ENERGETICKÝ
REGULAČNÍ
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COMBINED PUBLICATION

Report on the Activities and Finances of the Energy Regulatory Office

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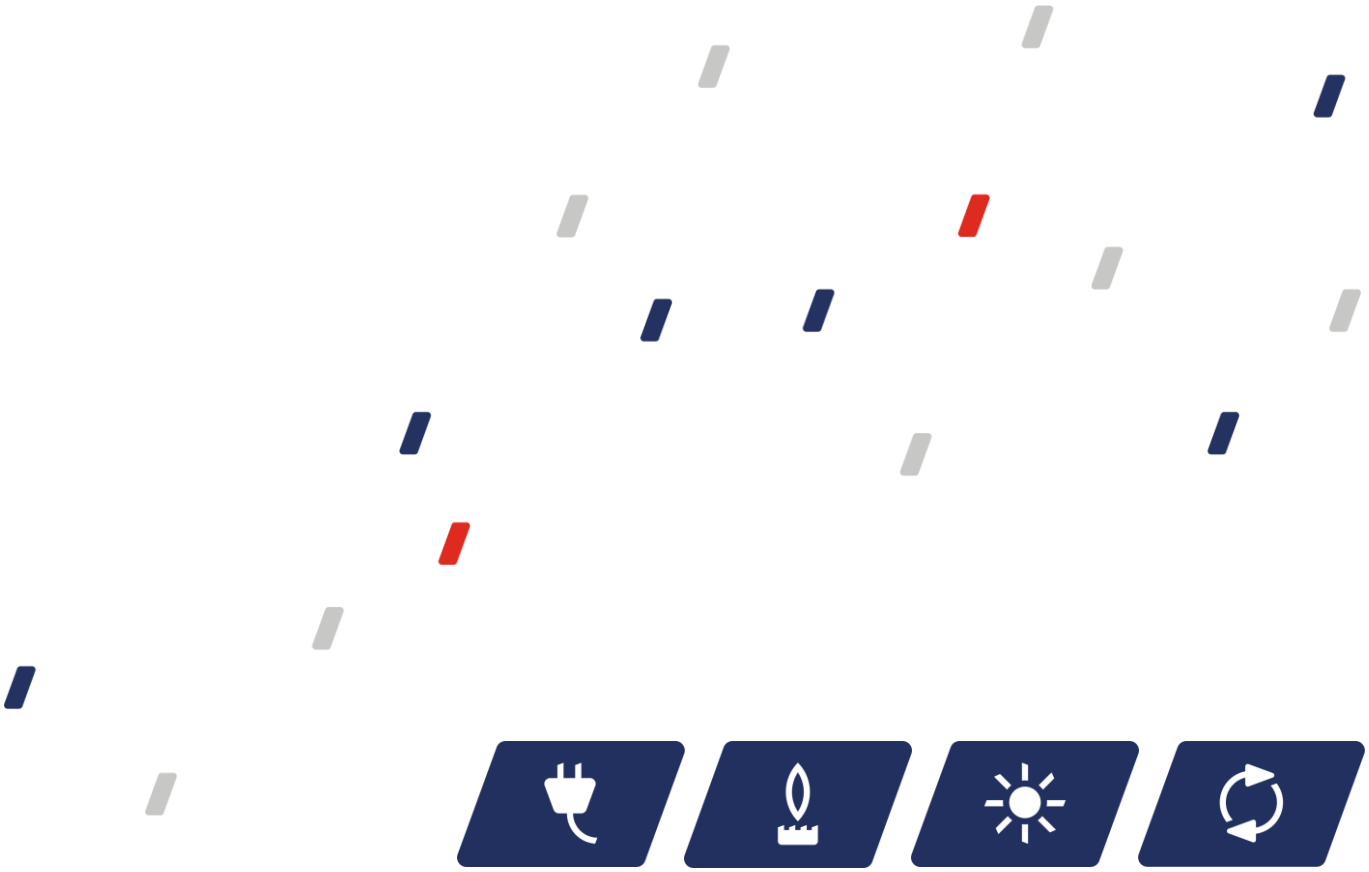
National Report of the Energy Regulatory Office on the Electricity and Gas Industries in the Czech Republic

2022



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1 INTRODUCTION

The Energy Regulatory Office ('ERO', 'the Regulator', or 'the Office') has been operating in the Czech Republic as an independent national regulator since 2001. ERO primarily regulates monopoly activities in the electricity, gas, and heat supply industries, determines aid for supported energy sources (SES (*POZE* in Czech)), provides consumer protection in the energy industries, and also supervises all these areas.

In 2022, the entire European energy sector felt the heavy pressure caused by the subsiding complicated period of the COVID-19 pandemic and, in particular, by the sanctions adopted by the European Union (EU) against Russia because of its unprovoked military invasion of Ukraine. Those developments intensified the energy crisis, subsequently resulting in profound changes in the energy sector when virtually all energy companies had to face a large number of shared and/or individual, but primarily adverse, circumstances. One of the issues was the high prices that affected all customers, including households. The 2022 developments had a considerable impact on the Office's activities.

ERO presents its Report on the Activities and Finances of the Energy Regulatory Office [annual report] and its National Report on the Electricity and Gas Industries in the Czech Republic [national report] in a single combined publication to Parliament of the Czech Republic, the Czech Government, the European Commission (EC), the Agency for the Cooperation of Energy Regulators (ACER), and the Council of European Energy Regulators (CEER).

The initial chapters disclose the issues and information that are essential for the national report; the chapters offer, progressively, a summary of the development in the energy market (Chapter 3), consumer issues and REMIT (Chapter 4), the electricity industry (Chapter 5), and the gas industry (Chapter 6), while the Office's international activities, including ACER's and CEER's working groups, are described in Chapter **Chyba! Nenalezen zdroj odkazů.**. The remaining parts cover primarily the annual report's content important for experts in the Czech Republic (the heat supply industry in Chapter **Chyba! Nenalezen zdroj odkazů.** and SES in Chapter **Chyba! Nenalezen zdroj odkazů.**) and for Czech national institutions, such as the chapters on ERO budget management, human resource management, and internal control (Chapters 12, 13, and **Chyba! Nenalezen zdroj odkazů.**). Chapter 11 covers legislative and administrative activities. Annex 6 contains a report on the monitoring of the Czech wholesale and retail markets for 2022.

1.1 The ERO Board and organisation of the Office

ERO is headed by a five-member collective body (the ERO Board), the members of which are appointed by the Czech Government for a fixed five-year term in office. In 2022, Stanislav Trávníček (left) was the ERO Board Chairman, and (from left) Ladislav Havel, Martina Altera Krčová, Petr Kusý, and Markéta Zemanová were the other members.[1]

See Annex 1 for the Offices organisational structure.

[1] Professional CVs and summaries of the ERO Board's meetings are available at http://www.eru.cz/rada-eru

2 FOREWORD

Dear Readers,

This combined publication outlines the Energy Regulatory Office's activities and the developments in the energy market in 2022. Typical of that year were strong fluctuations and unprecedented events to which the Office had, naturally, to respond, playing its role in consumer protection and helping to stabilise the situation in the areas of the energy sector in which it had competences. My Foreword focuses on the key lines of the Office's activities through which customer protection permeates.

The basic level of consumer protection consists of price controls in monopoly sectors. The development of energy prices at the wholesale markets, which are felt in the costs of covering physical losses in systems and in the charges for balancing services, was also significantly reflected in the regulated prices last year. As early as mid-2022, the Office therefore approached the Czech cabinet and warned it of the imminent surge in regulated charges for 2023. Working with each other, they reached agreement on compensations from the national budget, which *de facto* meant caps on regulated prices. By last year's estimates, this step is expected to bring savings of more than CZK 38 billion to customers this year, an amount they would otherwise have to spend in regulated prices.

The new 'crisis regulation' did not consist of the above capping only. The Office started to control the charges for balancing services procured by the electricity transmission system operator. In the wake of suppliers' collapses, the new form of regulation was also used for determining the prices in the mode of the supplier of last resort. Equally importantly, the Office helped to address the issue of jeopardised natural gas supply as it amended its relevant price decisions and public notices with a view to supporting the filling of gas storage facilities before the feared winter season.

Direct consumer protection, i.e. supervision over energy suppliers' practices applied to customers, provision of advice over the telephone and in person, and alternative dispute resolution services, make up the second basic level of the Office's activities.

But at this point we have to outline the competences unequivocally vested in the Energy Regulatory Office by the Energy Act. Solely the regulated component of the resulting price is within the Office's powers. This component currently makes up approximately one quarter of the resulting price and it has not grown year-on-year, also thanks to our interventions; indeed, it even slightly declined on average. Suppliers determine the remaining, largest part of prices on a free market basis. In this respect, the Office is only allowed to intervene at the moment when a supplier breaches the legislation; for example, fails to notify of price hikes on time or to provide the consumer with the option to withdraw from the contract, breaches contract provisions by a change, etc. However, the overwhelming majority of the price hikes seen in price lists were caused by the general growth of wholesale prices rather than by violations of the law. Under Czech and EU law, the Office is not allowed to intervene in such cases. By the same token, the Office has no authority whatsoever to control suppliers' business strategies.

Reverting to the direct form of help to consumers, 2022 was very challenging in terms of our advisory services. As in 2021, the Office addressed more than 22,000 complaints, suggestions, and questions, almost a double of the pre-crisis numbers. In early 2022, most of the questions still concerned supplier switching related to exit from the mode of supplier of last resort (SoLR) following the fall of the BOHEMIA ENERGY entity Group; in the first half of the year, some more suppliers collapsed, although they were not major companies in terms of size.

The successful solution to the fundamental problems accompanying the historical acid test of the SoRL mode related to BOHEMIA ENERGY's collapse can be regarded as a great achievement of the combined efforts of the ERO, the Ministry of Industry and Trade, the Ministry of Labour and Social Affairs, the Labour Office, the municipal sphere, and other organisations. This is also borne out by the fact that following SoRL termination, only a minimum number of supply points, perhaps a few hundred customers, remained uncovered by contracts for supply from regular suppliers. Considering that the SoLRs were obliged to start to serve almost one million customers all of a sudden, this is a very small number indeed. In addition, the customers who, for various reasons, would not have been able to exit the SoLR mode by the deadline laid down in the law were offered new contracts without any interruptions in energy supply to them.

During 2022, the structure of consumers' questions and complaints changed significantly. The advice we were providing increasingly focused on bills, i.e. down payments (advances) and annual bills. This was a

direct consequence of the surging electricity and gas prices at wholesale markets, which was soon felt in the retail markets, in particular in the case of customers who had earlier entered into floating price or even spot price contracts or had migrated to such contracts following their previous supplier's collapse.

Looking at formal complaints in the form of applications for checks and inspections, their number also surged. We received more than 1,500 applications, six times more than in 2021, from consumers alone. The subsequent checks resulted in more than 360 sets of sanction proceedings, most of which are still pending with suppliers frequently facing multimillion sanctions in them. The number of applications for initiating alternative resolution of consumer disputes has been doubling every year for some time. We received more than 400 of them last year alone.

Naturally, the Office did not respond to the market developments in terms of supervision or advice only. We are leveraging the media's unprecedented interest in energy, which we ourselves support, for spreading information and guidance. In 2022, we released dozens of our own media outputs, which were reflected in scores of stories targeted at the public at large. Our website is also being redesigned, including the sections on frequently asked questions and other hot issues. We are also spreading the 'energy know-how' on help to consumers through partners, for whom we organise training courses and public seminars, including the Czech National Disability Council, the Czech Union of Towns and Municipalities, consumer NGOs, Ministries, the Labour Office (*Úřad práce ČR*), etc.

We can also highlight our legislative proposals as a very important aspect of our support for consumers. The proposals directly responded to the earlier developments, such as the collapses of suppliers and the unfair practices applied by certain suppliers against consumers. It should be noted that while in the preceding years primarily intermediaries had been using unfair business practices, following the breakout of the energy crisis electricity and gas suppliers themselves again began engaging in unfair or even unlawful practices more frequently.

With a view to helping to prevent the fall of additional suppliers we were advocating stricter conditions for new energy market entrants, and the introduction of supplier 'branding' with a 'stigma' barring untrustworthy companies and individuals from the energy business. Another measure aimed at better market transparency, where we proposed the introduction of an index of traders' energy provisions. We were also requesting stronger tools for market monitoring so that the Office could play its supervisory role consistently. In cooperation with the lawmakers, primarily the Ministry of Industry and Trade, these proposals will probably be passed via the forthcoming amendments to the Energy Act.

Another level of consumer protection was perhaps the least visible but equally challenging for the Office. It is comprised of the brand-new competences and duties newly incumbent on the Office in connection with the collection of surplus revenues of suppliers, compensations paid to traders because of the caps on retail energy prices, and compensations for distribution system operators. In 2022, the Office helped to formulate these measures, which were prepared in a record short time although they constituted a most significant interference with the market's functioning so far. They are being implemented and carried out in practice in equally short times in 2023. I would note that the Office newly decides on tens of billions flowing into/from the national budget, and it has to cope with this load in addition to its current agenda, which itself is swelling due to the crisis, without its own budget or personnel capacities increasing.

The following pages will offer you a unique view of the regulator's activities in this crisis period, and also of the issues that it had to tackle—and I trust that successfully—in the interest of customers and all market participants last year.

Stanislav Trávníček

ERO Board Chairman

3 DEVELOPMENT IN THE ENERGY MARKET

'Energy crisis' has become a synonym for the whole of 2022. The energy crisis had the first heavy impacts on the Czech energy market as early as the autumn of the preceding year when on 13 October 2021, a group of suppliers within the BOHEMIA ENERGY entity Group announced the end of their operation. (You can find more detailed information in the combined publication for 2021.[2])

The safety net of suppliers of last resort (SoLR) got into gear right away as regards the actual, physical supply of energy to the consumers whose current supplier had folded. In the Czech Republic, this network consists of five companies. Looking back we can now see that the SoLR net stood this historical acid test; in a few days, it accepted all customers of the folding businesses and took over energy supply to them without any interruption. ERO played a crucial coordinating role in both the initial migration to SoLR (immediate transfer of large volumes of data between suppliers; instruction to hundreds of thousands of customers on the steps they should take in supplier switching) and the subsequent tackling of consumers' individual needs. ERO also intensively addressed collapses of various suppliers in the first half of 2022 when the then applicable six-month period granted by the law for using SoLR supply was ending for consumers (for most of them around mid-April) and they were facing the trap of illegal offtake and then energy supply termination.

Although the SoLRs' effort can be described as relatively successful, a number of steps had to be agreed during ad hoc meetings with the SoLRs, distributors, and cabinet ministers because of the unprecedented extent of the consequences of Bohemia Energy's collapse. It turned out at the very beginning of the SoLR mode that the law did not envisage certain specific situations; at the very least, it did not envisage such an extensive need to use the SoLR mode or such a magnitude of the swings in wholesale prices, which were behind Bohemia Energy's collapse and the retail price hikes.

Further to the identified deficiencies, the Office worked with the MIT to draft legislative amendments intended to prevent the identified difficulties for the future and to render the SoLR mode more secure for consumers. An amendment to the Energy Act has, for example, reduced the SoLR period to three months, during which consumers have time to find a new supplier. An important change is also the fact that after the end of this period, consumers no longer fall into illegal offtake but automatically transfer to the standard product of their current supplier, i.e. their SoLR, and are then able to select a different supplier subsequently.

A major issue of 2022 was the impact of the energy crisis on energy prices. In the first wave, the price hike hit exactly the customers who had been compelled to migrate to SoLRs. SoLRs could not have had the volume of energy required for supply covered by their long-term purchase contracts, and they were compelled to buy considerable energy quantities at wholesale spot markets, which already then were significantly more expensive. However, this effect was, unfortunately, also gradually spilling over into the prices of standard products. Considering that almost one-tenth of the Czech market was affected, it was not only the SoLRs but other suppliers as well who could not have had the volume of energy required for supply to new clients covered by their contracts. At the same time, new contracts, already for the high crisis prices, made up such a significant portion of the total number of contracts that they were able to rock the overall price level of energy supply in the Czech Republic, at least for the short term. For almost one-tenth of the population, the prices skyrocketed earlier than they could have in other European countries. On the other hand it is a fact that during the year, international geopolitical developments were increasingly impacting on suppliers' pricing, the reason for the price hikes being not inside but outside the Czech Republic.

In the context of the gradual infiltration of the energy crisis into retail prices, the customers who had accepted spot price contracts constituted a distinct group. Such contracts were problematic primarily in the case of consumers, especially in combination with the fixed term of these contracts, which de facto prevented consumers from terminating such contracts without a high penalty. And indeed, it was spot products that were behind a number of cases where advances payable by consumers multiplied month to month. The Office had long been warning of the risks related to spot price contracts. At the moment when the problem with surging advances broke out in full, the Office presented its proposals for legislative amendments, and the MIT was successful in pushing them through into the legislation within a

[2] https://www.eru.cz/zpravy-o-cinnosti-hospodareni-narodni-zpravy

single month, i.e. a record short time. The change has provided customers with the option to withdraw from such contracts at a very short period of notice of one month, which has considerably de-risked such contracts. Nevertheless, it is still debatable whether or not products whose price derives from prices at spot markets are appropriate for standard consumers having no specialist knowledge.

ERO responded to the situation and society-wide demand in several ways:

- It mitigated the impact of the commodity price hikes on final customers through regulated prices, for the price hikes in energy markets were also reflected in the costs incurred in energy system operation. As early as mid-2022, the Office therefore warned that mitigating the impact on final customers was contingent on subsidising certain regulated costs. These specifically included those of covering technical losses for distributors in the electricity grid and the gas system and those of ensuring balance in the electricity transmission system. The cabinet decided to compensate for the increased costs from the national budget to prevent the growth of energy prices' regulated component from counteracting the cabinet's intention to alleviate the impacts of the energy crisis on customers through the earlier announced capping of energy prices' unregulated component (formed in the free market). For 2023, both the regulated and unregulated components of electricity and gas prices have *de facto* been capped in the Czech Republic. Until the beginning of 2023 (from October 2022), the cabinet helped households by a government contribution to their electricity advances (called 'economising tariff' in Czech) and the payment of all costs of support [required by law] for electricity from supported energy sources.
- Immediate assistance to consumers: as in 2021, ERO addressed more than 22,000 consumers' submissions, i.e., two times more than in the pre-crisis years. The rising number of the submissions was also reflected in its supervisory activity (ERO received over 1,500 consumer requests to start inspection, which was ten times more than in 2020) and its ADR activity (ERO received 440 applications from consumers to commence adversarial proceedings, which was eight times more than in the pre-crisis years). ERO also focused on mass-scale public education, i.e., problem prevention via its own website, seminars and webinars, cooperation with the media, training of institutions, etc.
- Legislative/conceptual framework: with a view to reducing the risk and boosting the transparency of the Czech energy market, ERO drew up several proposals for amendments to the legislation and delivered them to government representatives; these have not yet been incorporated into the Energy Act.
  - They include, above all, an index of traders' energy provisions (the trader would provide information that it has bought the electricity/gas quantities to the supply of which it has committed in contracts), which would clearly indicate the level of the supplier's riskiness in the case of unexpected swings in the market, similar to those that had caused the fall of Bohemia Energy and other suppliers.
  - Another proposal is intended to introduce the 'branding' of the supplier (with a 'stigma' clearly barring it from re-entering the industry); this would concern companies and individuals that failed to honour their obligations in the past, necessitating the migration of their customers to suppliers of last resort. Companies and individuals whose licence was revoked in the past for gross breaches of the law would be marked by the same stigma. Before such legislation is passed there is an acute danger that dubious individuals and companies that already have failed once will re-enter the industry without any major obstacles and without the Office being able to prevent this in any manner.
  - The Office also asked for a further tightening of the licensing conditions for electricity/gas trading, and extending its supervisory powers in connection with the process of making electricity and gas market monitoring more effective. The reason is that the current law, or EU Directives for that matter, do not offer the Office a sufficiently strong authorisation for monitoring the retail market effectively, whether the issue concerns the level of the prices paid by customers or the forms of the contracts that they conclude with their suppliers. Some of the suppliers refuse to provide the Office with the data required as part of its ad hoc investigations, invoking its insufficient authorisation in the Energy Act, which considerably constrains the application of its Section 15a. The 'authorisation for monitoring' itself is ineffectual when the Office cannot rely on relevant legal grounds to which the authorisation is tied, while such grounds are very limited due to the liberalisation and protection of the market environment against regulatory interventions, which are enshrined in EU Directives and the national legislation.

- An amendment transferring intermediation in energy industries under the Energy Act (until then it had been governed by the Trade Licensing Act) and extending the Office's powers to include the registration of and supervision over intermediaries entered into effect in 2022.

3.1 Extraordinary market situation and preparations for surplus revenue collection and compensations

In connection with the financial impacts of the energy crisis ERO has also been vested with powers concerning compensations for traders (granted due to the capping of energy prices for final customers) and compensations for DSOs' losses and reasonable profit, and the collection of surplus revenues from electricity generators. It has been decided that the actual payout of compensations from the national budget will be the responsibility of the market operator, OTE, a.s., while ERO will be in charge of checking the applications for justifiability and accuracy.

ERO has been appointed as the administrator of the collection of surplus revenues from generators. Compensations to suppliers and collection from generators are fundamentally different from the Office's responsibilities so far and constitute a completely novel expansion of its remit. Indeed, until now, ERO has not had any opportunity to inspect or interfere with energy producers' and suppliers' business strategies.

In 2022, ERO helped to draft some amendments to the Energy Act and, in particular, the related government orders. It also had to make appropriate changes to the staffing and organisation of its new responsibilities, but without any increase in its headcount or budgeted funds. A major part of the work on the new responsibilities is planned for 2023 when the actual collection and compensation have started.

3.2 Electricity industry

Apart from the immediate tackling of the impacts of the crisis, the country is facing an immense challenge: the electricity industry's transformation, primarily involving the decentralisation of generation. The heavier demands on the increasingly complicated control of the electricity grid and its reinforcement can be felt already now. According to DSOs, in 2023 alone some 75,000 new plants with a total capacity of over 5 GW are expected to be connected. This is a surge that can be felt in, for example, local overloading of systems (thus, new plants either cannot be connected or only with a lower capacity than requested). The required grid reinforcements will therefore cost dozens of billions of crowns in the near future.

At the same time, the transformation is inevitable from the perspective of boosting the country's and Europe's independence of non-European fuel suppliers, primarily the unfathomable Russian Federation. ERO considers community energy development to be crucial, but it is conditional on amending the Energy Act. In 2022, ERO itself supported, within its very limited powers, community energy development by amending the Electricity Market Rules (public notice 408/2015, as amended). They now make it possible to implement the model of sharing electricity generated by a shared power generating facility installed in residential buildings. Thus, ERO has extended the range of the models already existing in the market to include a new one allowing almost 200,000 residential buildings in the Czech Republic to turn their residents into prosumers and to enjoy the same opportunities for electricity generation and consumption as, for example, owners of domestic buildings.

2022 was a breakthrough year for the balancing services market: the Czech Republic became the first user of the European platforms (PICASSO and MARI) for cross-border balancing energy exchanges. Balancing energy sale/purchase and obtaining the required cross-border transmission capacity take place at a single point for all the bidding zones involved and the relevant national borders. It is a historical milestone due to the fact that until then, balancing energy trading had been a purely national matter in the Czech Republic.

In the day-ahead electricity market organised by the market operator, 24,308 GWh of electricity was traded in 2022, approximately the same as in 2021. In 2022, the weighted average of the prices of electricity traded in the day-ahead market skyrocketed to EUR 260.71/MWh. At the end of 2022, 133 market participants had access to the electricity spot market (the figure was 122 in 2021).

3.2.1 Tariff structure innovation: The concept

The changing electricity industry requires changes in the tariff structure. In 2022, ERO released its Concept of Interlinking the New Electricity Market Design with Requirements for Changes in Regulated Prices and Tariffs. The concept follows up on the existing price regulation procedures, identifies the emerging shortcomings of the current tariff system, describes the changing environment in the electricity industry, outlines the legislative framework and technology development, and specifies the future objectives and principles in respect of regulated prices and tariffs.

The key objectives of system innovation in respect of regulated prices are as follows:

- the price paid by the customer matches the costs and benefits that the customer causes in and brings into the system;
- the tariff system is predictable for a long time and directed towards new energy;
- greater usage and efficiency of the operation and development of the electricity grid.

The concept constitutes the basic framework for the tariff structure, which will offer the relevant functionalities and ensure a cost-causative linkage between the cost driver and the price paid by customers for network services in the electricity industry.

The concept sets forth the key areas of the tariff structure for prompt implementation and those for gradual implementation by the proposed timetable. Part of the prompt implementation was introducing a model for allocating and billing electricity generated in residential buildings as of the beginning of 2023. Electricity sharing is expected to be extended to include additional electricity sharing methods via an amendment to the Energy Act. Another area for prompt implementation is changes to the tariff system at the high voltage and medium voltage (HV and MV) levels; the allocation unit based on reserved capacity is expected to be replaced with a combination of a unit of booked input power and a unit of the highest taken power as of 2024, and a change in the pricing of reactive energy is expected in 2025.

The areas for gradual implementation primarily include the tariff structure at the level of low voltage (LV) and their implementation is conditional on some other necessary steps, such as the completion of a partial deployment of smart metering in the second half of 2027. Pending the full completion of these steps, the concept envisages that the proposed principles will be verified on a small sample of supply points with the simultaneous running of the current tariff structure at the LV level.

3.2.2 Community energy: Electricity sharing models

The full implementation of the community energy concept under the EU legislation requires a change in the Energy Act, which did not take place in 2022. Nevertheless, ERO continued in its proactive approach to community energy development under the applicable legislation, whereby it specified, via an amendment to the Electricity Market Rules with effect from 1 January 2023, the method for allocating and billing electricity generated in a power generating facility installed in a residential building (see part 11.1.1.5). Thus, customers in one residential building can use electricity generated, usually, in a photovoltaic plant on the roof of the residential building.

In 2022, ERO and the Ministry of Industry and Trade (MIT) completed their joint project called Community and Local Energy. Its primary objective was to network state administration bodies horizontally, coordinate the activities at the various Ministries, and explore the state administration's role in the various directions of community energy development, with a view to helping them to jointly analyse the options for the justified development of energy communities and community energy in the relevant locations. The outcomes include a specification of the various entities' initial positions and a specification of the fundamental problems from the perspective of each particular entity, and an amendment to a public notice (see above). In 2022, the project also supported joint distribution of the MIT's and Office's results and activities to energy agencies and associations, contributed to the regional promotion of the energy theme at the level of municipalities and Regions, and helped to propose measures related to community energy within the SMART Cities concept.

Based on the 'specification sheets' under NAP SG (National Action Plan for Smart Grids) and in coordination with other working groups, the knowledge of and conditions for developing energy communities have been greatly advanced. Primarily, this involves a unified approach to the various market entities' rights and obligations to energy communities, DSOs' obligation to provide services to the communities (especially as regards access to networks, payment for network use, impacts on price

controls, and responsibility for electrical energy quality), the TSO (as regards CENTSYS/DataHUB/EDC), ERO (as regards approval processes and review activities), and energy suppliers (as regards supplied/bought energy pricing, prediction models, etc.). The related activities have also been specified: they should result in reaching consensus on the above issues, clarifying the boundary and initial conditions given by the national legislation, and in a thorough mapping of the impacts on the implementing acts, on the various entities' activities, and on final consumers. The following key issues have been identified: models for electricity sharing (who with whom, how technically, for how much); transparent, effective, and quick formulation in implementing acts; RES connection conditions; business models ensuring the stability of energy traders; and energy and cost savings on the part of final consumers.

The end of 2022 saw a change in the management of the ZL21 specification sheet for the Energy Communities project under NAP SG. It will now be managed by the relevant DSOs, which fact will have a positive effect on preparing the propositions for all changes to the legislation through the relevant working groups. Worth mentioning is the role of ERO, which was, in its position as the expert guarantor, overseeing the projects implemented via TA ČR (Czech Technology Agency), some of them covering community energy, the deliverables of which will help to develop the implementing acts within the MIT's and Office's remit.

Another angle from which 2022 can be viewed is that the year saw a gradual formation of the above outputs/deliverables, ranging from simplicity (input analyses, literature searches, framework proposals and descriptions, identification of potentials, foundations for sociological research, etc.) to specificity and detail, which will be elaborated on in the future.

3.3 Gas industry

Work on the gas decarbonisation package, published by the Commission in December 2021 (a directive and regulation on the market in renewable and natural gases and for hydrogen and a regulation on methane emissions reduction in the energy sector) started in 2022. The Russian invasion of Ukraine, which *inter alia* influenced EU institutions' short-term legislative objectives, basically eclipsed these activities. There was a need to respond expeditiously to the loss of Russian gas and the impacts on the working of the gas market by promulgating the relevant legislation and introducing a number of measures.
The mainstay legislation includes, without limitation, the following regulations:

- Regulation (EU) 2022/1032 of the European Parliament and of the Council of 29 June 2022 amending Regulations (EU) 2017/1938 and (EC) No 715/2009 with regard to gas storage;
- Council Regulation (EU) 2022/1369 of 5 August 2022 on coordinated demand-reduction measures for gas;
- Council Regulation (EU) 2022/1854 of 6 October 2022 on an emergency intervention to address high energy prices;
- Council Regulation (EU) 2022/2576 of 19 December 2022 enhancing solidarity through better coordination of gas purchases, reliable price benchmarks and exchanges of gas across borders; and
- Council Regulation (EU) 2022/2578 of 22 December 2022 establishing a market correction mechanism to protect Union citizens and the economy against excessively high prices.

In each of the countries, this legislation was felt in pressures for immediate changes to the relevant national legislation (in the Czech Republic, amendments to the Energy Act) and for designing national measures to support the functioning of the energy market, which also included caps on final energy prices and auctions for storage capacity to provide for gas supply security in the 2022/2023 winter season.

In 2022, ERO issued two *ad hoc* amendments to the Gas Market Rules (public notice 349/2015). It gradually introduced the 'use it or lose it' principle for gas storage. Another fundamental change concerned suppliers' financial deposit ('collateral') with the market operator; the time for the rapid supplier change was reduced; the provisions were clarified in connection with the rules for depriving users of long-unused transmission capacity; and the required details of commercial balancing in the process of preventing emergencies in the gas industry.

A visible and extensively discussed consequence of the steps taken by the cabinet and ERO was the hitherto unseen high level of stores in Czech gas storage facilities. Gas storage has become a major and material issue in connection with departure from Russian gas supply and increasing LNG imports. Before the 2022/2023 winter, storage facilities were filled 100% and their capacity continued to be much higher than in the preceding years on a year-on-year basis.

A total of 4,423 GWh of gas was traded in the within-day gas market organised by the market operator. In 2022, the weighted average of the prices of gas traded in the within-day market increased to EUR 109.94/MWh, while in 2021 the figure was EUR 46.25/MWh. Towards the end of 2022, natural gas prices in the spot market even exceeded EUR 300/MWh. At the end of 2022, 125 market participants had access to the spot gas market (the figure was 115 in 2021).

In recent years, the prices in the Czech within-day gas market have been closely following the prices of comparable products in the German market area, Trading Hub Europe (THE within NCG), traded on the PEGAS platform operated by European Energy Exchange AG (EEX).

4 CONSUMER PROTECTION IN ENERGY INDUSTRIES

The energy crisis continued from 2021 to 2022 and intensified due to Russia's invasion of Ukraine. Thus, in addition to coping with increased numbers of consumers' submissions and to tackling their individual problems, the need arose to prevent additional problems and to bring help even closer to consumers, and to legislate on processes conducive to such prevention and effective consumer protection.

By mid-April 2022, hundreds of thousands of consumers had to find their new electricity/gas supplier to prevent their supply points from falling into illegal offtake (and disconnection from energy supply) at the end of the still six-month lawful SoLR period. Asking for advice, consumers kept approaching not only ERO but also various other institutions, such as Labour Office of the Czech Republic (*Úřad práce ČR*), the Czech Union of Towns and Municipalities, the Association of Local Self-governments (*Sdružení místních samospráv*), the Association of Regions of the Czech Republic, and the *dTest* magazine for consumers, and so representatives of those institutions also had to be educated.

The result of the effort made by all of us was that following the end of the most massive ever SoLR mode, only very few consumers were left without a contract supplier. These were mostly cases of scarcely used supply points, supply points of consumers hospitalised for a long time, etc.

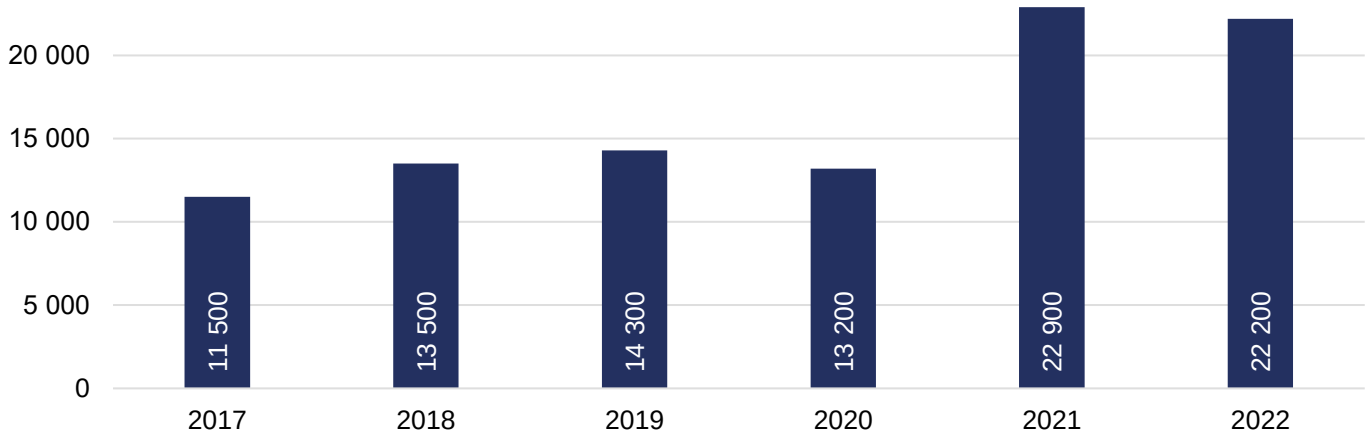
To bring the information about the developments in the energy market as close to customers as possible, the Office ran information campaigns using not only its website (press releases, posts offering advice, brochures, shared media outputs) but also webinars. These were intended for both consumers (primarily education in consumer rights) and the people who help citizens in the position of consumers (training in methods to help consumers with their problems). The media provided broad-ranging support to the Office's campaigns and thematic press releases. ERO informed the public about changes in regulated prices at its traditional autumn press conference.

Conceptually, the Office decided to address the situation by a number of proposals to amend the Energy Act, by amendments to some of its public notices, and by issuing two explanatory statements to clarify the procedures of notifying changes in contract conditions (in particular price hikes were problematic) and the right to withdraw from the contract due to changes in conditions and prices. July 2022 saw the effect of the long-awaited change introduced in an amendment to the Energy Act, i.e. the obligation for intermediaries to register with ERO. Another key change was stricter conditions for offering spot products (the energy price is not fixed but derives from the current commodity prices at the energy market); thanks to the Office's effort, effective since October 2022 migrating to a spot product is conditional on the customer's written consent, and the contract for a spot tariff can be terminated without penalisation at any time and with a period of notice reduced to one month.

