

CONTROL AND ANALYSIS IN THE FIELD OF FUEL AND ENERGY IN PROVIDING ECONOMIC SECURITY IN UZBEKISTAN

Eshmamadov Akbar Normurodovich

*Public safety University of the Republic of Uzbekistan
graduate student*

Abstract: *in this article, the control and analysis of the fuel and energy sector in the provision of economic security in Uzbekistan is carried out. In addition, the reforms implemented by the state in the field of energy, as well as normative legal documents, are commented. In addition, state control of the oil and gas network, electric power network, atomic energy network, and energy sector is mentioned in order to ensure economic security.*

Key words: *economic security, energy security, oil and gas network, electric energy network, nuclear energy network, fuel energy, state control, legal bases, macroeconomic analysis.*

The issue of rational use of energy resources has always been considered an urgent task on the agenda. In today's era of ever-increasing demand for energy resources, this issue is becoming more urgent. Today, the fact that energy saving has risen to the level of state policy can be seen in the examples of decrees, decisions and a number of regulatory documents adopted in this direction in recent years. As a logical continuation of such practical work, new energy saving technologies are being introduced in the technological processes of industrial enterprises, household consumers and other types of energy consumption objects based on world standards. Based on this, the training of qualified young specialists with knowledge and skills in the rational use of energy resources plays an important role in solving the above urgent task.

Rapid development of the fuel-energy complex remains a priority of our state policy.

As a result of measures taken by the country's leadership, Uzbekistan achieved oil and energy independence in 1995. Currently, taking into account the self-sufficiency of the republic, on the basis of the priority development of industrial sectors, measures are being taken to satisfy the republic's demand for energy resources of the necessary quality in the medium and long term.

Currently, the development of the oil and gas industry and electric power (the basis of economic development) of Uzbekistan shows a dynamic growth direction.

All this determines the system of energy supply and energy use chosen by the production enterprise. The system of energy supply and energy use of the majority of enterprises currently operating and newly built enterprises does not meet the rational possibilities of their construction.

Industrial enterprises cover 70% of heat consumption requirements at the expense of their sources and 30% at the expense of the energy system. Design organizations, when choosing heat supply scheme options, often proceed from the minimum capital expenditure, and do not take into account the benefits of use, energy and economic efficiency of the schemes, and the issue of providing heat and electricity to the production is a separate (isolation) scheme. according to, that is, they accept the scheme of supplying electricity - from the energy system, heat from local or district boilers.

Considering the mixed production of other energy resources, for example, compressed air, oxygen, etc., is not used at all, except for the scheme of ferrous metallurgical enterprises with blast furnaces. It is known that the cost of compressed air for modern mining enterprises is 40% of all energy costs. In metallurgical enterprises and 50% of the total costs are spent on compressed oxygen and process oxygen. Collective use of energy resources, especially secondary energy resources, will save millions of tons of conventional fuel. The optimal structure of energy supply is determined only on the basis of technical and economic analysis and the development of measures to reduce energy consumption of this production enterprise.

The oil and gas industry includes all oil and gas operations from exploration, drilling, extraction, hydrocarbon processing, production of petroleum products, production of petrochemical and chemical equipment, and supply of consumer petroleum products. covers

About 30 production enterprises are operating in the oil and gas industry, they produce gasoline, diesel fuel, jet kerosene, various types of oils, fuel oil, bitumen, various types of polyethylene, natural and liquefied gas in commodity form, petrochemicals and chemicals. manufactures equipment, cylinders for liquefied gas and other products.

Currently, the investment policy of the oil and gas industry is primarily aimed at attracting foreign investment with high technologies to ensure the diversification of the industry, deep processing of oil and gas resources.

Over the past 5 years, the Ustyurt gas-chemical complex, the Kandim gas processing complex, and a number of other industrial facilities and strategic facilities have been commissioned.

At the same time, the implementation of a large strategic project on the deep processing of hydrocarbons continues.

In particular:

The plant for the production of synthetic liquid fuel is planned to be launched in 2020.

