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STATE REGULATION OF THE ELECTRICITY MARKET IN UKRAINE

The article studies the electricity market in Ukraine and the institutional environment for the implementation of state policy in the energy sector. It identifies main electricity market models and their advantages and disadvantage. The author finds that a new electricity market model provides for the introduction of competitive rules of the game at all levels to be separated by periods of time: bilateral contracts market, where consumers or traders can buy electricity directly from the generating companies; a "day ahead" market, in which next-day delivery contracts are to be concluded; an intraday market for bidding for electricity volumes within a day; balancing market that will allow to buy or sell electricity volumes to balance the load schedule. The author analyzes the changes in the state regulation of the energy market, which is related to the change of an electricity market model. The result of the research showed the main aspects of reforming the energy market in Ukraine.

Key words: state regulation of the electricity market; electricity market; energy market models; energy sector reform; state policy in the electricity sector.

INTRODUCTION

Over the past years, Ukraine has made tangible progress in transposition – transference of European directives and regulations into national legislation, which is one of the components of the Association Agreement and the Energy Community Treaty implementation. Reforming the energy sector is part of the Energy Strategy of the state, and the main areas of reform include the launch of the new electricity market model, energy efficiency, gas market reform and the development of renewable energy sources.

Under conditions of globalization and automation, electricity is becoming more important factor for economic development. Reliable supply of affordable electricity with acceptable environmental impacts can only be achieved with implementation of a comprehensive and carefully balanced legislative policy in order to create the necessary regulatory framework to stimulate economic development.

The main reasons for the decision of most countries at the state level to undertake significant reforms in the power industry were low efficiency and poor competitiveness of national products on the regional and world markets, as well as the lack of investments for the development of energy sector.

Analysis of relevant experience of some countries shows that the positive results of reforms were necessarily preceded by the adoption of legislation, that clearly defined goals, rights and responsibilities of all stakeholders.

Changes in approaches to the formulation of energy policy of states are taking place in the world: the transition from an outdated model of energy sector functioning, dominated by large producers, fossil fuels, inefficient networks, imperfect competition on the natural gas, electricity and coal markets – to a new model with creating a more competitive environment, equalizing development opportunities and minimizing the dominance of one type of energy production and fuel supply routes. Preference is given to improving energy efficiency and the energy use from renewable and alternative sources. The introduction of measures to prevent and adapt to climate change is one of the priorities of global power industry development.

Therefore, Ukraine faces new economic and technological challenges, and at the same time opens up new opportunities for finding and implementing innovative developments in the field of extraction, processing of fossil fuels, production, transformation, supply and consumption of power, which necessitates the formation of a new energy policy of the state and is a **research problem**.

The purpose of the article is to research changes in state regulation of the electricity market in Ukraine.

The subject of research is the electricity market in Ukraine.

The method of analysis and comparison in the research of electricity market models is used in the article with identifying five main models: the model of regulated natural monopoly, the model of a single



buyer, the model with deregulated wholesale trade, the model with unregulated wholesale and retail trade, the competitive model of the bilateral contracts market with the balancing market. Their advantages and disadvantages have been identified. **The cognition method** was used to research the process of formation and implementation of the state policy in the electricity sector of Ukraine. **The systematic generalization method** was used to determine the prerequisites for the formation of a new energy market model, which was developed in accordance with the requirements of the Third Energy Package of the European Union and takes into account the standards and regulations of the European Union, and is an important prerequisite for the integration of the Ukrainian electricity grid with the European energy grid.

THE MAIN PART

1. State regulation in the energy sector

Recently, more and more efforts in Ukraine have been directed towards ensuring the systematic development of energy law, adoption of legislation and improvement of state regulation in this branch of economic activity. In this area there is an active and quite successful involvement of Ukraine in international cooperation.

Based on the provisions of the Constitution of Ukraine, laws of Ukraine were drafted and adopted: "On the electricity market", "On alternative energy sources", "On combined heat and power production (cogeneration) and use of waste energy potential", "On the National Commission for state regulation in the fields of energy and communal services". The laws "On natural monopolies", "On protection of economic competition", "On protection of the environment" and international treaties of Ukraine are also important for the regulation of legal relations in the energy sector.

A number of legal and regulatory acts of Ukraine define specific threats to the national security of Ukraine in the energy sector and ways to solve problems.

In April 2017, the Parliament of Ukraine adopted the Law of Ukraine "On the electricity market", which significantly changed the market model and determined that the electricity market should operate on a competitive basis. According to the law, the functioning electricity market is performed on principles: ensuring energy security of Ukraine; ensuring security of supply of electricity to consumers, protecting their rights and interests; creating conditions for the safe operation of power facilities; preserve the integrity, ensuring reliable and efficient operation of the unified energy system of Ukraine, the unified dispatching control; ensuring a balance between demand and supply of electricity; development of interstate intersections with power systems of neighboring countries; energy efficiency and environmental protection; promoting alternative and renewable energy; fair competition; legal equality for sale and purchase of electric energy; free choice of the electricity supplier for consumer; non-discriminatory and transparent access to the transmission system and distribution systems; non-

discriminatory participation in the electricity market; independent of governmental regulation; non-discriminatory price and tariff making, that reflects the economically reasonable costs; responsibility of market participants for non-compliance of market rules, a "day ahead" market rules and intraday market, transmission system code, distribution systems code, commercial accounting code, retail market rules and other legal acts and regulations governing the electricity market functioning and conditions of agreements concluded on the market; cooperation and integration of electricity market at regional and pan-European levels (The Verkhovna Rada of Ukraine, 2018).