4.1 Advisory services and dispute resolution

The overall number of consumers' submissions in 2022 was similar to that in 2021, again more than 22,000. This is a significant increase compared with the pre-crisis years (in 2020, ERO addressed 13,200 submissions) and handling the submissions was again impeded by the very limits of ERO personnel and real-time capacities. Unlike most of the suppliers, it does not have any customer service centres and telephone operators, and overloaded employees therefore had to handle dozens of frequently very complex submissions every day.

Chart 1 Number of submissions from consumers



Source: ERO

To enhance its advisory services, the Office set up and continuously updated automatic e-mail replies so that answers to the most frequent problems could reach the consumers as quickly as possible. However, consumers' various problems were becoming more complicated over time, and the rather general automatic reply was no longer sufficient for tackling their issues. This is why the telephone lines of ERO employees outside the Consumer Protection Unit continued to be reinforced.

Complaints about unilateral changes in contract conditions continued to predominate in consumers' submissions. They included, most notably, commodity price hikes and changes from price list prices to spot prices where the total amount of the unregulated (commercial) part of electricity/gas supply price derives from the development of commodity prices at exchanges (spot prices). Consumers typically faced unwarranted and severalfold increases of advances. Other frequent complaints included unrequested assignment of contracts to other companies, for example, as part of the sale of a part of the enterprise, which the legislation allows subject to certain conditions. However, the problematic aspect was combining the contract assignment with unilateral changes to the contract, which was unlawful in most cases.

ERO also received complaints about unissued annual and closing bills, which the consumers had not received for up to several months from the end of their contract. This largely concerned a narrow group of suppliers, which also caused grievance to consumers because of the suppliers' failure to refund overdue overpayments to them.

In 2022, ERO saw the concerned suppliers' weaker interest and willingness to communicate on the contract matters and accommodate the effort to set up communication with consumers with a view to achieving an ADR solution. At the same time, ADR is the quickest and most effective option to resolve disputes arising from or under contracts. This fact was, inevitably and negatively, reflected in a severalfold increase in the activities of the Office's other relevant units, in particular, those in charge of inspections and ADR.

In 2022, ERO received 456 applications for opening proceedings on consumer disputes; 277 of them were decided with finality. Typical disputes involved deciding on the supplier's failure to meet its contract obligation of billing electricity/gas supply as due or on its failure to pay the overpayment arising from billing, or determining the date of the establishment and/or discharge of an electricity/gas supply contract (for more details see **Chyba! Nenalezen zdroj odkazů.** and 11.2.3).

In the second half of 2022, the number of problems associated with energy intermediaries declined to a minimal value in the wake of the relevant amendment to the Energy Act. (But only for a short time, as evident from the developments in the market in the first few months of 2023.)

It can be noted in general that as regards most of consumers' problems, they can successfully seek the performance of obligations under contracts (i.e. good performance under contract) solely through a final and enforceable decision delivered in adversarial proceedings. However, most consumers, primarily senior citizens, are not willing or able to take this avenue to exercise their rights. They are afraid of failing in such proceedings and additional costs or have no confidence in their ability to write the required professional application for bringing adversarial proceedings.

ERO will intensify consumer education and provide its advice on consumer protection in energy industries. However, if the number of submissions does not decline adequate measures will need to be adopted to provide for the Office's activities in consumer protection. Such need also arises from the significant increase in the Office's competences and responsibilities, which, however, has not taken place hand-in-hand with reinforcing its staffing accordingly. We should also highlight the limits on the Office's advisory services, which can merely help consumers to become aware of their rights and the options to exercise them. At the same time, lay and expert circles' ignorance of consumer rights is minimal.

Because of the numerous queries and complaints received from the public it should be emphasised that the Office does not have any powers to interfere with the unregulated component of the price; suppliers determine the unregulated component. Indeed, the suppliers' freedom to determine prices in any manner on a contractual basis derives from EU Directives and Czech laws. The rules only set out the conditions under which suppliers can change their price, the manner in which they have to notify customers of the change, etc. However, the law does not lay down the amount of the price itself, with the exception of the Government Order issued in connection with the market emergency, and it does not provide the overseeing authority with any option to intervene against contract-based prices. At the same time, for illustration, almost one-third of consumers' queries and complaints concerned price setting.

4.2 Prevention and education

Besides communicating directly as part of advice provision, ERO also reinforced its information channels on its website and in the social media (Facebook, LinkedIn, and Twitter). In addition to press releases, its website also offered informative articles, advice, appeals and warnings, and also answers to FAQ; some questions started to appear plentifully only at a later stage. ERO launched its redesigned website in April 2022 and so could create a summary page concentrating all information about advances and a consumer box that clearly and understandably described ADR with suppliers and intermediaries, including the steps to follow when filing the application. ERO operates a calculator for checking the prescribed advances so that every consumer is able easily to check whether the new advances correspond to the standard (ERO also helped the Ministry of Industry and Trade and the Ministry of Labour and Social Affairs to design their own respective calculators of advances). It also intensified its cooperation with the media in respect of both general technical issues and consumer-related issues; in its communications ERO released notably the following in 2022:

- Advice on further steps to customers tackling problems with intermediaries;
- Alerts to the rules applicable in the event of a unilateral price hike and changes to other contract terms and conditions;
- Alerts to the statutory conditions for the unilateral determination of advances by the supplier;
- Information about emergency measures related to the energy market situation (three-month compensation for advances payable by consumers, price capping).

A number of stories on consumer-related issues appeared in *MOSTY*, a periodical published by the Czech National Disability Council. Markéta Zemanová, on the ERO Board, regularly appeared in the advice section of Czech Television's *Sama doma* (*At Home Alone*) show.

In mid-2022, ERO posted simple animated videos enlightening consumers about the basic issues in a brief and graphic manner: the price structure, the required details of bills and contracts, supplier switching, and the steps to take in the process of energy supply point transfer. It also prepared printed brochures with easy-to-follow texts and graphics. Through various distribution channels it provided them to institutions that interact with citizens in the position as consumers, and also directly to consumers.

ERO also helped to spread amongst the public, important information concerning the energy market even when such information did not fall within its remit; examples include the government's three-month compensation for advances payable by consumers, and the price capping being prepared in 2022.

Further to the relevant amendment to the Energy Act, in the consumer section of its website ERO also posted model forms for terminating contracts on the new termination grounds codified by the amendment.

4.3 Training and cooperation

In 2022, ERO again organised a number of educational webinars (online lectures with time for the participants' questions) on consumer rights. Some of the consumer-related webinars organised for the Czech National Disability Council, the Czech Union of Towns and Municipalities, the *Národní síť Místních akčních skupin* (National Network of Local Action Groups) association, the Ministry of Labour and Social Affairs and labour offices focused directly on consumers and some others were quite technical and intended for representatives of consumer organisations (*dTest*), labour offices, social workers and municipalities, i.e. people in daily contact with consumers.

For the second year, ERO organised webinars on its own competences; they were originally intended for university students but have become popular with the public, whose members thereby learn about the Office's various technical agendas. Every year, ERO is the expert guarantor for the Energy Olympiad intended for secondary school students; more than 1,300 students signed up their projects for the 2022 edition.

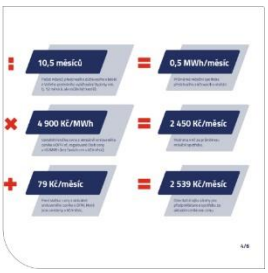
ERO representatives regularly attended the meetings of the Consumer Protection Subcommittee of the Economic Committee of Czech Parliament's Chamber of Deputies.

4.4 Intermediaries

As of 1 July 2022, ERO is authorised to register intermediaries under the Energy Act [Section 17(7)(t)]; further to submitted applications, it conducts intermediary licensing proceedings. By the end of 2022, ERO had received 784 applications for an intermediation licence; 540 of them were granted, 6 were rejected, and 238 were pending in administrative proceedings at the end of the year. Under a transitory provision of the Energy Act intermediaries operating under a different piece of legislation (the Trade Licensing Act) were allowed to continue to operate these activities without a licence, but for no longer than until 31 December 2023 and provided that they applied for registration by 30 September 2022. For this reason, most of these applications, specifically 661, had been delivered to ERO by 30 September 2022.

A list of all granted and valid licences is contained in the register of intermediaries on the ERO website (eru.cz/registr-zprostredkovatelu), which was set up and launched for this purpose on 1 July 2022. Thorough preparations preceded its launch since initially it was not apparent how many applications and in what sequence would be submitted. Nevertheless, it turned out at an early stage already that the introduction of the obligation to register had sifted the group of intermediaries to some extent. The register of intermediaries is available on the new ERO website; in addition to filtering the registered entities it also makes it possible to download any entity's licence with an advanced electronic signature so that everybody can see that it is a genuine licence granted by ERO, and not a forgery.

ERO has released a homonymous digital and printed brochure on the intermediary issue.



4.5 Explanatory statements

ERO prepares and releases explanatory statements as guidance for electricity and gas market participants, in particular energy suppliers and customers, with a view to preventing potential interpretation problems with the provisions of the legislation within its remit.

In 2022, ERO released two explanatory statements:

- ERO Explanatory Statement 1/2022 on the requirements for the content and manner of notifying information about a price increase or a change to other contract conditions under Section 11a(2) of the Energy Act; in terms of its content, it is an update of Explanatory Statement 2/2018 on the requirements for the content and manner of publishing and notifying information about a price increase or a change to other contract conditions, which was released in line with the Energy Act as in force until 31 December 2021;
- ERO Explanatory Statement 2/2022 on customers' right to terminate their contractual commitment in the event of a price increase or a change to other contract conditions under Section 11a of the Energy Act; it was released in view of the need to update Explanatory Statement 3/2018 concerning customers' right to withdraw from the contract in the event of a price increase or a change to other contract conditions under the Energy Act as in force until 31 December 2021.

In its explanatory statements ERO informs market participants about the approach that it will take in its decision-making where the subject matter of the dispute concerns the application of the provisions in question. However, these explanatory statements are neither legislation nor individually binding administrative decisions.

4.6 Supervision for the purpose of consumer protection

The Office's supervision over suppliers' compliance with the obligations set out in, primarily, the Energy Act, the Consumer Protection Act, and the Act on Prices is absolutely crucial for boosting consumer protection in the energy sector. Mainly the preventive effect of checks and inspections, which are intended to clearly show the boundaries for suppliers' dealings with consumers, is important in this respect. The checks and inquiries look into aggressive and misleading commercial practices (providing false information upon supplier switching, demanding payments for unsolicited services, discontinuing supply unlawfully, etc.) and failure to follow the standard procedures in suppliers' dealings with customers (bills not issued, overpayments not refunded, complaints not handled, bills not calculated correctly, increases in advances not warranted, or supply discontinued without the customer taking energy illegally).

Table 1 Number of checks and number of inquiries referred to sanction proceedings

Checks	**Total**	**of which, for consumer protection purposes**
opened	239	10*
completed	255	6*
Total number of inquiries for breaches of law, of which under	**340**	**of which, for consumer protection purposes**
the Energy Act	248	100
the Consumer Protection Act	92	92
the Price Act	0	0

Source: ERO
* The cases of dozens of supply points where identical symptoms of the trader's practices can be seen are examined as part of a single check.

In more than 30% of the cases where failure to comply with the Consumer Protection Act was identified, the traders' failure to comply with their obligations to customers/consumers under the Energy Act was also identified (more details on sanction proceedings in 11.2.5).

4.7 Indicative prices

Indicative prices are intended to be an independent indicator to customers of reasonable retail electricity and natural gas prices.

In late 2021, ERO began preparing the concept of indicative prices for identifying the relationship between the prices of products traded at the wholesale market and the prices of energy supply to final customers (one of CEER's market monitoring metrics).

During the development of the concept, it was suggested internally to publish the resulting indicative prices in the Office's price comparison app in order to show reasonable energy prices to final customers.

For such publication to be allowed, ERO launched a non-public consultation process in early September 2022 and requested specifically the most important energy suppliers to provide their responses to the concept. The indicative price concept was presented, and the received responses were dealt with during the non-public consultation process.

Having been modified by suppliers' additional responses in late 2022 in connection with price capping, the indicative price concept was broadly accepted by the working group on compensations, which also included electricity and gas suppliers. The indicative price methodology was used for setting reference prices for both fixed-price and other contracts specified in Government Order 5/2023 on compensations granted for electricity/gas supply at set prices. It can thus be noted that the indicative price concept has been tested at the legislative level.

ERO considers the continued use of indicative prices by way of posting them on its website to be continued use of the well-established indicative price ecosystem with an added value for both energy customers and ERO.

4.8 REMIT

The purpose of REMIT is to prevent energy market abuse (in particular, prohibition of insider trading and of market manipulation) and to foster open and fair competition in this market. REMIT is therefore crucial for the Office's oversight activities. REMIT also lays down market participants' obligation to register for inclusion in the National Register of Market Participants (CEREMP) and to keep this information up to date, to report transactions, including orders to trade, and fundamental data to ACER, and to publicly disclose inside information.

In 2022 again, the Office identified cases of a possible breach of REMIT (Articles 3, 4, 5, and 8). These suspicions were being investigated until the end of 2022. Where a breach of REMIT is proved, administrative proceedings with the participants concerned will be brought. In 2022, the Office issued ten administrative decisions; in six cases it levied sanctions for Article 8 breaches and in four cases sanctions for Article 9 breaches.

The consistence of the details specified in the companies register and in the National Register of Market Participants was continuously audited. Persons professionally arranging transactions (PPAT) are also subject to an audit every year.

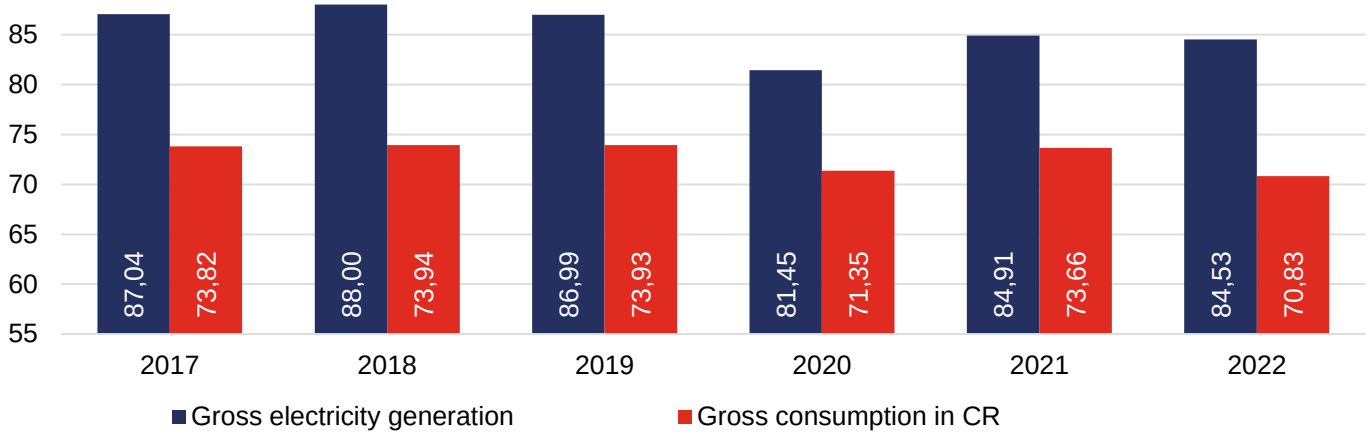
As part of the activities of international working groups organised by ACER and CEER, in ACER's REMIT Committee, ACER's REMIT Policy Task Force, ACER's Market Monitoring Standing Committee, and ACER's Market Integrity and Transparency Working Group the Office contributed to the development of documents on REMIT application. In 2022, these activities resulted in, for example, the release of updated Q&A on REMIT. The working groups also discussed the options for updating REMIT with regard to the current situation in the energy market.

In view of the escalating situation in the energy market work was started on recasting REMIT, with the timetable of drafting a formally structured REMIT in 2023. The key forthcoming changes include the strengthening of cooperation and of exchange of information at several levels: amongst national regulatory authorities, between national regulatory authorities and EU institutions, and the national financial, competition, and tax authorities. Another area for which changes are in the pipeline is definition of terms for inside information, insider trading, market manipulation, registered reporting mechanism, Inside Information Platform, PPAT and organised marketplace. Intensive discussion concerned the issue of extending ACER's powers, primarily in cases having a cross-border dimension in at least three member states.

5 THE ELECTRICITY MARKET

In 2022, gross electricity generation totalled 84.5 TWh, down by 0.4 TWh (-0.5%) on 2021. The largest reduction in generation was registered for combined cycle plants, down by 2.7 TWh (-51.6%). Gross domestic electricity consumption also decreased to 70.8 TWh (-3.9%). Net domestic consumption in 2022 declined to 60.3 TWh (-4%). Electricity consumption declined in all demand categories, most of all in the low-demand household category by 1.6 TWh (-9%), followed by high demand from the HV level, where it declined by 0.4 TWh (-5.5%).

Chart 2 Electricity generation and consumption [TWh]



Source: ERO

5.1 Infrastructure, network regulation and technical functioning

The rising trend of connecting large numbers of small, distributed (decentralised), usually renewable electricity production plants is associated with rather challenging requirements for the development of the electricity grid and is also influencing the quality of electricity itself. Not only customers, for example industry, but also consumers (in domestic buildings) are active in the market and send their generated electricity to the system in addition to taking it from the system. In order to maintain the security and reliability of electricity transmission and distribution the transmission and distribution systems must therefore be reinforced, and an adequate quality of electric energy must be ensured through frequency control. The connection of storage equipment in households, in particular battery storage, has become normal. The rollout of digital technology for network control and remotely controlled electronic devices to meter electricity consumption also at customers connected to the low voltage level continues to be a trend.

ČEPS, the operator of the Czech transmission system, is the company responsible for the operation and development of the Czech electricity grid's backbone system (the transmission system that includes 400 kV and 220 kV lines and certain 110 kV lines). ČEPS provides for the quality and reliability of electricity supply at the level of the transmission system by using system services on a short-term basis while over the long term, it seeks to renew, further reinforce, and develop the transmission system by building new lines and installations for electricity transmission. Thus, system development helps to cope with the surge in decentralised generation and meet the EU's climate and decarbonisation targets, use the demand side in the provision of balancing services, aggregate the generating plants, etc. In particular, the capacity of certain key lines and substations is being reinforced by way of either retrofitting the existing lines and substations (from 220 kV to 400 kV) or building completely new lines and substations.

Distribution system operators are responsible for the operation and development of the Czech electricity grid at the level of 110 kV and at lower levels (in the Czech Republic, there are 261 electricity distribution licensees, four companies having the position as regional DSO: ČEZ Distribuce, a.s., EG.D, a.s., PREdistribuce, a.s., and UCED Chomutov, s.r.o., the other operating at the local level). All distribution companies cover almost 780 distribution areas. Many distribution system operators are extending their operation, which is also visible in the growth of distribution areas: by 5% in 2022 compared with 2021. In

view of the number of distribution licensees and the rising number of distribution areas, in 2022 ERO focused more strongly, as part of its oversight and monitoring obligation, on distribution network operation and maintenance. The objective was to collect operating and financial data for each of the operators, which would indicate whether or not maintenance of the distribution system facilities was regular, the level of maintenance costs, and the age of certain distribution facilities. For these purposes, the Office prepared a model return form and distributed it to all electricity distribution licensees. The collected data will be evaluated in 2023.

Along the technical line, the Office controls the systems through its public notices [statutory instruments] and approval of operating documents. Under Section 17(7)(g) of the Energy Act, the Office approves or lays down the operating rules for the transmission/distribution systems. The key objective of the approval process is to ensure that the operating rules constitute the basis for the transparent and predictable performance of the licensed activity and do not cause any disequilibrium between the various electricity market participants. Another requirement is that the operating rules comply with the applicable legislation and contain the findings gathered in the transmission system and distribution system operators' operation. In 2022, the Office conducted six consultation processes on system operators' draft operating rules; the most important changes were made in respect of the connection of power generating facilities and provision of balancing services through generating module aggregation. It also made a significant amendment to the Electricity Market Rules (public notice 408/2015; see Chapter 11.1.1.5).

The Office also attended discussions on the National Action Plan for Smart Grids (NAP SG), the objective of which is to prepare the electricity industry for new trends, in 2022.

International working groups jointly coordinated the implementation of network codes' and framework guidelines' requirements at the national level. These mainly included the requirements of Regulation (EU) 2016/631, Regulation (EU) 2016/1388, Commission Regulation (EU) 2017/1485, and Regulation (EU) 2017/2196. Work related to complying with the obligations laid down in Regulation (EU) 2019/943 was under way in 2022. In this context, the Office used the provisions of this Regulation and granted the TSO a derogation under Article 6 of Regulation (EU) 2019/943, which requires that a certain part of ancillary services be procured at the day-ahead balancing energy market. Additional activities focused on optimised control of the European synchronous areas of electricity systems, particular attention being paid to the launch of the European platforms for cross-border balancing energy exchanges (PICASSO and MARI).

5.1.1 Projects for smart grid development and local cooperation

The Czech Republic has three smart grid development projects, which distribution system operators have submitted together with their foreign partners.

ACON Smart Grids is a project run by EG.D, a.s. and its Slovak partner, Západoslovenská distribučná, a.s. It is important for smart grid development and has been included in the list of the EU's Projects of Common Interest (PCI) with expected implementation between 2018 and 2024. It is also subsidised under the CEF Energy programme, capital expenditure amounting to EUR 180 million. EG.D's capital expenditure is EUR 90 million and the expected support by the EU is 50%. In the future, ACON should help to deploy modern technologies, such as a greater RES penetration, integration of electric vehicle charging points, use of power storage equipment, and rollout of a smart communication network for sharing data from smart devices. Another purpose of the project is enhancing the safety and stability of the distribution network's operation in crisis situations.

Gabreta Smart Grids is another mainstay project implemented by distribution companies EG.D and, in Germany, Bayernwerk. In 2022, the project was included in the PCI list and the next step will be applying for a grant of EUR 300 million and kick off in 2023. The main benefits of the project include an economically efficient electricity system with lower losses and enhanced quality, greater security of supply, improved integration of RES, increased grid users' capacity, improved capacity utilisation, positive environmental impact and enhanced international cooperation and knowledge sharing. Gabreta Smart Grids will foster cross-border cooperation at the distribution level through a new cross-border interconnection. The specific project activities will prepare the power grid infrastructure for a broader energy transition towards intermittent renewable sources.

EGI Grid is a project of ČEZ Distribuce, a.s. and seeks the PCI status. The main promoters of the project are the Polish TSO and the Swedish E.ON distributor, and some DSOs as additional partners. The

purpose of the project is constructing a smarter and more secure energy grid in the EU member states, creating a new, higher common technical standard for electrical transformer stations based on Smart Grid technologies, using automation and observability to improve network security and security of energy supply. The project also intends to verify grid connection conditions in order to connect more RES and energy intensive industries to the grid. A priority is publishing grid data on common visualisation platforms (voltage, load, temperature, cloudiness, wind speed, connected RES production, number of customers and energy intensive industries) in specific grid nodes (HV stations, MV stations) to allow energy retailers, aggregators, and scientific community, in a transparent and non-discriminatory manner, to simulate new energy market products (flexibility). Equally importantly, the project wants to test the usage of meteorological data to change the grid configuration in order to repel negative weather effects.

5.1.2 Safe and reliable regulation, supply quality

Under Section 21 of the public notice on the quality of electricity supply and related services in the electricity industry, the Office monitors the level of supply quality achieved in distribution systems measured by electricity supply continuity indicators. The public notice defines the basic continuity indicators as follows: System Average Interruption Frequency Index in the period under review (SAIFI), System Average Interruption Duration Index in the period under review (SAIDI), and Customer Average Interruption Duration Index in the period under review (CAIDI). Compared with 2021, in 2022 PREdistribuce, a.s. had higher SAIFI and SAIDI levels, mainly due to an outage of the TR Chodov 400/110 kV substation (a fault in a ČEPS network), when on 2 June 2022 some 40% of customers in Prague were affected.

Table 2 Electricity distribution continuity indicators in 2022

Indicator	ČEZ Distribuce, a.s.	EG.D, a.s.	PREdistribuce, a.s.	CR
SAIFI [interruptions/year]	2.69	1.77	0.66	2.18
SAIDI [minutes/year]	307.47	253.49	42.12	258.08
CAIDI [minutes]	114.42	143.38	63.86	118.35

Source: ERO
Note: System indicators covering all categories of interruption under Appendix 4 to public notice on quality in the electricity industry

5.1.3 Cross-border issues, implementation of Network Codes and Guidelines

In many cases, the activities of international working groups were affected by the ongoing energy crisis. In spite of that, the integration of the Czech balancing services market with the other EU member states continued to be the key cross-border cooperation project in 2022. The history of trading in balancing energy in the Czech Republic reached a major milestone when in June 2022, ČEPS was the first participant in the PICASSO platform and then in September 2022 the first participant in the MARI platform.

The implementation of network codes and guidelines is under way concurrently at the Union, regional, and national levels. More attention was devoted to the formulation of new connection conditions, e.g. for electric vehicles, which should be translated into a recast of Commission Regulation (EU) 2016/631. At the international level, 2022 saw work in ACER's working groups, while at the regional level it saw that on a regulatory platform for the CORE region. In both cases, the activities focused on assessing the presented guidance and supervising the implementation of the requirements at the national level (monitoring was conducted through questionnaire polls).

In ACER, the regulators were preparing a number of position papers, in particular those on TSOs' proposals, such as on amendments to already approved methodologies or drafting new methodologies arising from, primarily, the requirements of Regulation (EU) 2019/943 (methodologies for the regional coordination centres' activities). Primarily the proposals for amendments to methodologies usually

responded to experience from the practical application in the field (e.g., amendments to the balancing energy pricing methodology and the introduction of a technical limit with dynamic elements at spot electricity markets, or the changed parameters of the nomination of long-term transmission rights, etc.).

The implementation of the EU legislation has progressed to the national level. The Office dealt with system operators in the process of the development and approval of changes to the Transmission System Operating Rules or the Distribution System Operating Rules (changes in procedures for connecting power generating facilities and electricity loads or in the provision of non-frequency ancillary services).

5.2 Price controls – network tariffs

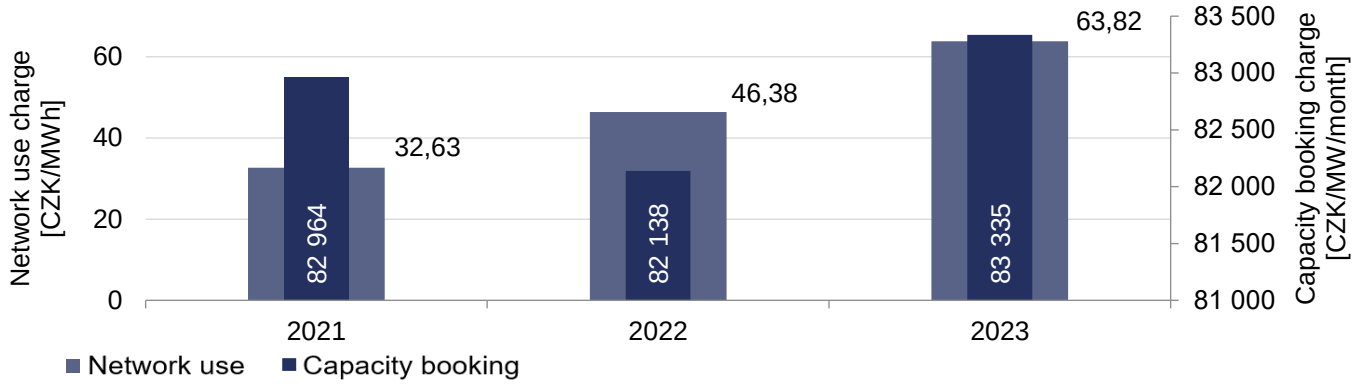
In 2022, the Office issued three amending price decisions to update the then effective price decision for 2022, one new price decision with effect from the end of August 2022, and three price decisions laying down regulated prices and the conditions for their application for 2023.

The price decision for 2022 was first updated by amending Price Decision 1/2022 of 28 March 2022, which related to an amendment to the Electricity Market Rules. Then followed Price Decision 5/2022 of 9 August 2022, laying down the charges for the balancing services procured by the transmission system operator at the day-ahead market, the promulgation of which had been enabled by an amendment to the Energy Act through codifying the option to control the prices of the services procured by the transmission system operator. The same day saw another amending price decision, 6/2022 of 9 August 2022, which responded to the Office's new obligation laid down in an amendment to the Energy Act, namely the obligation to determine a binding procedure for SoLR pricing in the electricity industry. Then followed amending Price Decision 8/2022 of 2 September 2022, which responded to an amendment to the SES Act and the Government's new order related to an increase in the national budget's funds for support of electricity; the order laid down that the price component for support of renewable electricity would be zero. At the end of September, the Office issued Price Decision 9/2022 of 29 September 2022, laying down the charge for the mandatory buyers' activities and the charges related to guarantees of origin. In November 2022, it issued Price Decisions 13 and 14 of 14 November 2022, laying down the charges for 'related services' in the electricity industry.

The funds to defray the costs incurred in operating the electricity networks and the related services are raised primarily through regulated prices billed to customers. Under the Energy Act, every year the Office determines the charge for 'the related services' in the electricity industry, which is composed of the charge for electricity transmission/distribution, the charge for system services, the price component covering support for electricity from supported energy sources (SES), and the charge for the market operator's services. These charges are heavily influenced primarily by system operators' investment activity, the price of electrical energy for covering losses in networks, the size of overall electricity consumption, and the amount of funds from the national budget for subsidies allocated to aid to electricity generation from supported energy sources. Because of the extraordinary market situation the cabinet allocated, from the national budget, a subsidy to defray a part of the costs of electrical energy to cover losses in systems and to defray a part of the costs of system services for 2023.

The electricity transmission charge is composed of the charge for reserved transmission capacity, which rose by 1.46% y-o-y for 2023 (due to the impact of the TSO's investments and a slight decline in reserved capacity), and the charge for using transmission system networks, which rose by 37.6% y-o-y (the rise was due to the positive correction factor for 2021, which increases the final price). The significant increase in the price of electrical energy for covering losses in the transmission system is compensated from the national budget.

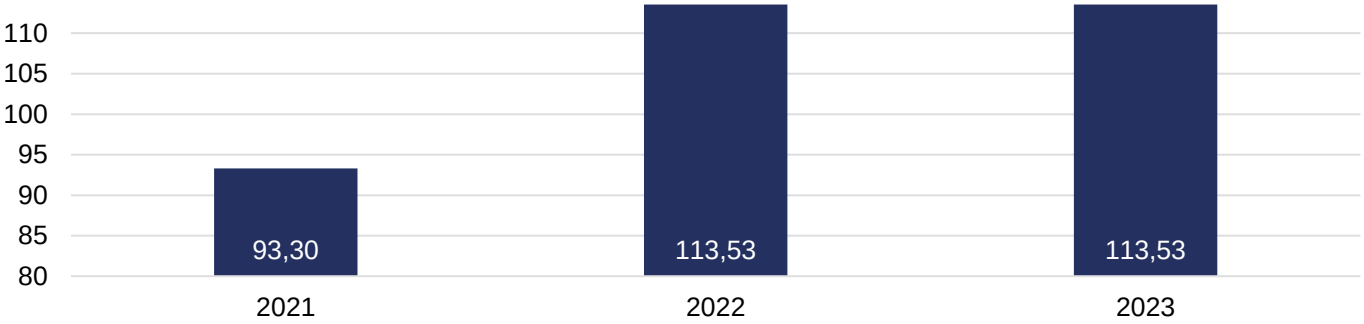
Chart 3 Charges for reserved capacity and network use in the transmission system



Source: ERO

The 2023 charge for system services has remained at the level of the 2022 charge. The significant growth of the costs of balancing services is compensated from the national budget.

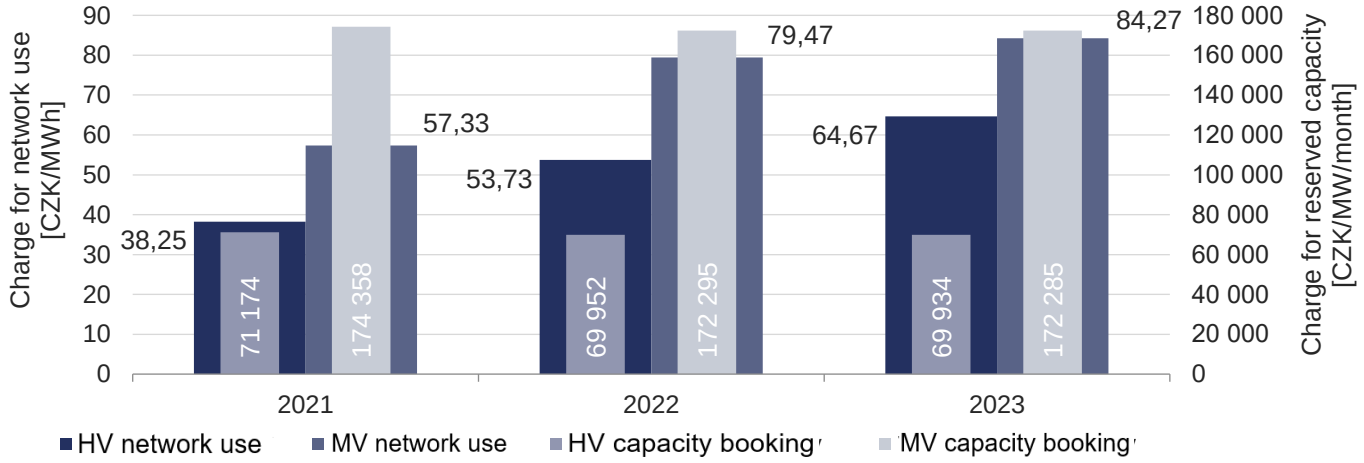
Chart 4 Prices for system services [CZK/MWh]



Source: ERO

The charge for electricity distribution at the high voltage and medium voltage levels is composed of a charge for capacity reserved in the distribution system; for 2023, it declined by 0.03% y-o-y at the HV level and by 0.01% at the MV level; and a charge for network use in the distribution system, which increased y-o-y by 20.36% at the HV level and by 6.04% at the MV level even after deducting the compensation from the national budget. The higher charge for using distribution system networks is attributable mainly to the increased charge for using the transmission system networks, which is reflected in the former charge.