3.6 billion per year as a result of the launch of this project. processing cubic meters of natural gas and meeting Euro-5 requirements in 1.5 min. tons of high-quality synthetic fuels are produced.

At the same time, a new concept of investment project implementation on expansion of production capacity of Shortan gas chemical complex was developed. With the implementation of the project, the currently working capacity of the plant will increase from 125,000 tons to 500,000 tons, that is, it will increase 4 times.

As a result, it creates ample opportunities for further development of the petrochemical industry.

In addition, it is planned to implement the investment project "Modernization of the Bukhara Oil Refinery", which will ensure the production of high-quality oil products that meet Euro-5 European standards.

Uzbekistan is one of the countries that fully meets its needs due to its energy resources. A significant share of electricity generation capacity in the United Energy System of Central Asia belongs to the republic. The Ministry of Energy is a state management body in the field of energy.

The uniqueness of the technological process of production, transmission, distribution and consumption of electric energy requires the maintenance of centralized management, which includes joint-stock companies "Heat power plants", "National electric grids of Uzbekistan" and "Regional electric grids".

In 2018, 56.3 bln. kW of electricity was produced, 7.3 mln. Gcal of thermal energy was delivered and the total installed capacity of power plants is 14 thousand MW.

Delivery of electric energy from enterprises under the jurisdiction of "Issiklik elektr stansiyali" JSC to enterprises under the jurisdiction of "Uzbekistan" through 220-500 kV main power lines with a total length of more than 9.7 thousand kilometers to enterprises under the jurisdiction of "Uzbekistan" It is carried out by National Electric Networks JSC.

The sale of electricity to final consumers in the republic is carried out through ten distribution and selling regional power grid enterprises operating as joint-stock companies in each regional state under the jurisdiction of JSC "Territorial Electric Networks". The balance of enterprises includes more than 250.4 thousand kilometers of power lines with a voltage of up to 110 kV and 1700 substations.

The supply of electricity to consumers of the Republic is carried out mainly through power networks with a voltage of 0.4-6-10 kV and a length of more than 223.8 thousand kilometers.

Joint-stock companies "Heat Power Stations", "Uzbekistan National Electric Networks" and "Regional Electric Networks" carry out design, construction, installation and adjustment works, as well as repair and use of the main and auxiliary equipment of power plants and networks. is a production complex.

The presence of a developed production base and highly qualified personnel allows for high utilization of power facilities.

In accordance with the decision of the President of the Republic of Uzbekistan on the strategy of further development and reform of the electric power industry of the Republic of Uzbekistan, the Ministry is developing a program for the

development of production capacity until 2030, the total capacity of which is 27 GW. 35 bln. It envisages the implementation of large investment projects equal to US dollars. At the same time, obsolete energy units with a total capacity of 6.4 GW in thermal power plants will be decommissioned.

The implementation of measures in the field of heat energy ensures the introduction of modern energy production technologies based on high-efficiency steam-gas turbine stations with an efficiency of energy blocks equal to 60%.

Special attention is being paid to the construction of the first nuclear power plant with a capacity of 2.4 GW in the republic.

In the process of transition to the "green" economy, the creation of modern solar and wind power plants with a total capacity of 6.7 GW is a priority for the development of electric power.

The total cost of sustainable electricity supply is 2.4 billion. It is necessary to build 2.7 thousand km long 220-500 kV power lines and 9 new substations worth USD.

Together with this, the total cost is 9.9 billion. It is necessary to carry out reconstruction and renewal work on the existing 39,600 transformer substations and 140,900 km of 0.4-10-35-110 kV power lines worth USD.

Naturally, it is impossible to make the necessary investments in electric energy only at the expense of existing state energy companies. For this reason, attention is being paid to attract private investment. The construction of power plants with a total capacity of 15 GW will cost 17.3 billion. Planned direct investment equal to USD. All stations are built with direct investment, except for hydroelectric power stations, nuclear power stations and a few regulated power stations.