The new state policy in the power industry is focused on:

- 1) ensuring safe, reliable supply of electricity;
- 2) creation of conditions for effective functioning of liquid electricity market and its development;
- 3) providing conditions and applying measures to promote energy efficiency in the electricity industry, demand management and energy substitution;
- 4) facilitation of electricity production from alternative energy sources and the development of distributed generation and energy storage equipment;
- 5) environmental protection;
- 6) creating conditions for attracting investment in the electricity industry, facilitating access to information and administrative procedures;
- 7) promoting the application of innovative technologies;
- 8) consumer rights protection;
- 9) electricity market integration at regional and pan-European levels.

The formation and implementation of state policy in electricity industry exercise Cabinet of Ministers of Ukraine, central executive authority, which provides development and implementation of state policy in the electric power network, the central executive body that implements the state policy in the field of supervision (control) in the electricity branch, and other government bodies according to law (Fig. 1).

For implementation of the state policy in the field of energy, a system of specially authorized bodies of the executive power has been created, their powers and the procedure of activity are legally defined.

In Ukraine there are statutory state institutions in the electric power industry, among them:

- The National Commission for State Regulation of Energy and Public Utilities (NEURC/Regulator) is a permanent independent state collegial body to provide state regulation, monitoring and control of activities of economic entities in the power industry and communal services spheres;

- Ministry of Energy and Coal Industry of Ukraine, which is the central executive body to form and implement the state policy in the electricity, nuclear industry, coal industrial, peat mining, oil-and-gas and oil-and-gas refining complexes (Energy Sector) and provides public policy in the field of supervision (control) in the fields of electricity and heat supply. Activity of Minenerhovuhillya is

