission system operators)

The third regulatory period
The period covering consecutive regulated years 2010-2015

The fourth regulatory period
The period covering consecutive regulated years 2016-2020

The fifth regulatory period
A regulatory period covering at least five consecutive regulated years beginning in 2021 (1 January 2021 to 31 December 2025)

ITC
Inter-Transmission System Operator Compensation

CZK
Czech crown (the Czech currency)

CF
Correction factor

MIT
Ministry of Industry and Trade

NAP CM
National Action Plan of Clean Mobility

NAP EE
National Action Plan of Energy Efficiency

NAP SG
National Action Plan for Smart Grids

NCG
NetConnect Germany, bidding zone in Germany

LV
Low voltage

SP
Supply point

Market operator
OTE, a.s.

RES
Renewable energy sources

SES
Supported renewable energy sources

PCR
The Price Coupling of Regions project

DSO
Distribution system operator

DSOR
Distribution System Operation Rules

ETS
Electricity transmission system

RAB
Regulatory asset base

REMIT
Regulation (EU) No 1227/2011 of the European Parliament and of the Council of 25 October 2011 on wholesale energy market integrity and transparency. The Regulation was published in the Official Journal of the European Union on 8 December 2011 and entered into force on the 20th day following the publication, i.e. on 28 December 2011.

RP
Regulatory period

TAR Decision

ERO Decision under Article 27 (4) of Commission Regulation (EU) 2017/460 of 16 March 2017 establishing a network code on harmonised transmission tariff structures for gas (published in the ERO's Energy Regulation Gazette 3/2019 of 27 May 2019)

SAIDI

System Average Interruption Duration Index, average total duration of electricity distribution interruption

SAIFI

System Average Interruption Frequency Index, average number of electricity distribution interruptions

NEP

National Energy Policy

SIDC

Single Intraday Coupling

BS

Balancing services

TAR NC

Commission Regulation (EU) 2017/460 of 16 March 2017 establishing a network code on harmonised transmission tariff structures for gas

TYNDP

A system operator's Ten Year National Development Plan

U/Q

Voltage/Reactive Power

OPC

Office for the Protection of Competition

MV (*VN* in Czech)

Medium voltage (high voltage (*vysoké napětí*) in Czech, 22 kV)

HV (VVN in Czech)
High voltage (extra high voltage (*velmi vysoké napětí*) in Czech, 110 kV)

WACC
Rate of return on the regulatory asset base

The SES Act
Act No 165/2012 on Supported Energy Sources and Amending Certain Laws, as amended

Price Control Principles
Price Control Principles for the 2021-2025 Regulatory Period for the Electricity Industry, the Gas Industry, the Market Operator's Services in the Electricity Industry and the Gas Industry, and for Mandatory Buyers

Price Control Principles for the fourth regulatory period
Price Control Principles for 2016-2018 for the Electricity Industry, the Gas Industry and for the Market Operator's Services in the Electricity Industry and the Gas Industry with effect extended to 2020

NBVA
Book value of assets

19. Annexes

19.1. Regulatory formula parameters – the electricity industry

Table 26 Regulatory formula parameters, ČEZ Distribuce, a.s.

ČEZ Distribuce, a.s.	2016		2017		2018		2019	
CZK th	Set parameters	Actual parameters	Set parameters	Actual parameters	Set parameters	Actual parameters	Set parameters	Actual parameters
Costs	9 079 921	7 502 213	9 021 922	7 371 886	9 033 793	6 927 348	9 158 391	7 512 501
D&A	6 885 064	6 847 109	6 958 453	7 004 419	7 305 655	7 334 018	7 613 178	7 690 444
RAB	88 654 789	87 945 258	92 749 694	91 806 828	97 134 194	96 928 304	101 579 678	101 911 145
Profit	7 053 456	6 992 527	7 355 680	7 299 561	7 623 268	7 706 769	8 014 847	8 102 955
Market factor	0		0		0		0	
Allowed revenues	**23 018 441**	**21 341 850**	**23 336 055**	**21 675 866**	**23 962 716**	**21 968 135**	**24 786 416**	**23 305 900**
AR difference		1 676 591		1 660 189		1 994 581		1 480 516
Other	-1 608 611		-2 369 781		-1 976 532		-1 861 456	
Adjusted allowed revenues	**21 409 830**		**20 966 274**		**21 986 184**		**22 924 960**	

Table 27 Regulatory formula parameters, E.ON Distribuce, a.s.