For example:

Construction of a new power station with a capacity of 1300 MW in two stages on the basis of a steam-gas plant in the Syrdarya region;

Construction of a new power plant based on a steam-gas plant with a total capacity of 850 MW by the Turkish company "Cengiz Enerji" in Tashkent region;

Construction of a new power plant based on a steam-gas plant with a total capacity of 900 MW in the Surkhandarya region by the Turkish Yildirim Enerji company;

Construction of steam-gas units 3 and 4 with a capacity of 650 MW of Navoiy IES, expansion of Navoiy IES with construction of steam-gas units and gas-piston engine controlled power plant.

In the future, selling part of the shares of these power plants to private investors and creating joint ventures based on the Public-Private Partnership (PPP) model is the most optimal way.

The model of step-by-step electricity reform ensures that the ever-increasing demand for electricity in the economy and the population is met without a sharp increase in tariffs.

- On July 19, 2018, in accordance with the decree of the President of the Republic of Uzbekistan "On measures for the development of atomic energy in the Republic of Uzbekistan", the development and implementation of a unified state policy and strategic directions in the field of nuclear energy development. A state management body competent for the nuclear energy development agency ("CEzatom" agency) was established, the following are defined as its main tasks and activities:

- preparation of proposals on the priority directions of state policy in the field of peaceful use of atomic energy, including development of regulatory legal documents;

- development and implementation of state programs for the development of atomic energy in the Republic of Uzbekistan, attraction of investments, including foreign investments, for the implementation of projects in the field of atomic energy;

- conclusion of agreements and contracts on the design, construction and use of nuclear energy facilities, introducing modern technologies and equipment that meet the international requirements of industrial and environmental safety;

- a comprehensive measure for the development of atomic science and nuclear technologies - preparation and implementation of activities, fundamental research, scientific research, experimental design and innovative work projects, introduction of advanced technologies;

- to ensure the development and safe operation of research and power nuclear reactors, nuclear-physics devices, storage of nuclear materials and radiation sources, disposal sites for radioactive waste;

- improvement of the radiation and nuclear safety system of objects in the republic, together with other ministries and agencies, by developing a plan of activities for the prevention of nuclear accidents and radiation emergency situations;

- implementation of measures to ensure non-dispersal of nuclear materials and technologies, radioactive materials, physical protection and nuclear and radiation safety;

- organization of personnel training, retraining and professional development system, including in leading foreign institutions;

- Implementation of international cooperation and mutual relations with the International Atomic Energy Agency, the European Atomic Energy Community and other international organizations;

- development of cooperation with international financial institutions, donor countries, companies and banks with the participation of interested ministries and agencies in order to attract foreign investments and advanced technologies to the field of atomic energy.

Currently, more than 80 highly qualified specialists, including foreign specialists, are working in the system of "Ozatom" agency. In order to implement the NPP construction project in the territory of the Republic of Uzbekistan, the NPP

construction directorate was established under the "Zatom" agency. In addition, the world-famous UJV REZ (Czech Republic) and White&Case (Great Britain) companies with experience and relevant qualifications in the field of Russian-designed nuclear power plant construction were involved to carry out an independent cost, technical and legal expertise of the project.

Over the past period since its establishment, the Ozatom agency has carried out extensive work in the field of nuclear energy development in Uzbekistan and on the project of building the first nuclear power plant in the territory of the Republic of Uzbekistan.

Under the organizational and coordinating authority of the Ozatom Agency, an agreement on cooperation between the Republic of Uzbekistan and the Government of the Russian Federation on the construction of a nuclear power plant in the region was prepared, and this document was signed in Moscow on September 7, 2018. signed. This document envisages the construction of a 2400 MW nuclear power station in Uzbekistan based on VVER-1200 water-water power reactors, belonging to the "3+" generation with two energy units.

When choosing a partner for the development of such a high-tech industry, Uzbekistan chose Rosatom state corporation, taking into account its long-term experience in the field of nuclear energy and its leadership in the world.

Currently, 36 power units are being built using Russian technologies in 12 countries of the world - this is a world record for the number of power units being built abroad.

