

ON THE EFFECT OF MEASURES FOR COMPENSATION ON THE END CONSUMERS OF ELECTRICITY ON THE FREE MARKET²

This article aims to examine the national mechanism applied in Bulgaria to tackle the high electricity prices in the period 2021-2023 and its impact on state-owned enterprises, which are the main source of the compensation funds. The proposed thesis is that with the collection of the revenues of state-owned companies, they are posted in conditions of restriction in terms of development opportunities, which is why the imposed emergency measures should be reviewed in the future. Although the measures themselves are widely discussed, the mechanisms for providing financial support, the financial magnitude of this support, as well as its effect, are yet to be clarified, and the data collected in the material may be useful for further analyses and evaluations.

Keywords: free market; regulation; state-owned companies; compensation

JEL: E640; G38; L11

1. Introduction

The issue of the formation of wholesale electricity prices on European markets, as well as expanding the options for permissible state intervention to support consumers, arose especially acutely after prices rose significantly in the summer of 2021 and sharply exacerbated the unpredictability and volatility of the markets. In Bulgaria, a large-scale exceptional price compensation program has been implemented, which has led to direct or indirect financial support comparable to the amount of planned public spending of the government.

In the literature, the issues of applying different forms of compensation to the electricity market are most often associated with the implementation of specific technology support policies, or with subsidies (IEA/IRENA, 2018; Kojima, 2018). Such are voluntary consent policies for constraints of electricity consumption (Crampes, 2018; Ladenburg, 2022), but also policies for the introduction of renewable energy sources (Payne, 2018). The increase in electricity prices in the period 2021/2022 is the subject of a number of institutional reports on the causes and recommended actions (EC, 2023), (OECD, 2022), as well as scientific analyses on the relationship with natural gas prices (Zhou, 2023). A full overview of the evolution of the price crisis in Europe is made in a report by MIT (Batlle, 2022), which

¹ Anton Ivanov, phone: 0889389976, e-mail: anton.ivanov@yahoo.co.uk.

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defends the thesis that excess profits should not be taken out, stressing that: "Investors in a power system governed by market rules risk their funds in the expectation/hope that the scenarios in which their investments result in profits are more probable than the ones in which losses are borne. These profits, particularly when they happen to be high, stimulate other investments, which adds to the overall competitive pressure resulting in a downward pressure on prices and inframarginal rents. Efforts should focus on further improving the existing market design and reducing the various barriers for new entrants, rather than discouraging new entry via the introduction of windfall profit taxes or mandatory auctions." Thus, the recommendations for the introduction of compensatory mechanisms and, more generally, subsidization, are aimed at their temporary nature, targeting limited groups of recipients and preventing distortions of competition in energy markets.

Considering that the approaches to using different compensation mechanisms have a specific application and are suitable for specific conditions, this article aims to analyze the national mechanism applied in Bulgaria and its impact on state-owned enterprises, which are the main source of compensation funds. The study covers the dynamic environment of the electricity markets in the last two years and the impact on the current state of state-owned companies in the energy sector, taking into account the expected continuation of compensatory practices.

2. State Ownership in the Electricity Sector of Bulgaria

The Bulgarian electricity market is part of the European electricity market and the country is connected and integrated by the day-ahead and intraday electricity markets with its neighbouring countries. Market integration and the presence of developed cross-border connections determine the strong impact of the price levels achieved in Europe on the stock exchange markets in Bulgaria. At the same time, in the conditions of extreme price increase, the reaction at the national level differs significantly from the measures taken to combat high prices in other countries in Europe. This is due to national peculiarities, both in terms of the high share of the regulated market segment and in terms of the high share of state ownership in energy companies.

The electricity sector in Bulgaria is important as a basis for economic development, but also as a sector contributing to the formation of gross domestic production (GDP).

According to data from the Ministry of Energy³, gross electricity production in 2021 is 48 TWh, and gross inland electricity consumption in 2021 amounts to 39 TWh. According to the National Institute for Statistics⁴ (NSI), the net consumption of electricity for 2021 in Bulgaria reaches 34.4 TWh (including network losses), of which 12 TWh is the consumption

³ https://www.me.government.bg/uploads/manager/source/VOP/buletin_systoqnie_energetika/Buletin_Energy-Finish-20.06.2022.pdf.