E.ON Distribuce, a.s.	2016		2017		2018		2019	
CZK th	Set parameters	Actual parameters	Set parameters	Actual parameters	Set parameters	Actual parameters	Set parameters	Actual parameters
Costs	3 190 667	3 259 302	3 170 287	3 150 290	3 174 458	3 117 079	3 218 242	3 253 487
D&A	2 452 827	2 617 684	2 593 501	2 695 896	2 882 165	2 871 078	3 026 832	3 039 740
RAB	35 511 139	35 263 283	36 551 064	37 086 830	38 102 451	39 769 831	41 246 122	42 723 829
Profit	2 762 822	2 803 784	2 866 675	2 948 774	3 034 286	3 162 099	3 360 146	3 396 972
Market factor	-39 697		23		0		0	
Allowed revenues	**8 366 619**	**8 680 770**	**8 630 486**	**8 794 960**	**9 090 909**	**9 150 257**	**9 605 220**	**9 690 198**
AR difference		-314 151		-164 474		-59 348		-84 979
Other	-726 789		-443 137		-425 443		-651 169	
Adjusted allowed revenues	**7 639 830**		**8 187 349**		**8 665 466**		**8 954 051**	

Table 28 Regulatory formula parameters, PREdistribuce, a.s.

PREdistribuce, a.s.	2016		2017		2018		2019	
CZK th	Set parameters	Actual parameters	Set parameters	Actual parameters	Set parameters	Actual parameters	Set parameters	Actual parameters
Costs	1 903 453	1 892 794	1 891 295	1 905 188	1 893 784	1 947 664	1 919 903	1 949 854
D&A	1 126 464	1 373 716	1 277 010	1 327 815	1 482 989	1 340 247	1 416 771	1 331 137
RAB	18 474 300	18 408 008	19 190 114	18 959 392	19 815 843	19 625 555	20 229 305	20 265 921
Profit	1 456 798	1 463 621	1 517 656	1 507 461	1 574 194	1 560 428	1 569 340	1 611 343
Market factor	0		0		0		0	
Allowed revenues	**4 486 715**	**4 730 131**	**4 685 960**	**4 740 465**	**4 950 966**	**4 848 339**	**4 906 015**	**4 892 334**
AR difference		-243 416		-54 505		102 627		13 681
Other	-227 652		-200 104		-229 503		-298 342	
Adjusted allowed revenues	**4 259 063**		**4 485 856**		**4 721 463**		**4 607 673**	

Table 29 Regulatory formula parameters, LDS Sever, spol. s r.o./UCED Chomutov s.r.o.

LDS Sever spol. s r.o.	2016		2017		2018		2019	
CZK th	Set parameters	Actual parameters	Set parameters	Actual parameters	Set parameters	Actual parameters	Set parameters	Actual parameters
Costs	21 463	24 223	21 325	22 979	21 354	21 060	21 648	23 019
D&A	11 209	7 330	6 932	8 005	8 514	8 424	8 873	8 602
RAB	136 607	126 200	196 300	199 777	209 095	195 111	222 463	209 697
Profit	10 429	10 034	18 010	15 884	20 912	15 513	22 094	16 673
Market factor	0		0		0		0	
Allowed revenues	**43 100**	**41 587**	**46 267**	**46 867**	**50 780**	**44 997**	**52 615**	**48 294**
AR difference		1 513		-600		5 783		4 320
Other	-3 555		-2 761		-3 905		-7 432	
Adjusted allowed revenues	**39 546**		**43 506**		**46 874**		**45 183**	

Table 30 Regulatory formula parameters set for electricity transmission, ČEPS, a.s.