Chart 5 Charges for reserved capacity and use of MV and HV distribution system networks (after reflecting compensation from the national budget)

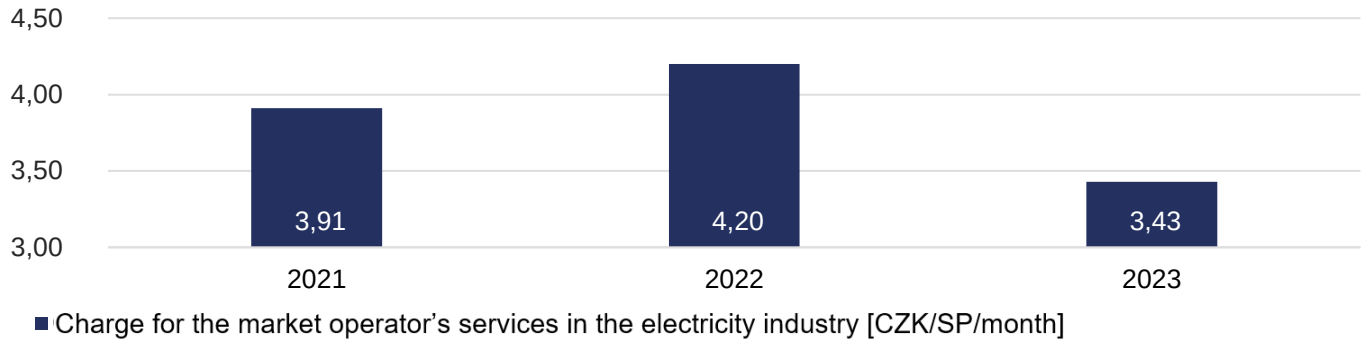


Source: ERO

At the low voltage level (the household and low-demand business categories), the regulated prices are calculated in a more complicated way for a larger number of distribution tariffs. The charge for electricity distribution at the LV level is composed of a charge for power input determined by the rated current of the main circuit breaker upstream of the electricity meter and the charge for the electricity amount distributed. The year-on-year changes in the various electricity distribution charges at the LV level for 2023 differ depending on the agreed distribution tariff and therefore average values must be used for year-on-year comparisons. The charge for electricity distribution at the LV level has risen by 1.12% y-o-y on average. The impact of the increase in the price of electrical energy for covering losses in distribution systems was compensated from the national budget also for customers connected to the LV level.

The charge for the market operator's services in the electricity industry has dropped by 18.33% y-o-y to CZK 3.43/SP/month for 2023, mainly thanks to correction factors.

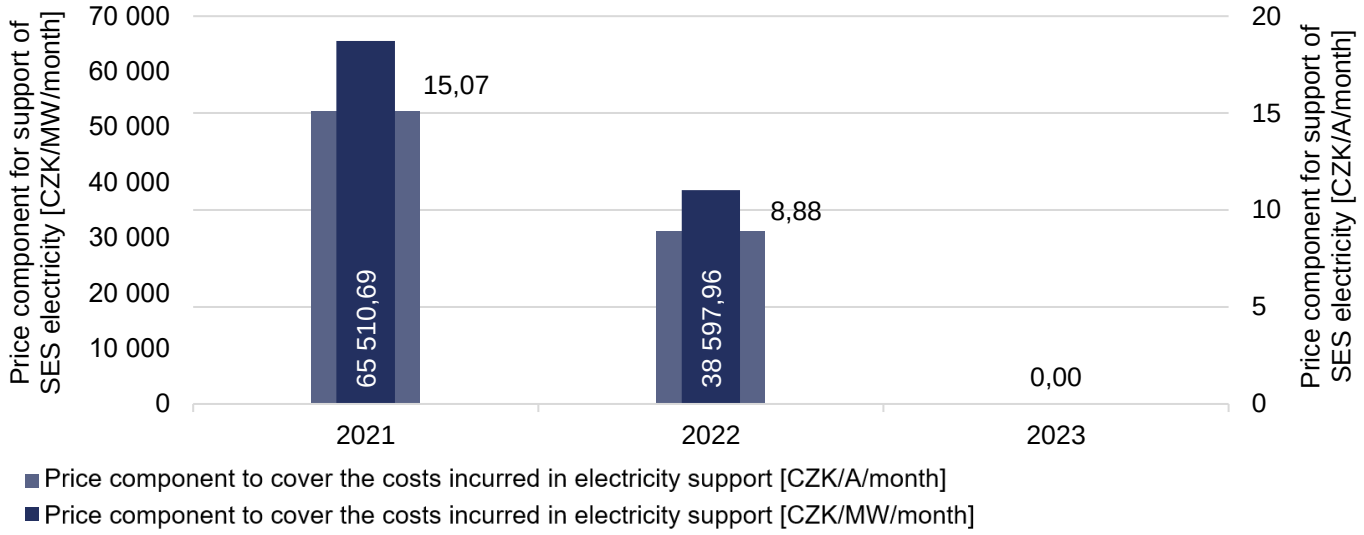
Chart 6 Charge for the market operator's services [CZK/SP/month]



Source: ERO

The price component for support of renewable electricity for 2023 is set at zero as part of the full coverage of the costs of this support from the national budget. However, the SES component was already set at zero for the last three months of 2022 further to Government Order 212/2022 on increasing funds in the national budget under Section 28(3) of Act No 165/2012 on Supported Energy Sources and Amending Certain Laws, as amended (the SES Act). With effect from 1 October 2022, the Office issued the relevant amending price decision in this context.

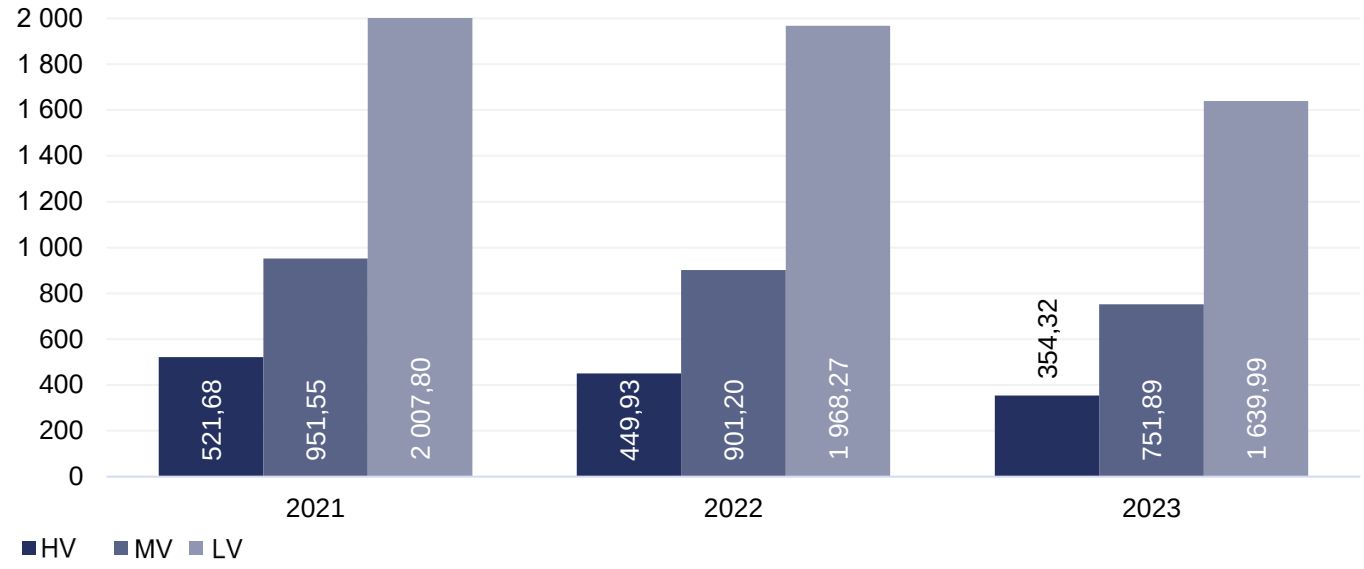
Chart 7 Development of the charge for renewable electricity support



Source: ERO; the average value is shown for 2022

Overall average regulated prices of electricity at the various voltage levels have significantly decreased year-on-year: at the HV level by 21.25%, at the MV level by 16.57%, and at the LV level by 16.68%.

Chart 8 Average total regulated prices at each of the voltage levels [CZK/MWh]



Source: ERO

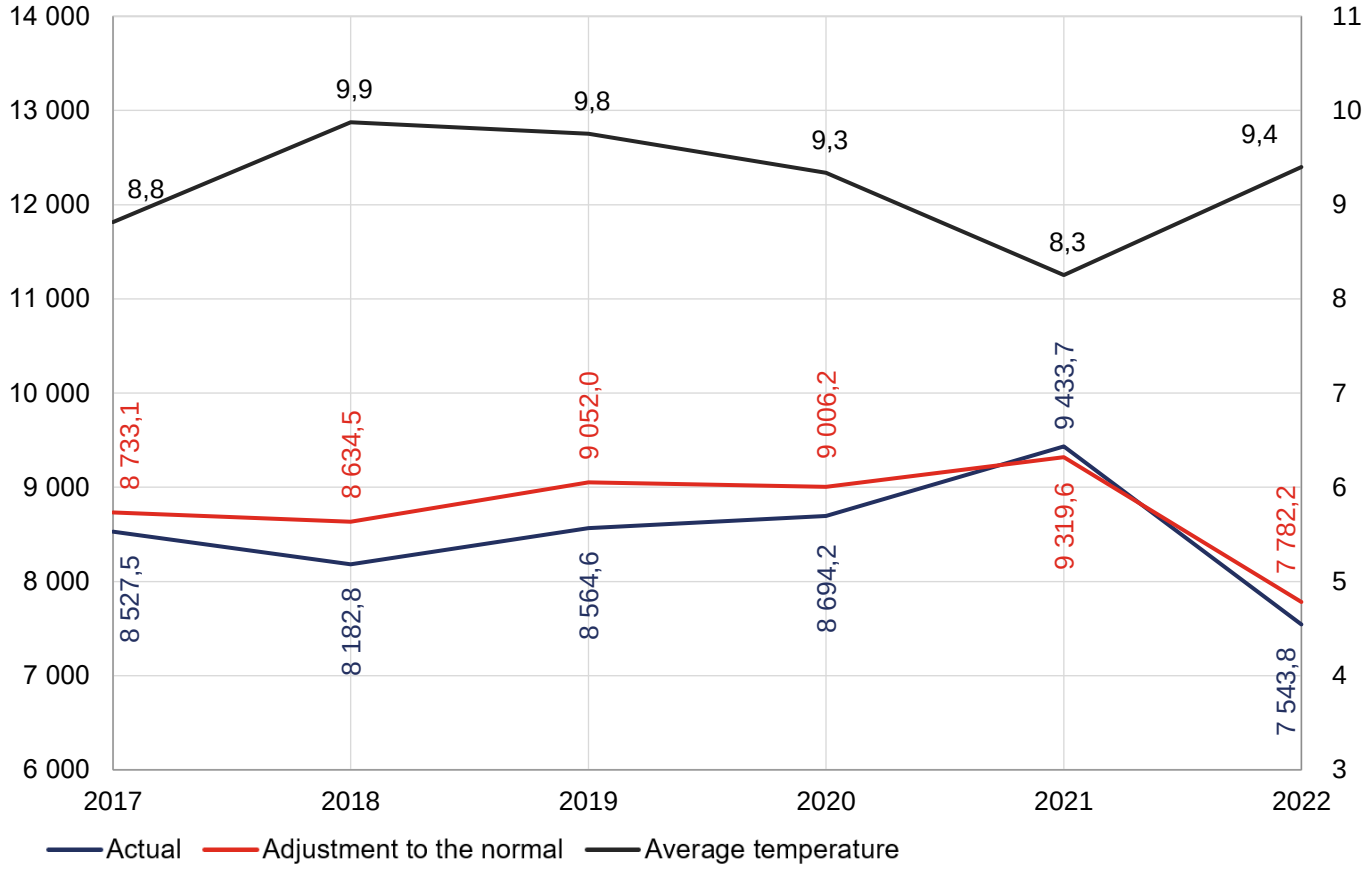
6 THE GAS MARKET

In 2022, actual natural gas consumption in the Czech Republic totalled 7,544 mcm, i.e. 81,547 GWh (in the Czech Republic, the average gross calorific value was 10.81 kWh/m^3, i.e. 38.92 MJ/m^3). Compared with 2021, actual consumption decreased by 20%. After ten years of minor increases in consumption, in 2022 consumption declined and was the lowest for the last eight years.

Russia's invasion of Ukraine forced the Czech Republic, together with all the other EU countries, to coordinate measures to reduce natural gas consumption. In the summer of 2022, the European Council adopted a regulation intended to reduce gas demand by 15%. A number of austerity measures and customers switching to other energy sources, all of this underpinned by warmer weather in the winter months of 2022, helped to cut demand by 20% y-o-y, i.e. almost 1.9 bcm (19.2 TWh) of natural gas. Natural gas consumption in the Czech Republic is heavily affected by ambient temperatures, which were above the long-term normal temperature (8.5 °C) for almost ten years, except 2021 when temperature declined to several tenths below the normal. A change of 1 °C in average annual temperature equates a gas quantity difference of about 300 mcm (3,240 GWh).

Average annual temperature was 9.4 °C and the difference from long-term normal temperature was 0.9 °C and from average temperature in 2021 it differed by 1.2 °C. Gas consumption in the heating season accounted for about 68% of total annual consumption. The lowest monthly consumption was registered in July (289 mcm, i.e. 3,139 GWh) and the highest in January (1,134 mcm, i.e. 12,119 GWh). A decrease in consumption compared with the same period of 2021 was registered in all months of 2022, most visibly in May (33.3%). Adjusted to long-term normal temperature using temperature gradients, in 2022 natural gas consumption amounted to 7,782 mcm, i.e. 84,120 GWh, down by 16.5% y-o-y.

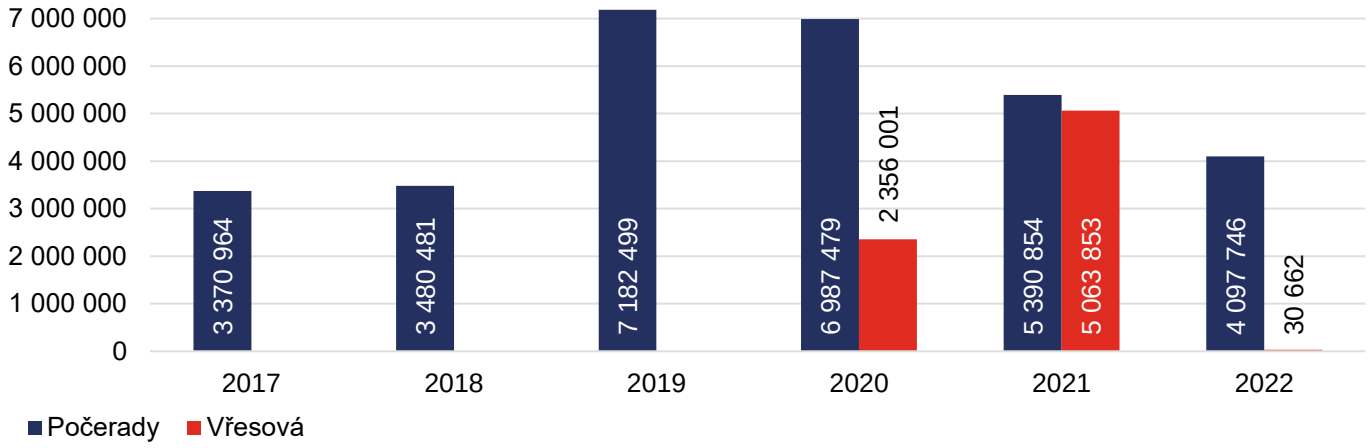
Chart 9 Overall evaluation of gas consumption in the Czech Republic [mcm] also showing adjustment to long-term normal temperature [°C]



Source: ERO

The energy crisis caused a significant decrease in combined cycle plants' share of total gas consumption. The Počerady power station consumed 4,098 GWh of gas for electricity generation in 2022, down by 24% y-o-y. Another important combined cycle plant at Vřesová, which consumed 5,064 GWh of natural gas in 2021, switched to alternative fuels in 2022 and its natural gas consumption dropped to only 31 GWh. The overall y-o-y drop in gas consumption for electricity generation was more than 50% for all generators.

Chart 10 The Počerady and Vřesová combined cycle plants – natural gas supply for electricity generation [MWh]



Source: ERO

6.1 Infrastructure, network regulation, storage facilities and technical functioning

In 2022, Russia's invasion of Ukraine caused a fundamental reconfiguration of natural gas flows within the EU. Departing from Russian gas supply required using the northern transmission corridor from Norway and the western corridors for LNG supply from the North Sea's coast. The Russian gas streams, formerly flowing from the Nord Stream pipeline via the Baltic Sea to Saxony and the Czech Republic (via the Brandov interconnection) and then transiting to Germany's southern regions (Bavaria, via the Waidhaus interconnection), were replaced by, inter alia, the formerly unthinkable gas flow from Bavaria to the Czech Republic (Waidhaus).

Responding to the consequences of the conflict, but primarily in connection with meeting the decarbonisation targets, intensive work was under way on rules for connecting new alternative sources. Simultaneously, the related issue of the gas system's readiness to transport and distribute renewable gases, including hydrogen, was being addressed.

The earlier approved projects of the Czech TSO, NET4GAS, s.r.o., were being finalised and preparations for those that the TSO had submitted to ERO for approval as part of the TYNDPs were under way.

6.1.1 The TYNDP for 2023–2032

In 2022, the Office was assessing the Ten-Year Czech Transmission System Development Plan for 2023-2032 (TYNDP). The Plan specifies the parts of the transmission system that have to be built or extended in the following ten years and specifies in detail all investments in the transmission system on the implementation of which the applicant had decided and new investments that have to be made in the following three years. The timeframes for such investment projects are also set out in the Plan.

6.1.1.1 The Moravia pipeline

The capacities of transmission to northern Moravia are insufficient and therefore an inevitable item in the most recent TYNDP editions is the Moravia Project, which has two sub-projects (stages) called Moravia Capacity Extension; its objective is to reinforce the transmission system's exit capacities for central and northern Moravia (the Jihomoravský, Zlínský, Olomoucký, and Moravskoslezský Regions).

The first stage of Moravia Capacity Extension from Tvrdonice to Bezměrov (85 km) was completed in 2022. The second stage from Bezměrov to Libhošť (72 km) is to follow and expected to be commissioned in 2026.

6.1.1.2 Connection of a new gas storage facility to the Czech transmission system

The work on connecting a gas storage facility to the Czech transmission system continued in 2022. The project progressed to the stage of preparations for construction, and the connection itself is expected in 2024.

6.1.1.3 Newly slated projects

International projects

The newly slated international projects planned on the Polish-Czech national border include Polish-Czech Interconnection (TRA-N-140) and Czech-Polish Bidirectional Interconnection, also referred to, but incorrectly, as STORK II (TRA-N-1009).

Polish-Czech Interconnection (a project at the existing Český Těšín cross-border point) has been devised on the basis of market demand indications collected in 2021. In line with the NC CAM procedures, 2022 saw a public consultation on the TSO's plan. Simultaneously, an alternative technical design (variant 2, the Hať cross-border point) was proposed, featuring a larger technical capacity, bidirectional flows, and a potentially quicker materialisation than variant 1 at Český Těšín. Both variants of the project have been designed including the potential future transmission of hydrogen.

Variant 2 of Polish-Czech Interconnection was the same as another newly slated project, Czech-Polish Bidirectional Interconnection. The two projects differed in their objective: Polish-Czech Interconnection was intended to put in place bidirectional flows based on demand indications while Czech-Polish Bidirectional Interconnection was intended to diversify and secure gas supply for the Czech Republic. The proposed project constituted immediate response to Russia's invasion of Ukraine and the rising risk of gas supply interruption and was supported and discussed by the TSO and the Czech Government, including MIT, while the Office provided its technical assistance. It practical terms it means the implementation of Moravia Capacity Extension in its second stage shared with a cross-border pipeline to Poland.

National projects

Among others, projects to increase the capacity of entry into the domestic zone, namely DZ-3-011 to reinforce the capacity of the national transmission system, DZ-3-010 to increase capacity in the connection of a distribution system, and DZ-3-012, also to boost connection of a distribution system, which was kicked off during the drafting of the 2023–2032 TYNDP and completed in July 2022, can be regarded as additional fundamental changes compared with the preceding TYNDP as part of the national transmission infrastructure.

6.1.1.4 The approval process

The Plan submitted by the TSO to the Office for assessment already took into account the technical and economic responses received during the public consultation organised by the TSO. In this respect, the Office therefore mainly examined its content from the perspective of the requirements of the Czech and EU legislation, its benefits for the continuous development of the Czech gas market and for meeting the needs of consumers in the Czech Republic, and also from the perspective of overall impacts on final consumers.

The Office had no reservations whatsoever, but in its decision, it was nevertheless compelled to reject the Plan's section on the intended hydrogen infrastructure project called the Central European Hydrogen Corridor. Its purpose was to build a corridor for hydrogen transport from Ukraine via Slovakia and the Czech Republic to Germany.

The initial pitfall of this project can be seen in the actual legislative interpretation of the term 'gas'. Also, the TYNDP should include only projects related to the building or expansion of the transmission system through which gas is transported. Since hydrogen transport is not the case of a gas the handling of which falls under 'gas transmission through the transmission system' under the Energy Act, it is evident that a project intended to build a hydrogen infrastructure is not such on which ERO is competent to decide as part of the TYNDP approval process.

In the context of the above modifications, the Plan was approved on 29 December 2022.

6.1.2 Implementation of network codes and guidelines

6.1.2.1 NC BAL, balancing

The Office continued to assess the efficiency of the model for gas balancing in the system, which has been in effect since 1 July 2016 and then, amended, since 1 January 2019 when the processes in place were first quite significantly changed for the model to reflect the gas market's needs and the requirement for the minimisation of the TSO's costs with regard to the impacts on regulated prices.

Based on this assessment, the Office drew up an amendment to the Gas Market Rules. The amendment has brought a change further to the legislative amendment to the public notice on the state of emergency in the gas industry, which reflects the TSO's option to notify the market operator of starting commercial balancing when preventing an emergency in the gas system (more on the public notice in 11.1.1.6).

6.1.2.2 CMP

The procedures and dates/times that are required for the proper implementation of the NC CAM and CMP rules are set out in the Gas Market Rules. The Office continuously reviews the efficiency of regulation to ensure that the rules in place match the developments in the gas market in the Czech Republic and in the international context.

Under the CMP rules, the TSO informs the Office and the BRP/foreign participant concerned about unused booked transmission capacity following the end of the period under review.

2022 saw a stronger need to address the issue of divesting of their unused capacities the gas traders who were not using their contract capacity because of Russia's invasion of Ukraine. However, a legislative examination of the situation showed that in the Czech Republic (this was similar in the adjacent member states), it was not feasible to divest the user of such capacity for the long term through a simple measure because the user applies the CMP mechanism and surrenders capacity to other users (although on a daily or monthly basis, which is not attractive commercially). According to ACER's preliminary report on congestion in gas systems, the use of the capacity surrender mechanism at the Czech cross-border points is rising every year. It was more than 600 GWh/d in 2022.

6.1.2.3 NC TAR

The motivated decision required in Article 27(4) NC TAR was published in Part 3/2019 of the *Energy Regulation Gazette*. Further to this decision, the relevant prices for the gas transmission service were set for 2022 and published in ERO Price Decisions.

Under Article 28 NC TAR, the Office consults, on an annual basis, the discounts, multipliers, and seasonal factors. It then reflects the outcome from this consultation in the wording of its price decision.

Under Article 29 NC TAR, the Office published the reserve prices of the standard capacity products for firm and interruptible capacity and the multipliers applied to the reserve prices of other than standard yearly capacity products, doing so by way of issuing its Price Decision 3/2021 of 27 May 2021.

On 1 December 2021, the Office published on its website the information required in Article 30 NC TAR. The Office is obliged to publish the information required by Articles 29 and 30 NC TAR every year.

6.1.2.4 NC CAM and NC INT

Czech-Austrian Interconnection

Based on the respective national regulators' decisions approving the incremental capacity project, both TSOs offered two shared levels of incremental capacity at the Reintal interconnection point in an annual auction of incremental capacity at the border between the Czech Republic and Austrian market area East, which took place on 4 July 2022 under NC CAM. However, no market participant bid for capacity offered at any of the levels. With regard to the NC CAM procedures, the economic test therefore ended with
a negative outcome on both sides of the Czech-Austrian national border. Under Article 22(3) NC CAM, in case no offer level results in a positive outcome, the specific incremental capacity process shall be terminated.

Polish-Czech interconnection MDAR 2021

In 2021, based on the market demand the TSO started work on the Polish-Czech Interconnection project. Under Article 26 NC CAM, the Czech and Polish TSOs offered system users the option to submit non-binding demand indications with a view to quantifying the potential demand for incremental capacity. Based on the related NC CAM procedures, 2022 saw a public consultation on the TSO's plan and an alternative technical solution was considered. In addition, both variants of the project were designed for the potential future transport of hydrogen too. In the autumn of 2022, the TSOs, NET4GAS, s.r.o. and GAZ-SYSTEM S.A., were to submit their joint application for approval of the proposal for the incremental capacity project to the regulatory authorities concerned.

In connection with the legal uncertainty that arose in respect of the procedure under NC CAM in the light of the Judgment of the General Court of the CJEU in the joined cases T 684/19 and T 704/19, it was decided, on the basis of communications from the TSOs concerned, that the regulatory authorities concerned would request ACER to recommend further steps. The situation could be interpreted, in brief, as follows: the General Court of the CJEU in fact decided that the Commission was not empowered, solely on the basis of the first subparagraph of Article 6 (11) of Regulation No 715/2009, to adopt provisions governing the incremental capacity process, set out in Chapter V of NC CAM, and declared the chapter inapplicable.

The case was still pending at the end of 2022.

6.1.3 International assistance in crisis situations in the gas industry

In respect of safeguarding the security of gas supply, the role of international assistance in crisis situations in the gas industry (solidarity) dramatically increased last year. A scheduled amendment to the Gas Market Rules responded to an amendment (enacted as Act No 382/2021) to the Energy Act for the purpose of modifying and specifying the procedures in the provision of international assistance in crisis situations in the gas industry and adjusts Czech law to the directly applicable EU legislation, namely Regulation (EU) 2017/1938. The amendment to the Gas Market Rules was directed – within the limits of its existing authority – towards implementing an addition that complemented, in procedural terms, the public notice on the state of emergency in the gas industry (344/2012), which is the mainstay regulation for solidarity.

The changes made in the Gas Market Rules use and add to the procedures and rules of the existing legal framework in respect of nominations and renominations on the occasion of both receiving solidarity from and providing solidarity to member states. Gas transmission into/from the Czech Republic as part of international assistance in crisis situations in the gas industry constitutes one individual aspect of the special framework for supplying gas to protected customers in the event of emergency in the gas industry in the Czech Republic or another member state.

Based on the above, the procedures were determined for the various entities to follow on the occasion of gas purchase/sale by the MIT through the market operator from/into a member state and its allocation for the benefit/not for the benefit of BRPs in the Czech Republic.

6.1.4 Gas storage facilities – regulated and unregulated access to storage facilities

Gas storage facilities play an irreplaceable role in the Czech gas infrastructure: they balance out the seasonal differences in gas demand, thereby helping to enhance supply security and continuity. Gas storage facilities also make it possible for gas suppliers to respond flexibly to unexpected surges in gas demand, mainly in the cold months of the year, thereby underpinning the wholesale market.

In 2022, the storage system operators, RWE Gas Storage CZ, s.r.o., MND Gas Storage a.s., and Moravia Gas Storage a.s., called a total of 63 auctions to sell storage capacities.

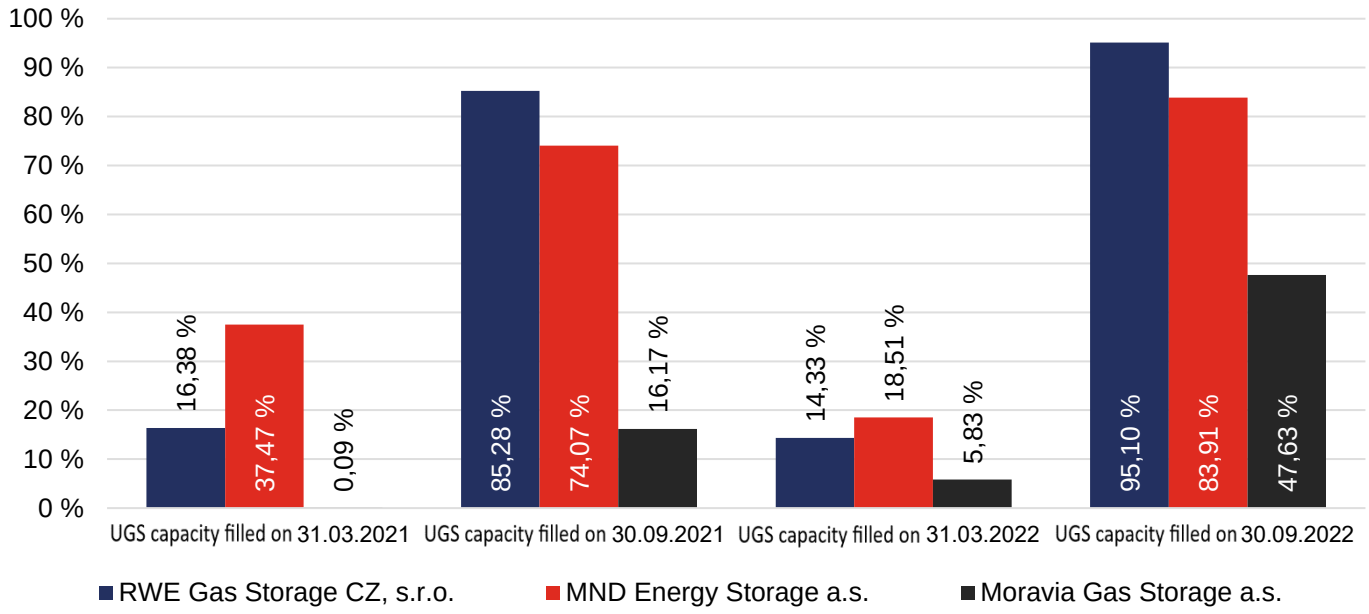
A key criterion for gas storage facilities is the level to which they are filled before the beginning of the heating season and at the end of the storage year, including the milestones defined in higher-level legislation. When gas stores in them are too low (which mainly happens at the end of the storage year), for technological reasons storage facilities are unable to offer the full withdrawal capacity or fully respond to temperature changes and so supply sufficient gas quantities to the market. In March 2022, storage facilities were filled to less than 14%. Following the implementation of countless measures at the EU and national levels, on 1 October 2022, the day that is regarded as the beginning of the heating season and when conventional customs dictate the start of gas withdrawal from facilities, storage facilities were filled to 88% of their capacities.

One of the measures was, as part of the extraordinary amendment to the Gas Market Rules further to amendments to the Energy Act, the application of the UIOLI principle (the use it or lose it mechanism) and the formulation of the rules of auctions for booking unused storage capacity. The rules were extended to include transmission capacity booking for gas injections/withdrawal into/from gas storage facilities as well. In its public notice, the Office laid down the rules of auctions organised by the SSO further to the “divesting” of unused storage capacity.

The rapid implementation of the procedures described in the national legislation and the very application of the UIOLI principle in the Czech Republic helped to fill gas storage facilities. As some other member states, the Czech Republic was burdened by the fact that Gazprom was holding considerable capacity booked in one of the storage facilities on a long-term basis and blocking it by not using it; the storage facility was almost empty in the 2021/2022 winter season until mid-2022. Thanks to the effective approach at all levels (UIOLI, auction for unused storage capacity, and the MIT’s measures for auctions to ensure gas storage and to restrict the handling of stored gas), gas storage facilities held record stores before the 2022/2023 winter season, being almost 100% filled.

The following chart compares gas quantities in storage facilities after the withdrawal season (March) and before the withdrawal season (September).

Chart 11 Comparison of gas volumes in storage facilities between 2021 and 2022



Source: www.rwe-gasstorage.cz, www.moravia-gs.cz, www.gasstorage.cz
Note: The percentage expresses the ratio of the gas quantity in the facility and its technical capacity.

Storage system operators follow an Equal Treatment Programme, the purpose of which is to provide for an equal and non-discriminatory position of all gas market participants who are using or want to use the company's services. Access to storage facilities is based on the principle of negotiated third-party access (TPA). The Office does not regulate the price for gas storing; this price is made by the market based on the results of auctions in which available storage capacity is offered as part of various products (packages). In the relevant legislation, the Office sets out the particulars, i.e. the framework of minimum conditions, of which applicants for storage capacity must be aware before storage capacity is offered using an auction mechanism.

The terms and conditions of every auction, including the reserve price, are fully within the SSO's competence and are posted on the SSO's website, including the subsequent results. Thus, the Czech storage capacity market is one of the most transparent in the EU. The Office continuously monitors and evaluates these terms and conditions. No discriminatory treatment of gas market participants occurred in 2022.

6.1.5 Gas supply security standard (GSSS)

As part of its competences, the Office monitors and evaluates adherence to the security standard for gas supply in the Czech Republic (GSSS). In its Monthly Reports on the Evaluation of the GSSS in the Czech Republic, the Office also pursues one of its key priorities: identify all factors that might stand in the way of ensuring secure and reliable gas supply to final customers in the Czech Republic. Under the applicable legislation, all gas traders send information concerning their obligation to provide for GSSS to the Office before every winter season. The Office found that on 31 December 2022, of all the licensed entities a total of 122 gas traders provided for GSSS for their own operation or for some other gas traders.

In 2022, GSSS was provided for January to March and October to December. According to the information in the monthly returns received by the Office, GSSS was ensured for the whole heating season, including the at least 30% of gas stored in storage facilities in the EU. Most gas traders supplied a confirmation that they had another gas market participant providing for their GSSS. This means in practice that one trader provides GSSS for several other traders, including through gas storage for 30% of GSSS. A detailed analysis of each of the gas storage facilities has shown that despite indications to the contrary, the use of gas storage facilities is not changing, and they are being used in the traditional manner (injection in summer and withdrawal in winter). However, compared with the past, injection in summer is less even and depends on gas prices at exchanges. Before the winter season, storage

facilities in the Czech Republic contained approximately 3.4 bcm of gas, i.e. 36.8 TWh, which currently accounts for more than 45% of yearly gas consumption and for 66% of gas consumption in the heating season in the Czech Republic. The gas covered by GSSS is sufficient for companies to ensure gas supply to customers in the event of emergencies.

According to data from gas traders and gas producers, by 1 December 2022, GSSS had been in place for the following cases in the following quantities:

- in the event of a seven-day temperature peak: 398,967 MWh;
- in the event of at least 30 days of exceptionally high demand for gas: 9,786,871 MWh; and
- in the event of an at least 30-day disruption of the single largest gas infrastructure: 7,644,555 MWh.