⁴ <https://www.nsi.bg/bg/content/4169/%D0%BF%D1%80%D0%BE%D0%B8%D0%B7%D0%B2%D0%BE%D0%B4%D1%81%D1%82%D0%B2%D0%BE-%D0%B8-%D0%B4%D0%BE%D1%81%D1%82%D0%B0%D0%B2%D0%BA%D0%B8-%D0%BD%D0%B0-%D0%B5%D0%BB%D0%B5%D0%BA%D1%82%D1%80%D0%B8%D1%87%D0%B5%D1%81%D0%BA%D0%B0-%D0%B5%D0%BD%D0%B5%D1%80%D0%B3%D0%B8%D1%8F>.

Ivanov, A. (2024). On the Effect of Measures for Compensation on the End Consumers of Electricity on the Free Market.

of household consumers on a regulated market and the consumption of non-household consumers who are on the free electricity market is 20 TWh.

A leading market entity in the energy market in Bulgaria is Bulgarian Energy Holding (BEH EAD) – a financial holding company that brings together companies operating in the power production and power transmission, transit and storage of natural gas, as well as lignite production. The Holding presents state-owned companies with non-current assets⁵ (mainly property, plant and equipment) amounting to BGN 20,490 million according to reporting data as of 30.09.2022.

The state-owned electricity sector is represented by the enterprises for production, including coal mining, and transmission of electricity within BEH EAD. The market share of the Power Generation Group within BEH EAD is 51% in 2021, with an installed power generation capacity of 6.3 GW producing 24.4 TWh of electricity. In 2022, the Group registered an increase in power production by about 10% compared to 2021, with no change in installed capacity.

The non-current assets of the Power Generation Group within BEH EAD are BGN 12,575 million, and as of 30.09.2022 sales and services for transit and balancing of electricity amounted to BGN 11,640 million, compared to BGN 3,680 for the same period in 2021. The profit reflected in the interim reports as of 30.09.2022 is BGN 3,146 million. This profit is not reflected in an increase in the costs of the companies in the development group, with investment costs for the period of only about BGN 220 million.

More generally, the changes in the national market model over the years have led to cost optimization of state-owned power companies as a result of the measures taken to limit vertical integration, improve accountability, introduce the wholesale exchange market and market coupling with neighbouring countries. As it was the market integration that ensured the high inflow of financial resources in the power sector, taking into account the growth of exports.

3. National End-User Compensation Mechanism

In response to the high prices of electricity on the free market, at the end of 2021, Bulgaria implemented a large-scale emergency price compensation program, which led to direct or indirect financial support comparable to the amount of planned public spending of the Government.

In connection with the sharp rise in electricity prices on the stock exchange markets in the European Union from October 2021, the Bulgarian government, through the Ministry of Energy, initiated the implementation of measures for compensation of the end consumers of electricity on the free market. The aim is to alleviate non-household end-users of electricity

⁵ <https://bgenh.com/page/22/%D0%A4%D0%B8%D0%BD%D0%B0%D0%BD%D1%81%D0%BE%D0%B2%D0%B8-%D0%BE%D1%82%D1%87%D0%B5%D1%82%D0%B8.html>.

in Bulgaria by reducing their electricity costs in the months with the highest consumption and the highest current prices.

These measures are carried out on the basis of the increased revenues from sales and profits of the companies within BEH EAD, which are mainly used to provide compensation to end-customers incl., and by accelerated repayment of liabilities on government loans. According to Order of the Council of Ministers No. 5 of 27.04.2022, the dividend deductions from state-owned commercial companies amount to 100%, after deduction of uncovered losses and deductions for the Reserve Fund.

In connection with Order of the Council of Ministers No142/10.03.2022, the National Electric Company (NEK EAD) presciently repays to the Ministry of Energy a loan received for payment for Belene NPP equipment, amounting to BGN 1,177 million, in connection with which NEK EAD receives assistance within BEH EAD through internal loans. This leads to a decrease in the Company's liabilities from BGN 4 082 million in 2021 to BGN 2 923 million as of 30.09.2022. However, according to the Company,⁶ the problem of the tariff deficit accumulated since 2012 remains unresolved.