ČEPS, a.s. electricity transmission	2016		2017		2018		2019	
CZK th	Set parameters	Actual parameters	Set parameters	Actual parameters	Set parameters	Actual parameters	Set parameters	Actual parameters *)
Costs	1 501 013	1 710 390	1 491 426	1 651 198	1 493 388	1 814 764	1 506 669	1 895 266
D&A	1 992 311	2 022 394	2 224 349	2 175 305	2 194 815	2 245 473	2 351 440	2 314 189
RAB	25 547 796	26 210 759	29 333 228	29 770 082	30 089 725	30 891 103	31 228 864	31 663 603
Profit	1 835 695	2 084 017	2 405 684	2 367 019	2 412 695	2 456 152	2 632 710	2 517 573
Market factor	0		0		0		7 481	
Allowed revenues	**5 329 020**	**5 816 801**	**6 121 459**	**6 193 522**	**6 100 898**	**6 516 388**	**6 498 301**	**6 727 029**
AR difference		-487 782		-72 063		-415 490		-228 728
Other	-328 688		-526 421		-136 748		-25 817	
Adjusted allowed revenues	**5 000 332**		**5 595 038**		**5 964 150**		**6 472 484**	

*) Most of the TSO's actual parameters for 2019 are preliminary values; actual values will be known after the issue of the Price Control Principles.

19.2. Regulatory formula parameters – the gas industry

Table 31 Regulatory formula parameters, GasNet, s.r.o.

GasNet, s.r.o.	2016		2017		2018		2019	
CZK th	Set parameters	Actual parameters	Set parameters	Actual parameters	Set parameters	Actual parameters	Set parameters	Actual parameters
Costs	4 043 613	3 760 440	4 017 791	3 772 131	4 023 085	3 890 238	4 076 392	3 979 574
D&A	4 114 277	4 421 229	3 621 175	3 718 491	4 062 133	3 692 127	3 748 205	3 733 150
RAB	44 193 981	43 877 891	45 571 599	45 347 995	46 491 074	46 454 068	47 800 519	47 609 842
Profit	3 490 185	3 483 905	3 621 612	3 600 631	3 632 096	3 688 453	3 813 745	3 780 221
Market factor	0		0		0		572	
Allowed revenues	**11 648 075**	**11 665 574**	**11 260 577**	**11 091 254**	**11 717 313**	**11 270 818**	**11 638 914**	**11 492 945**
AR difference		-17 499		169 324		446 495		145 968
Costs to cover losses and own and process use	862 886	866 390	661 888	665 097	640 492	643 247	767 676	770 417
Correction factor	176 253		831 139		830 768		-40 079	
Other	73 612		77 425		53 656		57 166	
Adjusted allowed revenues	**12 760 826**		**12 831 028**		**13 242 230**		**12 423 677**	

Table 32 Regulatory formula parameters, Pražská plynárenská Distribuce, a.s.

Pražská plynárenská Distribuce, a.s.	2016		2017		2018		2019	
CZK th	Set parameters	Actual parameters	Set parameters	Actual parameters	Set parameters	Actual parameters	Set parameters	Actual parameters
Costs	765 227	818 161	760 340	855 756	761 342	893 793	771 844	876 546
D&A	487 733	486 833	463 950	466 551	423 666	459 586	437 786	454 840
RAB	8 004 663	8 084 181	8 212 077	8 326 679	8 623 279	8 595 749	8 915 481	8 970 530
Profit	645 269	641 884	643 439	661 138	706 732	682 502	703 792	712 260
Market factor	0		0		0		1 221	
Allowed revenues	**1 898 228**	**1 946 878**	**1 867 729**	**1 983 445**	**1 891 740**	**2 035 882**	**1 914 643**	**2 043 646**
AR difference		-48 649		-115 716		-144 141		-129 003
Costs to cover losses and own and process use	176 432	177 149	135 335	135 991	131 678	132 245	157 826	158 390
Correction factor	-39 897	0	85 000		48 410		-49 059	
Other	0		-21 905		-22 190		-22 700	
Adjusted allowed revenues	**2 034 764**		**2 066 159**		**2 049 639**		**2 000 709**	

Table 33 Regulatory formula parameters, E.ON Distribuce, a.s.