6.2 Price controls – network and LNG tariffs for connection and access

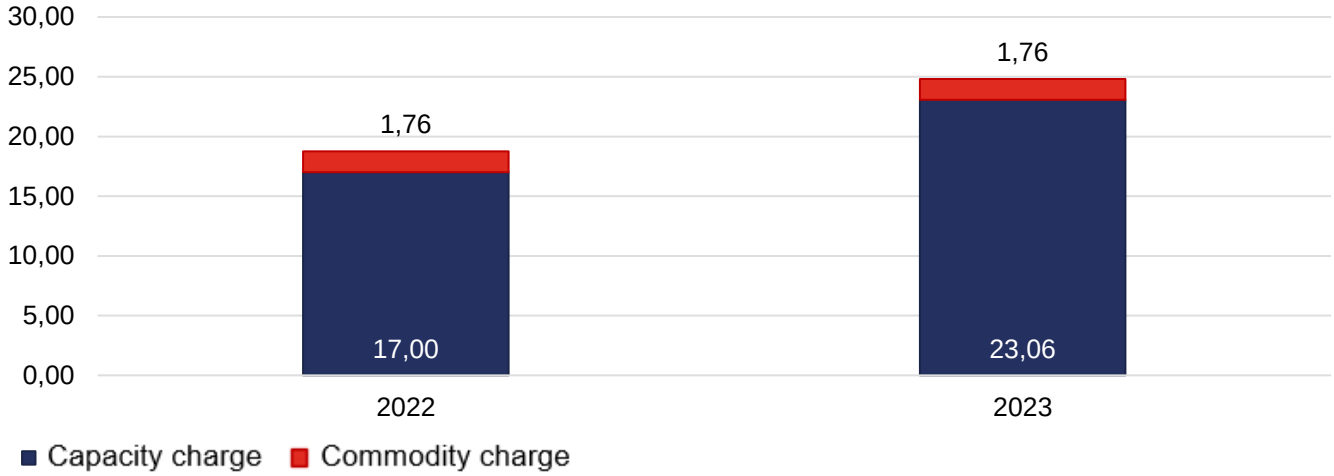
In 2022, ERO issued two amending price decisions to update the then effective price decision for 2022, and two price decisions laying down the regulated prices and the conditions for applying them for 2023.

The price decision for 2022 was amended by Price Decision 2/2022 of 10 May 2022, which laid down 100% discount on the charges for booked transmission capacity to and from gas storage facilities. Setting this discount was related to support for gas injection into gas storage facilities and to enhancing the security of gas supply for the 2022/2023 winter season. Then followed Price Decision 3/2022 of 30 May 2022 on regulated prices related to gas supply, which laid down the charges for the gas transmission service for the cross-border points in the transmission system and the conditions for applying them in 2023. In August 2022, it issued Price Decision 7/2022 of 9 August 2022, which responded to the Office's new responsibility given by an amendment to the Energy Act, specifically to devise a binding procedure for SoLR pricing in the gas industry. The last price decision issued in 2022 was 12/2022 of 14 November 2022 on regulated prices related to gas supply, which laid down all regulated prices for 2023, except for the charge for the gas transmission service for the cross-border points in the transmission system and the conditions for applying them.

In compliance with the EU legislation and the decision under Article 27(4) NC TAR, the tariffs for gas transmission at the transmission system's entry and exit points were calculated using the capacity weighted distance (CWD) reference price methodology. Based on the expected utilisation of booked transmission capacity, the transmission system operator's set revenue was allocated to the entry and exit points of the transmission system and included in the calculation of the regulated charges for gas transmission accordingly.

The TSO's adjusted allowed revenues for 2023 rose by almost 4% year-on-year. Because of the planned development of consumption, the average charge for the service of gas transmission to the domestic point rose from CZK 18.76/MWh in 2022 to CZK 24.82/MWh for 2023, i.e. by 32.30%. This charge is integrated in the regulated prices for the distribution system service and accounts for around 1% of the total price for the gas supply service. The growth of this charge is also due to the introduction of the 100% discount on the charge for booked transmission capacity into/from gas storage facilities.

Chart 12 Year-on-year comparison of the average charge for gas transmission service [CZK/MWh]



Source: ERO

The prices for the gas transmission service are set as double-component prices and have a fixed and a variable component. The fixed component is the payment for the firm transmission capacity booked at the respective entry/exit point in the transmission system. The variable component covers the TSO's costs related to the gas quantity actually transported via the exit points of the transmission system.

Another regulated activity is the distribution system service. As in the case of the TSO, adjusted allowed revenues are set for distribution system operators every year, and the regulated prices for the distribution system service are then determined on their basis.

Total adjusted allowed revenues for operators of distribution systems connected to the transmission system decreased by around 10% for 2023. This decrease was significantly due to the reflection of the negative correction factors from earlier years, i.e. the difference between actual revenues and allowed revenues, when in preceding years more funds than determined by ERO had been recovered from customers, and also to the compensation for a part of the costs of covering losses in distribution systems from the national budget.

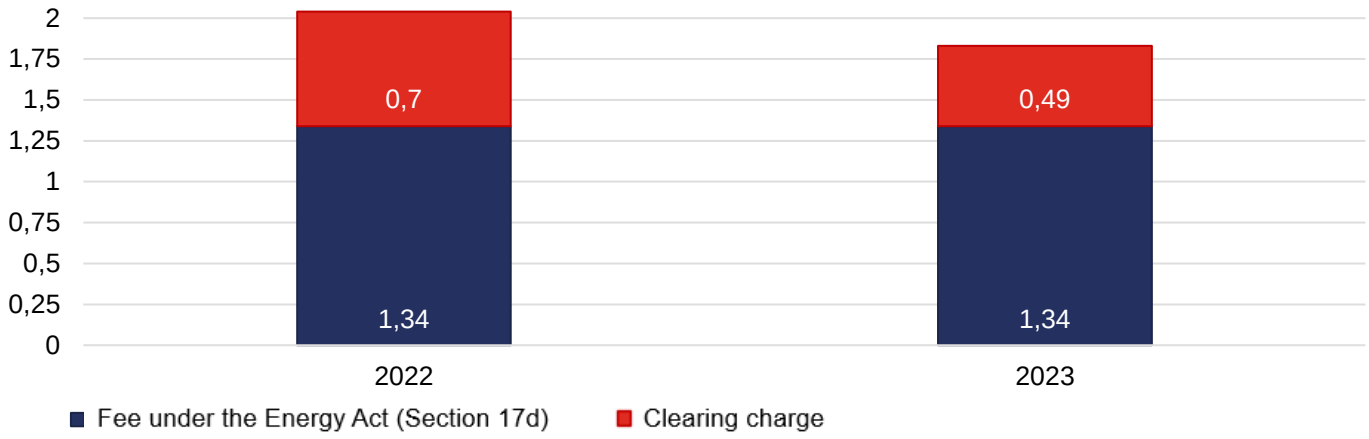
The reduction in DSOs' adjusted allowed revenues notwithstanding, there was a 1.8% increase for 2023 in the average charge for the distribution system service, which includes the service of gas transmission to the domestic point. The increase in this average charge is mainly due to a significant reduction in the consumption planned for 2023 and to the higher gas transmission charge.

The distribution system service charge is calculated in two forms. One of the forms is the single-component price, which is intended for customers having a certain specific nature of their supply point usage. At such supply points, the largest part of the yearly offtake is consumed over only a few days during the year. The other and most frequently used form of the distribution system service charge is a double-component price, which is composed of a variable and a fixed component as in the case of the gas transmission service.

In the double-component price, the variable component of the distribution system service charge is determined by a fixed price for distributed gas, in CZK/MWh. The standing monthly charge for available capacity constitutes the fixed component of the prices for customers in the household and low-demand business categories (MODOM), who take up to 63 MWh of gas per year. Its level depends on the distribution area and on the customer's inclusion in an offtake band, which is determined by the adjusted annual consumption at the supply point. MODOM customers taking over 63 MWh of gas per year pay the fixed component of the price through the fixed price for daily booked distribution capacity. For the high-demand and medium-demand customer categories (VOSO), this component of the price is based on the calculation of a logarithmic formula depending on the daily booked distribution capacity for an indefinite period. Customers most often pay it monthly as a fixed price for daily booked distribution capacity.

Another regulated component of the price is the charge for clearing paid to the market operator; for 2023, it was set at CZK 0.49/MWh. A fee for the Office's activities, set at CZK 1.34/MWh in Government Order 392/2015, is added to the clearing charge.

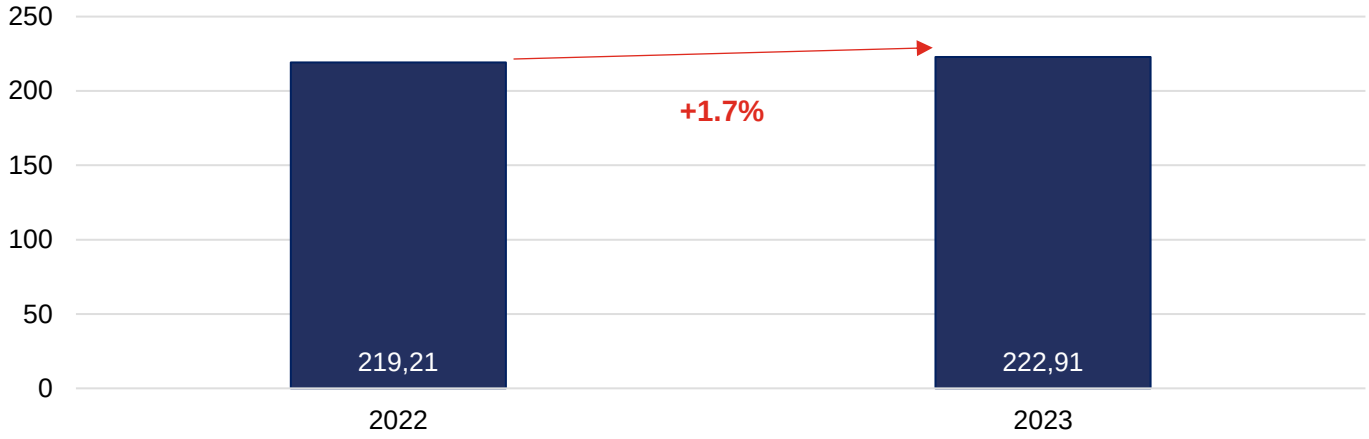
Chart 13 Year-on-year comparison of the clearing charge including the fee for ERO activity [CZK/MWh]



Source: ERO

The average total regulated price (the distribution system service charge, including the gas transmission service, and the clearing charge, including the fee for the Office's activities) is 1.7% higher in 2013 than in 2022.

Chart 14 Year-on-year comparison of average regulated charges for gas distribution (distribution, transmission, market operator) [CZK/MWh]



Source: ERO
Note: The charge for the market operator's clearing includes a fee under Section 17d of the Energy Act.

The Office did not apply any special tariffs for LNG in the Czech Republic in 2022.

Those who want to be connected have the right to be connected if the required capacity is available and the connection does not have a negative impact on the system's safe and reliable operation. There is no charge for connection itself. In the case of the transmission system, the applicant pays a certain portion of the costs incurred in the applicant's connection. The portion is calculated using the algorithm laid down in public notice 488/2021 on the conditions for connection to the gas system. In the case of connecting a gas offtake installation to the distribution system, the applicants pay all costs on their part and also the DSO's justified costs.

7 THE HEAT SUPPLY INDUSTRY

Supply of thermal energy (heat and cooling; also referred to as 'heat') is a fully regulated activity. Because of the considerable diversity of the heat supply industry and the large number of the entities subject to regulation, cost-plus price control is applied in the heat supply industry. For heat suppliers, the Office therefore lays down the conditions for calculating and agreeing on thermal energy prices. The rules in place allow the heat supplier to reflect the 'economically justified' [eligible] costs that it necessarily incurs in heat production and/or distribution, a reasonable profit, and the value-added tax (VAT), in its thermal energy price. Prices lower than the 'limit price', to which the rules do not apply, are exempted from cost-plus pricing. For 2022, the limit price had been set at CZK 155.61/GJ excl. VAT.

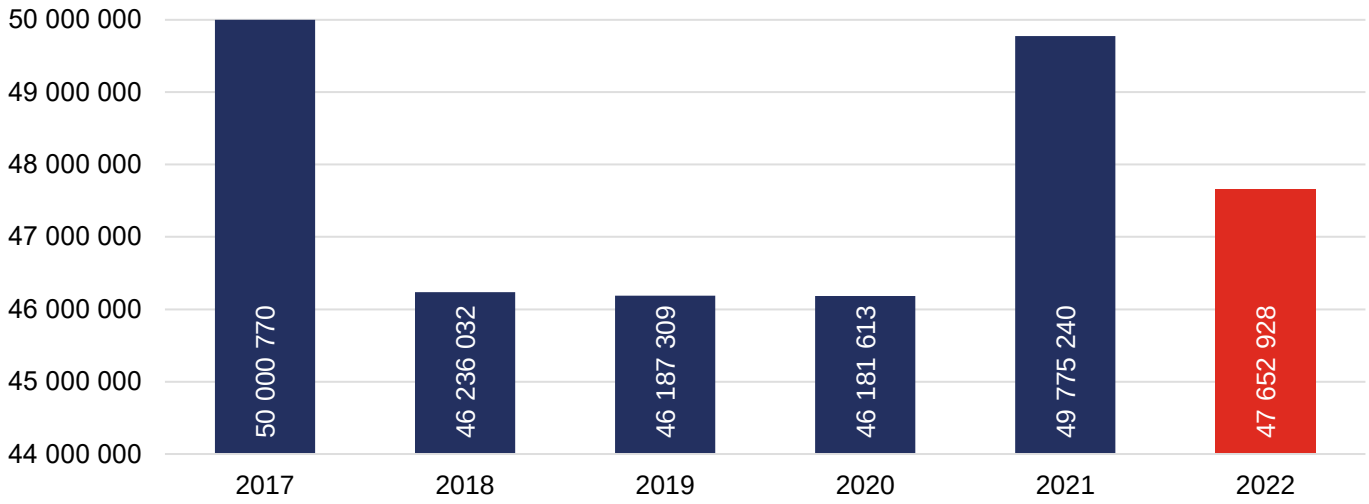
The Czech heat supply industry continues to experience a gradual transformation related to the European transition to green energy, the switch to new (more efficient) technologies, and customers' rising requirements. Thanks to new technologies, also smaller customers can afford their own heat source and so disconnect from larger systems. Thus, we can see competition between district heating systems and people's own local sources in the heat supply industry.

2022 was the first year that saw the full application of the regulatory rules under the new regulatory policy for the heat supply industry. The purpose of the new regulatory policy was to respond to the ongoing transformation in the heat supply industry, specifically to promote heat suppliers' business for them to prosper over the long term, acquire new customers, and expand and increase their heat supply in competition with other heat sources, while protecting customers against suppliers' ulterior motives. The elements of the new policy incentivise to investing in the inevitable transformation of the heat supply industry through clear-cut rules for determining reasonable profit, which has been discussed for a long time, and its application in the heat price. Clear-cut rules are now in place for pricing, while ensuring sufficient flexibility to respond to customers' requirements and to preserve thermal energy supply systems. The clearly stated rules also render the Office's supervision more effective.

As other sectors, in 2022 the Czech heat supply industry was heavily hit by the crisis at wholesale energy markets accompanied by collapses of additional energy suppliers. Heat suppliers had to cope with surging prices of fuels, primarily gas, and their considerable changes over short periods. Some of the heat suppliers whose gas supply was curtailed or whose gas supplier collapsed experienced problems in their search for a new supplier capable of ensuring new gas supply for them.

A number of heat producers were compelled to change their thermal energy price during the year, some of them almost every month, and many suppliers were unable to keep their contract obligation of charging fixed heat prices for 2022. Last year can therefore be described as a historical milestone, and the tendency to change heat prices in response to fuel prices during the year will probably continue in 2023.

Chart 15 Heat supply to end consumers [GJ]



Source: ERO
Note: The expected value is shown for 2022.

More than other sectors, heat consumption depends on the weather conditions, including air temperatures. In spite of this, it can be regarded as relatively stable in recent years, except for 2021 when a colder winter could be felt in comparison with the other years. The figures showing thermal energy consumption in 2022 are only expected values, which are based on data from suppliers from the end of the preceding year, and therefore do not express the actual thermal energy quantity taken in 2022. Thermal energy consumption in 2022 can be expected to be lower again owing to the across-the-board energy savings caused by the energy crisis.

ERO receives data on prices from regulated entities through regulatory returns; the data include calculations of preliminary prices and subsequently the resulting prices for the relevant calendar year. Data from these returns are subject to further verification. ERO therefore has information about heat prices after a time lapse. It should be noted that the average prices listed in the following tables are preliminary prices calculated for 2022. Nevertheless, in the case of the 2022 prices, ERO monitored the thermal energy market throughout the year. Thus, the thermal energy prices shown for 2022 do not only include preliminary prices as at 1 January 2022 but also changes in preliminary thermal energy prices during 2022 in respect of the suppliers who made such changes and provided ERO with the relevant information about them.

In 2022, the dramatic situation at energy markets was gradually reflected in heat prices through the rising cost of the fuels bought for thermal energy production, and not only gas/electricity but also the other fuels such as coal and biomass.

The most visible changes in heat prices could be seen in the case of thermal energy from gas, namely by around 69%. This surge outdid the expectations at the end of 2021 when an increase of 30-35% had been expected. The reason is clearly the extreme development of gas prices over 2022 and the heat suppliers' need to pass through these changes into thermal energy prices. It should be reiterated that despite the ongoing updates during 2022, we are showing preliminary prices here. Some suppliers who did not reflect the extreme growth of fuel prices in their thermal energy prices immediately can be expected to do so in the calculation of the resulting price. The resulting price of gas-produced heat for 2022 can therefore be even higher.

Another significant price hike, around 54%, is visible with thermal energy produced from 'other fuels', which, however, account for less than 13% of heat production. This increase is attributable mainly to thermal energy produced from fuel oils and electricity.

In the case of thermal energy produced from biomass and other RES, the price hike was around 18%, and the same development as in the case of gas can be expected for the resulting prices of thermal energy, i.e. that the average resulting price for 2022 will be higher.

In 2022, prices of thermal energy produced from coal were around 19% higher. The energy crisis is affecting coal prices just as the other prices, but the reference period for coal prices to be reflected in heat prices is longer than for the other fuels. An additional increase in the prices of heat from coal can therefore be expected only in 2023.

Table 3 Average preliminary thermal energy prices for end consumers, including the percentage change [CZK/GJ] (w/o VAT)

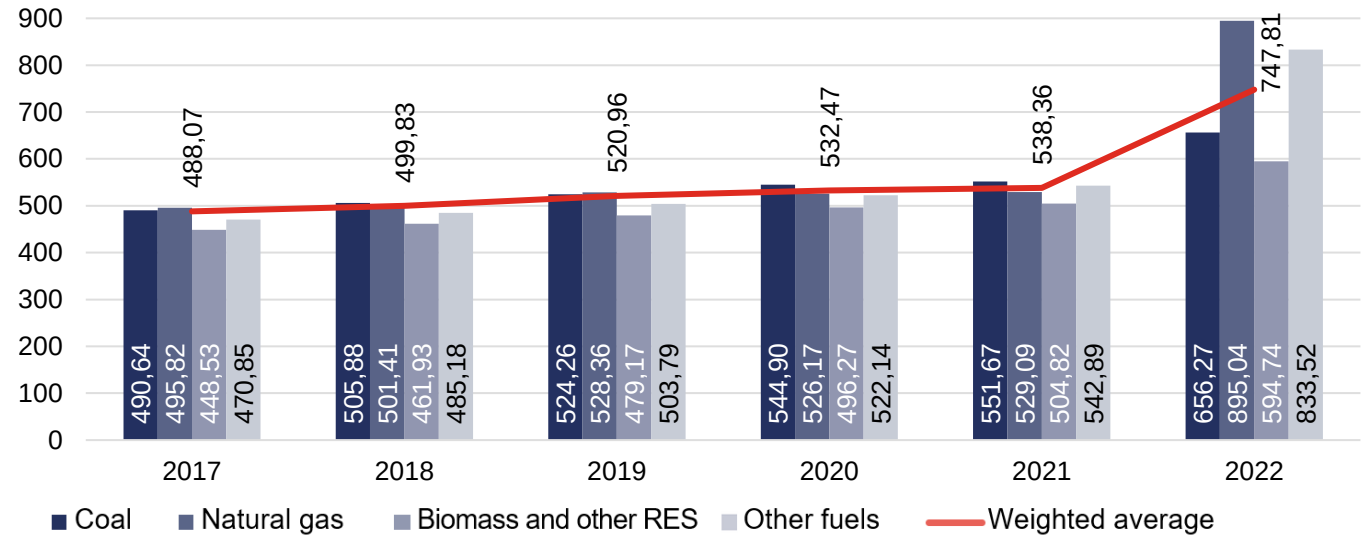
	Preliminary price for 2022 [CZK/GJ]	**Percentage change 2022/2021** [%]
Coal	656.27	18.96
Natural gas	895.04	69.17
Biomass and other RES	594.74	17.81
Other fuels	833.52	53.53
Weighted average	**747.73**	**38.89**

Source: ERO
Note: Other fuels include, in particular, waste, and also fuel oils, electrical energy, etc.

Where primarily technical possibilities allow, heat suppliers seek to replace expensive fuels with cheaper and/or physically more accessible fuels. Locally, we can therefore see an even greater change of a fuel's share in thermal energy production when comparing the expected and actual figures for a given year. Such differences can be seen in, e.g., the Olomoucký Region where in 2021, approximately 14% more of coal was used for thermal energy production (some 46% overall) at the expense of gas than had been expected. Nevertheless, at the time of preparing this Report, from the global perspective the energy crisis does not have any impact on the forthcoming and ongoing projects for the Czech heat supply industry's transition to zero-emission or low-emission fuels. Thus, there is no change in the started trend in the development of fuels' shares of thermal energy production in the Czech Republic, namely a gradual decline in coal consumption in favour of, in particular, biomass and other RES.

In terms of the preference for thermal energy produced from a certain fuel, 2022 cannot be regarded as a standard year of the Czech heat supply industry. Although prices of thermal energy produced from all fuels were rising, production from gas was the most expensive in 2022, as expected, while since 2018 (but for a negligible exception in 2019) production from coal has been the most expensive due to the EU's tools for direction towards green energy. Because of the extreme prices of electricity and fuel oils, the second most expensive thermal energy is from 'other fuels'. Thermal energy from biomass and other RES has long been the cheapest thanks to weaker effects for the growth of these fuels' prices. Once the situation in wholesale markets stabilises, we can expect a gradual return to proportions of prices of thermal energy produced from the various fuels similar to those in 2021 and 2020.

Chart 16 Average heat prices for end consumers between 2017 and 2022 [CZK/GJ] (w/o VAT)



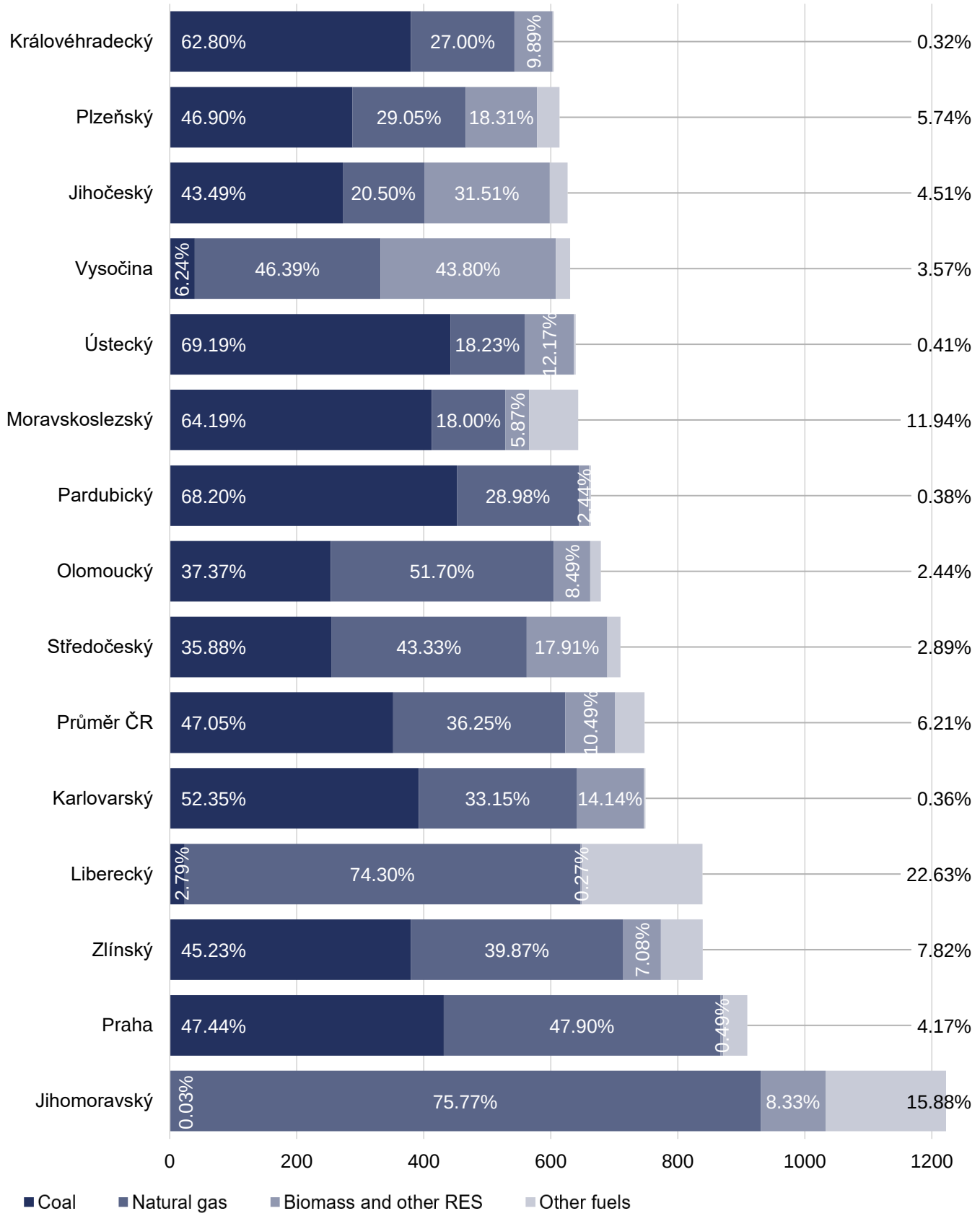
Source: ERO
Note: The expected value is shown for 2022.

The extreme and also dissimilar development of fuel prices is also reflected in the Region-specific heat price hikes depending on the proportion of fuels for thermal energy production in the Region. The largest price hikes can be seen in Regions having the largest share of thermal energy produced from gas, namely in the Jihomoravský and Liberecký Regions having an approximately 75% of gas in both cases. In the Jihomoravský Region, the average price has risen by around 115%, and in the Liberecký Region it has gone up by 61%. The dramatic change in the price in the Jihomoravský Region is also attributable to one gas supplier's gas supply termination in 2022 and the surge in the price of this commodity. In 2022, the Jihomoravský Region had the most expensive thermal energy price of all.

On the other hand, the lowest price hike, by less than 12%, can be seen in the Jihočeský Region with the second largest share of thermal energy production from biomass and other RES (some 32%) and also
a rather large share of production from coal (some 43%). Then follow Regions with the largest proportion of thermal energy production from coal (69%, 64%, and 62%), with price hikes of 21%: the Ústecký, Moravskoslezský, and Královéhradecký Regions. In the least expensive Region in 2021, Vysočina, with the largest proportion of thermal energy production from biomass (44%), the price rises by around 37%

compared with 2022, mainly due to a larger share of thermal energy production from gas (46%). The Královéhradecký Region had the lowest average preliminary heat prices in 2022.

Chart 17 Average preliminary heat prices [CZK/GJ] (w/o VAT) for end consumers, showing the percentages of fuels [%], in 2022



Source: ERO

8 SUPPORTED ENERGY SOURCES

The year 2022 was marked by the finalisation of the legislation related to an amendment to the SES Act and the issue of the Office's first price decisions for new operating aid schemes that had been 'activated' by Government Order 189/2022 specifying the development of supported energy sources (Government SES Order) and also declared compatible with the EU's internal market for 2022 and 2023.

In 2022, ERO promulgated four price decisions on SES; in two cases the price decisions were issued on extraordinary dates.

ERO very quickly responded to the Government SES Order and the MIT's notification of the currently compatible new operating aid schemes. Following a summary consultation process, ERO issued Price Decision 4/2022 of 30 July 2022, amending Price Decision 6/2021 of 29 September 2021 laying down operating aid. With effect from 20 July 2022, the price decision laid down operating aid for new aid schemes that had been declared compatible with the EU's internal market as part of block exceptions. Among other things, for the first time ever the amount of the green premium for 'preserving heat production plants in operation' was set.

Two months later, Price Decision 11/2022 of 30 September 2022 was published; it laid down aid for supported energy sources. Aid for 2023 was laid down for new schemes in the same range as under Price Decision 4/2022. In the case of existing power generating facilities, the y-o-y change of the aid amount was made in line with the SES Act and the methodology for y-o-y changes of the green premium (published in July 2020). The y-o-y comparison of electrical energy prices (average electrical energy prices for January to June) in 2021 and 2022 resulted in an extreme growth of the 'equivalent price of electrical energy' [the difference between the feed-in tariff and the yearly green premium], which is decisive for determining green premiums. This unprecedented growth of the electrical energy price in the market resulted in a zero green premium for 2023 in most cases of operating aid. Thus, the costs of aid for SES also decreased significantly. Combined with certain governmental measures and increased government subsidy for the last quarter of 2022 and for 2023, this resulted in the full financing of the costs of aid from the national budget without the need to recover funds from customers through the distribution and transmission system service prices' component for aid to electricity.

The third price decision responded to an amendment to the SES Act and Government Order 300/2022 laying down the IRR values for investments in the various RES types, which came into effect during October 2022. ERO issued extraordinary Price Decision 15/2022 of 20 December 2022, amending Price Decision 11/2022 of 30 September 2022, laying down aid for supported energy sources. This price decision laid down new amounts of operating aid for sectors in which sectorial investigations in power generating facilities commissioned between 2006 and 2010 and in 2011 had revealed a risk of excessive aid. Under Section 32(3) of the SES Act, the MIT provided supporting documentation on two sectors (wind power plants commissioned in 2011, and power stations firing mine gas from closed mines in power generating facilities commissioned in 2010), for which lower feed-in tariffs were set with effect from 1 January 2023.

The fourth was Price Decision 9/2022 of 29 September 2022, laying down the charge for the mandatory buyer's activity and the charges related to guarantees of origin. Under an amendment to the SES Act this price decision set, for the first time ever, not only the 'administrative' prices related to the issue and transfer of guarantees of origin and account keeping but also the charge for a guarantee of origin, which the generator must pay if registered for operating aid for which an investment subsidy was granted. Prices related to guarantees of origin were also set for heat and biomethane for the first time.

It was crucial to complete, in early 2022, the legislative process for ERO public notice on technical and economic parameters in order to determine operating aid levels. ERO public notice on technical and economic parameters (79/2022) came into effect on 1 May 2022. The key parameters (in particular, unit investment costs, fuel acquisition costs, annual utilisation rate, service life, discount rate) were the fundamental inputs for laying down operating aid in a price decision for new operating aid schemes in power generating facilities commissioned or modernised in 2022 and 2023.

The relevant amendment to the SES Act was passed at the end of 2021 after some delay, and this was reflected in the successive legislation drafted by ERO and that drafted by the MIT, on which ERO had cooperated and which had, primarily in the case of the government's key orders, a major impact on the dates by which extraordinary ERO price decisions were published. The Government SES Order activated for 2022 and 2023 the supported capacities of new operating aid schemes with effect from as

late as 1 July 2022. Government Order 300/2022 laying down the IRR values for investments in the various RES types laid down the key IRR amount with effect from as late as the beginning of October 2022, i.e. after the date for issuing the regular price decision laying down aid for 2023.

8.1 Notification procedures and drafting of implementing acts

The Office closely cooperated with the MIT on the drafting of a number of other implementing acts. These included, in particular, public notice 68/2022 on modernising aided power generating facilities and procedures for modifying the equipment of power generating facilities (effect from 1 April 2022), public notice 72/2022 on ensuring the proportionality of operating aid (effect from 1 April 2022), public notice 110/2022 on the types and parameters of supported renewable sources and sustainability criteria and greenhouse gas emission savings for bioliquids and biomass fuels (effect from 15 May 2022), public notice 166/2022 on reporting energy from supported sources (effect 1 July 2022), and public notice 328/2022 on guarantees of energy origin (effect from 1 January 2023).

Equally important was the Office's participation in the drafting of the Government SES Order and Government Order 470/2022 on the procedure for determining the amount of aid and retroactive payment of aid under the SES Act. In the second half of 2022, the Office and the MIT cooperated in helping to identify and propose additional changes to the SES Act ('*lex OZE I*'), which had arisen from the prenotification contacts on new aid schemes and other application changes to the SES Act. The Office also joined the process for designing operating aid in the form of auctions. In the autumn of 2022, the MIT called the first ever auctions for aid to RES.

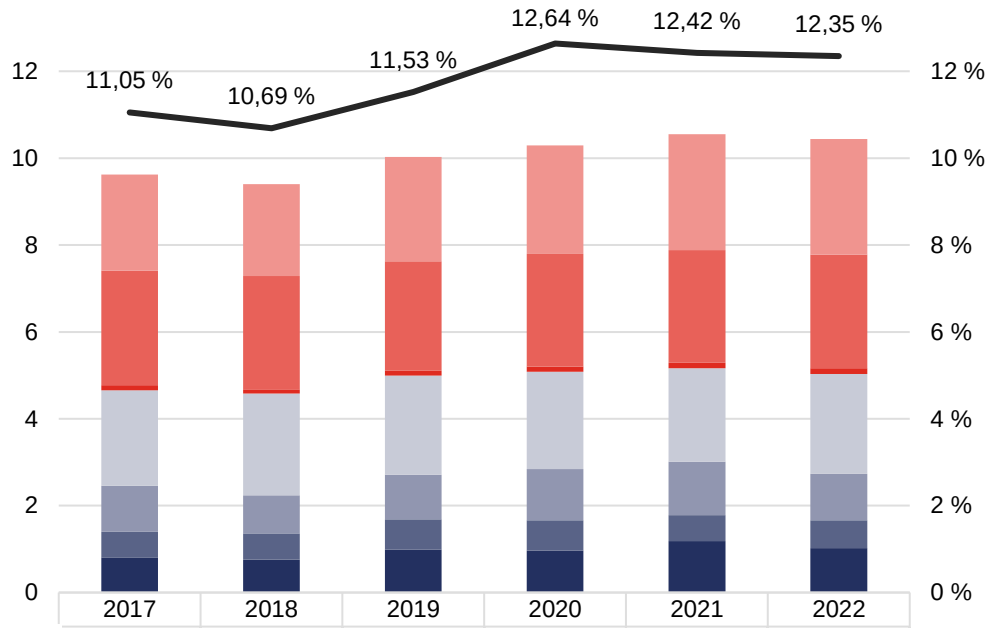
2022 saw the breakdown of the notification procedure for new operating aid schemes into several separate notifications. Notifications concerning heat from RES in heat production plants commissioned between 2022 and 2024, biomethane in production plants commissioned between 2022 and 2024, CHP electricity from generating facilities commissioned or modernised between 2023 and 2025, electricity from secondary sources in power generating facilities commissioned between 2023 and 2030, and support for heat as part of energy transition. The Office's priority was its cooperation with the sector in the preparation of the 'comparative scenarios' for the various procedures. Unfortunately, none of the notification procedures had been completed by the end of 2022.