"Rosatom" state corporation is the only company in the world that offers a modern evolutionary project of VVER-1200 (water power reactor) technology, belonging to the "3+" generation, meeting modern international requirements and IAEA recommendations. A decision was made by Uzbekistan to select the VVER-1200 water power reactor NPP reference project based on the design of Atomenergoprojekt (Novovoronezh AES-2) JSC as a reference for the construction of NPP in the territory of the Republic of Uzbekistan.

The Novovoronezh NPP-2 project has been carefully developed and tested for highly seismic and hot climate countries, which is confirmed by the licenses issued to the facility by the national regulators of Iran, Turkey, Bangladesh, Saudi Arabia, and Russia.

At the moment, the experts of the "Zatom" agency are conducting contract discussions on the main contracts for the construction of the NPP, which are scheduled to be signed by the agency and the state corporation "Rosatom" by the end of 2019. Also, in order to finance the contract on the construction of the NPP, the finance ministries of Uzbekistan and Russia are preparing an agreement between the government of the Republic of Uzbekistan and the government of the Russian Federation on attracting the state loan of the Russian Federation for the construction of a nuclear power plant. Its signing is also planned for the end of 2019.

In order to determine the location of the BoMajak NPP, a working group formed by the government of the republic, consisting of experts from the main ministries and departments, scientific research institutions and design organizations, archival data and real geographical, geological, geographical and socio-economic data on the basis of which 10 approximate points for the placement of NPP have been determined. Based on the conclusion of the working group, the government will conduct all types of engineering research (geological, hydrological, meteorological, ecological, seismological, radiological and a.d.) a decision was made to transfer.

On May 7, 2019, the Republican Commission under the chairmanship of the Prime Minister, together with the Scientific-Technical and Expert Council of the Uzatom Agency, listened to the report of the heads of the State Geological Committee and the State Unitary Enterprise "UzGASHKLITI", which conducted these studies, and concluded that the Aydar-Arnasoy system made a decision to select site No. 1 near Tuzkon lake as a priority place. After all, there are no prohibiting and unacceptable factors for the placement of NPP in this area and it fully complies with international requirements and recommendations of the IAEA.

On May 17 of this year, in order to select the site and obtain permission from the State Industrial Safety Committee, the regulatory body in the field of nuclear and radiation safety, on May 17 of this year, with the NPP construction directorate under the Ozatom agency, the Engineering of Rosatom JSC State Corporation an agreement was signed between the division on conducting engineering studies for the purpose of developing the technical project of NPP. Work in this direction has begun at a priority site in Jizzakh region.

Also, in accordance with the international practice in the field of construction of facilities in the field of atomic energy, the preparation of the report on the assessment of the impact on the environment is being carried out. This report will be submitted to public hearings both in Uzbekistan and in cross-border countries.

The construction of nuclear power plants has always been accompanied by the creation of the appropriate nuclear infrastructure, which, according to the IAEA's governing documents, includes 19 elements, including the improvement of legislation and the development of the regulatory framework, training of personnel, financing, regulation, and cooperation with interested parties. cooperation, development of power grids, spent nuclear fuel and radioactive waste management are included. "Ozatom" agency has carried out extensive work in this direction.

At present, more than 20 draft decisions adopted by the Uzatom agency (President and the Cabinet of Ministers of the Republic of Uzbekistan) have been prepared, on the basis of which the strategy for the development of atomic energy in the country has been formed.

In particular, the concept of the development of atomic energy in the Republic of Uzbekistan in 2019-2029 of the President of the Republic of Uzbekistan on February 7, 2019 and the "Roadmap" for its implementation were approved. In

accordance with the concept developed by the end of October this year, the state program for the development of atomic energy in the Republic of Uzbekistan was developed and submitted for approval.

In order to create a regulatory framework for the use of atomic energy, the draft law of the Republic of Uzbekistan "On the use of nuclear energy for peaceful purposes" was developed and on June 10 of this year, in the second and third readings, the Legislative Chamber of the Republic of Uzbekistan was accepted by It should be noted that the draft Law was adopted taking into account the recommendations of IAEA, Rosatom state corporation, Rostekhnadzor, Worley Parsons company and other independent international experts in this field.