E.ON Distribuce, a.s.	2016		2017		2018		2019	
CZK th	Set parameters	Actual parameters	Set parameters	Actual parameters	Set parameters	Actual parameters	Set parameters	Actual parameters
Costs	292 724	283 664	290 855	257 163	291 238	245 446	295 255	245 015
D&A	292 813	296 397	298 067	299 104	319 256	314 926	330 969	322 899
RAB	4 280 993	4 190 461	4 249 985	4 258 565	4 286 105	4 393 880	4 422 801	4 565 364
Profit	332 407	332 723	328 587	338 130	335 113	348 874	357 260	362 490
Market factor	0		0		0		0	
Allowed revenues	**917 944**	**912 784**	**917 508**	**894 398**	**945 607**	**909 246**	**983 484**	**930 404**
AR difference		5 160		23 111		36 361		53 080
Costs to cover losses and own and process use	44 182	44 361	33 890	34 054	32 795	32 936	39 307	39 447
Correction factor	7 000		30 471		69 544		-42 903	
Other	7 743		8 472		7 765		9 138	
Adjusted allowed revenues	**976 869**		**990 341**		**1 055 711**		**989 025**	

Table 34 Regulatory formula parameters, NET4GAS, s.r.o.

NET4GAS, s.r.o.	2016		2017		2018		2019	
CZK th	Set parameters	Actual parameters	Set parameters	Actual parameters	Set parameters	Actual parameters	Set parameters	Actual parameters
Costs	511 479	460 885	508 213	399 281	508 883	420 996	515 902	433 269
D&A	575 367	564 686	542 365	569 154	545 431	565 174	552 461	542 778
RAB	6 735 116	6 903 987	6 797 258	6 833 800	6 918 874	6 649 973	7 467 983	6 979 443
Profit	512 027	548 177	554 462	542 604	559 582	528 008	588 497	554 168
Market factor	0		2 334		5 301		9 896	
Allowed revenues	**1 598 874**	**1 573 747**	**1 607 375**	**1 511 038**	**1 619 197**	**1 514 178**	**1 666 756**	**1 530 215**
AR difference		25 127		96 337		105 019		136 542
Correction factor	190 136		65 983		-170 829		37 114	
Other *)	599 955		365 518		297 858		348 248	
Adjusted allowed revenues	**2 388 964**		**2 038 876**		**1 746 226**		**2 052 118**	

*) The Other item contains allowed revenues at entry interconnection points

19.3. Regulatory formula parameters – the market operator – the electricity industry

Table 35 Regulatory formula parameters, OTE, a.s. (imbalance clearing)

OTE, a.s. imbalance clearing	2016		2017		2018		2019	
CZK th	Set parameters	Actual parameters	Set parameters	Actual parameters	Set parameters	Actual parameters	Set parameters	Actual parameters
Costs	143 521	115 151	143 257	118 217	144 143	124 441	146 910	127 480
D&A	62 942	33 366	31 360	17 840	45 610	22 387	60 605	37 203
Profit	10 961	10 961	10 961	10 961	10 961	10 961	10 961	10 961
Market factor	33 334	588	1 755	804	5 003	1 163	3 753	4 926
Allowed revenues	**250 757**	**160 066**	**187 333**	**147 822**	**205 717**	**158 952**	**222 229**	**180 570**
AR difference		90 691		39 511		46 765		41 659
Other	-44 269		-72 210		-53 557		-36 147	
Adjusted allowed revenues	**206 488**		**115 123**		**152 160**		**186 082**	

Table 36 Regulatory formula parameters, OTE, a.s. (administration of POZE)