It should be pointed also out on the financial statements of the companies which show an increase in costs in the "Other" column – at Kozloduy NPP EAD this cost amounts to BGN 2,135 million for 2022, compared to BGN 247 million for the same period of 2021, and the accounting reports also include grants provided to the Ministry of Finance BGN 450 million in grants under Order of the Council of Ministers No. 739/26.10.2021. This shows that the company participates in the process of raising funds under government programs not only by paying a dividend in the amount of its entire profit of BGN 1,369 million as of 30.09.2022, but also by deductions on other lines.

The TPP Maritsa East 2 EAD reports partial compensation of the accumulated liabilities, which from BGN 1,525 million in 2021 decreased to BGN 1,213 million as of 30.09.2022, and the company reports a profit of BGN 773 million as of 30.09.2022, which was used to raise funds under the Government programs. Preliminary⁷ data for 2022 show that if the entire profit is redirected to cover losses from past periods, the plant will reduce the accumulated losses to about BGN 220 million.

The common aspect for the companies from the Power Generation Group within BEH EAD is that there is no increase in the cost of investment and development of the main activity.

Despite the high increase in natural gas prices, the companies from the Gas Transit and Supply Group within BEH EAD do not participate significantly in supporting the government measures to compensate for high energy prices in Bulgaria due to the fact that they operate with imported raw material and are at high risk in cash flow management.

The Government measures for compensation of high energy prices in Bulgaria went through several stages, being financed mainly by the companies from the Power Generation Group within BEH EAD.

⁶ <https://3e-news.net/bg/a/view/41545/martin-georgiev-naj-goljamoto-predizvikelstvo-pred-nek-prez-2022-g-beshe-hidrologijata>.

⁷ <https://www.segabg.com/hot/category-economy/beh-trudno-mozhe-da-zakurpi-dupkata-haznata>.

The first version of the measure⁸ for compensation of non-household end customers of electricity included payment of aid at a level of BGN 110 per MWh, and the entire amount of compensation to all end customers for October and November 2021 amounted to BGN 387 million. The financial source for this first stage of compensation is the revenues in the Fund “Security of Electricity System” (SES), the State Budget and the donation from Kozloduy NPP. It should be pointed out that the stocks used by the SES Fund are from a buffer of about BGN 500 million from the revenues from CO2 allowances, which appeared due to the high prices of the allowances, as well as the higher revenues under the deductions of 5% of the revenues of the energy companies. The donation from Kozloduy NPP amounts to BGN 450 million, which was partially used in 2021, with the remainder also used for compensation in the coming months of 2022. The measure takes into account that the existing regulated market is protecting household consumers from price growth.

The compensation mechanism applies a deduction of the corresponding amount from the monthly electricity bill for each customer. Under the Government's compensation program for the final non-household electricity consumers who are on the free market, there is no foreseen procedure for application. In order for this to happen, the Ministry of Energy concludes contracts with electricity traders, suppliers of last resort, producers who sell directly to final non-household customers, as well as with the operator of the organized electricity exchange market. It is obvious that the state administration is involved in the process with a non-character function, but thanks to this the program was activated at the initial stage.

At that stage, the measure was consulted with DG Competitiveness of the European Commission, which considered the measure to be non-selective and therefore do not constitute State aid.

Subsequently, the program is extended⁹ with effect until the end of March 2022, with business compensation for December 2021 calculated as 75% of the difference between the base price of BGN 185.59 per MWh and the real average monthly exchange price of the day-ahead segment on the Independent Bulgarian Power Exchange (IBEX) for the respective month, but not more than 30% of the real exchange price for July 2021. This type of support to the business has a total value of about BGN 986 million by the end of the period (December 21 – March 22). This time the measure also includes support to grid operators for their technological costs (July 21 – March 22) estimated on the basis of a real cost above the one recognized by the Energy and Water Regulatory Commission (EWRC), as well as natural gas consumers on the regulated market and grid operators, for which additional costs of BGN 644 million were foreseen. In addition, water and sewerage operators have been further compensated with about BGN 100 million for real costs for the period from 2021 to 03.2022, which finance the real costs compared to those recognized by the EWRC. Programs of the

⁸ <https://www.expert.bg/macrovew/energy/110-te-levamvtch-kompensacija-za-firmitene-sadyrjavna-pomosht-1668018.html>.