8.2 Oversight in SES

After 1 January 2022, when the authority to oversee the obligations under the RES Act passed to the State Energy Inspectorate, the Office's oversight activities in respect of SES focused on monitoring licensees for business in energy industries under the Energy Act for their compliance with general obligations and on checking that they meet the conditions for business and so are able to lawfully claim aid for electrical energy and/or thermal energy. Checks can also concern findings that the licensee has breached the obligations under Section 5 (5) of the Act on Prices by claiming greater aid than laid down for such energy production in ERO Price Decision on aid for SES.

In 2022, the Office carried out inspections in order to check the condition of energy installations and the details specified in the current licences, and whether biomass electricity generators and biomass fuel suppliers (biomass producers, processors, and distributors) were properly keeping documents on the biomass fuel types used. In 2022, it concluded four inspections under the SES Act and 39 inspections under the Energy Act. It started another 26 inspections under the Energy Act and had concluded seven of them by the end of 2022.

Chart 18 Gross electricity generation from RES and its share of the country's gross consumption [TWh]



	2017	2018	2019	2020	2021	2022
Biodegradable municipal waste	2 211 353	2 118 724	2 398 734	2 498 921	2 664 554	2 659 405
Biomass	2 638 985	2 607 245	2 527 072	2 594 686	2 592 122	2 615 146
Biogas	114 238	100 210	104 849	119 378	127 289	129 693
Photovoltaic	2 196 908	2 341 593	2 287 753	2 237 269	2 152 218	2 298 348
Wind power plants	1 062 549	873 817	1 023 671	1 179 076	1 228 193	1 071 270
Over 10MW hydro plants	591 038	609 330	700 034	699 083	601 554	641 330
Under 10MW hydro plants	806 985	753 701	985 004	965 180	1 182 041	1 022 196
RES share of gross consumption	11,05%	10,69%	11,53%	12,64%	12,42%	12,35%

Source: ERO
Note: The RES share of gross consumption is the simple ratio of gross electricity generation from RES and the country's total gross electricity consumption.

9 ERO ACTIVITIES IN RDI AND ELECTRICITY SHARING MODELS

9.1 RDI

The Office continuously contributes to support for research, development and innovation (RDI) in areas relevant for its activities, thereby helping to harmonise the scientific and research environment with state administration's needs and to apply the RDI outputs in practice in energy regulation.

This takes place primarily through the Office's direct involvement in RDI projects and through systematic monitoring of the Czech science and research environment and individual outputs achieved. In terms of its active participation in RDI projects, participation under the programmes of the Technology Agency of the Czech Republic (TA ČR) is the most important for ERO. The Office is primarily active under the programme of public contracts in applied research and innovation for state administration's needs (BETA2 Programme) and the programme for support of applied research, experimental development, and innovation in energy industries (THETA Programme).

For THETA, 2022 was rich in completed and newly implemented projects. 2022 saw the successful completion of two smart metering projects run as part of the third public competition: TK03010175: *Smart Metering 4 Regulators and Society (SM4RT)*, which ultimately resulted in the implementation of a methodology evaluating the impacts of smart metering rollout on implementing acts within the Office's and other state administration agencies' remit, and TK03010200: *Smart Metering in the Czech Republic – Requirements from Customers' Perspective*, which has implemented a methodology for market metering rollout in the Czech Republic. Early 2022 saw the beginning of the implementation of the favourably evaluated projects of the fourth public competition, specifically:

- TK04010177: *Economically justified costs in the regulated electricity and gas industries*,
- TK04010028: *Impacts of community energy on the environment of energy markets and networks*,
- TK04010229: *Comprehensive environment for the development of energy communities – proposal for legislative, organisational, and incentivising measures to eliminate barriers to development*.

In 2022, TA ČR called the fifth public competition for which ERO specified five priority research objectives:

- 1.2.1 Analyses of relationships between wholesale and retail energy prices;
- 1.2.2 Methodological tools for assessing retail energy market participants' resilience;
- 1.2.3 Advanced tools and methods for evaluating statistical and regulatory returns and data;
- 1.3.1 Innovative methods for heat supply industry management in the context of ongoing energy transition;
- 1.3.2 Research into the impacts of hydrogen system development on the regulatory practice in the gas industry.

ERO proposed priority research objectives 1.3.1 and 1.3.2 jointly with the MIT. As part of the fifth public competition, ERO examined nine specific requests to accept the role of the application guarantor or express its interest in using the proposed outcomes. The proposed priority research objectives and the implemented projects will help to enhance the energy sector's preparedness for and resilience to emergency situations and to improve the quality of regulatory practice during energy transition. The implementation of the winning projects of the fifth public competition is planned to start in the first half of 2023.

In 2022, BETA2 was marked by the implementation of all running and the preparation of new projects. The *Comprehensive innovation of the tariff structure in the electricity industry* project organised and successfully completed three 'mini tendering procedures' (individual contracts) and started a mini tendering procedure focused on analysing the development of conditions for the operation of local distribution systems during energy transition. The *System for processing, analysing, and evaluating ERO statistical data* project continued in 2022. The procedure to award the public contract for the *Development of a software tool for comparing electricity and gas suppliers' price quotations (The ERO Price Calculator)* project continued in 2022. Each of the phases of the innovation partnership under this project resulted in three high-quality solution designs. However, for administrative reasons and due to material changes in the circumstances in energy markets the closing phase of the innovation partnership

has not been carried out. In 2023, the solution designs obtained will be used in preparing a new award procedure for producing a tool for comparing energy prices. Under BETA2, ERO was also preparing the *Development of a tool for the national monitoring of the wholesale energy market* project, the implementation of which was planned to start in 2023.

In addition to the above two programmes, ERO monitors the activities of some other national and international programmes, such as *Horizon Europe*, *LIFE* and *CETPartnership*. ERO also granted formal backing via a Letter of Intent to four additional projects vying for support across the range of programmes. The focus of the supported projects is broad, ranging from using blockchain technologies in smart metering to community energy to agrivoltaics.

The implementation of all of the above projects will help ERO to modernise and improve its performance in price and technical regulation reflecting the current and future trends spawned by energy transition and to boost its abilities for monitoring wholesale and retail energy markets. ERO cooperates on the above projects and on strategic development issues with other relevant bodies of state administration (e.g. including the Ministry of Industry and Trade, the Ministry of the Environment, and the Ministry of Regional Development).

10 INTERNATIONAL COOPERATION

Early 2022 was marked by preparations for the Czech EU presidency (CZ PRES) that was held in the second half of the year. The original idea was that the key issue of CZ PRES in energy would be discussion of a package of 13 legislative acts called *Fit for 55*. Russia's invasion of Ukraine and the dramatic developments in the energy market completely changed the priorities.

The six-month programme of the presidency was determined mainly by the REPowerEU Plan geared towards eliminating dependence on Russian fossil fuels, fighting high energy prices, and accelerating RES development. CZ PRES saw discussions of the European Council's extraordinary measures, which are outlined in a separate subchapter.

In the end, a general approach to the decarbonisation package was not achieved during CZ PRES, and only a progress report was presented. Other legislative proposals (recast of the RES Directive, recast of the Energy Efficiency Directive, Directive on the Energy Performance of Buildings, and the Regulation establishing a Social Climate Fund, etc.) were debated on an ongoing basis.

Thus, two ordinary, one informal and five extraordinary meetings of the TTE (Energy) Council were held further to the tense developments during the six-month CZ PRES.

On the occasion of CZ PRES, the Office had an opportunity to organise the meetings of the CEER General Assembly and the ACER Board of Regulators. The meetings were held in our Prague offices on 20 and 21 September, respectively. The key point on the agenda of both meetings was discussion of the EU's legislative proposals and the plans for extraordinary measures to cope with high energy prices. In addition to discussing the proposed emergency measures, the energy regulatory authorities' representatives also assessed the performance of European gas markets and networks.



Under the reporting and notification obligation arising for the Czech Republic, as an EU member state, from Directive (EU) 2019/944 and Directive 2009/73/EC, ERO delivered the Czech and English versions of the *National Report of the Energy Regulatory Office on the Electricity and Gas Industries in the Czech Republic for 2021* in August 2022.

10.1 Emergency measures adopted during CZ PRES

Responding to the energy crisis, during CZ PRES the Commission repeatedly activated the crisis Article 122 of the Treaty, under which Member States may decide 'upon measures appropriate to the economic situation, …, notably in the area of energy'. In this crisis mode, CZ PRES successfully negotiated and adopted important emergency measures through the Council's extraordinary regulations.

The first was Council Regulation on coordinated demand-reduction measures for gas before the upcoming winter, aimed at helping to ensure sufficient gas supply for the 2022/2023 winter across the European continent. In September 2022, the Commission presented a proposal for Council Regulation on an emergency intervention to address high energy prices, which the Ministers then adopted on 30 September 2022.

The adoption of the third and fourth Regulations was being postponed because member states made their adoption conditional on achieving political agreement on the proposed regulation on the market correction mechanism. This specifically involved Council Regulation enhancing solidarity through better coordination of gas purchases, reliable price benchmarks and exchanges of gas across borders and Council Regulation laying down a framework to accelerate the deployment of renewable energy.

These two Regulations were formally adopted only at the last TTE (Energy) Council meeting under CZ PRES on 19 December 2022, together with Council Regulation (EU) 2022/2578 of 22 December 2022 establishing a market correction mechanism to protect Union citizens and the economy against excessively high prices, referred to above.

10.2 Working in international groups

In 2022, ERO's international activities took place mainly within ACER, CEER and ERRA. ERO staff members were actively involved in their electricity and gas, REMIT, consumer protection, and retail working groups. The participants in the working groups and task forces had an opportunity to take part in an analysis of the impacts of the above-mentioned new legislative proposals. The Office also continuously consulted its positions with the V4 countries' regulators.

ERO also cooperates with the above international organisations in education. ERO staff members attended two specialised training courses as part of the CEER platform and one training course at the Florence School of Regulation. Reciprocally, thanks to active cooperation with CEER, ERO staff members taught in four training courses in 2022.

The importance of cooperating with CEER was highlighted when on 25 October 2022, at a meeting of its General Assembly, the Council of European Energy Regulators (CEER) elected its Board of Directors members; five were elected and one of two new Vice Presidents was an ERO representative. Thus, the Czech Republic has won a strong mandate in discussion on the future of the common European energy policy on an international platform.

As part of its activities in international working groups ERO joined a number of international meetings in 2022, most of which followed the format from 2021, i.e. videoconferencing or hybrid formats. This is why only 21 business trips abroad took place. Following a pause of almost two years, ERO staff members attended Madrid and Dublin Forums in person.

In ACER's Electricity Working Group, ERO focused on monitoring and also on inputs into consultations on and evaluation of network codes and framework guidelines in the various countries and joined activities intended to address the issues arising from the European energy crisis. Specifically, they addressed issues such as electricity supply to Ukraine and Ukraine's connection to the European synchronous system, modification of the European electricity market design, and ensuring resource adequacy on a long-term basis.

ERO also worked with national regulators and ACER in monitoring the implementation frameworks for balancing energy exchange platforms, where ČEPS was, in June 2022 and then in September 2022, the first TSO to join the common platforms for buying the services of FRR with automatic and manual activation.

At the regional level, ERO worked with national regulators within CORE to monitor the functionality of the flow-based market coupling (capacity calculation) method; when the mechanism went live in the Core region on 8 June 2022, a new harmonised transmission capacity calculation methodology was launched.

Gas working groups also changed their agenda in response to the geopolitical situation. In 2022, the main objective of the various working groups was to draw up position papers that would sufficiently cover the aspects of the European gas market model in the energy crisis, taking into account the potential scenarios of the future use and new role of natural gas, biomethane, synthetic gases, and hydrogen, and the gas infrastructure. Attention centred on energy security from the perspective of the 2022/2023 winter and in the context of meeting the ambitions in decarbonisation and the related transition to intermittent energy sources. All international groups allocated much time to evaluating the impacts of the war in Ukraine, and the related security of gas supply to the EU, i.e. its member states, and discussed the legislative packages and measures continuously released by the Commission and the Council.

In the context of the above, ERO's contribution to the ACER-CEER position paper, *Lines-to-Take Paper*, can be regarded as seminal; in the paper, representatives of all the participating national regulatory authorities expressed their position on the crucial aspects of the decarbonisation package.

CEER's CRM WG published a paper titled *Digitalisation as a Driver for Better Retail Market Functioning* in 2022. This was another project under the guidance of ERO representatives. CEER's CRM WG and

ACER's ARWG are co-chaired by an ERO representative. In December 2022, she retained this position in both working groups for the forthcoming two-year term.

ERO also participated in the establishment and activity of a newly set up group called RRT (Rapid Reporting Team), tasked with preparing ad hoc reports describing the current energy crisis for CEER's needs.

In ACER, ERO joined an extensive poll called *ACER Questionnaire on Barriers*, in which a specific methodology helps to derive the results of the various indicators into composite indicators (CI).

Important international cooperation continues to be under way also through CEER's EPU (European Policy Unit), in which an ERO representative serves as a Vice-Chair and which is in charge of fully promoting regulators' positions vis-à-vis EU institutions. In 2022, CEER joined the Commission's six consultations on the forthcoming EU energy legislation. In 2022, EPU also proactively contributed to the monitoring and analysing of the emergency measures adopted by the European Council.

CEER's Renewable Energy Work Stream had selected two working issues for 2022, including updates of reports from preceding years. One updated report is *CEER Report on Tendering Procedures for RES in Europe*, which summarises the current status of RES auctions in the various member states. The other updated report is *Status Review of Renewable Energy Support Schemes for 2020 and 2021*, where CEER had collected data on support granted to RES, primarily electricity generation.

ERO staff members were also actively involved in REMIT working groups (subchapter 4.8).

11 LEGISLATIVE AND ADMINISTRATIVE ACTIVITIES

11.1 Legislative activities

11.1.1 Changes to laws and regulations within the Office's competence

In 2022, the Office issued six public notices [statutory instruments]:

11.1.1.1 Public notice 79/2022 on the technical and economic parameters for determining reference feed-in tariffs and green premiums and on the implementation of certain other provisions of the law on supported energy sources (public notice on technical and economic parameters)

This statutory instrument responds to the 2021 amendment to the SES Act (Act No 382/2021), was issued under the Office's authorisation in Section 53 (2)(a), (b) and (l) of the SES Act, and superseded public notice 296/2015 on the technical and economic parameters for determining feed-in tariffs for electricity generation and green premiums on heat and on determining the service life of power generating facilities and heat production plants using renewable energy sources ('the technical & economic parameters public notice'), as amended in 266/2016. In this public notice ERO lays down the technical and economic parameters for determining feed-in tariffs, reference feed-in tariffs, and green premiums for the various RES types for electricity, heat and biomethane production, discount rate, service life of facilities producing electricity, heat and biomethane from SES and the service life of modernised power generating facilities, and the range and overall amount of unit operating costs for determining the sustaining aid for electricity and the range and overall amount of unit operating costs and heat pricing methods for determining the sustaining aid for heat. In line with the new operating aid schemes under the SES Act, compared with the repealed public notice the new one includes the key input parameters for certain new types of production plants and modernised power generating facilities, the determination of the range of unit operating costs for electricity/heat producers using biomass and heat producers using geothermal energy to determine the amount of sustaining aid, the specification of the heat pricing method to determine sustaining aid for heat from geothermal energy, and the determination of the discount rate (WACC) for new/modernised power generating facilities, new heat production plants, and new biomethane production plants.

The public notice came into effect on 1 May 2022.

11.1.1.2 Public notice 147/2022 amending public notice 8/2016 on the details of licensing for business in energy industries

This statutory instrument was issued primarily for implementing the newly added authorising provision of the Energy Act, in Section 98a (2) (o), under which ERO sets out a model form for applying for the grant or extension of intermediary licences. Provisions on these model forms, which are contained in schedules 25 to 28, were the primary reason for amending the old public notice. The amended public notice also contains some changes to certain provisions of the old public notice, the purpose of which is to render the public notice compliant with the changed provisions in the related legislation and to clarify and remedy some undesirable facts identified when conducting licence grant, change or revocation proceedings. They specifically include the alignment of the legal status for all licence applicants as regards the submission of the business plan; in the event of documenting their financial standing by a loan agreement or a similar agreement, the licence applicants must prove their ability to finance their operation also for the funds under such agreement; and more precise provisions on the determination of the delineated area in the licence application and in the documents appended to applications for electricity/gas/thermal energy distribution licensing.

The public notice came into effect on 1 July 2022.

11.1.1.3 Public notice 223/2022 amending public notice 349/2015 on the Gas Market Rules, as amended

This statutory instrument was issued under its authorisation in Section 98a(2)(i) of the Energy Act, which requires ERO to issue a public notice laying down gas market rules. In the light of the energy situation caused by the war in Ukraine, the amendment responds to the introduction of the mechanism of loss when failing to use booked gas storage capacity based on the use it or lose it (UIOLI) principle and the mandatory offer of unused storage capacity in auctions to other gas market participants. In this context, the Energy Act was extended to include an authorisation for ERO to set out the rules for auctions to book unused storage capacity and the extent, method, and dates for the SSO and TSO to exchange information about the size and duration of storage capacities booked by gas market participants. The public notice supplements the rules of auctions in which the SSO offers unused storage capacity by providing that the standard procedure shall be followed as in other auctions governed by the public notice, except for the determination of the duration of the mandatory storage period, which will be determined by the SSO based on the technical conditions of its storage facility. The public notice also contains provisions on the SSO's information obligation to the TSO concerning the size and duration of the storage capacities booked by gas market participants and lays down the specific extent, method, and dates for the SSO and TSO to exchange such information. Outside gas storage, the amendment has shortened the process of fast supplier switching from three to one business day. The purpose of this change is to free BRPs from having to provide disproportionately high financial deposits (collaterals) that inevitably accompany the rising prices of gas supply and that BRPs must deposit with the market operator in the case of fast supplier change.

Further to Section 27d(1) of the SES Act, the public notice newly envisages the assignment of gas production installations not only to the transmission or a distribution system depending on the point of connection, but also through another gas production installation.

The public notice came into effect on 1 August 2022, except for certain provisions (Annex 4) that came into effect on 1 January 2023.

11.1.1.4 Public notice 271/2022 amending public notice 207/2021 on the billing of supply and related services in the energy industries

This statutory instrument was issued under the Office's authorisation in Section 98a(2)(j) of the Energy Act, which requires ERO to issue a public notice laying down the scope, essentials, and dates of the bills for electricity, gas, and thermal energy supply and the related services in the electricity and gas industries, the scope and essential details of information about the bills for electricity supply and related services in the electricity industry and about thermal energy supply, and the dates for providing the billing information. The subject matter of the public notice is solely fulfilment of the new authorisation in the Energy Act, namely the transposition of the notion of billing information under Directive (EU) 2019/944 of the European Parliament and of the Council of 5 June 2019 on common rules for the internal market for electricity and amending Directive 2012/27/EU, Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC and Directive (EU) 2018/2002 of the European Parliament and of the Council of 11 December 2018 amending Directive 2012/27/EU on energy efficiency. Thus, the public notice transposes the relevant provisions of the above Directives, which concern the required details and scope and dates for providing information about electricity and thermal energy supply bills, into Czech law under authorisation in the Energy Act. ERO wants customers to receive, through the billing information, accurate and up-to-date information primarily about their consumption. Billing information does not constitute any requirement for payment, which fact differentiates this notion from regular and extraordinary bills. Billing information can also be part of the document that proves billing if it has the correct parameters in terms of frequency and scope.

The public notice came into effect on the day following the day of its promulgation, i.e. 17 September 2022.

11.1.1.5 Public notice 404/2022 amending public notice 408/2015 on the Electricity Market Rules, as amended

This statutory instrument is an implementing act issued under the Office's authorisation in Section 98a(2)(h) of the Energy Act, which requires ERO to issue a public notice laying down electricity market rules. The introduction of completely new procedures in the transmission of data for evaluating (clearing) imbalances and for electricity billing, which take into account the amount of electricity generated in a power generating facility within a single residential building, can be regarded as the most important and crucial change. Through the public notice, ERO has introduced a simplified procedure that is not in conflict with the applicable higher-level legislation (the absence of provisions on electricity sharing in the Energy Act) and that will make it possible for customers to reduce their dependence on central energy supply plants. Major changes concern the registration of supply points and delivery points; provisions on the procedure to register supply points with connected power generating facilities operated without a licence under Section 28(5) of the Energy Act, for which non-zero reserved output has been agreed, and the registration of supply points and delivery points further to the introduction of specific provisions on the transmission of data for evaluating (clearing) imbalances and for electricity billing, which take into account, for the delivery points of the supply point, the amount of electricity generated within a single residential building. The changes that respond to the changed SoLR provisions of the Energy Act also concern ensuring SoLR supply. Another, rather extensive change is balancing energy procurement so that the TSO can use a broader portfolio of resources to ensure stability and safety in the system. Other new provisions concern the determination of electricity consumption by customers with type C metering, which spans several calendar years, the objective being to ensure a unified approach by DSOs. Another important change is the more distinctive specification of energy procured for coping with a state of imbalance. Some other smaller changes were also made.

The public notice came into effect on 1 January 2023, except for certain provisions that came into effect on 1 May 2023, and except for certain provisions that came into effect on 1 July 2023.

11.1.1.6 Public notice 405/2022 amending public notice 349/2015 on the Gas Market Rules, as amended

In 2022, the second amendment to the Gas Market Rules responds primarily to changes in the Energy Act. A new authorising provision inserted into the Energy Act, in Section 98a(2)(i), requires ERO to issue a public notice laying down the gas quantity that the SSO has the right to buy or sell for the purpose of providing the gas storage service. The public notice also modifies (renders more precise) the rules for divesting the user of transmission capacity unused for a long time. A comprehensive set of changes includes additions to the procedures and dates for nominations and renominations as part of international assistance in crisis situations in the gas industry, referred to as solidarity. Rules for receiving solidarity from and providing solidarity to member states were added. The changes that respond to the amended SoLR provisions of the Energy Act also concern ensuring SoLR supply. Simultaneously, the process of switching from SoLR to standard supply has been shortened, specifically by shortening the period for gas supplier switching upon termination of supply from the SoLR from ten to five days. In the sections on gas storage, unlike the old provisions the new ones designate the gas market participant as the basic entity practising storage capacity purchase and gas storage rather than a cleared entity (BRP). The purpose is to broaden the option to sell storage capacity to a larger group of applicants, but it continues to apply that only cleared entities (BRP) and foreign participants can nominate and be responsible for imbalance.

The public notice came into effect on 1 January 2023.

11.1.2 Information on amendments to laws

1 January 2022 was the effective date for two amendments to the Energy Act and an amendment to the SES Act (Act No 362/2021 and Act No 382/2021).

In 2022, Czech Parliament debated and passed additional amendments to the above two laws, specifically the following:

Act No 143/2022 amending Act No 165/2012 on Supported Energy Sources and Amending Certain Laws, as amended, and Act No 382/2021 amending Act No 165/2012 on Supported Energy Sources and Amending Certain Laws, as amended.

This law concerns evidencing the meeting of the sustainability criteria, extends the set of liable persons to include those that import, produce or supply biomass fuels that are energy used in biomethane, electricity or heat production, and extends the set of entities that can use the option of performing their obligation to evidence the meeting of the sustainability criteria via a solemn declaration for a temporary period to include all liable persons.

Act No 176/2022 amending Act No 458/2000 on the Conditions of Business and State Administration in the Energy Industries and Amending Certain Laws, as amended (the Energy Act), as amended, and Act No 382/2021 amending Act No 165/2012 on Supported Energy Sources and Amending Certain Laws, as amended, and other related laws.

In respect of gas storage, the law introduces the UIOLI principle and imposes a new obligation on gas storage customers to use their booked storage capacity to a certain minimum extent in predefined periods of time, and also lays down the rules for third party access to unused storage capacity. Another change is amended SoLR; the purpose is to remove the shortcomings that have appeared in practice in the wake of certain traders' collapse. Compared with the old provisions, the new amendment introduces a new obligation for the SoLR to be responsible, for one month, for the imbalance of the electricity generator who has lost its buying trader, and also shortens the duration of the supply of last resort from six to three months. The amending law contains new provisions on the automatic passage into a contractual relationship for a defined group of customers following the end of supply of last resort and new SoLR price regulation. The law also changes the ERO's organisation.

Act No 232/2022 amending Act No 458/2000 on the Conditions of Business and State Administration in the Energy Industries and Amending Certain Laws, as amended (the Energy Act), as amended, and Act No 165/2012 on Supported Energy Sources and Amending Certain Laws, as amended.

With a view to reducing the enormous electricity/gas prices for final customers, this law lays down a contribution to the defrayal of the electricity/gas costs. Electricity/gas traders must take this contribution from the government into account in electricity/gas supply bills for the customers specified in a government order or reflect it in advances.

Act No 287/2022 amending Act No 458/2000 on the Conditions of Business and State Administration in the Energy Industries and Amending Certain Laws, as amended (the Energy Act), as amended, and Act No 265/1991 on the Competences of the Bodies of the Czech Republic in Respect of Prices, as amended.

The law introduces a new notion, extraordinary market situation, through which the competence is established for the government to lay down electricity/gas prices in its order for a limited time, and also to impose the obligation to produce/supply electricity/gas, the obligation to offer electricity/gas, or to curtail electricity/gas trading. It codifies the supplier's right to compensation for conclusive loss and reasonable profit when the price set in the extraordinary market situation does not meet its justified costs of ensuring supply. The market operator pays the compensation against an application. ERO has been given a new role of an 'arbitrator' who examines the submitted application for compensation as to the accuracy of the conclusive loss and reasonable profit calculations. ERO is also newly authorised to prohibit the provision of compensation, in whole or in part, through its decision.

Act No 365/2022 amending Act No 458/2000 on the Conditions of Business and State Administration in the Energy Industries and Amending Certain Laws, as amended (the Energy Act), as amended.

The content of the law is the adoption of Council Regulation (EU) 2022/1854 of 6 October 2022 on an emergency intervention to address high energy prices. It determines different caps on market revenues from selling produced electricity depending on the electricity generation technology used and introduces 'a levy' on surplus revenues and determines its amount. The management of this levy has been vested in ERO.

For the outline to be complete it should be noted that in 2022, legislative work was under way on another two amendments to the Energy Act and other related laws, including the SES Act and the Construction Act (referred to as amendments *lex RES I* and *II*). The *lex RES I* amendment was passed as Act No 19/2023 and brings the option to operate up to 50 kW power generating facilities without a licence and

simplifies the siting approval process for RES power generating facilities. The other amendment to the Energy Act, *lex RES II*, was still in the legislative process at the end of 2022.

ERO provided its positions on the government's bills, raised a number of fundamental comments and recommendations during the inter-ministerial commenting procedure, and systematically monitored the entire legislative process. ERO also sent suggestions and specific proposals for changes to the legislation to the MIT as the sponsor of the two laws.

11.1.3 ERO proposals for legislative changes

In January 2022, ERO Board Chairman delivered to governmental representatives our suggestions for changes to legislation, which responded to the problems caused or exacerbated by the energy crisis. In April 2022, ERO delivered a batch of specific proposals for changes to legislation, including their wording as draft bills, to the MIT. An updated batch of the proposals for changes to the Energy Act was sent to the MIT again in September 2022. The content of our proposals responded primarily to the energy market situation related to the energy crisis and mainly covered the following issues:

- Codify the new notion of an index of traders' energy provisions (the trader would provide information that it has bought the electricity/gas quantities to the supply of which it has committed in contracts);
- Tighten the licensing conditions for electricity/gas trading, in particular as regards financial standing, and authorise ERO to refuse to license the applicant whose licence was revoked in the past or who breached energy legislation ('branding the business with a stigma');
- Widen the range of grounds for licence revocation;
- Provide for contracts with the price directly dependent on or derived from changes in electricity/gas prices at organised electricity/gas markets (spot products);
- Rules for effective electricity and gas market monitoring and extending ERO supervisory powers;
- Comprehensive codification of the SoLR notion;
- Codify the prohibition of 'supply point management';
- Enhance legal protection of consumers concerning the reasonableness of the agreed contract penalty and the right to damages in the event of supply interruption or termination contrary to the contract obligation;
- Add new obligations for electricity/gas traders;
- Codify new facts constituting administrative offences;
- Modify the gas supply security standard;
- Simplify the process of connecting to electricity distribution systems;
- Tackle the issue of the substitutability of ERO Board Chairman.

ERO also highlighted the need to legislate on the issues of ancillary service provision, gas storage certification, and regulation of gas storage pricing.

To an extent, some of ERO's proposals were taken into account when the Energy Act was being amended, but there has been no response to the larger part of them to date.

11.2 Administrative activities

11.2.1 Remonstrance proceedings

The authority to decide on remonstrance [administrative appeal] as a remedy against decisions delivered by the Office in the first instance under Section 152 of the Rules of Administrative Procedure is vested in the ERO Board. The ERO Board decides on administrative appeals based on recommendations provided by the remonstrance commissions set up under Section 152(3) of the Rules of Administrative Procedure. The Office had three remonstrance commissions in 2022: one for primarily energy infrastructure and trade, one for primarily SES, and one for consumer protection. The following Table lists the appeals decided in 2022, by agenda.

The ERO Board's remonstrance commissions examined 142 appeals and suggestions for review in 2022. Based on these considerations, decisions on 73 of them were delivered. Decisions on 69 appeals and suggestions for review that the remonstrance commissions examined in 2022 had not been made by the end of 2022. In 2022, the ERO Board also decided on 102 appeals that the

remonstrance commission had examined in 2020. The ERO Board decided on 175 appeals overall in 2021.

As regards decision-making, the number of appeals and other remedies lodged against the Office's decisions and procedures has significantly increased in general. As regards specific agendas, a significant increase can be seen in consumer disputes, and the associated higher number of cases in the gas industry, and also in appeals against decisions on administrative offences under the Energy Act. A distinct increase in cases can also be seen in decision-making on licences, primarily due to conducting a large number of renewed proceedings.

Table 4 Overview of appeals decided in 2022, by agenda

Appeals against decisions in adversarial proceedings, of which	**99**
Electricity industry	21
Gas industry	14
Electricity industry and gas industry	7
Heat supply industry	4
Supported energy sources	53
Appeals against decisions on administrative offences, of which	**54**
Under the Energy Act	41
Under the Act on Prices	7
Under the Consumer Protection Act	1
Under the Consumer Protection Act and the Energy Act	4
Under the SES Act	1
Appeals in cases of requests for information	**3**
Appeals against licensing decisions	**19**
TOTAL	**175**

Source: ERO

11.2.2 Adversarial proceedings

In 2022, the Office adjudicated on disputes in the electricity, gas, and heat supply industries under Section 17(7)(a) to (e) of the Energy Act, proceeding under Section 141 of the Rules of Administrative Procedure. You can find a summary in Table 5 below.

Upon applications of customers in the position as consumers taking electricity, gas or thermal energy for household consumption or customers in a self-employed position, the Office decided on consumer disputes under Section 17(7)(e)(1) and (2) of the Energy Act.

Consumer disputes concerned the performance of obligations under agreements on electricity/gas supply/distribution and the determination of whether the legal relationship between the customer and licence holder, the business of which is electricity, gas, or heat supply/distribution, had come into existence, continued to exist, or had ceased to exist, and when this happened. Typical cases included the supplier's failure to perform the obligation to bill electricity/gas properly and disputes over the establishment and discharge of a legal relationship between the customer and supplier. 2022 saw a considerable increase in consumer disputes caused by the supplier billing electricity/gas supply at variance with the contract and the electricity/gas supply price agreed therein.

In 2022, the Office conducted 456 sets of proceedings on consumer disputes under Section 17(7)(e)(1) and (2) of the Energy Act; it concluded 277 of them with finality in 2022.

In the electricity, gas, and heat supply industries the Office was conducting 110 sets of proceedings under Section 17(7)(a) to (d) in 2022, concluding 55 of them with finality.

Under Section 17(7)(a) to (c) of the Energy Act, the subject matter of those proceedings included disputes over the conclusion of a contract under the Energy Act, disputes over the curtailment, interruption, or resumption of electricity/gas supply/distribution on account of illegal offtake or illegal distribution, and disputes over connection of or access to installations in the electricity grid or the gas system.

A special type of disputes in the electricity industry was those under Section 17(7)(d) of the Energy Act taken together with Section 52 of the SES Act. In 2022, the Office registered, in consequence of a judicial interpretation of Section 52(2) of the SES Act, an increased number of disputes over the surrender of unjustified enrichment and over damages due to unauthorised utilisation of aid for electricity generated. These cases are complex as to the facts and as to the law and require an individual assessment of the electricity market participant's rights and obligations related to the right to aid for electricity or heat.

Typical disputes under Section 17(7)(d) of the Energy Act over SES issues included generators' claims for payment of the aid owed for generated electricity, where in the generator's opinion the market operator or the mandatory buyer failed to comply with the statutory obligation to pay the aid.

For a long time, the smallest number of disputes has been conducted in the gas and heat supply industries. In many cases disputes between gas market participants and between licensees and customers in the heat supply industry are resolved by the parties' agreement without needing ERO to decide. Typical disputes in the heat supply industry in 2022 included those over the conclusion of thermal energy supply contracts where the licensee failed to comply with the statutory obligation to conclude the contract subject to the customer meeting the conditions required by the law. Such cases were rare in 2022.

11.2.3 Approval proceedings

In 2022, the Office decided under Section 17(7)(g) and (i) of the Energy Act on the approval of the Electricity Transmission System Operating Rules and Electricity Distribution System Operating Rules, the market operator's commercial terms and conditions, the Gas TSO Code, the SSO Codes and Gas DSO Codes, and the ten-year gas and electricity transmission system development plans. Under Section 17(4) of the Energy Act, the Office also exercised the competences of the regulatory authority under the relevant EU Regulations. The Office conducted 53 sets of approval proceedings and concluded 45 of them with finality in 2022.

Table 5 Adversarial and approval proceedings conducted and concluded with finality, by ERO competence

Type of proceedings	Conducted sets of proceedings	Concluded sets of proceedings
Adversarial proceedings, of which	**110**	**55**
Electricity industry	101	48
Gas industry	1	0
Heat supply industry	8	7
Consumer disputes	**456**	**277**
Approval proceedings	**53**	**45**

Source: ERO

11.2.4 Proceedings under the law on free access to information

In 2022, the Office handled 127 requests for information under Act No 106/1999 on Free Access to Information.

In 2022, the Office issued seven dismissals of requests under the above Act. The Office refused to provide information when it did not possess the requested information, or the requested information could not be provided to the applicants under this law.

Two complaints were lodged against the handling of a request for information provision. The ERO Board found one of them to be filed late and the other to be well-founded, ordering that the information be provided.

Under the law on free access to information, the Office posted *The ERO Annual Report on Activities in Information Provision* on its website (see Annex 3).