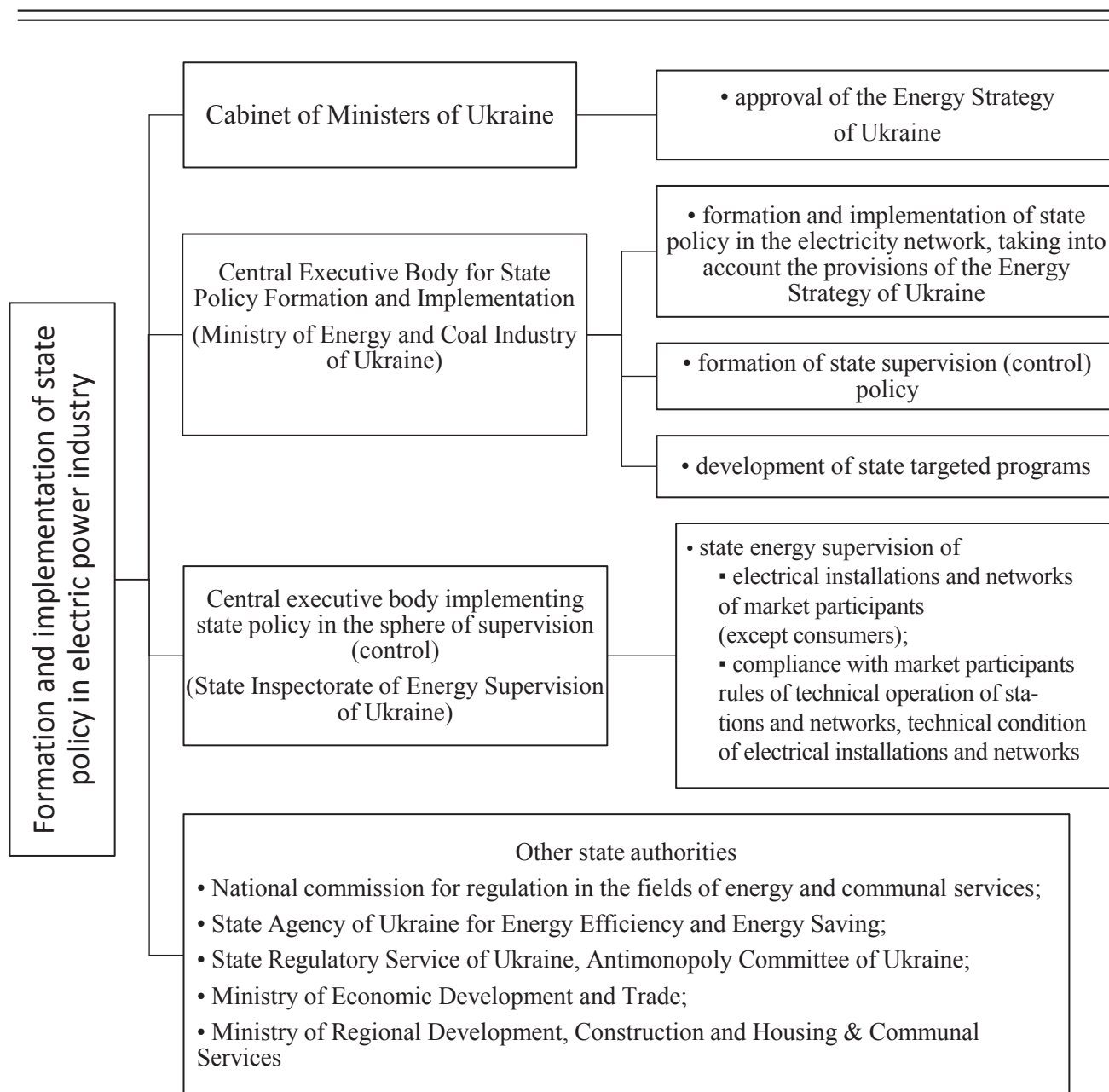


Fig. 1. Formation and implementation of state policy in electricity industry

directed and coordinated by the Cabinet of Ministers of Ukraine;

- State Inspectorate for Energy Supervision of Ukraine, which is the central body of executive power and is directed by the Cabinet of Ministers of Ukraine through the Minister of Energy and Coal Industry, that implements the state policy in the field of supervision (control) in the fields of electricity and heat supply;

- State Agency for Energy Efficiency and Energy Saving of Ukraine, which is the central body of executive power and is directed by the Cabinet of Ministers of Ukraine through the Vice Prime Minister of Ukraine – Minister of Regional Development, Construction and Housing, which implements the

state policy in the field of efficient use of energy resources, energy saving, renewable sources of energy and alternative fuels;

- State Regulatory Service of Ukraine, which is the central body of executive power, whose activity is directed and coordinated by the Cabinet of Ministers of Ukraine. DRS implements the state regulatory policy and supervision (control) policy in the sphere of economic activity as specifically authorized body on licensing and permitting system in economic activity field;

- Antimonopoly Committee of Ukraine, which is a state body with a special status, the purpose of which is to ensure state protection of competition in business and in the public procurement field;



- Ministry of Economic Development and Trade of Ukraine is the main body in the system of central executive power, which provides: state policy in the field of consumer protection, state policy to control the prices, licensing system, supervision (control) in economic activity; creates and implements the state policy of economic and social development and trade, the state industrial policy, state policy in the sphere of technical regulation, standardization, metrology and metrological activity;

- Ministry of Regional Development, Construction and Housing and Communal Services of Ukraine is a central executive body that ensures state regional policy, state housing policy and policies in the field of construction, architecture, urban planning, housing and communal services, and provides state policy in architectural control and supervision, control in housing and communal services, in the field of efficient use of energy resources, energy saving, renewable energy and alternative fuels;

- Energy Ombudsman, under the Law of Ukraine "On the National Commission for State Regulation of Energy and Public Utilities", the introduction of energy ombudsman is envisaged (The Verkhovna Rada of Ukraine, 2019). The Verkhovna Rada of Ukraine has registered the Draft Law on Energy Ombudsman of September 4, 2017, No. 7059.

In the system of energy legislation, relevant acts of the government are of great importance. In particular, the Decree of the Cabinet of Ministers of Ukraine of August 18, 2017 No. 605-p approved for the period up to 2035 the Energy Strategy of Ukraine "Security, Energy Efficiency, Competitiveness", which outlines the strategic guidelines for the development of the fuel and energy complex of Ukraine for the period up to 2035.

According to the strategy, in the first stage it is planned to reform the energy sector until 2020 and complete the implementation of the Third Energy Package, which will create full-fledged natural gas and electricity markets in accordance with the energy legislation of the European Union.

An important task is development of the legislative framework for regulating the energy sector to ensure implementation of international obligations under ratified international energy agreements. Having signed the Treaty establishing the Energy Community and Association Agreement between Ukraine, on the one hand, and the European Union, the European Atomic Energy Community and their Member States, on the other hand, Ukraine has made considerable efforts to implement legislative acts of the Energy Community in the field of energy, namely Directive 2009/72/EC on common rules for the internal electricity market, which, *inter alia*, states that "there is still no ... equally level of effective regulatory oversight" (EC Directive, 2009) and EC Regulation 714/2009 on conditions for access to the cross-border electricity exchange network (EC Regulation, 2009).

Therefore, Ukraine has created the basic elements of the state energy management system, identified

their main functions and powers of the management bodies, and outlined the schemes of their interaction. In accordance with changing market conditions, the system is in the process of constant transformation, which is evident in permanent changes of its structure, redistributing responsibilities between government agencies and finding more effective instruments of state regulatory policy in relation to the effectiveness of the system as a whole.