⁹ <https://www.me.government.bg/bg/news/kompensacii-za-okolo-1-5-mlrd-lv-do-kraya-na-m-mart-2022-g-predlaga-ministerstvoto-na-energetikata-2959.html?p=eyJwZXJpb2QiOiIwIiwia2V5d29yZHMiOiJcdTA0M2FcdTA0M2VcdTA0M2NcdTA0M2ZcdTA0MzVcdTA0M2RcdTA0NDZcdTA0MzBcdTA0NDZcdTA0MzhcdTA0MzgiLCJvcmlldiI6IjAifQ.>

Ministry of Education and Science were also developed to compensate students – a fixed amount per student, support for electricity costs – based on the real cost of dormitories to a regulated market – about BGN 5 million.

The measure has been extended until the end of June 2022 in view of the plans for the adoption of a new State budget, but the main payment function was transferred to the SES Fund. The amount of compensation varies depending on the achieved basic average monthly exchange price of the day-ahead segment of IBEX for the respective month and is as follows:

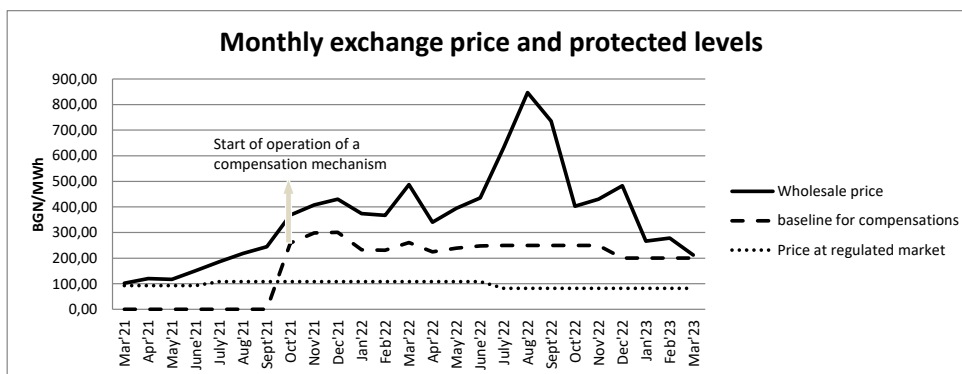
- October 2021 – BGN 110/MWh
- November 2021 – 110 BGN / MWh
- December 2021 – BGN 128.98 / MWh
- January 2022 – BGN 141.21 / MWh
- February and March 2022 – 75% of the difference between the real average monthly exchange price of the day-ahead segment on IBEX for the respective month and the base price of BGN 185.59 / MWh (average baseload price on the day-ahead market on IBEX for July 2021). At prices below the baseline, compensation is not provided.
- April 2022 – BGN 116.08 / MWh
- May 2022 – BGN 155.71 / MWh
- June 2022 – BGN 188.71 / MWh

With the procedure for updating of State budget, the 47th National Assembly introduced a baseline for calculating the compensation of BGN 250 per MWh. The difference between this price and the average price of electricity on IBEX (monthly average price day-ahead segment) is covered by the resources of the SES Fund. With amendments to the Energy Act, all state-owned enterprises that produce electricity pay targeted contributions to the SES Fund to finance these activities. The amount of the contributions shall be determined by the Council of Ministers on a proposal from the Minister of Energy.

On 11.11.2022, a decision of the National Assembly was published, according to which all consumers on the free market should receive compensation for electricity prices over BGN 200 per MWh (baseline for calculating the compensation), and the support should continue until December 31, 2023. An attempt was made to differentiate the compensations by type of consumers and depending on the achieved energy efficiency indicators, but the final decision of the National Assembly continued the practice of compensating all consumers on the free market.

The levels achieved above which stock prices are subject to compensation in favour of the consumers are presented in Figure 1.

Figure 1. Achieved levels of stock prices and secured payment levels at end users



Source: own results of analysis of IBEX statistics and regulatory decisions.