OTE, a.s. administration of POZE	2016		2017		2018		2019	
CZK th	Set parameters	Actual parameters	Set parameters	Actual parameters	Set parameters	Actual parameters	Set parameters	Actual parameters
Planned costs	46 848	40 299	46 079	39 654	49 421	40 009	45 084	44 019
D&A	26 770	23 739	12 119	12 297	14 088	8 980	9 517	8 180
Profit	0	0	0	0	0	0	0	0
Market factor	0	0	0	0	0	0	60 336	0
Allowed revenues	**73 617**	**64 037**	**58 198**	**51 950**	**63 509**	**48 989**	**114 936**	**52 200**
AR difference		9 580		6 247		14 520		62 737
Other	18 176		5 110		-288		25 222	
Adjusted allowed revenues	**91 793**		**63 308**		**63 221**		**140 158**	

Table 37 Regulatory formula parameters, OTE, a.s. (market organisation service)

OTE, a.s. market organisation service	2016		2017		2018		2019	
CZK th	Set parameters	Actual parameters	Set parameters	Actual parameters	Set parameters	Actual parameters	Set parameters	Actual parameters
Costs	36 243	39 275	36 177	39 852	36 400	40 856	37 099	43 543
D&A	28 266	23 922	27 253	14 258	14 292	6 373	660	4 239
Profit	0	0	0	0	0	0	0	0
Market factor	0	0	722	722	725	725	725	725
Allowed revenues	**64 509**	**63 197**	**64 151**	**54 831**	**51 416**	**47 954**	**38 484**	**48 506**
AR difference		1 312		9 321		3 463		-10 022
Other	-6 965		-16 628		-21 002		-5 748	
Adjusted allowed revenues	57 544		47 524		30 415		32 735	

19.4. Regulatory formula parameters – the market operator – the gas industry

Table 38 Regulatory formula parameters, OTE, a.s. (clearing in the gas industry)

OTE, a.s.	2016		2017		2018		2019	
CZK th	Set parameters	Actual parameters	Set parameters	Actual parameters	Set parameters	Actual parameters	Set parameters	Actual parameters
Costs	64 562	62 040	64 444	59 656	64 842	63 508	66 087	66 294
D&A	21 675	25 065	10 840	10 777	12 852	13 885	11 964	25 525
Profit	4 720	4 720	4 720	4 720	4 720	4 720	4 720	4 720
Market factor	0	0	0	0	565	565	1 203	1 203
Allowed revenues	**90 956**	**91 824**	**80 003**	**75 153**	**82 979**	**82 678**	**83 975**	**97 742**
AR difference		-868		4 850		301		-13 767
Other	20 912		12 196		-20 666		-23 619	
Adjusted allowed revenues	**111 868**		**92 199**		**62 313**		**60 356**	

19.5. The replacement and development fund – the electricity industry

Table 39 Regulatory formula parameters – the replacement and development fund – the electricity industry