2. Electricity market organization models

The choice of electricity market model and its adaptation to specific country conditions during the reform of the electricity branch are affected by various factors, the main of which are:

- the purpose of reform;
- the existing structure of generating capacities by their types and regions of the country;
- the centralization (decentralization) degree of the electric energy system dispatch control;
- state policy concerning formation of wholesale and retail tariffs and, consequently, the degree of their regulation;
- sources of investment in electricity branch (Burjachok T.O., Bucjo Z. Ju., Varlamov Gh. B., Dubovskoj S.V., Zhovtjanskyj V.A., 2013).

Based on the multiannual practice of reforming the electricity industry in the world countries, the following electricity market models are introduced and have effect (Ministry of Energy and Coal Industry of Ukraine SE "NEC "Ukrenergo" Scientific and Technical Center of Electricity, 2014):

1. Regulated natural monopoly model (or vertically integrated electricity market) is to implement on the basis of vertically integrated enterprises that directly produce, transmit and supply electricity. This model is characterized by complete lack of opportunities for consumers to choose wholesale and retail electricity suppliers, and the sphere of transmission (transportation) of electricity in almost all forms of the market is regulated by the state.

2. Single buyer model (or pool model) is characterized by a monopoly in the wholesale electricity sphere (purchasing agency, state-owned enterprise), but allows competition both in the field of production and in the area of electricity supply to end consumers. The single buyer has a monopoly on transmission networks and the sale of electricity to distribution companies. Electricity prices (from purchasing from generating companies to distribution to consumers) are regulated by the state or a special regulatory body of the country.

In addition to creating a competitive environment for suppliers and consumers, the pool enables new electricity producers to enter the market, to make new investments, to use different fuels, to increase production efficiency, while improving the quality and reliability of electricity supply.

3. Competitive Wholesale Electricity Market (Deregulated Wholesale Model) is the electricity market in which the single wholesaler gradually decreases its share of the market, allowing more and more power

supply companies and large consumers to enter into direct purchase and sale contracts directly with power generators. This model of organization is characterized by the following factors as:

- the function of load scheduling and capacity balance planning is gradually shifting from a single buyer to power generation and supply companies operating under direct purchase and sale contracts;
- the possibility of functioning of electricity exchange is created;
- the purpose of electricity market regulation is to optimize market rules as well as the conditions and rules for electricity transmission and the setting of transmission and supply tariffs.

The result of such model implementation is the creation of long-term direct contracts market for purchase and sale of electricity at market prices on the basis of agreements between producers and suppliers, as well as a market for short-term contracts (spot market). There is considerable competition not only between producers but also between suppliers, which leads to optimization of pricing in the electricity market.

The ultimate goal of restructuring is gradually approach to the most advanced model of electricity market organisation. Herewith the wholesale market segments are bilateral contracts, physical supply contracts exchange, financial contracts exchange, as well as balancing market and auxiliary services market.

4. Competitive wholesale and retail electricity markets (unregulated wholesale and retail trade model) with separate distribution and selling of electricity. This model creates retail electricity markets with the organization of competition between distribution companies that buy electricity in the wholesale electricity market. Wholesale price regulation is completely excluded.

The model with unregulated wholesale and retail electricity sales is one of the most advanced models for organizing electricity markets, which has the following features:

- all end users of electrical energy have the opportunity to choose a supplier;
- electricity distribution activities are separated from the retail sale of electricity as a commodity;
- all retailers of electric power acquire the opportunity to compete with each other when concluding supply contracts;
- the possibility of operating an “open” electricity market with free access of external producers and consumers, as well as financial intermediaries operating in a free competition regime.

In the first phase of reform, the electricity transmission activities of distribution companies on local networks are separated from the retail function. Independent retailers operate in the market and are able to compete with each other and with suppliers – owners of distribution networks. At the final stage of reform, external producers and consumers gain access to the market, i.e. a multinational electricity market is being created.

5. Bilateral contracts market and balancing market (competitive model of bilateral contracts market with balancing market). It is a full-scale competitive electricity market that includes bilateral contracts market and balancing market, with different time periods:

- the long-term contract market, in which buyers and sellers enter into electricity purchase and sale contracts for future periods, such as a week, a month or a year in advance;
- the day-ahead market, in which buyers and sellers enter into electricity purchase and sale contracts for the next day;
- the balancing market, which is used to reconcile electricity supply and demand (system “balancing”) in real time during the current day.

Electricity buyers initially plan to cover the projected electricity demand by purchasing long-term contracts in the market. This may be a one-off operation or several consecutive operations prior to the start of the day-ahead market, which in turn is used for more accurate reconciliation of the expected demand with the contracted supply, because it is possible to accurately determine the forecasted demand 24 hours (a day) before delivery. The balancing market is used to match supply and demand directly on the day of supply.

Bilateral contracts provide for the physical supply of electricity by the producer to the supplier or the end user and may be concluded for the supply of “base” or “peak” electricity (or a certain combination thereof) according to a certain load schedule and other needs of the buyer.