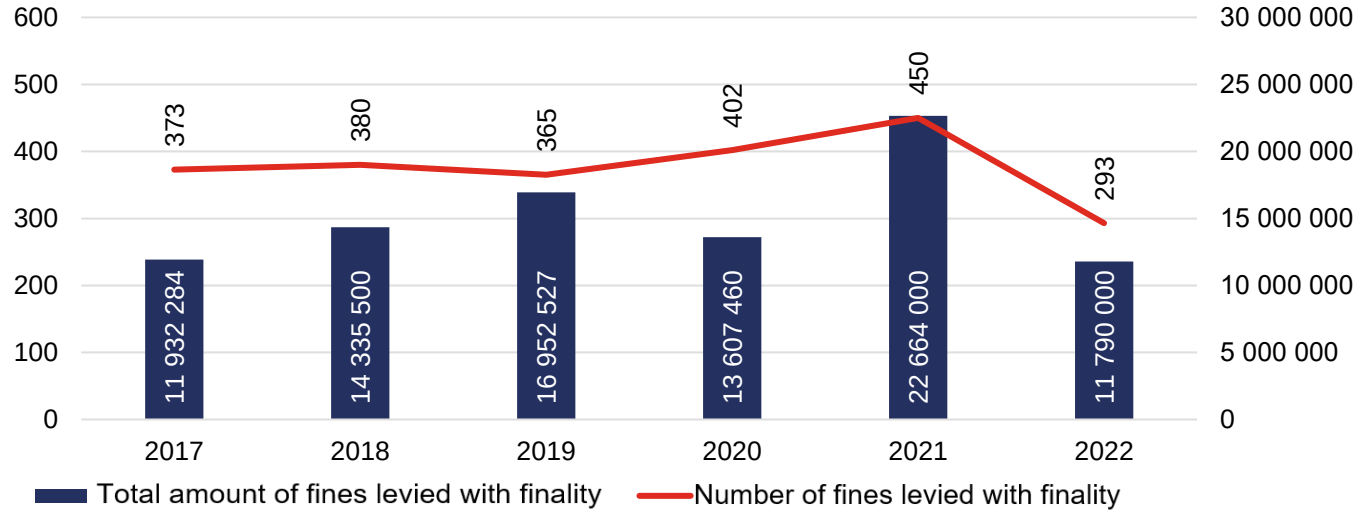
11.2.5 Sanction proceedings

In exercising its supervisory competence the Office conducts, under Section 18(3) of the Energy Act, proceedings on administrative offences under the Energy Act, the Act on Prices, and the Consumer Protection Act.

In 2022, the Office received 854 applications for bringing administrative proceedings. They included those based on the Office's own findings from inspections carried out under the Oversight Rules and those received from outside sources, including primarily results of investigations conducted by the Czech Police. In 2022, the Office brought 361 sets of administrative proceedings for suspicion of administrative offences. It dropped 231 cases, mostly those received from the Czech Police, where the offender was unknown.

In 2022, the Office decided in 343 sets of administrative proceedings with finality, levying fines totalling CZK 11,790,000 on parties to the proceedings in 293 cases with finality. The y-o-y decline in the number of levied fines and their total amount is due to opening a larger number of sets of proceedings in consumer protection in the second half of 2022, with an extensive subject matter (tens to hundreds of affected consumers), which will only be reflected in the 2023 data.

Chart 19 Fines levied with finality



Source: ERO

11.2.6 Licensing

As regards licensing, 2022 was marked by a significant increase in the number of active licences. The Office received 2,977 applications for licence grant/amendment/revocation. Additional statistics can be found in Annex 4. More detailed information about licensees and the various operations can be found on the ERO website in licence search and in useful links.

Table 6 Number of licensing proceedings by application type

	2017	2018	2019	2020	2021	2022
New licences	519	512	569	669	679	1,246
Amended licences	1,167	1,004	1,099	1,120	1,141	1,294
Revoked licences	501	383	416	401	407	437
TOTAL	**2,187**	**1,899**	**2,084**	**2,190**	**2,227**	**2,977**

Source: ERO

11.2.7 Recognition of professional qualifications

In 2022, the Office received 15 applications for the recognition of professional qualifications within the meaning of the law on the recognition of professional qualifications. It decided to recognise professional qualifications in 11 cases, and discontinued the proceedings in the remaining four cases.

12 ERO BUDGET MANAGEMENT

The budget for Chapter 349 Energy Regulatory Office was approved as part Act No 57/2022 on the National Budget of the Czech Republic for 2022 on 10 March 2022.

Table 7 Chapter 349 Mandatory targets

Target	Approved budget [CZK]	Budget after changes [CZK]	Final budget of income and expenses [CZK]	Actual [CZK]	Percentage (column 4 / column 3) [%]
	1	2	3	4	5
Aggregate targets					
Total income	323,017,900	323,017,900	323,017,900	328,983,320	101.85
Total expenditure	287,169,830	293,220,640	343,994,280	298,992,970	86.92
Specific targets – income					
Tax revenues	303,017,900	303,017,900	303,017,900	314,295,420	103.72
Non-tax revenues, capital revenues and accepted transfers, of which:	20,000,000	20,000,000	20,000,000	14,687,890	73.44
total income from EU budget w/o CAP	0.00	0.00	0.00	8.56	
other non-tax income, capital revenues and accepted transfers	20,000,000	20,000,000	20,000,000	14,679,330	73.40
Specific targets – expenditure					
Outlays to support ERO tasks, of which:	287,169,830	293,220,640	343,994,280	298,992,970	86.92
expenses on the performance of European Council presidency	0	0	641,000	423,430	66.06
other expenses to support ERO tasks	287,169,830	293,220,640	343,353,280	298,569,540	86.96
Standard targets					
Salaries for employees and other payments for work	176,575,700	181,031,370	186,930,800	173,611,580	92.87
Salaries for employees under employment contract, except for civil servants	26,198,090	26,198,090	27,512,460	25,993,020	94.48
Salaries for civil servants under the Civil Service Act	139,405,280	143,860,960	148,018,710	136,574,700	92.27
Salaries for employees under employment contract derived from salaries of constitutional officials	8,656,800	8,656,800	8,700,700	8,700,700	100.00
Statutory insurance premiums paid by the employer	59,682,590	61,188,610	62,948,720	58,254,790	92.54
Allocation to the Fund of Cultural and Social Needs (FKSP)	3,485,200	3,574,320	3,684,560	3,427,240	93.02
Arrangements for crisis situations under Act No 240/2000	0	0	0	0	0
Total outlays co-financed completely or partly from the EU budget w/o CAP, of which	0.00	0.00	8.56	8.56	100.00
from the national budget	0	0	0	0	0
share from the EU budget	0.00	0.00	8.56	8.56	100.00
Total expenses recorded in the EDS/SMVS programme financing information system	10,716,000	10,716,000	21,643,000	8,469,030	39.13

Source: ERO

12.1 Chapter 349 revenues

Funds under the mandatory target 'income from the EU budget without the common agricultural policy' were not budgeted.

Table 8 Actual performance – total revenues for 2022 compared with 2021

	Budget of revenue [CZK]	**Actual** [CZK]	**Performance v actual in 2021** [%]
Total revenues, of which	**323,017,900**	**328,983,320**	**103.11**
Tax revenues	303,017,900	314,295,420	103.88
Total non-tax revenues, capital revenues and accepted transfers	20,000,000	14,687,890	89.04

Source: ERO

The tax revenues were received from the fees paid for the Office's activities, CZK 299,906,130, from collecting administrative fees for licence grant, amendment and renewal, payment schedules, respite for fine payment by entities carrying on business in the energy sector, registration of intermediaries etc., totalling CZK 14,389,300.

Non-tax revenues are mainly received from fines. In 2022, 317 fines levied in administrative proceedings were paid, totalling CZK 14,301,020 (without the costs of proceedings), i.e. down by 10.99% on 2021 (in absolute terms CZK 1,765,050). Other *ad hoc* income amounted to CZK 386,870.

The number of paid fines decreased by 25.24% (i.e. by 107 fines) on 2021.

In respect of fines levied with finality, there were 225 outstanding receivables totalling CZK 9,509,020 (without costs of proceedings), i.e. down by 32.40% (by CZK 4,556,690) on 2021.

12.2 Chapter 349 expenditure

For 2022, total expenditure was budgeted at CZK 287,169,830 (approved budget), and it was adjusted to CZK 293,220,640 (changed budget) during 2022. Due to the use of the claims on unused expenses ('NNV') (Section 47 of the law on budgetary rules) totalling CZK 62,933,960 and to tying funds amounting to CZK 12,168,880, the final budget for Chapter 349's total expenditure stood at CZK 343,994,280.

The total amounts actually drawn on the budget and a comparison with the final budget of expenditure for 2022 can be seen in the following Table.

Table 9 Total amounts actually drawn – total expenditure for 2022

	Final budget of expenditure [CZK]	**Actual** [CZK]	**Performance v final budget** [%]	**Performance v actual in 2021** [%]
Total expenditure, of which	**343,994,280**	**298,992,970**	**86.92**	**104.59**
Capital expenditure	21,643,000	8,469,030	39.13	304.84
Current expenditure	322,351,280	290,523,940	90.13	102.63

Source: ERO

In each case of expenditure, the funds were spent as effectively, economically, and efficiently as possible, with a view to always achieving the maximum benefit for the Office and its activities. Thanks to

the above, savings were achieved versus the budget of expenditure, amounting to CZK 45,001,310 for 2022. As at 31 December 2022, Chapter 349 posts a balance of claims for use amounting to CZK 28,640,110.

Table 10 Breakdown of expenditure budget savings in 2022

Salaries and other personnel expenses [CZK]	13,319,220
Programme financing EDS/SMVS [CZK]	13,173,900
'Other current expenditure' [CZK]	18,508,120

Source: ERO

Chapter 349 posts total claims on unused expenses (NNV) at CZK 73,641,410 as at 1 January 2023.

Table 11 Breakdown of claims on unused expenses

'Major expenses' [CZK]	46,063,590
'Minor expenses' [CZK]	27,577,820

Source: ERO

Annex 5 contains a comparison of actual expenditure between 2018 and 2022.

12.3 Programme financing

In the system for financing the programmes of assets, two programmes were included for 2022: programme 149 020 *Development and Replacement of the Technical Facilities of the ERO for 2016 to 2024*, and programme 149 03 *Development and Replacement of the Technical Facilities of the ERO for 2022 to 2026*. The programmes consist of two sub-programmes, one concerns procurement and replacement of the Office's information and communication technology (ICT), and the other concerns procurement and replacement of the Office's other assets.

The fundamental objective of the programmes is to ensure the development of adequate facilities for the Office, with the heaviest emphasis on ICT.

Since most of the Office's agendas are concentrated in its Integrated Information System, most of the funds under the ICT sub-programme were drawn for its development. In 2022, primarily the following ICT activities were carried out:

- The ERO Integrated Information System
- Procurement and replacement of hardware and software
- Installation of videoconferencing equipment, implementation of remote signing, transition to MS Teams across the Office
- Cyber and information security

The following Table shows the results of programme financing management in 2021 by programme and sub-programme.

Table 12 Results by sub-programme for 2022

	Final budget of expenditure [CZK]	**Actual** [CZK]	**Percentage** [%]
Programme 149 020, of which	**10,927,000**	**8,340,950**	**76.33**
Sub-programme 149 021	8,500,000	5,965,450	70.18
Sub-programme 149 022	2,427,000	2,375,500	97.88

Programme 149 03, of which	**10,716,000**	**128.08**	**1.20**
Sub-programme 149 0311	9,616,000	128.08	1.33
Sub-programme 149 0322	1,100,000	0.00	0.00
Total programmes 149 020 and 149 03	**21,643,000**	**8,469,030**	**39.13**

Source: ERO

12.4 Expenses on business trips abroad

In 2022, ERO was actively involved in a number of international meetings, which took place via videoconferencing or in a hybrid format as in 2021. ERO intensively worked with ACER and CEER and was also actively involved in ERRA's activities.

Expenses on business trips abroad totalled CZK 519,300 in 2022 (CZK 97,870 in 2021).

For the payment of the membership dues in CEER and ERRA (budget item 5532 other non-investment transfers abroad) CZK 909,790 was spent as at 31 December 2022.

12.5 Evaluation of the economy, efficiency, and effectiveness of the Office's financial management

Section 39(3) of the law on budgetary rules requires the chapter administrator to continuously monitor and evaluate the economy, efficiency, and effectiveness of spending under the chapter that it administers. Having the above obligation, the Office therefore regularly evaluated the spending of the funds in its Chapter 349, using regular quarterly reports on financial management and a summary annual evaluation.

Under the relevant legislation, the Office evaluated the criteria of the economy, efficiency, and effectiveness both as part of *ex ante* management inspections before and after the emergence of the liability, and as part of ongoing and *ex post* management inspections under the law on financial control in public administration and the relevant implementing regulation, which implements the law on financial control in public administration. In public procurement, the Office, being a contracting authority, proceeded under the law on public procurement and in line with its internal directive on the procedure for awarding low-value public contracts and other regulations concerning public procurement.

12.6 Meeting of mandatory targets

The Office complied with all the mandatory targets, except for non-tax revenue due mainly to failures to pay fines levied in the energy sector and to the lodging of remedies against levied fines. The planned amount of funds was not exceeded under any of the mandatory targets without approval. A detailed analysis of performance versus budget is contained in the relevant parts of the draft of the closing account of Chapter 349 for 2022.

12.7 Cash funds, assets, receivables, and liabilities

There were no transfers from cash (own) funds to revenues of Chapter 349 in 2022.

Table 13 Cash funds as at 31 December 2022

FKSP [CZK]	1,419,530
Legal reserves [CZK]	0

Source: ERO

Table 14 ERO assets as at 31 December 2022

Acquisition cost of assets [CZK]	237,314,330
Net book value of assets [CZK]	77,467,490

Source: ERO

In 2022, the total value of assets at acquisition cost increased by CZK 4,191,050 on 2021.

Table 15 Total receivables as at 31 December 2022

Total receivables [CZK]	15,121,470

Source: ERO

Fines levied in administrative proceedings (including costs of proceedings), amounting to CZK 9,625,020, made up the largest part of total receivables.

Table 16 Total liabilities as at 31 December 2022, including the Energy Regulatory Fund

Total liabilities [CZK]	67,399,040

Source: ERO

The money in the Energy Regulatory Fund, amounting to CZK 45,444,390, made up the largest part of total liabilities. Under Section 14(10) of the Energy Act, the Office is required to submit an audit of the Fund for the respective calendar year (Annex 6). As at 1 January 2022, the opening balance in the Fund stood at CZK 45,444,390. In 2022, no compensation was paid from the Fund's account for a conclusive loss from activity over and above a licence (public notice 280/2007 on the Energy Regulatory Fund). No income or expenditure was recorded in this account of the Fund in 2022 and the balance in the Fund's special current account as at 31 December 2022 stood at CZK 45,444,390.

The Office had one liability to suppliers recorded as at 31 December 2022; the invoice was paid on 13 January 2023. The Office had no overdue liabilities as at 31 December 2022.

13 HUMAN RESOURCES

A large part of 2022 was still affected by the impacts of the COVID-19 pandemic, and some of the work was therefore moved to the online environment.

13.1 Employees and the HR agenda

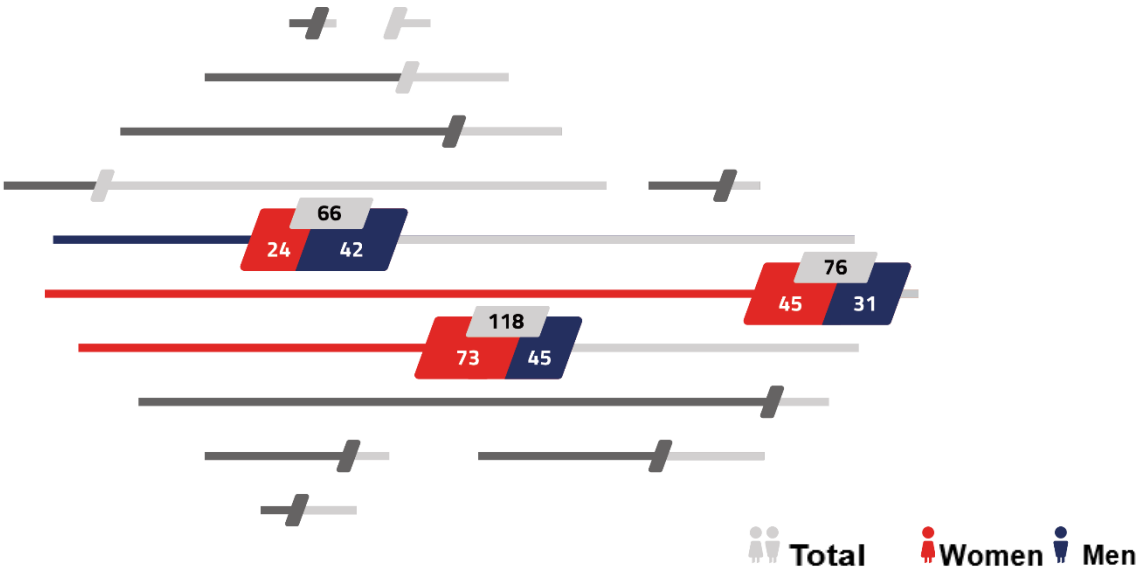
In 2022, the Office organised 116 recruitment procedures for civil service positions, 15 procedures for service positions governed by the Labour Code, and seven for employment under the Labour Code. Despite the completed recruitment procedures, the planned number of civil service positions was not filled in 2022. A frequent cause is the lengthy process of acceptance to civil service due to the specified time limits in the recruitment process, and, with its initial salary, the public-sector authority's inability to compete with the wages offered in the private sector, energy in particular. Moreover, many candidates are not comfortable with the specificities and conditions of public service as such.

Table 17 Scheduled (established) public service and employment positions

	Jihlava	Ostrava	Prague	Total
Approved number of scheduled positions for 2022	121	90	78	289
Actual headcount on 31 December 2022	118	78	66	260

Source: ERO

The Office promotes gender equality and diversity in executive positions. In the ranks of superiors and managers, 44 positions were filled out of the 47 planned positions, 16 of them by women, i.e. 36.36%, as at 31 December 2022. The total headcount comprised 45.38% men and 54.62% women, and the trend of increasing numbers of women is apparent. This situation is obvious primarily in the groups of candidates signing up for the recruitment procedures organised to fill vacant scheduled positions.



The organisational structure of ERO is in Annex 1.

Table 18 The average FTE staffing level and the actual headcount

	Plan 2022 [-]	Actual 2022 [-]	Index [%]
Average FTE staffing level, of whom	**289**	**253.97**	**87.88**
Civil servants	236	201.87	85.54
Employees under the Labour Code	48	47.10	98.13
ERO Board members	5	5	100.00
Actual headcount, of whom	**289**	**260**	**89.97**
Civil servants	236	209	88.56
Employees under the Labour Code	48	46	95.83
ERO Board members	5	5	100.00

Source: ERO

The budgeted average salary for 2022 was planned at CZK 50,248 (approved budget). The actually achieved average salary was CZK 56,197, index 111.80%.

Under the mandatory target *Salaries for employees and other payments for work*, claims on unused expenses (NNV) were used, CZK 14,777,300, due to the payment of a severance grant [as compensation for a civil servant (*odchodné*)], and payments for ordered overtimes, and the award of other components of salaries. Budgetary measures were taken to increase this target by CZK 4,455,680 to defray the costs incurred in seconding an ERO employee to an EU institution and in the indexation of employees' pay, and to decrease it by CZK 8,884,180 due to the tying of national budget funds for vacancies. The funds for salaries were utilised proportionally to the share of the scheduled positions filled.

CZK 1,959,760 was drawn for other personnel costs, by way of 'agreements to complete a job' or 'agreements to perform work' for the delivery of work.

The other items of the salaries budget can be found in Chapter 12.

13.2 Civil service examinations in the energy sector

The Office organises civil service examinations in the 'Services 29 – Energy' field for state administration as a whole. In 2022, civil service examinations could be taken on eight dates, on which 21 ERO civil servants and 13 civil servants of other institutions successfully passed the civil service examination.

13.3 Education and training

The Office had sufficient budgeted funds for education and was therefore able to provide for the required education and training in full. CZK 2,006,470 was spent on education.

Forty-three employees went through introductory initial training. Continued initial training was organised in cooperation with the Ministry of the Interior; one employee attended the training. Its purpose was to teach the participants the basics of the legal system, explain the working of public administration and issues of public finances, etc.

CZK 1,115,320 was spent on language training in 2022. Some of the new employees were enrolled. A total of 67 scheduled positions for which command of one of the world languages was a qualification requirement were determined for 2022. As at 31 December 2022, 100% of employees in the filled scheduled positions fully met the language requirements.

A total of 92 training events on topics such as state administration, cyber security, ethics, corruption and whistleblowing, MS Office, professional competence training, OHS, fire protection, and work at height,

and other technical and ongoing training courses arising from current legislative changes were organised. The equivalent of 478 employees were trained.

14 INTERNAL CONTROL SYSTEM

The Office has put in place an adequate internal control system in line with the Financial Control Act and its own policy, plans, and objectives, thereby creating the conditions for an oversight environment favourable for the management of public funds.

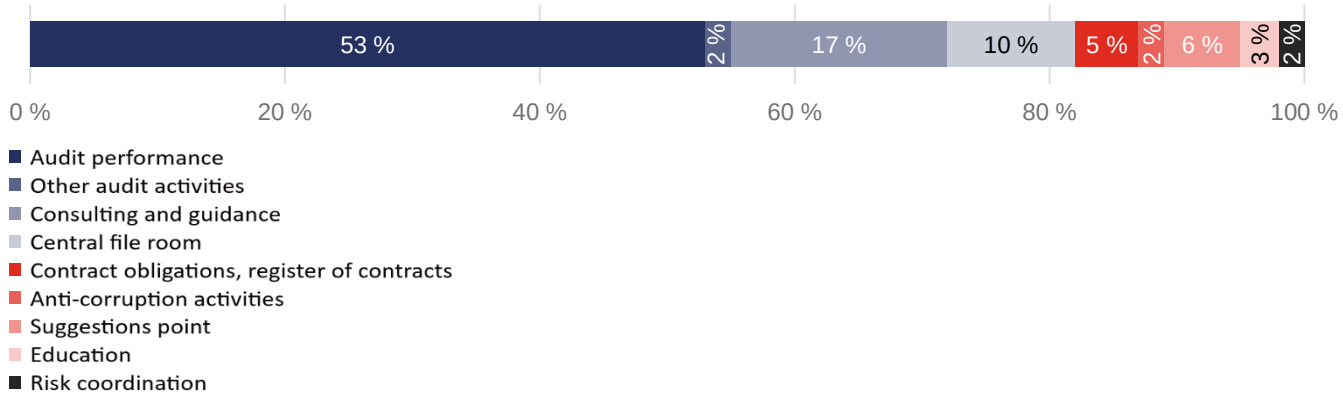
The Office's operation is governed by a system of legal, internal, and service regulations which set out the processes of control and oversight mechanisms for organising, managing, and performing financial controls in accordance with the principles of effectiveness, economy, and efficiency. In its internal and service regulations, the Office specifies organisational structures, the scope of the superiors' and other employees' powers and responsibilities and complies with other provisions of the financial control law. The Office carries out risk analyses, on the basis of which it plans and carries out internal audits, has in place three tiers of management inspection, allocates responsibilities via multi-tier approval and collective decision-making procedures, publishes the results of its decision-making procedures, adopts measures to remedy any identified shortcomings, has in place a system for corruption prevention and detection, and continuously reviews and updates its internal control documents to maintain the efficiency of its internal control system and for ensuring the serviceability of management inspection and internal audit.

Management inspection is carried out by superiors within their powers and responsibilities, at all levels of management for the purpose of achieving the set objectives and minimising risks in the process of preparing financial operations before they are approved, during the ongoing monitoring of executed operations until the final settlement and accounting thereof, and the subsequent checking and assessment of the financial control system and financial management accuracy. Written records are taken down on all approving procedures of management inspection.

A separate, functionally independent unit, organisationally separate from managerial and executive structures, operates internal audit. In 2022, it was directly managed and coordinated by the ERO Board; upon the effect of the relevant amendment to the Energy Act, by ERO Board Chairman from 1 July 2022. Internal audit plays an important role in the working of the internal control system and improvements thereto and helps the Office to achieve its objectives by applying a systematic, methodical approach to the evaluation and improvement of the risk management system's efficiency and its management and review processes, and ERO management and governance.

The unit carried out its activities in accordance with the Internal Audit Plan for 2022 approved by the ERO Board. The Annual Plan clarified the scope, focus and objectives of the various audits on the basis of the Medium-term Plan of Internal Audit Activities for 2021-2023, objective risk assessment, historical results of the design and working of the internal control system, and the Office's current needs. The Annual Plan also contained some other tasks arising from the internal audit function, in particular those concerning guiding, and advisory and consulting activities, and the relevant agendas.

Chart 20 Internal audit activities in 2022



Source: ERO

In 2022, audit actions focused on the following:

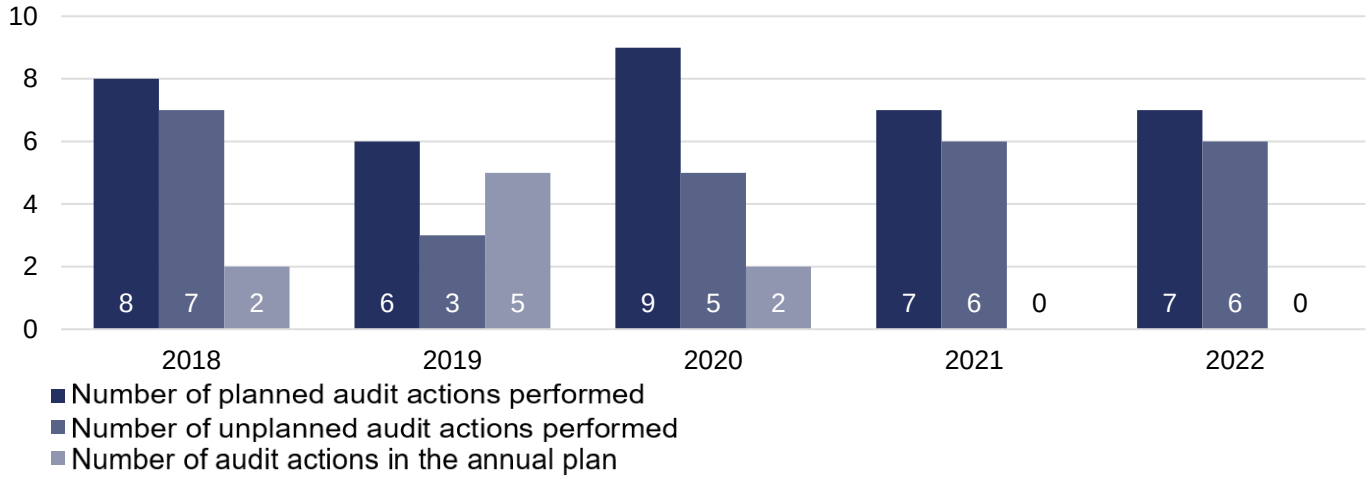
- compliance with legal, service, and internal regulations,

- design of control and oversight mechanisms,
- checks that public funds were used effectively, economically, and efficiently,
- checks that accounting was accurate, complete, and based on evidence,
- checking the accuracy of the working procedures in the performance of supervision in the energy industries,
- checking the system for managing the filing and archiving service and keeping the documentation required for the ERO Board's organisational and administrative actions,
- performance of the obligations of staff members in employment and in civil service and of public officials,
- checking the accuracy of ICT assets categorisation and the system for keeping records of such assets,
- execution of anti-corruption measures.

In each of the audited areas, the internal control system was also checked and assessed. Through management inspection, the operating, financial, legal, and other risks related to pursuing the Office's plans and objectives were assessed. The outcomes from internal audits were consulted with the ERO Board and responsible managers of the audited units, who then adopted adequate measures.

In 2022, the Internal Audit Unit carried out five audit actions and one *ex-post* audit, which evaluated the progress in implementing the measures adopted to remedy the shortcomings found in earlier audits. The number of completed audits was comparable with that in 2021. Audit activities were directed in support of advisory and consulting services based on ERO management's priorities and requirements. As part of their advisory services internal auditors cooperated in the implementation of control and review procedures in respect of risk management and public procurement, financial control, and the filing and archiving service.

Chart 21 Number of audit actions versus annual plans



Source: ERO

In 2022, internal audits did not identify any serious shortcomings that could trigger the imposition of extensive or system-wide remedial measures or significantly impact on proper governance over the management of public funds and assets. The adopted measures were mainly geared towards improving the processes and working procedures in the audited areas.

Based on a recapitulation of the results of internal audits in 2022, reasonable assurance can be provided that the internal control system in place is sufficiently effective, and responds to changes in economic, legal, operating, and other circumstances on time. The various elements of which the internal control system is composed provide reasonable certainty that ERO has in place a well-working internal control system providing reasonable assurance that public expenditure reported under Chapter 349 of the national budget is being utilised in compliance with the legislative framework.

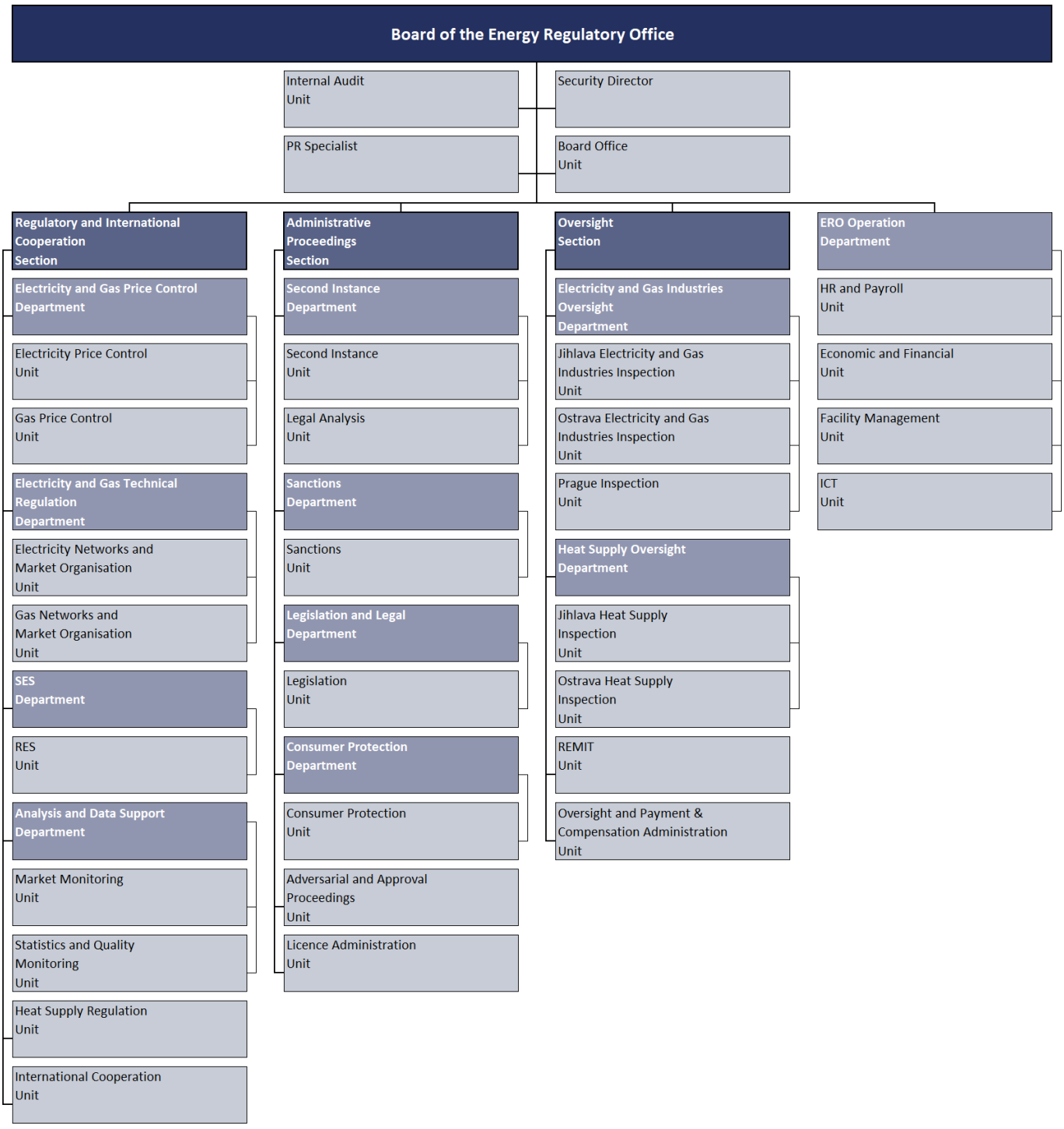
14.1 External inspection

December 2022 saw an inspection carried out by the eGovernment section of the Ministry of the Interior under Act No 99/2019 on the Accessibility of Websites and Mobile Applications.

A check of the ERO website identified only minor shortcomings consisting of insufficiently meeting certain requirements for the AAA conformance level set out in the harmonised EN 301 549 V3.2.1 (2021-03) standard and shortcomings in the declaration of accessibility. ERO was requested to remedy the identified minor shortcomings within six months.

ANNEXES

Annex 1 Organisational structure of the Energy Regulatory Office as at 31 December 2022



Annex 2 Information published by the Energy Regulatory Office as an ADR entity for consumer disputes under Section 20k(5) of Act No 634/1992 on Consumer Protection for 2022

a) The number of disputes received and the types of complaints to which they related.

The number of disputes received was 456. The complaints primarily concerned demands to comply with contract obligations under contracts for electricity and/or gas supply and the determination of the establishment or discharge of a legal relationship on electricity and/or gas supply.

b) The percentage share of ADR procedures which were discontinued or dismissed without reaching a solution and, if known, the percentage share of the reasons for their discontinuation or dismissal.

Approximately 5% was the percentage share of ADR procedures that were discontinued on grounds of application withdrawal, where ERO has no knowledge of the reason.

c) The average time taken to resolve disputes.

The average time was three to six months.

d) The rate of compliance, if known, with the outcomes of the ADR procedures.

The outcomes of the ADR procedures are complied with since these are administrative decisions.

e) Systematic or significant problems that occur frequently and lead to disputes between consumers and traders.

The main cause of disputes is the businesses' failure to respect the rights and obligations agreed in contracts for electricity and/or gas supply and failure to respect the consumer's legal acting as regards the discharge of the legal relationship.

f) Cooperation of ADR entities within networks of ADR entities which facilitate the resolution of cross-border disputes, if applicable, and, where applicable, an assessment of the effectiveness of their cooperation.

Cooperation within networks of ADR entities which facilitate the resolution of cross-border disputes did not take place.

g) The training provided to natural persons in charge of ADR.

The natural persons who are in charge of ADR at ERO have university education in master's courses in law.

h) An assessment of the effectiveness of the ADR procedure and of possible ways of improving its performance.

The ADR procedure for consumer disputes is an effective legal instrument; but for some exceptions, it provides consumers with an opportunity for easy resolution of their disputes, with the proviso that the application is well-founded.

Annex 3 ERO annual report on information provision under Act No 106/1999 on free access to information for 2022

Under Section 18 of Act No 106/1999 on free access to information, as amended ("the Act"), the Office publishes its 2022 annual report on its activities in information provision under Act No 106/1999. In 2022, the Office handled 127 requests for information provision under the Act.