Currently, there are also the Vienna Convention on Civil Liability for Nuclear Damage, the Convention on Prompt Notification of a Nuclear Accident, the Convention on Nuclear Safety, Assistance in the Event of a Nuclear Accident or Radiological Accident. Preparation of drafts of relevant regulatory and legal documents on joining the convention on presentation is being carried out.

In accordance with the recommendations of the IAEA, as well as the intergovernmental agreement between the Republic of Uzbekistan and the Russian Federation on cooperation in the field of nuclear power plant construction, the decision of the Cabinet of Ministers, the norms of Russia in the field of nuclear energy use in the implementation of the NPP construction project and allowed to use the rules.

In the implementation of such a large-scale project, it is important to train national personnel in the field of atomic energy and nuclear technologies. 56 Uzbek students are studying under MIFI quotas.

At the same time, the leadership of the country is paying serious attention to this issue, the day after the establishment of the "Ozatom" agency, the President of the Republic of Uzbekistan made a decision to establish a MTYAU MIFI branch in Tashkent. At present, extensive construction and assembly works are being carried out in the building allocated for the establishment of the branch of MTYAU MIFI in the territory of the Academy of Sciences of the Republic of Uzbekistan, equipping with the most modern laboratory and general equipment is being carried out.

It should be noted that education at the branch is conducted in accordance with Russian programs and educational standards. On July 12 of this year, the results of the entrance exams were announced, according to which 100 students were admitted to the branch on the basis of a state grant, which allowed students to concentrate on their education and pay their tuition fees. allows you not to be confused about the lash.

In addition, for the purpose of timely and high-quality training of specialists for the country's atomic sector, on October 19, 2018, the cooperation in the field of personnel training for the atomic sector of the Republic of Uzbekistan between the agency "Ozatom" and the state corporation "Rosatom" was held. on April 16 of this year, an agreement on goals for the development of the above-mentioned

personnel memorandum was signed between the Ozatom agency and the Technical Academy of Rosatom. On the basis of these documents, specialists of the Ozatom Agency, the State Industrial Safety Committee of the Republic of Uzbekistan and the Academy of Sciences are currently receiving training in short-term and medium-term training courses in the field of atomic energy and nuclear technologies.

Uzbekistan is not limited to cooperating only with Russia in the issue of personnel training for the nuclear industry. Currently, there are memorandums on cooperation in the field of personnel training with Belarus, India, the World Nuclear University under the WNA World Nuclear Association and other foreign organizations.

Such a project cannot be implemented without cooperation with the International Atomic Energy Agency (IAEA) and the international community.

Uzbekistan became a member state of IAEA in 1994. Currently, cooperation with the IAEA on the implementation of projects in the framework of technical assistance is actively carried out, in particular, until now the following projects have been completed:

- strengthening the radiation safety of republican oncology centers, purchasing high-tech scientific medical equipment and training personnel in the field of radiation medicine;

- Training of personnel on new methods in nuclear physics laboratories of National University of Uzbekistan and Samarkand State University;

- Modernizing the single research nuclear reactor of the Institute of Nuclear Physics of the Academy of Sciences of the Republic of Uzbekistan and strengthening its radiation and nuclear safety;

- export of processed, highly enriched nuclear fuel to the country of origin (Russian Federation);

- "Uzelteksanoat" association decommissioned the entire site of JSC "Foton" research nuclear reactor and

Uzbekistan considers technical cooperation within the framework of the IAEA to be the most important means of sharing and introducing advanced ideas, technologies and experience in the nuclear field. As for many other member states of the IAEA, technical cooperation for Uzbekistan is a significant support in a number of areas related to the possibility of applying nuclear knowledge and technologies.

On September 17, 2018, at the headquarters of the IAEA in Vienna (Austria), the delegation of the Republic of Uzbekistan within the framework of the Ozatom Agency, the Academy of Sciences and the State Industrial Safety Committee, for the first time, during the 62nd General Conference of the IAEA, created and developed a national nuclear-energy program announced his desire. The initiative of Uzbekistan was received very positively by the IAEA and the world community.