Electricity pools and bilateral contracts markets have many common elements, but there are also significant differences between them. Bilateral contracts market participants enter into agreements for the physical supply of electricity. After that, the producers by means of “self-dispatching” ensure the generation of contracted volumes of electricity. The purchase price of electricity and its volume are determined in the contract and are different for different producers and buyers. The system operator ensures real-time market balancing by selecting the least costly and technically feasible combinations of bids or offers from balancing market participants, to reduce or increase accordingly the electricity supply. Dispatching in the electricity pool is not determined by bilateral agreements of market participants, but by the system operator. The volume of output is determined by the dispatch schedule, and the same for all manufacturers and buyers price is set at the level of the marginal price of the system – the bid price of the most expensive unit included in the daily load schedule.

It should be noted that from the position of state administration, each model of electricity market functioning is evaluated in terms of the actual state of all constituent elements, including automation degree of produced and consumed electricity metering; availability of necessary organizational structures;



Table 1

Advantages and disadvantages of electricity market models

Model	Advantages	Disadvantages
Model of regulated natural monopoly	▪ Preservation of the formed structure; ▪ Possibility of price control; ▪ Predictability for consumers and the country	▪ Insufficient economic incentives to increase efficiency; ▪ The need for state participation; in financing the industry or shifting costs to consumers
Single buyer model	▪ Attraction of private investors under limited structural changes; ▪ Possibility of price regulation and control; ▪ Predictability for consumers and the state	▪ The need to ensure transparency of the “single buyer” activities
Model with deregulated wholesale trade	▪ Attraction of private investors under minimal structural changes; ▪ Possibility of price control; ▪ predictability for consumers and the country	▪ The need to attract private capital to the industry under state guarantee in the context of price and policy levels – in the context of other market components
Model with unregulated wholesale and retail trade		
Competitive model	▪ Attractiveness to private investors; ▪ Availability of incentives to increase efficiency; ▪ Stimulating self-development of the branch	▪ Impossibility of price control; ▪ The need for significant structural changes and correction of price level to an economically justified level

efficiency of control and management mechanisms functioning; the financial status of electricity consumers; solvency and payment discipline of electricity market participants. Determining for the evaluation and adoption of establishing one or another electricity market construction model become pricing, level of investment in the development of the electrical power system, which determines efficiency, reliability and quality of electricity supply to consumers, transparency of market relationships and the equivalence realization of the electricity generators and consumers interests, also the impossibility of monopolization of certain types of activities. However, even in the light of positive world experience, the reform of the electricity industry and the choice of a national model are carried out in a balanced and stagewise manner, according to the specific country conditions. To a certain extent, this is related to the differences in the national structure of economies of different countries, the state of socio-economic development, the material and cultural level of the population, the maturity and influence of civil society organizations, the peculiarities of the state economic policy, forms of ownership and technological readiness for the reforms of national energy systems.

All above mentioned models of electricity market organisation have a common precondition, which consists of the basic “rules of the game” of any market economy, namely: mandatory compliance with contracts and framework agreements, without which none of the above models can function. Conversely, the strict compliance of established rules is a precondition for the effective functioning of each of these models.

3. New Electricity Market Model in Ukraine

National security in general and energy security of the country in particular remain a priority in the formation of state policy. The governments of the world countries are particularly cautious in forming the legislative base for reforming the electricity market with a detailed analysis of possible negative consequences for the national economy and the elaboration of appropriate preventive measures to prevent the decrease in the competitive ability of the country's products in the world markets, as well as decrease in reliability and economic efficiency.

The reforming of Ukraine's electricity industry began in the 1990s with establishing the principles of preserving the Unified electricity system of the country and its central management. The wholesale electricity market was established on the basis of the Law of Ukraine dd. 16.10.1997 No. 575 / 97-BP “On Electrical Energy Industry” according to the “Single Buyer” market model. The model was similar to that used in a number of foreign countries. Due to this, the electricity market was able to introduce effective control over energy accounting in the branch and to solve the problem of non-payments and payments bartering.

With all its advantages, the current model has certain disadvantages. Firstly, the absence of direct contracts with electricity producers limits competition in retail supply. Secondly, the average consumer cannot demand a good quality of electricity supply. In addition, the insufficient tariffs level and, as a consequence, the lack of funds for electricity generated by generating companies does not allow them to invest

in modernization of production facilities. More than 20 years new capacities were almost not commissioned in Ukraine, which significantly increased the average age of generating assets of thermoelectric power plants (TPP). Thus, in 2017, the percentage of TPP units that exceeded the threshold level for the operation of such equipment, was 80.1% of the installed capacity of all TPPs in Ukraine (National Energy and Utilities Regulatory Commission, 2017).

In 2002, Ukrainian specialists, in cooperation with international experts, have analyzed the situation in the branch and considered possible ways of reforming and developing the domestic electricity market, developed the “Concept of Functioning and Development of the Wholesale Electricity Market of Ukraine”, which provided for a stepwise transition from the existing “Single Buyer” model of the electricity market to a full-scale competitive model of the bilateral contracts market with the balancing market. In our opinion, the introduction of a full-scale competitive market will expand economic freedom not only for wholesale market participants, but also for consumers. This model will allow for better investment stimulation, cost reflective pricing, activity efficiency and integration into the European market.