Figure 1 shows that the provided compensations follow the course of prices on the power exchange and provide financial resources for payment to traders within the next month – initially by the Ministry of Energy, and subsequently by the SES Fund. The program for compensation of non-household electricity consumers includes about 633,000 end customers, including companies, educational institutions, temples, theatres, medical institutions, etc.

By 31.10.2022, according to the program to compensate for high electricity prices, which starts in October 2021, consumers on the free market have received over BGN 4.4 billion, as indicated in a written response of the caretaker Minister of Energy to a parliamentary question. Based on the analysis of consumption and the data for the average monthly base load price on IBEX, taking into account the established levels above which compensation is provided, our own assessment has been prepared, which shows that users on the free market (including network operators for technological costs) have received an additional BGN 1.2 billion by 31.03.2023.

Thus, a total of between EUR 5.5 billion and EUR 6 billion has been paid under the compensation program. Taking into account that the main part of the revenues in the SES Fund are used for compensation to the Public Power Provider and for payments under premium contracts (PPA), as well as the fact that the budget funds are directed to support programs outside the support for electricity bills, it is concluded that the main part of the costs for compilation of electricity bills of electricity free-market customers were provided by state-owned companies.

As stated, consumers in a regulated market are also protected from the increase in wholesale electricity prices. In the period of sharp increase in electricity prices, household consumers pay the energy component at a regulated price set by the EWRC in the amount of BGN 108.37 per MWh respectively (determined by Decision No. C-27 of 01.07.2021) and BGN 81.90 per MWh (determined by Decision No. C-19 of 01.07.2022). The difference in market prices is offset through the following three sources:

- by the SES Fund, through the use of funds from carbon allowances sales;

- by the SES Fund, through the use of contributions from electricity producers and other liable persons, amounting to 5% of their revenue;
- from the provision of electricity at a regulated price by state-owned companies.

The contributions to the Fund for 2022 from the state-owned power companies in the BEH group, which are formed on the basis of 5% of their sales revenues, are about BGN 600 million. The difference between mandatory supply prices on a regulated market and the prices achieved on the free market forms a missed income from Kozloduy NPP, NEK and Maritsa East 2 TPP amounting to BGN 2.4 billion for 2022.

In this sense, in total, during the period of high market prices of electricity from July 2021 to March 2023, the state-owned Power Generation Group within BEH EAD have provided financial resources for government support programs amounting to between BGN 9 and 10 billion.

4. Participation and Effect for the Different Trading Participants of the Applicable Compensation Mechanism

In the period of price crisis, private companies in the sector had minimal or no participation in government support programs, mainly as deductions of 5% of their sales revenue (for some private companies) or corporate income tax (for those that report profits), as well as through the revenue ceiling introduced in January 2023. The income from these contributions to the SES Fund does not exceed BGN 500 million or from the extraordinary expenses of private companies are insignificant compared to the contributions provided by the group companies of BEH.

In connection with the implementation of Council Regulation (EU) 2022/1854 of 6 October 2022 on emergency intervention to address high energy prices of 13.10.2022, the Council of Ministers prepared a proposal for a law, including reference values for reference price by type of producers to determine the amount of a target contribution by all producers, not only by state-owned companies. This bill was not considered in the National Assembly. The arrangements for implementation of the provisions of the State Budget of the Republic of Bulgaria Act for 2022, promulgated on 30.12.2022, in force as of 01.01.2023, in connection with the implementation of the Regulation, determined the obliged persons and instructed the Council of Ministers to determine the specific revenue ceiling for the respective type of producer. They are determined by Order of the Council of Ministers No. 29 of 12.01.2023.

In addition, through amendments to the Corporate Income Tax Act, on 06.12.2022 the National Assembly accepted that companies operating in the sectors of crude oil, natural gas, coal and oil refining should pay a mandatory temporary solidarity contribution to the generated excess profits. The taxation is 33%, and the average profit for the last four years, plus 20%, is considered an excess profit. According to the Ministry of Finance, the measure will cover 32 companies, but half of them have not announced such profits and the additional taxation will not affect them, so for 2023 revenues of about BGN 76 million are expected along this line.