Number of requests for information and number of decisions to dismiss the request:

Requests under Section 18(1)(a) of the Act:

- 127 requests for information
- 7 decisions dismissing requests, including those dismissing requests in part

Number of appeals filed against decisions:

Four appeals against dismissing/partly dismissing decisions were lodged.

Number of complaints under Section 16a of the Act:

Applicants for information lodged two complaints about the way their requests were handled. One complaint was too late, the other was well-founded. ERO was enjoined to provide the information.

Number of dismissed requests under Section 14(5)(b) of the Act

Under Section 14(5)(b) of the Act the ERO did not dismiss any request on the grounds of the applicants' failure to clarify their requests.

Number of requests dropped under Section 14(5)(c) of the Act

Under Section 14(5)(c) of the Act the ERO dropped three requests for information on the grounds of its lack of competence to handle the requests.

Additional information concerning the application of the Act

Numbers of requests for information handled in 2022, broken down by the Office's areas of competence:

- 5 oversight issues
- 35 licensing issues
- 43 legislative issues
- 20 regulatory issues
- 24 other issues

The above breakdown shows that requests received from applicants for information concerned various areas of the Office's competences. There is persisting interest in lists of licensees for business in energy, in the legal outputs from the Office's activities in the form of administrative decisions, and information about its activities in oversight and regulation.

The number of requests for information significantly increased to 127 requests compared with 2021 when the Office handled 86 requests for information. It can be noted that the requests for information confirm the public's long-term interest in the Office's activities in the energy sector.

Annex 4 Licences between 2017 and 2022

Table 19 Numbers of valid licences by object of business

	2017	2018	2019	2020	2021	2022
Electricity						
Generation	26,282	26,321	26,405	26,604	26,792	27,320
Distribution	254	254	254	257	268	274
Transmission	1	1	1	1	1	1
Trade	388	403	411	409	423	422
Cross-border trade	29	33	34	39	37	44
Gas						
Production	13	12	12	12	12	13
Distribution	68	69	67	69	69	72
Transmission	1	1	1	1	1	1
Trade	227	236	243	240	255	247
Cross-border trade	27	27	29	37	39	40
Storage	4	4	4	4	4	4
Thermal energy						
Production	663	663	658	655	657	653
Distribution	652	650	649	645	640	637
Market operator						
Market operator's activities	1	1	1	1	1	1
TOTAL	**28,610**	**28,675**	**28,769**	**28,974**	**29,199**	**29,729**

Source: ERO

Table 20 Number of electricity generating installations and installed capacities by type of RES used

Operations		**2017**	**2018**	**2019**	**2020**	**2021**	**2022**
Up to 10 MW hydro	Number [-]	1,603	1,596	1,604	1,608	1,608	1,608
	Capacity [MW]	351.11	350.66	352.51	352.62	353.95	352.22
Wind	Number [-]	119	122	123	121	120	119
	Capacity [MW]	310.95	319.75	342.29	342.23	342.23	342.55
Solar	Number [-]	28,348	28,412	28,554	28,880	29,140	29,822
	Capacity [MW]	2,130.39	2,119.47	2,127.54	2,148.71	2,157.14	2,205.67
With a biogas share	Number [-]	420	420	419	419	418	416
	Capacity [MW]	332.20	332.95	332.09	333.64	334.46	334.67
Landfill gas	Number [-]	69	69	69	70	70	70
	Capacity [MW]	58.65	58.65	58.65	58.94	58.94	58.94
With a biomass share	Number [-]	91	89	89	85	83	78
	Capacity [MW]	2,988.13	2,972.99	2,889.03	2,820.31	2,848.63	2,236.54

Source: ERO

Annex 5 ERO budget management

Table 21 Comparison of actual expenses under Chapter 349 ERO, for the period 2018-2022
(Expenses and other cost items are in CZK thousands)

Item	Actual 2018	Actual 2019	Actual 2020	Actual 2021	Actual 2022	Index 22/21 [%]
Total expenses, of which:	294,477	312,466	292,262	285,862	298,993	104.59
salaries, other payments, insurance premiums and FKSP	233,412	236,146	236,892	227,479	235,294	103.44
expenses on the asset replacement financing programmes	10,128	24,893	5,903	2,778	8,469	304.86
total other expenses	50,937	51,427	49,467	55,605	55,230	214.00
use of claims on unused expenses (NNV)	44,978	46,017	33,673	25,808	53,829	208.57
Expenses on salaries and other payments for work	172,208	174,050	176,573	167,876	173,612	103.42
Salaries for employees under employment contracts, except those in public service positions, salaries for employees under employment contracts in public service positions under the Public Service Act, salaries for employees under employment contracts derived from salaries of constitutional officials (Chairman, ERO Board)	168,688	171,698	167,474	165,642	171,268	103.40
Staffing levels (Average FTE)	276	282	260	246	254	103.25
Salaries, other payments, insurance premiums and FKSP per employee	846	837	911	925	926	100.11
Programme financing costs per employee	37	88	23	11	33	300.00
Other expenses per employee	185	182	190	226	217	96.02
Total expenses per employee	1,067	1,108	1,124	1,162	1,177	101.29

Source: ERO

Annex 6 Auditor's report

/Letterhead: KRATKYAUDIT/

INDEPENDENT AUDITOR'S REPORT

To the management of the Energy Regulatory Office

The auditor's opinion

We have audited the fund set up by the Energy Regulatory Office ("the Company") pursuant to Section 14 of Act No 458/2000 on the Conditions of Business and State Administration in the Energy Industries and Amending Certain Laws, as amended (an element of financial statements), prepared under the Czech Accounting Standards as at 31 December 2022.

In our opinion, the financial disclosures in the balance sheet of the fund, set up pursuant to Section 14 of Act No 458/2000, as at 31 December 2022 have been prepared, in all material respects, in compliance with the Czech Accounting Standards.

Basis for the opinion

We conducted our audit in accordance with the Act on Auditors, and Auditing Standards of the Chamber of Auditors of the Czech Republic, consisting of International Standards on Auditing (ISAs), as amended by relevant application guidelines. Our responsibilities under those regulations are further described in the *Auditor's responsibility for the audit* section of our report. We are independent of the Company in accordance with the Act on Auditors and the Code of Ethics adopted by the Chamber of Auditors of the Czech Republic, and we have fulfilled our other ethical responsibilities deriving from the said regulations. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Company Directors' responsibility for the financial statements

Company Directors are responsible for the preparation and fair presentation of the financial statements in accordance with Czech Accounting Standards and for such internal control as Directors determine is necessary for the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In the preparation of the financial statements, Company Directors are required to assess whether the Company is a going concern and, where relevant, to describe in the notes to the financial statements matters relating to its going-concern status and the use of the going-concern basis in the preparation of the financial statements, except in those cases where Company Directors plan to wind up the Company or discontinue its operations, or where they have no other realistic option but to do so.

Auditor's responsibility for the audit of the element of the financial statements

Our objectives are to obtain reasonable assurance about whether the element of the financial statements is free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the above regulations will always detect a material misstatement when it exists in the element of the financial statements. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions that users taken on the basis of these financial statements.

As part of an audit in accordance with the above legislation, we are also required to exercise professional judgement and maintain professional scepticism throughout the audit. We are also required:

- To identify and assess the risks of material misstatement in the element of the financial statements, whether due to fraud or error, to design and perform audit procedures responsive to those risks, and to obtain audit evidence that is sufficient and appropriate to provide a basis for us to be able to express an opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- To obtain an understanding of the Company's internal control relevant to our audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.
- To evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates made, and disclosures made in the notes to the financial statements in this respect and relating to the audited element of the financial statements by Company Directors.
- To conclude on the appropriateness of the Company Directors' use of the going concern basis of accounting in preparing the financial statements and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our report to the related disclosures in the notes to the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions on the Company's ability to continue as a going concern are based on the audit evidence obtained up to the date of our report. However, future events or conditions may cause the Company to cease to continue as a going concern.

We are required to inform those charged with governance of, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identified during our audit.

kratkyaudit s.r.o.

K nádraží 225, 664 59 Telnice

Registration number 583

Ondřej Krátký

Registration number 2437

27 February 2023

L.S. /*Auditor's seal*/

KRATKY AUDIT

ZPRÁVA NEZÁVISLÉHO AUDITORA

Vedení Energetického regulačního úřadu

Výrok auditora

Provedli jsme audit fondu zřízeného dle ustanovení § 14 zákona č. 458/2000 Sb., o podmínkách podnikání a o výkonu státní správy v energetických odvětvích a o změně některých zákonů ve znění pozdějších předpisů („prvek účetní závěrky“) Energetického regulačního úřadu („Společnost“) sestaveného na základě českých účetních předpisů k 31.12.2022.

Podle našeho názoru jsou finanční informace v rozvaze ve fondu zřízeného dle ustanovení § 14 zákona č. 458/2000 Sb. k 31.12.2022 ve všech významných (materiálních) ohledech sestaveny v souladu s českými účetními předpisy.

Základ pro výrok

Audit jsme provedli v souladu se zákonem o auditorech a standardy Komory auditorů České republiky pro audit, kterými jsou mezinárodní standardy pro audit (ISA) případně doplněné a upravené souvisejícími aplikačními doložkami. Naše odpovědnost stanovená těmito předpisy je podrobněji popsána v oddílu Odpovědnost auditora za audit. V souladu se zákonem o auditorech a Etickým kodexem přijatým Komorou auditorů České republiky jsme na Společnosti nezávislí a splnili jsme i další etické povinnosti vyplývající z uvedených předpisů. Domníváme se, že důkazní informace, které jsme shromáždili, poskytují dostatečný a vhodný základ pro vyjádření našeho výroku.

Odpovědnost statutárního orgánu Společnosti za účetní závěrku

Statutární orgán Společnosti odpovídá za sestavení účetní závěrky podávající věrný a poctivý obraz v souladu s českými účetními předpisy a za takový vnitřní kontrolní systém, který považuje za nezbytný pro sestavení účetní závěrky, tak aby neobsahovala významné (materiální) nesprávnosti způsobené podvodem nebo chybou.

Při sestavování účetní závěrky je statutární orgán Společnosti povinen posoudit, zda je Společnost schopna nepřetržitě trvat, a pokud je to relevantní, popsat v příloze účetní závěrky záležitosti týkající se jejího nepřetržitého trvání a použití předpokladu nepřetržitého trvání při sestavení účetní závěrky, s výjimkou případů, kdy statutární orgán plánuje zrušení Společnosti nebo ukončení její činnosti, resp. kdy nemá jinou reálnou možnost než tak učinit.

Odpovědnost auditora za audit prvku účetní závěrky

Naším cílem je získat přiměřenou jistotu, že prvek účetní závěrky neobsahuje významnou (materiální) nesprávnost způsobenou podvodem nebo chybou a vydat zprávu auditora obsahující náš výrok. Přiměřená míra jistoty je velká míra jistoty, nicméně není zárukou, že audit provedený v souladu s výše uvedenými předpisy ve všech případech v prvku účetní závěrky odhalí případnou existující významnou (materiální) nesprávnost. Nesprávnosti mohou vznikat v důsledku podvodů nebo chyb a považují se za významné (materiální), pokud lze reálně předpokládat, že by jednotlivě nebo v souhrnu mohly ovlivnit ekonomická rozhodnutí, která uživatelé účetní závěrky na jejím základě přijmou.

Při provádění auditu v souladu s výše uvedenými předpisy je naší povinností uplatňovat během celého auditu odborný úsudek a zachovávat profesní skepticismus. Dále je naší povinností:

- Identifikovat a vyhodnotit rizika významné (materiální) nesprávnosti prvku účetní závěrky způsobené podvodem nebo chybou, navrhnout a provést auditorské postupy reagující na tato rizika a získat dostatečné a vhodné důkazní informace, abychom na jejich základě mohli vyjádřit výrok. Riziko, že neodhalíme významnou (materiální) nesprávnost, k níž došlo v důsledku podvodu, je větší než riziko neodhalení významné (materiální) nesprávnosti způsobené chybou, protože součástí podvodu mohou být tajné dohody, falšování, úmyslná opomenutí, nepravdivá prohlášení nebo obcházení vnitřních kontrol.
- Seznámit se s vnitřním kontrolním systémem Společnosti relevantním pro audit v takovém rozsahu, abychom mohli navrhnout auditorské postupy vhodné s ohledem na dané okolnosti, nikoli abychom mohli vyjádřit názor na účinnost vnitřního kontrolního systému.
- Posoudit vhodnost použitých účetních pravidel, přiměřenost provedených účetních odhadů a

informace, které v této souvislosti statutární orgán Společnosti uvedl v příloze účetní závěrky vztahující se k auditovanému prvku účetní závěrky.

- Posoudit vhodnost použití předpokladu nepřetržitého trvání při sestavení účetní závěrky statutárním orgánem, a zda s ohledem na shromážděné důkazní informace existuje významná (materiální) nejistota vyplývající z událostí nebo podmínek, které mohou významně zpochybnit schopnost Společnosti nepřetržitě trvat. Jestliže dojdeme k závěru, že taková významná (materiální) nejistota existuje, je naší povinností upozornit v naší zprávě na informace uvedené v této souvislosti v příloze účetní závěrky, a pokud tyto informace nejsou dostatečné, vyjádřit modifikovaný výrok. Naše závěry týkající se schopnosti Společnosti nepřetržitě trvat vycházejí z důkazních informací, které jsme získali do data naší zprávy. Nicméně budoucí události nebo podmínky mohou vést k tomu, že Společnost ztratí schopnost nepřetržitě trvat.

Naší povinností je informovat statutární orgán mimo jiné o plánovaném rozsahu a načasování auditu a o významných zjištěních, která jsme v jeho průběhu učinili, včetně zjištěných významných nedostatků ve vnitřním kontrolním systému.

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Evidenční číslo 583

Ondřej Krátký
Evidenční číslo 2437

27. února 2023

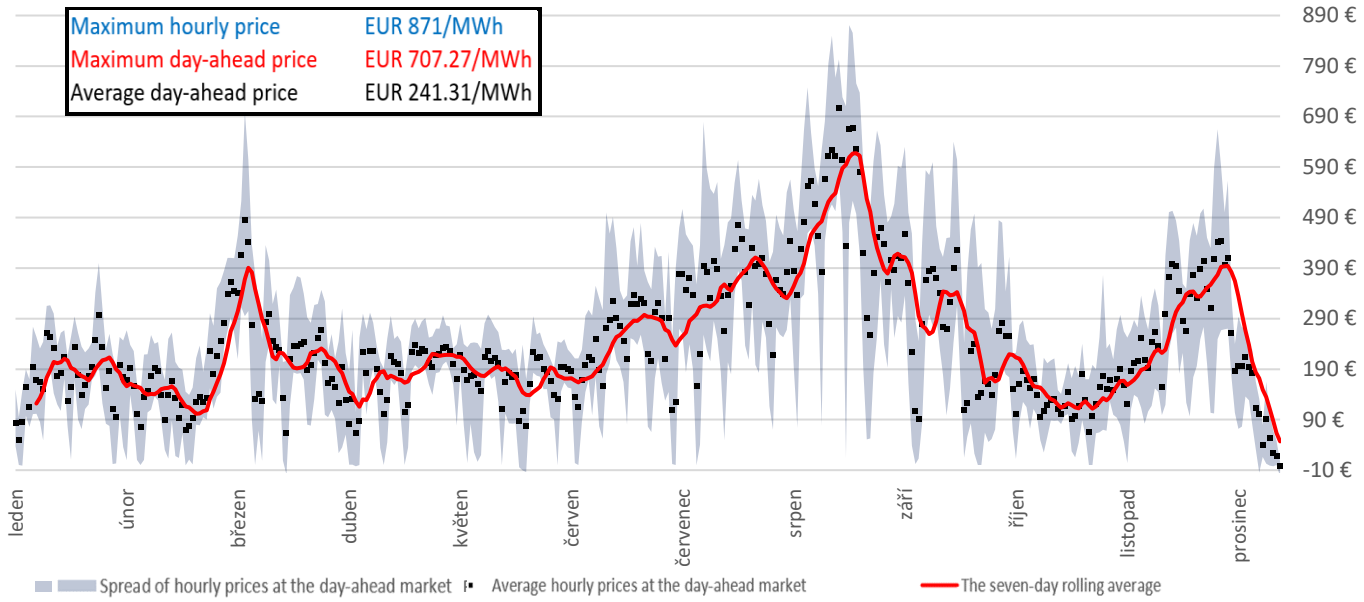
Wholesale electricity market

At the wholesale level in the Czech Republic, electricity is traded via EEX (European Energy Exchange), through bilateral [OTC] contracts, and in spot markets organised by the market operator.

From the perspective of spot and forward electricity prices, 2022 was again extremely volatile, as 2021 had been. In the first half of the year, wholesale electricity prices varied at the successive price level of EUR 100-390/MWh, but they started to surge in the second half of the year.

At the end of the year, the maximum hourly price at the day-ahead market climbed to EUR 871/MWh. In the autumn of 2022, the high electricity prices were caused by a combination of the rising prices of natural gas, emission allowances, and other energy commodities. The following chart, which shows the intraday price volatility, average day-ahead prices, and seven-day rolling averages of average daily prices, illustrates the development of prices.

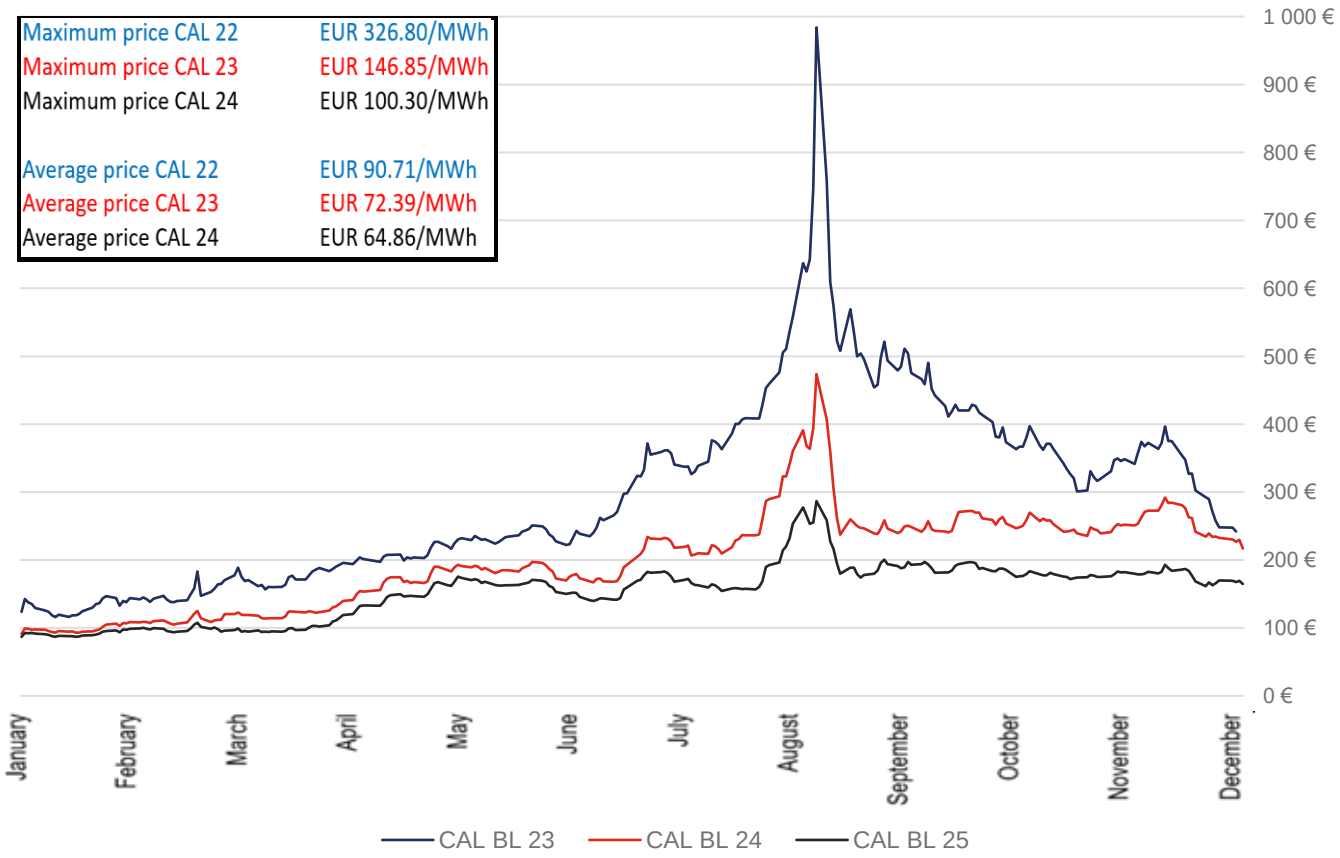
Chart 22 Spot market – electricity (day-ahead market) in 2022 [EUR/MWh]



Source: OTE, a.s., ENTSO-E

The forward market copied the price increases at the spot market. The following chart shows the development of electricity forward prices with settlement in 2023, 2024, and 2025. Expecting high prices for 2023, the CAL 23 price peaked at EUR 984/MWh. The price for 2024 peaked at EUR 473.67/MWh.

Chart 23 Forward market – electricity (forward prices and the CAL 23 product) [EUR/MWh]



Source: EEX

Table 22 Electricity wholesale market indicators

	2018	2019	2020	2021	2022
Electricity production [GWh]	88,002	86,991	81,443	84,907	84,528
Participants in spot electricity markets [-]	113	121	120	122	134
Total electricity demand [GWh]	73,942	73,932	71,354	73,661	60,304
Imports volume [GWh]	10,431	10,955	13,126	9,743	7,559
Exports volume [GWh]	24,310	23,622	22,856	21,151	21,875
Volume traded in the spot electricity market [GWh]	23,459	24,909	26,853	29,578	29,419
Volume traded at PXE futures market [GWh]	26,410	31,511	27,063	33,793	13,675
Total traded volume [GWh]	49,869	56,420	53,916	63,371	43,094
Average incremental price in the day-ahead market [EUR/MWh]	46.02	40.21	33.62	100.66	247.43

Source: OTE, a.s., PXE, a.s., ERO

Germany is the decisive wholesale market for the Czech market due to the several times higher liquidity in the German forward market. Because of the interconnection of electricity grids, the development of the wholesale price in the Czech and the German-Luxembourgian bidding zones is also correlated.

Wholesale gas market

A total of 4,423 GWh of gas was traded in the within-day gas market organised by the market operator. In 2022, the weighted average of the price of gas traded in the within-day market skyrocketed to EUR 109.94/MWh, by 138% compared with 2021. In the spot market, natural gas prices even exceeded EUR 300/MWh at the end of August 2022. At the end of 2022, 125 market participants had access to the spot gas market.

In 2022, the prices in the Czech within-day gas market again closely followed the prices of comparable products in the integrated German zone, Trading Hub Europe (THE within NCG), traded on the PEGAS platform operated by European Energy Exchange AG (EEX), as evident in the following chart.

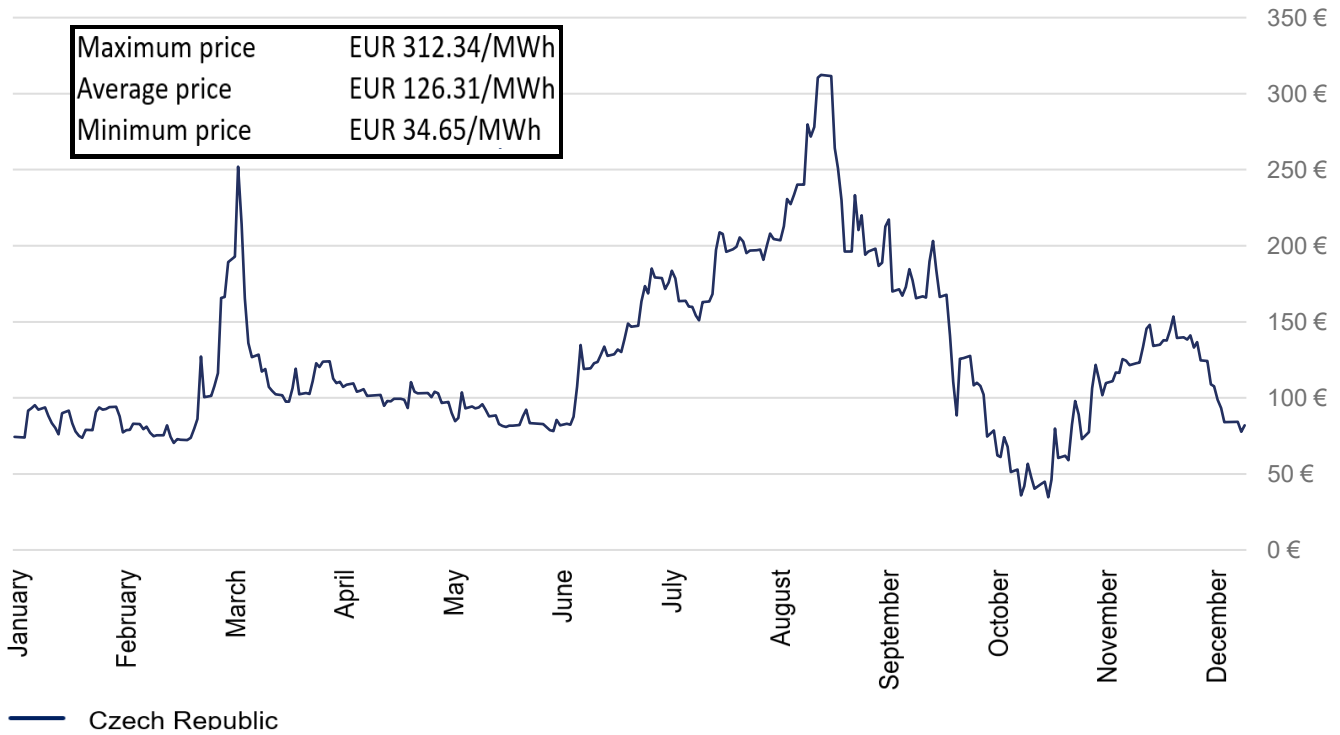
Chart 24 Comparison of the OTE Index and EEX NCG/THE spot prices in 2022 [EUR/MWh]

Source: OTE, a.s., EEX

Owing to the plunge in natural gas supply from Russia during the year and, on the contrary, rising LNG imports, the internal gas market experienced hitherto unseen differences between prices in the various regions. A notable situation occurred when natural gas with supply in the Czech Republic (but also in Germany) was traded with a significant premium compared with the main reference market, TTF. TTF itself experienced a considerable premium compared with LNG supply and markets in south-western Europe for a significant part of the year.

From early 2022, the spot gas price varied; as in the case of the electricity price its growth was more rapid, creating two distinct peaks. The first peak appeared in March when the price climbed to more than EUR 250/MWh. The other peak in late August hit EUR 312.34/MWh, whereupon a plunge occurred, and the situation relatively calmed down.

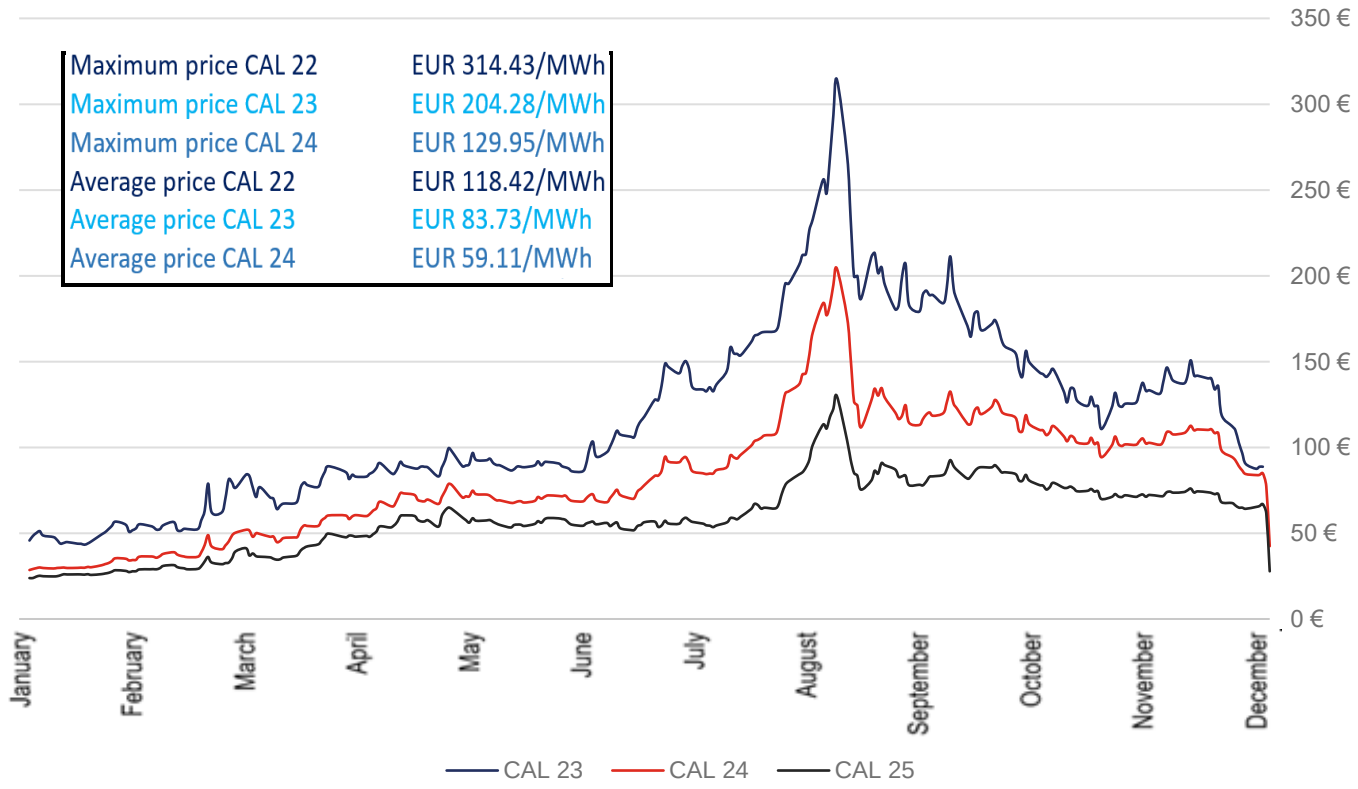
Chart 25 Natural gas – spot market (day-ahead market) in 2022 [EUR/MWh]



Source: EEX

The following chart shows the forward price of natural gas with settlement in 2023. In late August it climbed to EUR 314.43/MWh. The maximum forward prices for subsequent years climbed to EUR 204.28/MWh (CAL 2024) and EUR 129.95/MWh (CAL 2025). The average yearly price of the CAL 2023 product was EUR 118.42/MWh.

Chart 26 Natural gas – forward market (forward prices and CAL 2023) [EUR/MWh]



Source: EEX

Probably because of the more acutely perceived risk of their counterparty defaulting, market participants focused more on trading at the organised market, despite the considerably higher related costs. The traded volume of futures rose by 71% to 16,403 GWh. The gas volume traded in the spot market constantly slightly grew (10%) but was far from returning to the pre-2021 level.

Table 23 Wholesale gas market indicators

	2018	2019	2020	2021	2022
Gas production [GWh]	1,477	1,410	1,334	1,384	1,608
Spot market participants [-]	97	98	104	115	125
Total gas demand [GWh]	87,306	91,398	92,894	100,738	81,547
Imports volume [GWh]	424,107	385,378	464,284	486,992	290,582
Exports volume [GWh]	338,775	283,857	383,385	394,172	197,673
Volume traded in spot markets [GWh]	6,542	11,198	8,968	4,007	4,423
Traded volume in futures market [GWh]	4,210	2,554	3,901	9,570	16,403
Total traded volume [GWh]	10,752	13,752	12,869	13,577	20,826
Weighted average of prices in the within day market [EUR/MWh]	23.88	14.12	9.52	46.25	109.94

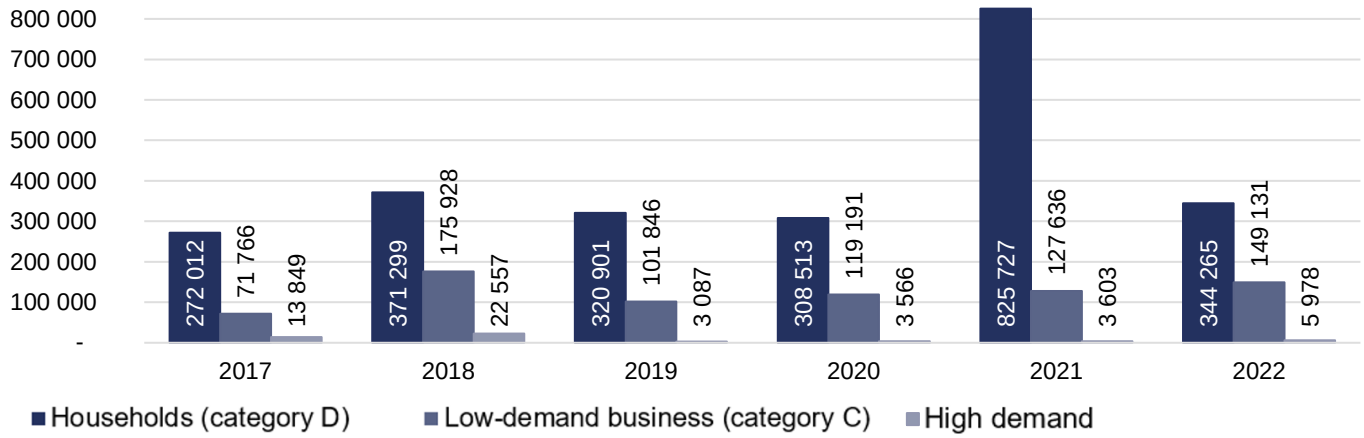
Source: OTE, a.s., PXE, a.s., ERO

Retail market

We define the retail energy market as an environment where the electricity/gas supply offer meets the demand for it. The protagonists are therefore electricity/gas trade licensees in the position as suppliers, and organisations and individuals who use the supplied energy to meet their own energy needs. Retail markets can be further broken down in various ways, the most frequent breakdown being to the business-to-business (B2B, supply to businesses and corporations) and business-to-consumers (B2C, supply to households and customers in the position of consumers) segments, the latter frequently being understood as a more narrowly defined retail market. The key indicators for evaluating the retail market include the number of SDPs, the number of active suppliers, customers' activity, i.e. the dynamics of supplier switching, the market shares held by the various supplier groups, and the structure of retail prices.

At the end of 2022, the retail electricity market had 74 active electricity suppliers and 99 gas suppliers (SDPs in more than one distribution area). This is therefore a significant drop from the levels in preceding years (-27% and -18% respectively), which reflects the extraordinary market situation. Approximately half a million customers changed their electricity supplier. Compared with 2021, an extreme year due to the collapse of a number of major suppliers, 2022 saw return to the figures known from preceding years.