	third RP							fourth RP				2010-2019 comparison
In million CZK	2010	2011	2012	2013	2014	2015	third RP	2016	2017	2018	2019	
	ČEZ Distribuce, a.s.											
D&A	5 885	6 131	6 312	6 526	6 729	6 781	38 363	6 847	7 004	7 334	7 690	**67 239**
Capitalised investments	12 176	10 735	9 354	8 623	8 301	8 111	57 301	8 136	9 402	11 125	11 444	**97 409**
Not invested (+)	-6 292	-4 604	-3 042	-2 097	-1 572	-1 331	-18 938	-1 289	-2 398	-3 791	-3 754	**-30 170**
% invested	207%	175%	148%	132%	123%	120%	149%	119%	134%	152%	149%	**145%**
	E.ON Distribuce, a.s.											
D&A	2 026	2 266	2 315	2 386	2 465	2 551	14 008	2 618	2 696	2 871	3 040	**25 233**
Capitalised investments	3 264	3 427	3 375	3 132	3 462	3 678	20 338	3 513	4 042	5 012	5 452	**38 357**
Not invested (+)	-1 238	-1 161	-1 060	-746	-997	-1 126	-6 330	-895	-1 346	-2 141	-2 412	**-13 124**
% invested	161%	151%	146%	131%	140%	144%	145%	134%	150%	175%	179%	**152%**
	PREdistribuce, a.s.											
D&A	1 300	1 321	1 372	1 439	1 442	1 481	8 355	1 374	1 328	1 340	1 331	**13 728**
Capitalised investments	1 660	1 724	1 656	1 522	1 657	1 508	9 727	1 635	1 503	1 654	1 660	**16 179**
Not invested (+)	-360	-403	-284	-83	-215	-27	-1 372	-261	-175	-313	-328	**-2 450**
% invested	128%	130%	121%	106%	115%	102%	116%	119%	113%	123%	125%	**118%**
	LDS Sever, spol. s r.o./UCED Chomutov s.r.o.											
D&A				4	7	7	19	7	8	8	9	**51**
Capitalised investments				60	0	0	60	14	20	4	23	**121**
Not invested (+)				-56	7	7	-42	-7	-12	5	-15	**-70**
% invested				1 531%	0%	0%	325%	192%	247%	45%	270%	**238%**
	ČEPS, a.s.											
D&A	1 787	1 685	1 612	1 714	1 739	1 751	10 289	2 022	2 175	2 245	2 314	**19 045**
Capitalised investments	1 934	2 097	3 941	3 027	2 849	3 920	17 767	4 986	5 654	3 297	3 006	**34 710**
Not invested (+)	-146	-412	-2 329	-1 313	-1 110	-2 169	-7 479	-2 964	-3 479	-1 051	-692	**-15 665**
% invested	108%	124%	244%	177%	164%	224%	173%	247%	260%	147%	130%	**182%**

*) The TSO's actual parameters for 2019 are preliminary values; actual values will be known after the issue of the Price Control Principles.

19.6. The replacement and development fund – the gas industry

Table 40 Regulatory formula parameters – the replacement and development fund – the gas industry

	third RP							fourth RP				2010-2019 comparison
In million CZK	2010	2011	2012	2013	2014	2015	third RP	2016	2017	2018	2019	
	GasNet, s.r.o. (merging VČP Net, s.r.o., JMP Net, s.r.o., SMP Net, s.r.o., and RWE GasNet, s.r.o.)											
D&A	3 433	3 463	3 543	3 777	3 843	3 956	22 014	4 421	3 718	3 692	3 733	**37 578**
Capitalised investments	2 923	2 987	3 445	3 692	3 514	3 799	20 360	3 908	3 968	3 666	3790	**35 692**
Not invested (+)	509	476	98	85	329	157	1 654	513	-250	26	-57	**1 886**
% invested	85%	86%	97%	98%	91%	96%	92%	88%	107%	99%	102%	**95%**
	Pražská plynárenská Distribuce, a.s.											
D&A	380	388	403	424	441	457	2 492	487	467	460	455	**4 361**
Capitalised investments	363	590	499	467	617	583	3 119	846	743	755	853	**6 316**
Not invested (+)	17	-202	-96	-43	-176	-126	-626	-359	-276	-295	-398	**-1 954**
% invested	96%	152%	124%	110%	140%	128%	125%	174%	159%	164%	187%	**145%**
	E.ON Distribuce, a.s.											
D&A	261	268	272	278	281	287	1 647	296	299	315	323	**2 880**
Capitalised investments	318	350	357	340	238	230	1 833	268	303	381	440	**3 225**
Not invested (+)	-58	-82	-85	-62	43	57	-186	28	-4	-66	-117	**-345**
% invested	122%	130%	131%	122%	85%	80%	111%	91%	101%	121%	136%	**112%**
	NET4GAS, s.r.o.											
D&A	649	672	689	710	675	655	4 051	600	599	565	566	**6 381**
Capitalised investments	197	124	585	287	161	204	1 558	302	262	144	673	**2 939**
Not invested (+)	452	548	104	423	515	451	2 493	298	337	421	-107	**3 442**
% invested	30%	18%	85%	40%	24%	31%	38%	50%	44%	25%	119%	**46%**