Still, questions were raised about the effectiveness of the applied mechanism to compensate all consumers on the free market on equal terms, but with funding mainly provided by state-owned companies. The main argument in favour of the applied mechanism is that it does not require the development of a complex targeted support mechanism that shall receive approval from the European Commission. In addition, in the discussions, it was pointed out by the business organizations that over the years companies in the power sector have received excess revenue¹⁰¹¹, i.e. the claim is that now the violated fairness in pricing for the free market participants in Bulgaria is being restored.

Following this discussion, we should point out that the Bulgarian power market has shown over the years a number of weaknesses – frequent changes in the market model of domestic cross-subsidization, the introduction of an untransparent mechanism for cold reserve or availability costs, which have sparked objections. Despite these weak points, the established electricity system secured supplies to the country and provided protection for consumers in a regulated market. In the last 10 years, the model of "single buyer" has been changed to the current model with "public provider", the system of reporting and traceability of service costs has been significantly improved, and market integration has increased competition. Bulgaria is still delaying the full liberalization of the retail market, but this has made it possible to implement a comprehensive compensation mechanism in a very short timeframe.

The mechanisms for ensuring cold reserve and system services, including balancing models, continue to be under discussion, but they represent services necessary for system security and it is a matter of finding the optimal form for their implementation.

The existence of special conditions to ensure, both investment in the sector and reliability of supply, is a rather normal practice, which is now emphasized by the European Commission's proposals to change the market model. To a large extent, the new proposals have already analogues or practices in Bulgaria. For example, renewable energy projects receive support through premium contracts and there are already long-term contracts for the purchase of electricity (PPA). These contracts are similar to the long-term contracts with two coal plants signed years ago, thanks to which Bulgaria established modern low-emitting generation. The rehabilitation of the other coal-fired power plants was realized with loans and rights to use free allowances for carbon emissions. District heating plants also continue to use special conditions when using highly efficient combined cycles (high-efficiency cogeneration). The corporate practice of supporting TPP Maritsa East 2 for the purchase of carbon allowances after 2018 amounts to about BGN 200 million is also noted in the assessments for provided support.

Based on an analysis of regulatory pricing decisions, it is estimated that after 2011 business users in Bulgaria have paid an additional BGN 4.6 billion in the form of price additions, through which investments in new plants and rehabilitation of existing plants have been

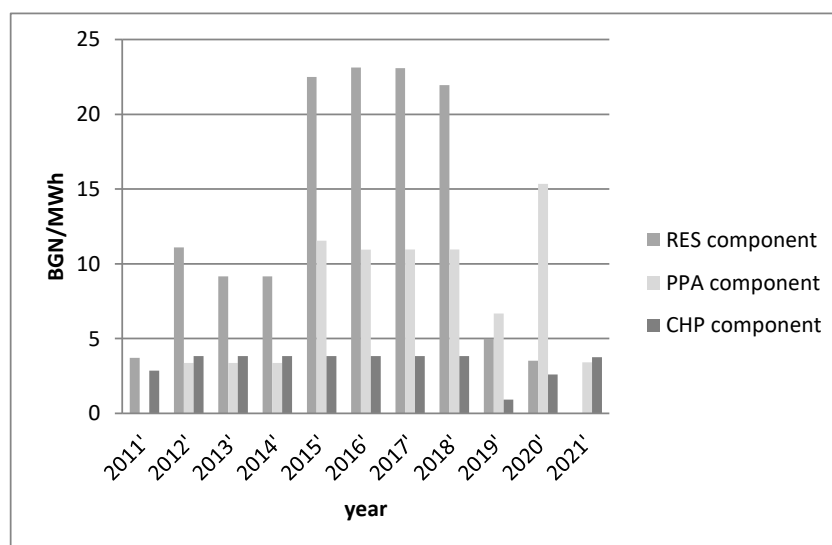
¹⁰ <https://bica-bg.org/bg/article-22124-aobr-s-priziv-kym-bylgarskiq-biznes-za-tushirane-na-cenite-i-spirane.htm>.

¹¹ <https://bica-bg.org/bg/article-21841-aobr-s-pismo-do-instituciite-otnosno-proekta-na-pms-za-prilagane-na.htm>.

ensured. The evaluation takes into account the additives forming an "Obligation to Society" as indicated in Figure 2.