Chart 27 Yearly electricity supplier switches in the key customer categories



Source: OTE, a.s., ERO editing

Table 24 Retail electricity market indicators – households

	2018	2019	2020	2021	2022
Consumption [GWh]	15,049	15,256	15,972	17,260	15,702
Number of customers [-]	5,238,482	5,267,209	5,312,956	5,348,516	5,418,971
Switching rate [%]	7	6	6	15	6

Source: OTE, a.s., ERO

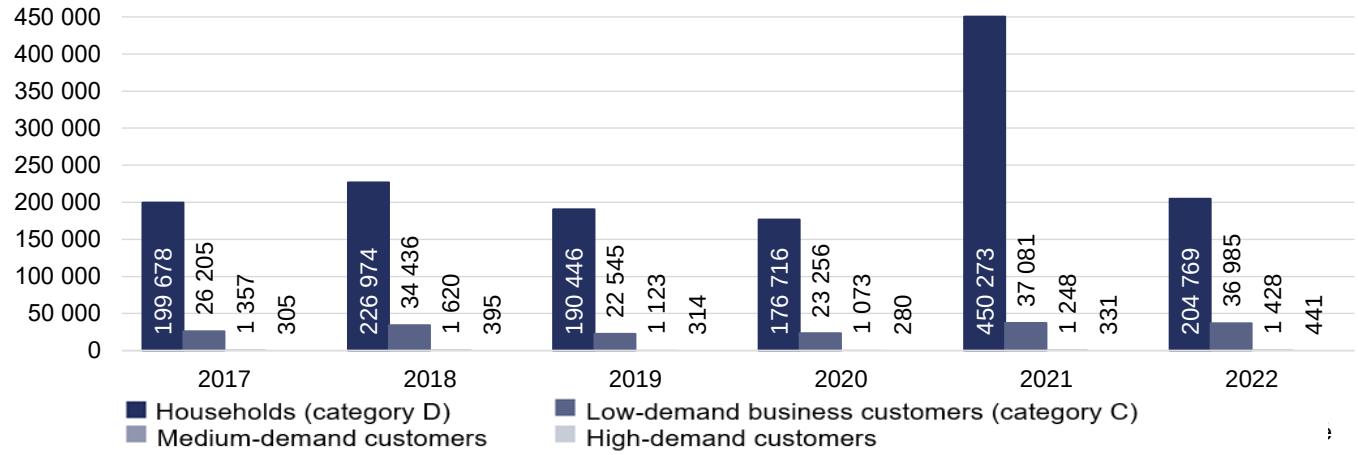
Table 25 Retail electricity market indicators – non-households

	2018	2019	2020	2021	2022
Consumption [GWh]	8,064	8,019	7,789	7,748	7,738
Number of customers [-]	765,839	796,484	832,290	844,182	819,954
Switching rate [%]	26	13	15	16	19

Source: OTE, a.s., ERO

In terms of activity, the retail gas market had similar dynamics as the electricity market. Because of the market situation, in 2022 more than 244,000 customers changed their gas supplier. The following chart shows the structure of supplier switches in more detail. The table below the chart shows number of supplier switches to number of supply points.

Chart 28 Number of gas supplier switches in the key customer categories



Source: OTE, a.s., ERO

Table 26 Retail gas market indicators – households

	2018	2019	2020	2021	2022
Consumption [GWh]	24,279	23,200	23,984	26,899	21,510
Number of customers [-]	2,626,417	2,619,793	2,614,120	2,604,725	2,569,422
Switching rate [%]	8.6	7.3	6.8	17.3	8.0

Source: OTE, a.s., ERO
* The number of supply points for 2022 is not final; it does not include supply points in local distribution systems.

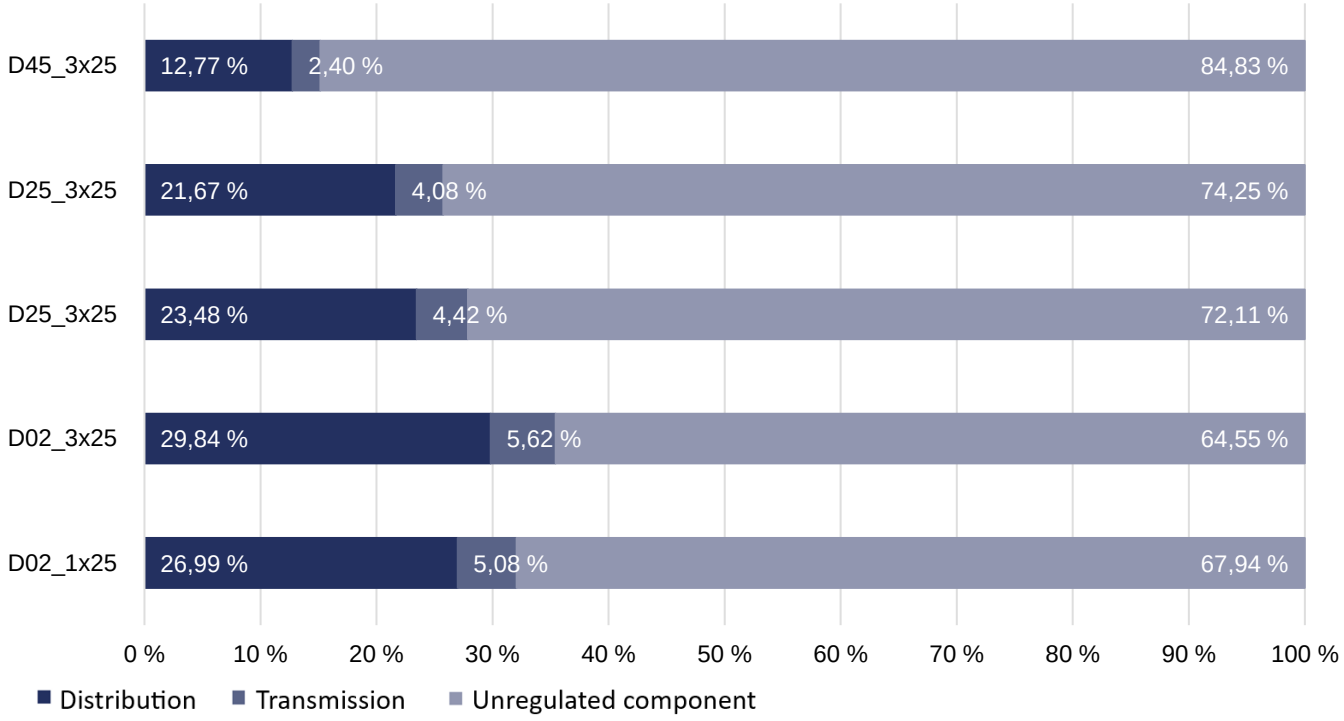
Table 27 Retail gas market indicators – non-households

	2018	2019	2020	2021	2022
Consumption [GWh]	61,618	66,582	67,931	72,495	58,707
Number of customers [-]	214,202	214,716	215,012	215,288	211,862
Switching rate [%]	17.0	11.2	11.5	18.0	18.3

Source: ERO, OTE, a.s.

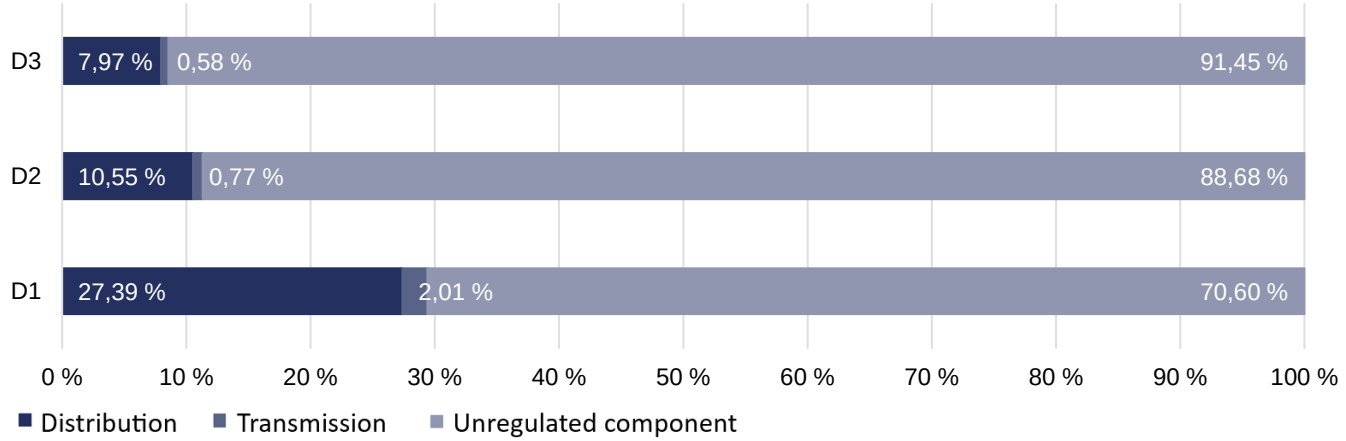
The dramatic growth of the commodity component in the electricity/gas supply prices caused a major change in the ratio of regulated and unregulated prices; see the charts below, showing details by customer category.

Chart 29 Percentage shares taken by components of the electricity supply price in 2022



Source: ERO
Note: The charge for the market operator's services contains a special fee for ERO activities under Section 17d of the Energy Act.

Chart 30 Percentage shares taken by components of the gas supply price in 2022



Source: Eurostat, ERO
Note: The charge for the market operator's services contains a special fee for ERO activities under Section 17d of the Energy Act.

The Herfindahl-Hirschman Index (HHI) is a broadly used measure of market concentration and the Office has been systematically monitoring it since 2020. Its value over 2,700 points (together with a large market share of the three largest suppliers) shows that the Czech retail electricity market is heavily concentrated. The data from monitoring in 2022 again confirm the market concentrations by the former monopoly areas, which correspond to the current areas of the three regional distribution systems. The former monopolies (incumbents) enjoy a very strong position in their 'home' areas; they typically control almost 70% of the market in terms of SDPs. This is also reflected in the very high level of HHI, considering the historical structure of the Czech market: 6,184 points (a weighted average of the values for the three regional distribution areas). This geographically more detailed view thus paints a picture different from that of the approach whereby the whole Czech Republic is regarded as the relevant market with 3,059 points.

On the other hand, in 2022, the retail gas market shows, even after the fall of Bohemia Energy Group, a lower concentration than the electricity market. The Office monitors market concentration in the former monopoly areas. Although in the regional breakdown the gas market is more concentrated than from the nationwide perspective, the values stay deep below the threshold of a heavy market concentration. It can therefore be noted that the retail gas market is not heavily concentrated, and its structure is significantly in favour of effective competition.

Table 28 Retail electricity market indicators – suppliers and HHI

	2018	2019	2020	2021	2022
Number of active electricity suppliers [-]	79	83	119	102	74
Market share of the three largest suppliers by supply points [%]	72.2	72.4	71.9	77.9	77.9
Number of retailers with market shares > 5% [-]	5	5	5	4	4
Herfindahl-Hirschman Index [-]	2,661	2,647	2,594	3,067	3,059

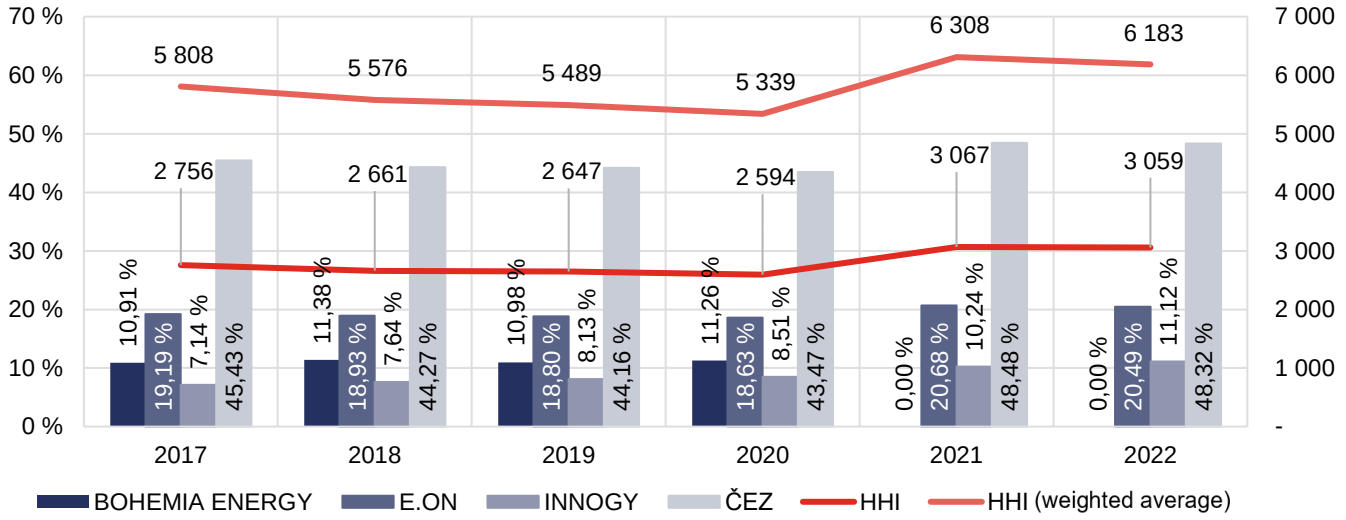
Source: OTE, a.s., ERO

Table 29 Retail gas market indicators – traders and HHI

	2018	2019	2020	2021	2022
Number of active gas suppliers [-]	119	125	133	121	99
Market share of the three largest suppliers by consumption [%]	53.69	52.15	52.18	52.56	49.98
Number of suppliers with market shares (in terms of customer numbers) > 5% [-]	5	4	4	4	6
Herfindahl-Hirschman Index [-]	2,741	2,631	2,470	2,848	2,844

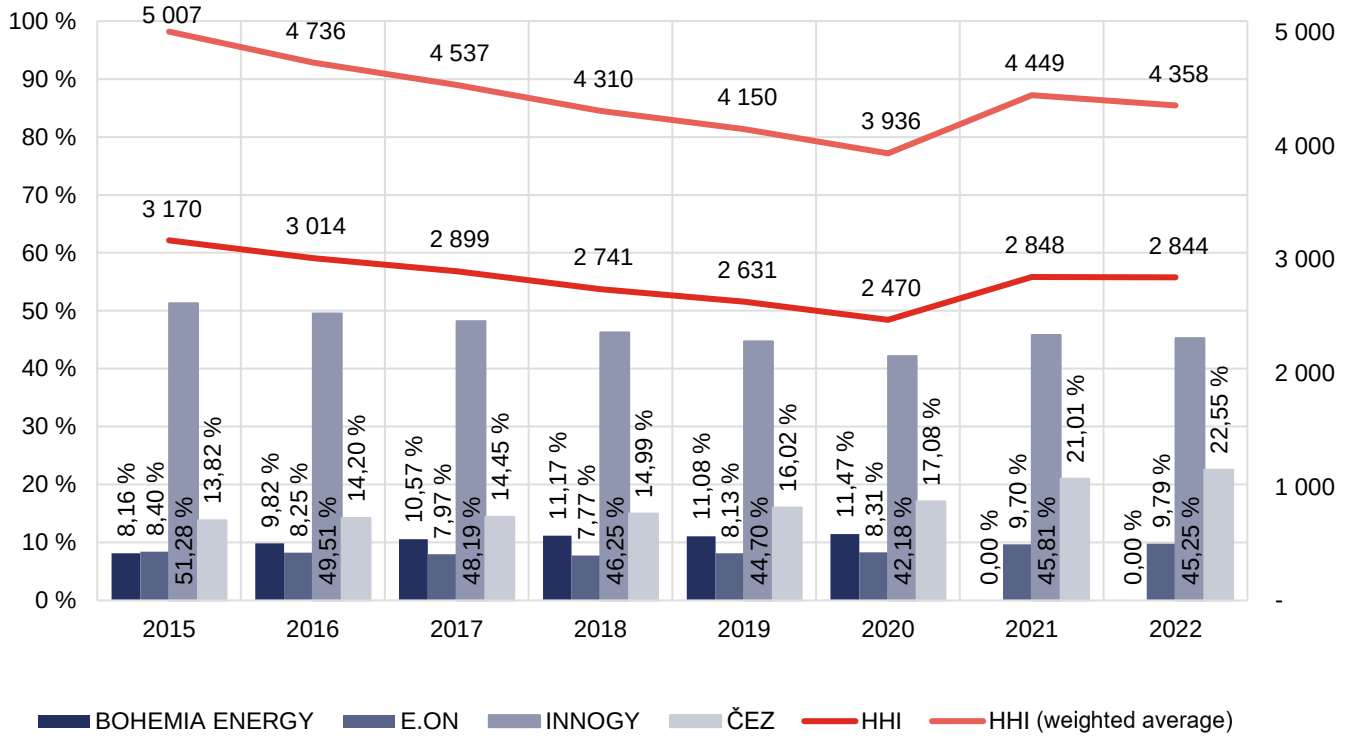
Source: ERO

Chart 31 Market shares and HHI, electricity



Source: ERO

Chart 32 Market shares and HHI, gas

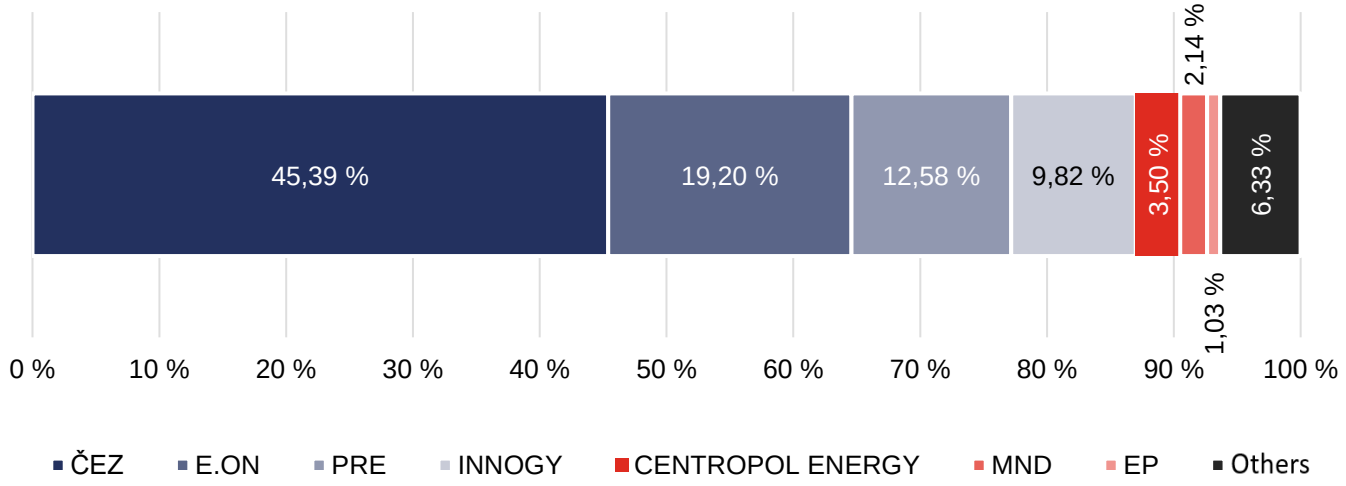


Source: ERO

Another important indicator of competition in the retail market is the various suppliers' market shares. In line with the good practice of supervision over competition, the Office monitors suppliers in groups.

In the electricity market, ČEZ Group continues to be the largest supplier; it supplied electricity to 45% of SDPs in the country. It is followed by E.ON Energie, a.s. with more than 19% and PRE, a.s.'s group with 13%.

Chart 33 Electricity traders' shares of SDPs on 31 December 2022



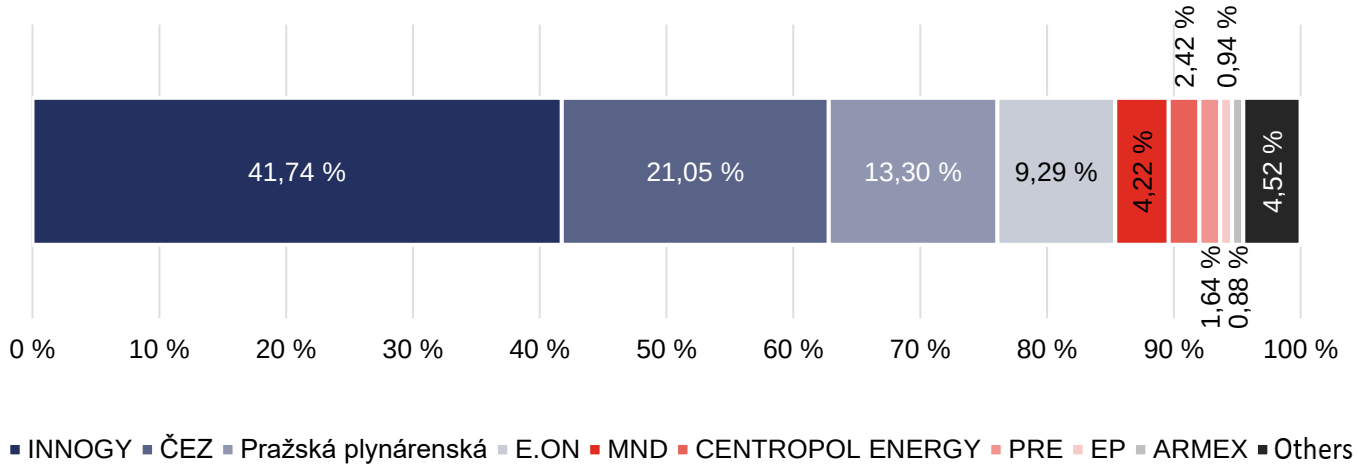
Source: OTE, a.s., ERO

In terms of the number of supply points, with its 42% innogy Energie, s.r.o. continues to be the largest gas supplier; however, with its 21% ČEZ Group moved to the notional second rung; Pražská plynárenská, a.s. is third with 13%.

The trend of former monopolists' market shares expanding due to Bohemia Energy Group's fall in 2021 grew stronger in the retail market in 2022. The strengthening of the largest former monopolists in the

second commodity market (i.e. innogy in the electricity market and ČEZ Group in the gas market) is also significant.

Chart 34 Gas traders' shares of SDPs on 31 December 2022



Source: OTE, a.s., ERO

LISTS

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LIST OF LEGISLATION

Czech laws

Act No 106/1999 on Free Access to Information, as amended

Act No 218/2000 on Budgetary Rules and Amending Certain Related Laws, as amended

Act No 458/2000 on the Conditions of Business and State Administration in Energy Industries and Amending Certain Laws (the Energy Act), as amended

Act No 320/2001 on Financial Control in Public Administration and Amending Certain Laws, as amended

Act No 18/2004 on the Recognition of Professional Qualifications and Other Competences of the Nationals of the Member States of the European Union and Certain Nationals of Other States and Amending Certain Laws (the law on the recognition of professional qualifications), as amended

Act No 500/2004 Rules of Administrative Procedure, as amended

Act No 251/2005 on Labour Inspection, as amended

Act No 165/2012 on Supported Energy Sources and Amending Certain Laws, as amended

Act No 134/2016 on Public Procurement, as amended

Act No 57/2022 on the National Budget of the Czech Republic for 2022

Act No 634/1992 on Consumer Protection, as amended

Act No 526/1990 on Prices, as amended

Act No 265/1991 on the Competences of the Bodies of the Czech Republic in Respect of Prices, as amended

Act No 99/2019 on the Availability of Websites and Mobile Applications and Amending Act No 365/2000 on Information Systems of Public Administration and Amending Certain Other Laws, as amended

Czech statutory instruments (public notices)

Public notice 416/2004 amending Act No 320/2001 on Financial Control in Public Administration and Amending Certain Laws (the law on financial control), as amended in Act No 309/2002, Act No 320/2002 and Act No 123/2003

Public notice 540/2005 on the quality of electricity supply and related services in the electricity industry, as amended in public notice 41/2010

Public notice 545/2006 on the quality of gas supply and related services in the gas industry, as amended in public notice 396/2011

Public notice 280/2007 on the implementation of the Energy Act's provisions on the Energy Regulatory Fund and obligations over and above the licence

Public notice 401/2010 on the required content of the Electricity Transmission System Operating Rules, Distribution System Operating Rules, the Gas TSO Code, DSO Codes, the SSO Code, and the market operator's commercial terms and conditions, as amended in 330/2017

Public notice 30/2012 on the essentials of applications for approving the appointment, election, or other manner of installation in office and the removal of the bodies of the independent gas transmission system operator

Public notice 344/2012 on the state of emergency in the gas industry and on methods for ensuring the gas supply security standard

Public notice 194/2015 on methods of price regulation and procedures for price controls in the electricity and heat supply industries

Public notice 195/2015 on methods of price regulation and procedures for price controls in the gas industry

Public notice 196/2015 on methods of price regulation and procedures for regulating the prices for the market operator's activities in the electricity and gas industries

Public notice 262/2015 on regulatory reporting, as amended

Public notice 349/2015 on Gas Market Rules, as amended

Public notice 408/2015 on Electricity Market Rules, as amended

Public notice 8/2016 on the details of licensing for business in energy industries

Public notice 16/2016 on the conditions for connection to the electricity grid, as amended in public notice 487/2021

Public notice 404/2016 on the particulars and structure of the returns required for preparing reports on the operation of systems in the energy industries, including the dates, scope, and rules for preparing the returns (the 'statistics public notice'), as amended in public notice 154/2018

Public notice 359/2020 on electricity metering

Public notice 207/2021 on the billing of supply and related services in energy industries

Public notice 488/2021 on conditions of connection to the gas system

Public notice 489/2021 on procedures for registering aid with the market operator and implementing certain other provisions of the law on supported energy sources (the registration public notice)

Public notice 79/2022 on the technical and economic parameters for determining reference feed-in tariffs and green premiums and on the implementation of certain other provisions of the law on supported energy sources (public notice on technical and economic parameters)

EU Regulations

Regulation (EC) No 715/2009	Regulation (EC) No 715/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No 1775/2005
Regulation (EU) No 1227/2011	Regulation (EU) No 1227/2011 of the European Parliament and of the Council of 25 October 2011 on wholesale energy market integrity and transparency
Regulation (EU) No 347/2013	Regulation (EU) No 347/2013 of the European Parliament and of the Council of 17 April 2013 on guidelines for trans-European energy infrastructure and repealing Decision No 1364/2006/EC and amending Regulations (EC) No 713/2009, (EC) No 714/2009 and (EC) No 715/2009
Commission Regulation (EU) No 543/2013	Commission Regulation (EU) No 543/2013 of 14 June 2013 on submission and publication of data in electricity markets and amending Annex I to Regulation (EC) No 714/2009 of the European Parliament and of the Council
Commission Regulation (EU) No 312/2014	Commission Regulation (EU) No 312/2014 of 26 March 2014 establishing a Network Code on Gas Balancing of Transmission Networks

Commission Regulation (EU) 2015/703	Commission Regulation (EU) 2015/703 of 30 April 2015 establishing a network code on interoperability and data exchange rules
Commission Regulation (EU) 2015/1222	Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management
Commission Regulation (EU) 2016/631	Commission Regulation (EU) 2016/631 of 14 April 2016 establishing a network code on requirements for grid connection of generators
Commission Regulation (EU) 2016/1388	Commission Regulation (EU) 2016/1388 of 17 August 2016 establishing a Network Code on Demand Connection
Commission Regulation (EU) 2017/459	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
Commission Regulation (EU) 2017/460	Commission Regulation (EU) 2017/460 of 16 March 2017 establishing a network code on harmonised transmission tariff structures for gas
Commission Regulation (EU) 2017/1485	Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation
Commission Regulation (EU) 2017/2195	Commission Regulation (EU) 2017/2195 of 23 November 2017 establishing a guideline on electricity balancing
Commission Regulation (EU) 2017/2196	Commission Regulation (EU) 2017/2196 of 24 November 2017 establishing a network code on electricity emergency and restoration
Regulation (EU) 2017/1938	Regulation (EU) 2017/1938 of the European Parliament and of the Council of 25 October 2017 concerning measures to safeguard the security of gas supply and repealing Regulation (EU) No 994/2010
Regulation (EU) 2018/1999	Regulation (EU) 2018/1999 of the European Parliament and of the Council of 11 December 2018 on the Governance of the Energy Union and Climate Action, amending Regulations (EC) No 663/2009 and (EC) No 715/2009 of the European Parliament and of the Council, Directives 94/22/EC, 98/70/EC, 2009/31/EC, 2009/73/EC, 2010/31/EU, 2012/27/EU and 2013/30/EU of the European Parliament and of the Council, Council Directives 2009/119/EC and (EU) 2015/652 and repealing Regulation (EU) No 525/2013 of the European Parliament and of the Council
Regulation (EU) 2019/941	Regulation (EU) 2019/941 of the European Parliament and of the Council of 5 June 2019 on risk-preparedness in the electricity sector and repealing Directive 2005/89/EC
Regulation (EU) 2019/942	Regulation (EU) 2019/942 of the European Parliament and of the Council of 5 June 2019 establishing a European Union Agency for the Cooperation of Energy Regulators
Regulation (EU) 2019/943	Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity
Regulation (EU) 2022/1032	Regulation (EU) 2022/1032 of the European Parliament and of the Council of 29 June 2022 amending Regulations (EU) 2017/1938 and (EC) No 715/2009 with regard to gas storage
Regulation (EU) 2022/1369	Council Regulation (EU) 2022/1369 of 5 August 2022 on coordinated demand-reduction measures for gas

Regulation (EU) 2022/1854	Council Regulation (EU) 2022/1854 of 6 October 2022 on an emergency intervention to address high energy prices
Regulation (EU) 2022/2576	Council Regulation (EU) 2022/2576 of 19 December 2022 enhancing solidarity through better coordination of gas purchases, reliable price benchmarks and exchanges of gas across borders
Regulation (EU) 2022/2578	Council Regulation (EU) 2022/2578 of 22 December 2022 establishing a market correction mechanism to protect Union citizens and the economy against excessively high prices

EU Directives

Directive 2009/73/EC	Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC
Directive (EU) 2010/31/EU	Directive 2010/31/EU of the European Parliament and of the Council of 19 May 2010 on the energy performance of buildings
Directive (EU) 2011/83/EU	Directive 2011/83/EU of the European Parliament and of the Council of 25 October 2011 on consumer rights, amending Council Directive 93/13/EEC and Directive 1999/44/EC of the European Parliament and of the Council and repealing Council Directive 85/577/EEC and Directive 97/7/EC of the European Parliament and of the Council
Directive (EU) 2012/27/EU	Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC
Directive (EU) 2018/844	Directive (EU) 2018/844 of the European Parliament and of the Council of 30 May 2018 amending Directive 2010/31/EU on the energy performance of buildings and Directive 2012/27/EU on energy efficiency
Directive (EU) 2018/2001	Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources
Directive (EU) 2018/2002	Directive (EU) 2018/2002 of the European Parliament and of the Council of 11 December 2018 amending Directive 2012/27/EU on energy efficiency
Directive (EU) 2019/944	Directive (EU) 2019/944 of the European Parliament and of the Council of 5 June 2019 on common rules for the internal market for electricity and amending Directive 2012/27/EU

ABBREVIATIONS, EXPRESSIONS, AND UNITS

Note

Names of Czech companies are written the way they are registered in the Companies Register, including cases when they are registered with mistakes.

ACER	Agency for the Cooperation of Energy Regulators
AT	Austria
GSSS	gas supply security standard in the Czech Republic
CAIDI	Customer Average Interruption Duration Index in the period under review
CEER	Council of European Energy Regulators
CMP	Congestion management procedures within the meaning of Regulation (EC) No 715/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No 1775/2005
CNG	compressed natural gas
COVID-19	the COVID-19 disease
CWD	capacity weighted distance reference price methodology
CZ PRES	Czech presidency of the Council of the European Union
ČEPS	operator of the Czech electricity transmission system, ČEPS, a.s.
member state	EU Member State
CR, CZ	Czech Republic
decarbonisation package	Proposal for a Regulation on the internal markets for renewable and natural gases and for hydrogen (recast), Proposal for a Directive on common rules for the internal markets in renewable and natural gases and in hydrogen, and Proposal for a Regulation on methane emissions reduction in the energy sector and amending Regulation (EU) 2019/942
VAT	value added tax
SoLR	supplier of last resort
EEX	European Energy Exchange AG
EC, Commission	European Commission
Energy Act	Act No 458/2000 on the Conditions of Business and State Administration in Energy Industries and Amending Certain Laws (the Energy Act), as amended
ERRA	Energy Regulators Regional Association
ERO, Office, regulator	Energy Regulatory Office
EU	European Union
FKSP	Fund of Cultural and Social Needs
HHI	Herfindahl-Hirschman Index
LV	low voltage (in Czech *NN*, ***n**ízké **n**apětí*, i.e. ‘low voltage’)
MV	medium voltage (in Czech *VN*, ***v**ysoké **n**apětí*, i.e. ‘high voltage’)
HV	high voltage (in Czech *VVN*, ***v**elmi **v**ysoké **n**apětí*, i.e. ‘extra high voltage’)
Russia’s invasion of Ukraine	unprovoked military invasion by Russia of Ukraine
Chapter 349	Chapter 349 Energy Regulatory Office [title of the national budget]
Commission, EC	European Commission
LNG	liquefied natural gas
MODOM	[a Czech acronym] a customer category: low-demand business and household customers

MIT	Ministry of Industry and Trade
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
NC CAM	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
NC INT	Commission Regulation (EU) 2015/703 of 30 April 2015 establishing a network code on interoperability and data exchange rules
NC TAR	Commission Regulation (EU) 2017/460 of 16 March 2017 establishing a network code on harmonised transmission tariff structures for gas
NET4GAS	operator of the Czech gas transmission system, NET4GAS, s.r.o.
SES Amendment	an amendment, enacted in Act No 382/2021, to Act No 165/2012 on Supported Energy Sources and Amending Certain Laws, as amended
SP	supply point
market operator	OTE, a.s.
SDP	supply and delivery point
RES	renewable energy sources
OTE, a.s.	market operator
PCI	Projects of Common Interest
plan	Ten-Year Czech Gas Transmission System Development Plan for 2023-2032 (TYNDP)
SES (or POZE)	supported energy sources
PPAT	Professional Person Arranging Transactions
PXE	Power Exchange Central Europe
Council (EU)	Council of the European Union
ERO Board	the Board of the Energy Regulatory Office
regulator, ERO, Office	Energy Regulatory Office
SAIDI	System Average Interruption Duration Index in the period under review
SAIFI	System Average Interruption Frequency Index in the period under review
TA CR	Technology Agency of the Czech Republic
heat	thermal energy
THE	Trading Hub Europe
UIOLI	the ‘use it or lose it’ principle
Office, ERO, regulator	Energy Regulatory Office
RDI	Research, Development and Innovation
VOSO	[a Czech acronym] a customer category: high-demand and medium-demand customers
ERO website	the website of ERO
webinar	online seminar
SES Act	Act No 165/2012 on Supported Energy Sources and Amending Certain Laws, as amended
Price Control Principles 2021–2025	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

Units

A	ampere
EUR	euro, the euro area’s currency

GJ	gigajoule
GWh	gigawatt hour
CZK	Czech crown
kV	kilovolt
MW	megawatt
m	million
MWh	megawatt hour
t	tonne
TWh	terawatt hour
W	watt

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