According to the “Single Buyer” model, all electricity produced by the energy generating companies of United energy system of Ukraine was purchased by the state-owned enterprise SOE “Enerhorynok”. SOE “Enerhorynok” has been acting as a market operator, a single buyer and seller, and sells electricity to power supply companies that work directly with end users (Fig. 2).

The authority of state energy activity regulation in electricity industry is the National Energy Regulatory Commission (NERC). All specified market participants act on the basis of the NERC license for carrying out the relevant type of activity. According to the Decrees of the President of Ukraine dd. 27.08.2014 No. 692-695 NERC have extended powers and the right to carry out state regulation in the spheres of energy and public services by the National Commission for State Regulation of Energy and Public Utilities (NCSREPU).

According to the Rules of the wholesale electricity market, the wholesale market price for electricity is defined as the weighted average cost of purchasing electricity from all producers who sell electricity to the abovementioned market, the cost of dispatching and maintaining of backbone and interstate power networks grids, costs for this market operation and additional statewide expenses (collection as a surcharge to the current tariff for heat and electricity, reduced rates compensation for certain categories of consumers, especially for the population).

A negative factor in the functioning of the electricity market remains a high level of cross-subsidization by industrial consumers of the cost of electricity sold to certain categories of consumers, primarily the population at reduced (fixed) tariffs. The amount of cross-subsidization increased from 2005 to 2012 almost tenfold – up to UAH 34 billion. In 2014 it amounted to UAH 40 billion (National Energy and Utilities Regulatory Commission, 2017). Elimination of cross-subsidies between consumer groups has become necessary to maintain the competitiveness of Ukrainian industry.