In this way, from 2018 until now, IAEA experts visited the Republic of Uzbekistan 4 times and held a working seminar for Uzbek experts on the development of the national nuclear energy program. In addition, according to the recommendations of the IAEA experts, Uzbekistan sent a request to the IAEA to conduct a mission to assess the safety of the NPP site in 2020 and a 1NIR mission to assess the nuclear infrastructure.

It should be noted that the revival of bilateral dialogue between Uzbekistan and the IAEA had a positive effect on the international image of Uzbekistan. Later, by a special decision of the President of the Republic of Uzbekistan, a new position was introduced at the Embassy of the Republic of Uzbekistan in Austria - the position of adviser on cooperation with the IAEA.

To date, there is an agreement with the IAEA to hold a joint seminar on preparation for IAEA missions and self-assessment methodology for nuclear infrastructure in Tashkent in October of this year. Also, the issue of organizing the visit of the Deputy Director General of the IAEA to Uzbekistan in August of this year, Mikhail Chudakov, is being developed at a high level.

"Uzatom" agency pays special attention to issues of public acceptance of peaceful use of atomic energy.

On October 19, 2018, the Ozatom agency and the Rosatom state corporation signed a memorandum on cooperation in the field of forming a positive social opinion among the population in the process of using nuclear energy for peaceful purposes. Currently, in order to develop this Memorandum, communication plans in this direction have been signed in 2018 and 2019. In accordance with the communication plans, the deputies of the Legislative Chamber of the Oliy Majlis of the Republic of Uzbekistan and representatives of the national mass media have organized familiarization and media tours to the operating NPP "Tokai" (Japan), Novovoronezh NPP-2 (Russia), NPP "Paksh-1" (Hungary).

In addition, on May 15 of this year, the first information center on nuclear technologies in Uzbekistan was opened in the building of the Ozatom agency. On the basis of this information center, more than 1000 people, including deputies of the Legislative Chamber of the Oliy Majlis of the Republic of Uzbekistan, Ecological Party of the Republic of Uzbekistan, Ecological Movement, media representatives, students of schools, academic lyceums and vocational colleges meetings and discussions were held with

The planned work carried out by the "Uzatom" agency ensures the implementation of the project within the specified period, in compliance with all standards and requirements of safety and quality. Thanks to the efforts of the leadership of the country, the government of the republic, and the specialists of the Ozatom agency in Uzbekistan, a new source of cheap electricity will appear in Uzbekistan, and this will serve the development of our economy and increase the well-being of our people.

- In accordance with the decree of the President of the Republic of Uzbekistan "On measures to radically improve the management system of the fuel and energy network of the Republic of Uzbekistan" dated February 1, 2019 No. PF-5646 Ministers of the Republic of Uzbekistan The State Control Inspection in Electric Power under the Ministry of Energy ("Uzdavenergonazorat" Inspection) was reorganized as the Control Inspection in Electric Power under the Ministry of Energy of the Republic of Uzbekistan ("O'zenergoinspeksiya").

- As a result of reorganization:

-- By the decision of the Cabinet of Ministers of the Republic of Uzbekistan No. 520 dated June 24, 2019, the new charter of "Uzenergoinspeksiya" was approved;

-- By amending Resolution No. 23 of the Cabinet of Ministers of the Republic of Uzbekistan dated February 17, 2010, "Uzenergoinspeksiya" was designated as the body conducting state control in the field of electric energy.

- With the new charter, the main tasks and functions of "Uzenergoinspeksiya" have expanded. Initially, the inspection of "Uzdavenergonazorat" was assigned 3 main tasks, now the following 6 main tasks are assigned to "Uzenergoinspeksiya":

- implementation of state control over compliance with the requirements of regulatory legal documents and technical rules and norms in the field of production, transmission, distribution and consumption of electric and thermal energy by individuals and individuals (except for the population), as well as in the field of coal use;

-- the development and implementation of preventive measures in the field of production, transmission, distribution and consumption of electric and thermal energy by legal entities and individuals (except for the population), ensuring the safety of coal use, as well as electric energy implementation of state control over the development and implementation of measures to prevent accidents at facilities and consumer electric and thermal devices, including technological breakdowns (accidents) in the work of electric power facilities;