The assessment is based on average consumption for non-household consumers connected to the network low, medium and high voltage of 18.5 TWh per year.

Figure 2. Share of the component components of the supplement "Obligation to Society"



Source: own results of statistical data analysis and regulatory decisions.

The discussion of the costs of maintaining a reliable national energy mix should not be limited to the current financial parameters of the final price, but should take into account also the need for system services and power availability in periods of crises.

Thus, the availability of national generation capacities allowed Bulgaria in times of price crisis to provide compensation for customers on the free market for about BGN 6 billion and separately to provide affordable prices for households.

Both system reserve mechanisms and approaches to securing generation capacities in the electricity sector are necessary conditions for secure supplies, which are realized over a long planning horizon that exceeds 20 years. In years without supply crises or severe weather conditions, those types of costs cause sharp criticism, but in crisis periods they are well come since they ensure the availability of electricity generation and secure and affordable supplies.

Therefore, the protection of the financial and technological stability of state-owned companies, which mainly provide system services and reserves, should be a priority when planning the allocated funds for compensation, having in mind the long-term reliability.

5. Parallel to Actions Taken in the European Union

In the last three years, the discussion of the adequacy market model and the search for the right balance between the free competition requirements and policies for support of green development has been central not only in Bulgaria but also in Europe.

The European Commission proposed¹² a set of measures to counter high energy prices as early as October 2021, initially highlighting the focus on saving energy in terms of natural gas usage and highlighting the need to build more renewable capacities. An analysis of the electricity market model and the carbon trading of ACER was also commissioned. The report¹³ underlined that the market model has brought benefits to end-users and should not be changed due to the current crisis and that there is no significant impact of the financial transactions on the system for carbon trading.

Despite these conclusions, practically all EU countries have started to take various measures¹⁴ to ensure the security of supply and affordable energy prices. Initially, national measures targeted vulnerable groups of consumers and were based on budgetary programs. Some countries have taken more radical measures such as a ceiling on the price of natural gas on the national market (Spain¹⁵) or a general support program (Germany¹⁶). In May 2022, the Commission proposed¹⁷ to develop the framework of the National Recovery and Development Plans with the REpowerEU Plan.

Following the insistence of many governments, at the end of 2022 the Commission proposed by Regulation (EU) 2022/1854 to set a ceiling on the revenues of energy companies, and in March 2023 announced a proposal¹⁸ for the electricity market modification. These proposals aim at expanding the application of long-term contracts, but with priority for renewable and new low-emission generation.

Due to the mild winter in 2023 and low demand for natural gas in Europe, measures to secure supplies from sources outside Russia have borne fruit and energy market prices are now significantly lower than in August 2022. This led to reduced pressure on the works for reform the market and limited the options for reducing the energy dependence mainly to the development of new renewable capacities.

¹² https://ec.europa.eu/commission/presscorner/detail/en/fs_21_5213.

¹³ <https://www.acer.europa.eu/events-and-engagement/news/press-release-acer-publishes-its-final-assessment-eu-wholesale>.

¹⁴ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52022DC0138>.

¹⁵ https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwjNxK78wuj9AhVASPEDHfbRD3kQFnoECCQQAQ&url=https%3A%2F%2Fwww.lamoncloa.gob.es%2Flang%2Fen%2Fgobierno%2Fcouncilministers%2FPaginas%2F2022%2F20220513_council-extr.aspx&usq=AOvVaw2gQP_j_w9O05S938Ez64C.

¹⁶ <https://www.euractiv.com/section/energy/news/the-final-details-of-germanys-e99-billion-energy-support-scheme/>.

¹⁷ https://ec.europa.eu/commission/presscorner/detail/en/ip_22_3131.

¹⁸ https://ec.europa.eu/commission/presscorner/detail/en/IP_23_1591.

Despite a decrease in the perception of an energy crisis, some conclusions can be drawn from the past period:

- The response to crises in energy supply continues to depend mainly on the national energy model, and common decisions at the EU level are of limited importance.
- Measures, introduced by national governments in times of crisis, actually limit the free market and increase the importance of budget spending. Including the proposed measures for the development of the market model by the EC have the effect of increased regulations and state involvement.
- Access to the resources of the state-owned companies is direct, which is important when the ability to react quickly is key in case of abrupt market deviations.