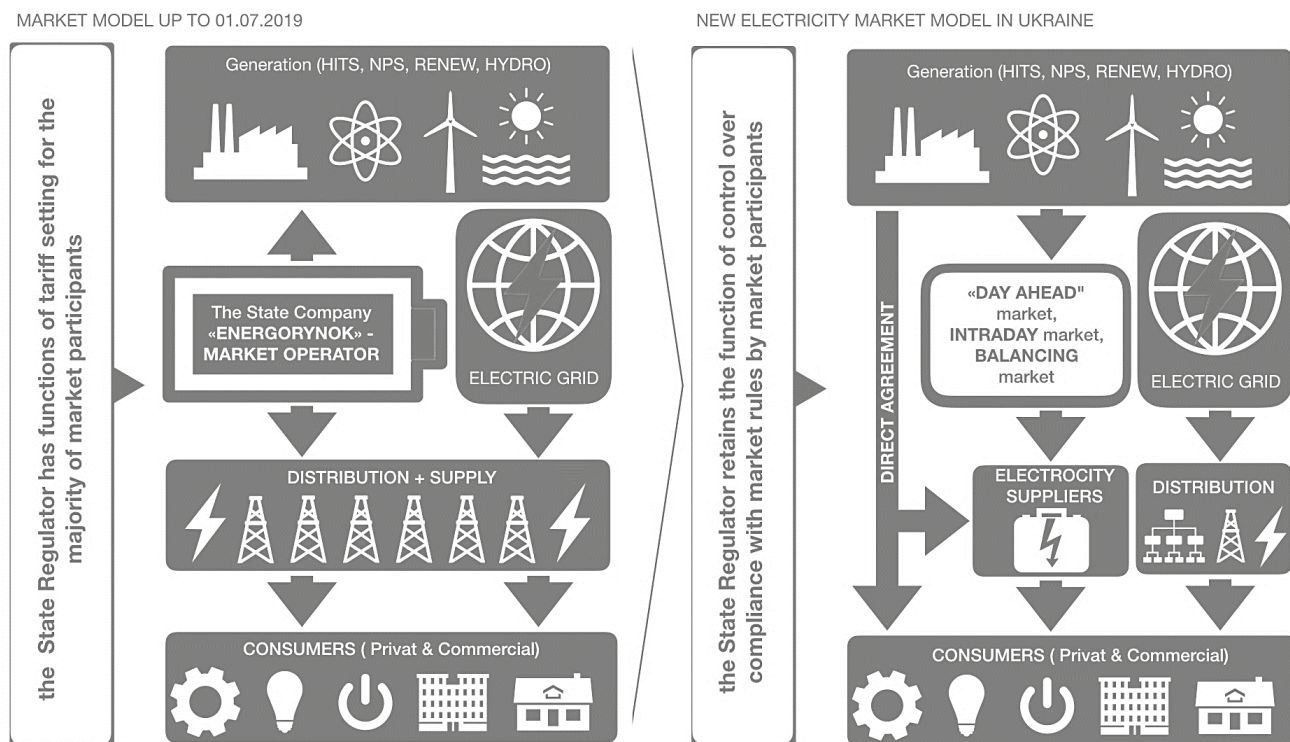


Fig. 2. Electricity market models in Ukraine

Simplified model of the new market

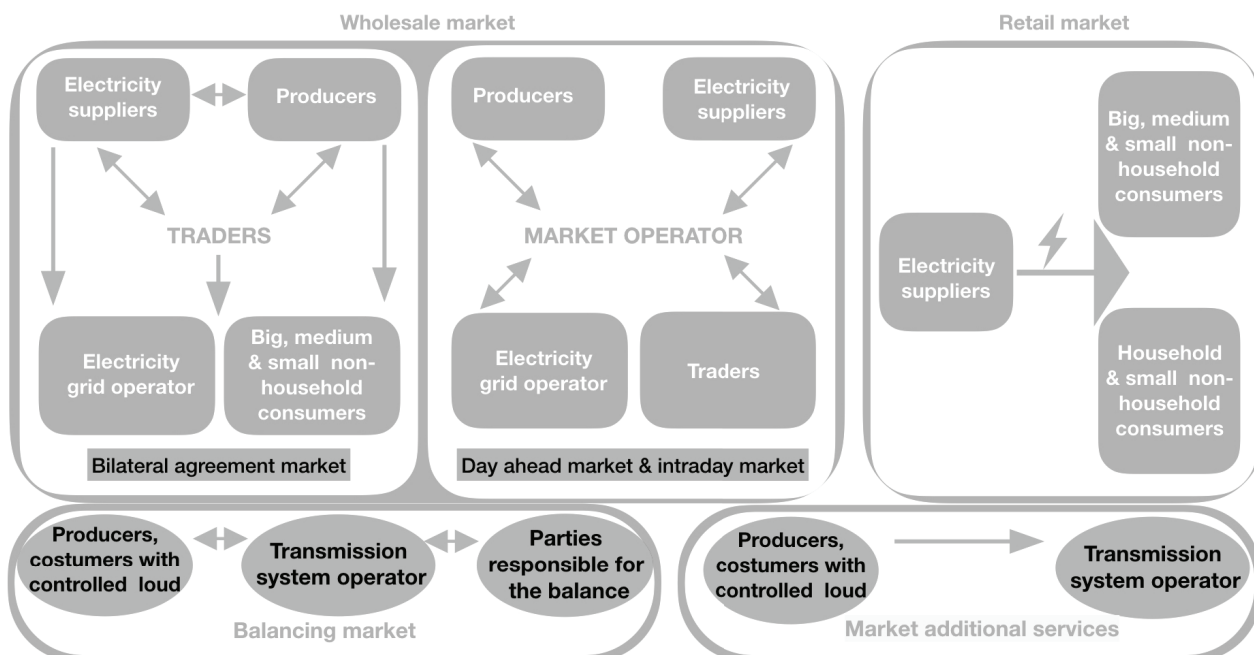


Fig. 3. Electricity market operations

The purposes of state regulation in the electricity industry are as follows: to ensure a balance between the interests of the state, electricity industry entities and electricity consumers; to provide investors with confidence in the stability of the entrepreneurial activity rules in the electricity industry; to increase competition between electricity producers and suppliers.

The experience of the energy market based on the "Single Buyer" model revealed the disadvantages of such a market organization, namely: debts for electricity consumed, tariff growth, and problems of accumulated debts in the wholesale electricity market. Therefore, the Government of Ukraine has defined the existing electricity market model as a transitional one. The Economic Reforms Program of the President of Ukraine for 2010–2014 "Wealthy Society, Competitive Economy, Effective State" envisaged a transition from a "Single Buyer" model to a direct contracts and balancing market model with the gradual market opening for qualified consumers and creation of an appropriate legislative basis for such transition.

Reforming the electricity market in Ukraine is also related to the obtaining by Ukraine in 2011 the status of Contracting Party to the Energy Community Treaty. The Law of Ukraine "On Ratification of the Protocol on the Accession of Ukraine to the Energy Community Treaty" dd. 15.12.2010 No. 2787-VI stipulates Ukraine's obligation to implement the main energy legislation acts of the European Union (EU). EU membership provides Ukraine with significant opportunities for energy sector development and reform, and the Energy Community Treaty has an important European integration aspect. The signing

of an association agreement with the EU is becoming a powerful incentive for the Ukrainian energy sector to adapt to the norms and requirements of the relevant European Union directives.

Meeting the requirements of the Third Energy Package within the established timeframe is the top priority for the next operation period of United Energy Systems of Ukraine within the Energy Community.

The introduction of a new electricity market (Fig. 2) was held with the Law of Ukraine "On Electricity Market" of 13.04.2017 No. 2019-VIII. The law stipulates that electricity market includes: bilateral contracts market (electricity purchase and sale by concluding directly between the parties to bilateral agreements on terms that are the subject of agreements of the parties); "day ahead" market (electricity purchase and sale through auctions organized on the next day by concluding agreements with market operator); balancing market (electricity purchase and sale by System operator through the selection of proposals (requests) of balancing participants, also imbalance purchase and sale); support services market (acquisition by System operator services for frequency control and active power in United Energy System of Ukraine (UES) (with the provision of appropriate reserve power) and maintain the reliability and quality parameters of electricity in UES Ukraine); retail electricity market (market of electricity supply to the end consumer, who has the right to freely choose a supplier – independent or guaranteed) (Fig. 3).