- in the development of concepts and state programs for the development of the basic sectors of the economy, as well as the effective organization of the processes of increasing their energy efficiency and reducing energy consumption, including the production, transmission, distribution and consumption of electric and thermal energy, as well as the use of coal participation in the development of proposals on the issues of development;

- participation in the development of normative legal acts and regulatory documents in the field of production, transmission, distribution and consumption of electric and thermal energy, as well as the use of coal;

- production, transmission, distribution and consumption of electric and thermal energy, as well as ensuring the stable operation of the safety system of coal use and organization of continuous improvement works;

- to support the implementation of works within the framework of ensuring the rational and efficient organization of the production, transmission, distribution and consumption of electric and thermal energy, as well as the processes of using coal.

In addition to the above, currently "Uzenergoinspeksiya" provides the following services on a paid basis according to the orders of legal entities and individuals, excluding residents:

- retraining and upgrading the skills of managers of electric power facilities and consumers, electrical and thermal engineering workers;

- regulatory and legal documents in the field of production, transmission, distribution and consumption of heat energy, as well as the use of coal, as well as technical rules and norms, information and methodology on issues of electrical and heat safety, posters and other literature publication and distribution of printed matter;

- testing (measurement) of new and reconstructed electrical devices;

- to carry out energy audits of electric power facilities and consumers for efficient use of electric and thermal energy in order to ensure reasonable and uninterrupted production, transmission and distribution of electric and thermal energy;

- organization and execution of work related to compensation of reactive energy by consumers;

- organization of unmanned inspection of overhead power lines, as well as main oil and gas pipelines in hard-to-reach areas of the republic, in the prescribed manner;

- provision of services for the technological connection of electrical devices (heating devices) to electric (heat) networks in connection with the preparation of orders for the connection of electrical devices (heating devices), technical conditions issued by energy supply (heat supply) organizations analysis of compliance with the requirements of legal documents, as well as preparation of justified refusals and participation in arbitration courts;

- providing services in the conclusion of electricity supply contracts (verification of the correctness of its formalization, full reflection of the legality of necessary conditions and technical specifications), as well as analysis of current energy supply contracts in case of conflict situations ;

- analysis of the current state of electricity supply (analysis of the load direction, calculation of the economic efficiency of the introduction of an automated system of control, and accounting for electricity and reactive power compensation systems).

CONCLUSION

In conclusion, it should be said that the role of the fuel and energy sector in ensuring the country's economic security is incomparable, and the economic strategy focuses on ensuring energy independence and security, energy efficiency and reducing the negative impact of energy on the environment. puts In order to

solve this problem, it is necessary to use ecologically clean, safer energy based on scientific achievements, the optimal structure of the energy balance, advanced principles and methods of energy saving management, production energy efficiency and consumption of energy resources, including , requires increasing the efficiency of electric energy. The main issues of increasing the efficiency of the energy economy of industrial enterprises are: improving technological processes, improving the quality of equipment use, minimizing the consumption of primary fuel and other energy resources, increasing the number of industrial products produced, and the number of employees serving in production. and reducing capital investments, increasing the capacity of energy sources.

REFERENCES:

1. Decision of the President of the Republic of Uzbekistan "On the strategy of further development and reform of the electric power industry in the Republic of Uzbekistan", dated March 27, 2019 No. PQ-4249.
2. Decree of the President of the Republic of Uzbekistan on July 19, 2018 "On measures to develop nuclear energy in the Republic of Uzbekistan".
3. Concept of the development of nuclear energy in the Republic of Uzbekistan in 2019-2029 of the President of the Republic of Uzbekistan on February 7, 2019.
4. Allaev K.P. Elektroenergetika Uzbekistana i mira, - T.: Science and technology, 2009. - 463 p.
5. Electrical networks and systems: methodical guide/ O'zR 00'MTV; Rasulov A.N., Taslimov A.D., Mamarasulova F.S., Rakhmanov I.U.-Tashkent: TDTU, 2020. - 90 p.
6. Hoshimov F.A., Taslimov A.D. Basics of energy saving. Instruction manual. - T.: Voris, 2019.
7. Karimov H.G., Bobojonov M.Q. Fundamentals of automatic control and adjustment theory. Instruction manual. - T.: Intellect expert, 2019.
8. Karimov R.CH., Rafikova G.R. Basics of electrical safety. O' education. -T.: Spektrum media, 2021.
9. Saidkhodzhayev A.G. Energy inspection (audit) methods and equipment. - T.: Publishing House, 2015.
13. Акбарова, М. Х., Асадова, М. Қ., & Жўраев, З. Н. Ў. (2021). *Scutellaria comosa* juz.(lamiaceae) нинг Фарғона водийсидаги табиий захиралари. *Academic research in educational sciences*, 2(3), 461-471.
14. Акбарова, М. Х., & Асадова, М. Е. (2021). SCUTELLARIA L. ТУРКУМИ ТУРЛАРИНИНГ ДОРИВОРЛИК ХУСУСИЯТЛАРИ. *Журнал естественных наук*, 2(1).
15. Xusanovna, A. M., & Qudratovna, A. M. (2023). RIDGE DISTRIBUTION OF SPECIES OF THE GENUS SCUTELLARIA L.(LAMIACEAE) OF THE

FERGANA VALLEY. Finland International Scientific Journal of Education, Social Science & Humanities, 11(5), 2532-2542.

16. Akbarova Muxayyo Xusanovna, & Asadova Muhabbat Qudratovna (2023). FARG'ONA VODIYSIDAGI SCUTELLARIA L. TURKUMI TAKSONOMIK TARKIBI. Science and innovation, 2 (Special Issue 6), 102-108. doi: 10.5281/zenodo.7999064

17.. Асадова, М. Қ. (2022). БИОЛОГИЧЕСКИЕ ОСОБЕННОСТИ ЭСПАРЦЕТ ЮЖНОГО УЗБЕКИСТАН. Journal of Integrated Education and Research, 1(4), 267-269.

18. Baboev, S. K., Kushanov, F. N., & Asadova, M. Q. (2023). AYRIM MAHALLIY BUG'DOY NAVLARINING YUQORI HARORATGA BARDOSHLILIGINI MIKROSATYELLIT MARKERLARI YORDAMIDA O'RGANISH. INTELLECTUAL EDUCATION TECHNOLOGICAL SOLUTIONS AND INNOVATIVE DIGITAL TOOLS, 2(21), 75-77.

19. Китаева, Н. Х. (2023). ПНЕВМОНИЯ, ВЫЗВАННАЯ АТИПИЧНЫМИ ВОЗБУДИТЕЛЯМИ. O'ZBEKISTONDA FANLARARO INNOVATSIYALAR VA ILMIY TADQIQOTLAR JURNALI, 2(23), 109-114.

20. Китаева, Н. (2023). ВНЕБОЛЬНИЧНАЯ ПНЕВМОНИЯ. International Bulletin of Medical Sciences and Clinical Research, 3(10), 66-70.

21. Khamidovna, N. K. (2023). BRONCHO–OBSTRUCTIVE SYNDROME IN THE PRACTICE OF A THERAPIST. SCIENTIFIC APPROACH TO THE MODERN EDUCATION SYSTEM, 2(18), 192-194.

19. Китаева, Н. Х. (2023). ПНЕВМОНИЯ, ВЫЗВАННАЯ АТИПИЧНЫМИ ВОЗБУДИТЕЛЯМИ. O'ZBEKISTONDA FANLARARO INNOVATSIYALAR VA ILMIY TADQIQOTLAR JURNALI, 2(23), 109-114.

20. Китаева, Н. (2023). ВНЕБОЛЬНИЧНАЯ ПНЕВМОНИЯ. International Bulletin of Medical Sciences and Clinical Research, 3(10), 66-70.

21. Khamidovna, N. K. (2023). BRONCHO–OBSTRUCTIVE SYNDROME IN THE PRACTICE OF A THERAPIST. SCIENTIFIC APPROACH TO THE MODERN EDUCATION SYSTEM, 2(18), 192-194.