In the long run, the European Energy Union will continue to have a significant impact on the development of the national market in Bulgaria through the common policies and market model, channelling of financial instruments and through the rules for permissible state aid. The analysis of the proposed measures by the Commission to change the market model shows rather a commitment to policies for the development of a low-carbon economy than to revise the basic policies.

In conditions of short-term market changes, reflecting the influence of significant external factors, the developed market model does not allow rapid adaptation. In such cases, the available national instruments are of key importance. Providing such opportunities in Bulgaria requires the maintenance and development of power infrastructure and generation capacities with a long horizon of operation.

6. Results and Recommendations

In Bulgaria, a large-scale program for compensation of high energy prices was implemented, which went through several stages and was financed mainly by the companies from the Power Generation Group within BEH EAD. Despite the increased revenues in the period, the analysis of the financial statements does not show an increase in investment and improved operational costs, which leads to the conclusion that companies fail to increase their competitiveness.

Although it was widely supported, this program lacks the necessary level of publicity for the significant resources spent, including what results have been achieved and who are the largest recipients of support. It seems that a quarter of the financial resources are directed to about 30 largest industrial consumers of electricity, but there is no analysis of the impact of this measure in the formation of their final prices. Nevertheless, it is recommended¹⁹ that it is this model of compensation for all free-market users to continue.

Taking into account that the resources redirected by state-owned energy companies under state programs are comparable to the total final consumption expenditures of the Government, which in 2021 amounted to BGN 26,335 million, it is important to assess

¹⁹ <https://www.mediapool.bg/nakade-v-energetikata-sled-izborite-news346373.html>.

whether this support has led to growth in 2022. At this early stage, in terms of accountancy reporting, we can indicate the data from the annual review of the Ministry of Finance "Economy of Bulgaria" from 2022, according to which in 2021 there is a decrease in fixed capital investments by 11%. According to the published key economic indicators of the NSI, the relative share of gross fixed capital formation in GDP in the third quarter of 2022 decreased by 6.1% in real terms compared to the same period of the previous year, according to seasonally adjusted data. On the other hand, according to data²⁰ from the Ministry of Finance, the average growth of companies' profits in Bulgaria for 2021 is about BGN 1.5 billion, while in 2022 it is already BGN 10 billion. The inflation figures also show a negative trend with a growth of 16.9%.

It can be concluded that the compensations have not contributed to reducing consumers' costs or increasing assets in Bulgaria, as it was used as initial justification. At the same time, state-owned companies failed to take advantage of the increased revenues for the deployment of modernization programs or new capacities, unlike their competitors in the private sector in Bulgaria or those on the regional market, which in the medium term will put the companies within BEH in a difficult situation.

The discussion on the effectiveness of the implemented state program is important in view of the expected new price increase of energy resources next winter season when the issue of applying compensation measures will arise again.

In addition to the mechanism for equal compensation of all consumers on the free market, we recommend that the following targeted compensation approaches be considered for application:

1. Compensation is a function of the share of electricity expenses in the cost of the production of the respective enterprise. This approach would mainly target aid to industrial production and would limit aid to the financial sector and services.
2. Application of the compensation model that was used in the conditions of the COVID-19 pandemic – supporting enterprises with reduced sales revenues due to high electricity prices. This model helps to preserve jobs, but there is a risk of losing foreign markets.
3. A model of compensation for all consumers on the free market, but with the stimulation of good commercial practices. Under such a model, full compensation is received by those consumers who have concluded contracts for the supply at prices which are close to the best ones, and consumers with high-priced contracts receive partial compensation. The determination of the competitive market price reference level should be based on the average price achieved by at least 80% of supply contracts. This threshold in determining the reference price is derived in order to avoid the dominance of large consumers, mainly connected to the high voltage grid and who account for about 35% of consumption on the free market.

²⁰ <https://www.mediapool.bg/mf-33-danak-varhu-svrahpechalbite-na-vsichki-firmi-ili-zaem-ot-mvf-news345812.html>.

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