In order to implement the provisions of the Law of Ukraine "On Electricity Market", the National Commission for State Regulation in the Fields of Energy and Public Utilities approved at an open

meeting on March 14, 2018 the main secondary legislation, namely:

- Code of the transmission system (Resolution of National Commission for State Regulation of Energy and Public Utilities (NCSREPU) dd. 14.03.2018 No. 309 as amended by Resolution of NCSREPU dd. 21.06.19 No. 1120);

- Code of commercial metering of electricity (Resolution of NCSREPU dd. 14.03.2018 No. 311);

- Draft addendum to the Commercial Accounting Code “Regulations on Registration of Electricity Metering Service Providers”;

- Market rules (Resolution of NCSREPU dd. 14.03.2018 No. 307);

- Day-ahead market rules and day-to-day market rules (Resolution of NCSREPU dd. 14.03.2018 No. 308);

- Code of Distribution Systems (Resolution of NCSREPU dd. 14.03.2018 No. 310);

- Rules for the retail electricity market (Resolution of NCSREPU dd. 14.03.2018 No. 312);

- On April 18, 2018, the Code of Transmission System, the Code of Commercial Accounting, the Code of Distribution Systems, the Rules of Retail Electric Energy Market, published in the official printed edition – the newspaper “Uriadovyi Kurier”, came into force on April 19, 2018.

The advantages of the new model include:

- the fact that the new market model is in force in most European countries makes it possible to create a single regional market with the member states of the Energy Community and the EU and meets the requirements of the Third Energy Package;

- the fact that consumer protection is happening, which is: the extending consumer rights in accordance with European standards, including through the introduction of universal service providers and “last resort” providers system, a transparent support system for socially vulnerable domestic consumers;

- Investments are encouraged and stimulated, because the new market model will create transparent game rules that will increase the investment attractiveness of the branch. In addition, European mechanisms for financing the construction of new capacities are being introduced;

- Competition is grow in because electricity producers and suppliers are in a situation of free competition within the regional market, which creates incentives to increase efficiency.

CONCLUSION

As a result of research it has been found that a new electricity market model provides for the introduction of competitive rules of the game at all levels to be separated by periods of time: bilateral contracts market, where consumers or traders can buy electricity directly from the generating companies; a “day ahead” market, in which next-day delivery contracts are to be concluded; an intraday market for bidding for electricity volumes within a day;

balancing market that will allow to buy or sell electricity volumes to balance the load schedule.

The result of the research showed that reforming of the energy market in Ukraine should be considered both from the standpoint of increasing the economic efficiency of the energy sector, and from the standpoint of the development of the country’s economy as a whole, with the prevention of a possible competitiveness decrease of domestic products on the world markets and the level of power supply reliability due to a significant increase in electricity prices and a decrease in the reliability of power supply, taking into account the international experience in the liberalization of energy markets

The research of changes in the state regulation of the electricity market showed that starting from July 1, 2019, in pursuance of the Law “On Electricity Market” adopted in April 2017, a new whole sale electricity market was launched in Ukraine. The purpose of the market is to introduce competitive mechanisms for the functioning of the electricity market, free choice of contractors and ensuring the right of consumers to freely choose their electricity supplier. The adoption of the law has become a necessary condition for structural changes in the electricity industry of Ukraine, the basis for the branch modernization and integration of the electricity market of Ukraine in regional energy markets, with subsequent entry into the pan-European energy market. The introduction of full-fledged market mechanisms for regulating the energy market and the rejection from administrative pricing will help to increase the investment attractiveness of the Ukrainian energy market.

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ГОСУДАРСТВЕННОЕ РЕГУЛИРОВАНИЕ РЫНКА ЭЛЕКТРИЧЕСКОЙ ЭНЕРГИИ В УКРАИНЕ

Рассматриваются рынок электроэнергии в Украине и институциональная среда для реализации государственной политики в сфере энергетики. Выявлены основные модели рынка электроэнергии, их преимущества и недостатки. Установлено, что новая модель рынка электроэнергии предусматривает введение конкурентных правил игры на всех уровнях, разделенных по периодам времени: рынок двусторонних контрактов, где потребители или трейдеры могут покупать электроэнергию непосредственно у генерирующих компаний; рынок «на сутки вперед», на котором должны быть заключены контракты на поставку на следующий день, внутрисуточный рынок подачи заявок на объемы электроэнергии в течение дня; балансирующий рынок, который позволит покупать или продавать объемы электроэнергии, чтобы согласовать график нагрузки. Проанализированы изменения в государственном регулировании энергетического рынка, связанные с изменением модели рынка электроэнергии. В результате исследования выявлены основные аспекты реформирования энергетического рынка в Украине.

Ключевые слова: государственное регулирование рынка электроэнергии; рынок электроэнергии; модели рынка энергии; реформа энергетического сектора; государственная политика в электроэнергетике.

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