

## MONITORING OF INDUSTRIAL ENERGY CONSUMPTION AND INCREASING ENERGY EFFICIENCY

Saydaliyeva Dilorom Nimadovna

Ferghana Polytechnic Institute, Independent Researcher

### ANNOTATION

In this article given information on how to economize energy resources and the growth in energy supply in Uzbekistan

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### INTRODUCTION

Energy efficiency or, in other words, rational use of energy resources in the economy and social sphere is an important factor in increasing the profitability and competitiveness of the production sector and saving energy resources, which in turn has a serious impact on energy security, increasing jobs, increasing the welfare of the population and overall development of the country.

Starting from August 1st, the tariff for the guaranteed purchase of energy from newly commissioned solar, wind and biogas power plants, micro and small hydroelectric power plants with an installed capacity of up to 1 MW, including surplus electrical energy produced for their own needs, is set at level II of the tariff group of consumers, after deducting all costs associated with transportation, distribution, and marketing.

It is stipulated that the identification of investors for the construction and operation of industrial power plants based on renewable energy sources (1 MW and more), other than HPPs, will be carried out only through a transparent auction mechanism.

For the period from July 15 to December 31, 2020, the document establishes benefits for producers that organized the third (night) shift in the form of applying a reduction coefficient in the amount of 1.5 times the established rate during the night period when calculating the electricity used.

Companies that have at least 50% of the state's share are restricted from the possibility of reducing the mandatory prepayment requirement (up to 30%) for natural gas and electricity.

The Decree approved the target parameters for saving fuel and energy resources in the economy for 2020-2022, which provide for saving electricity by 3.3 billion kWh, and natural gas by 2.6 billion kWh. cubic meters, oil products - 16.3 thousand tons.

The document also approved a Road Map for improving energy efficiency at large enterprises and a Schedule for Energy Audits.

The Decree approved the structure and identified sources of funding for the previously established off-budget Intersectoral Fund for Energy Conservation, which is a part of the Ministry of Energy of the Republic of Uzbekistan.

The Decree gives a number of instructions to responsible state divisions, including the Ministry of Energy. In particular, it is required to attract leading companies (domestic and international) to conduct energy audits at 285 large industrial enterprises within a 2-month period, as well as to make a proposal to expand their list.

The document provides for the creation of a Unified Information System of the Ministry of energy, the commissioning of which is scheduled for the end of 2021. Based on analytical data obtained from the Unified information system, a mechanism for a mandatory energy audits of enterprises with high energy consumption will be introduced.

The Cabinet of Ministers was assigned to approve within two months:

Regulations for conducting auctions in the field of renewable energy.

The Ministry of Energy was assigned to approve within two months:

Regulations for accounting for electricity produced from renewable energy sources and its installations;

The standard form of the Power Purchase Agreement from small objects of renewable energy sources;

Regulations for certification of renewable energy sources and their installations;

Placement of industrial-scale photovoltaic solar stations;

Creation of a secure trading platform for online reverse auction trading in the renewable energy sector

The Ministry of Economic Development together with the other state bodies was assigned to submit to the Cabinet of Ministers by November 1, 2020:

The draft Law "On Energy Saving and Energy Efficiency"

These introductions and changes in legislation in the field of renewable energy will help to achieve the target of 30% of the total volume of electricity generated in Uzbekistan by 2030.

Hopefully, the number of legislative "blind" areas will be significantly reduced in the nearest future, which encourages investors to pay more attention to the Uzbek market.

For several years Uzbekistan has been demonstrating stable rates of economic development at the level of 6% of GDP growth. Also, in order to ensure further development of the economy, it is necessary to accelerate the increase in production competitiveness, including on account of the reduction in the cost of energy resources as a result of the widespread introduction of modern energy-saving technologies. Issues of energy efficiency require the use of qualitatively new tools not only in production, processing and transportation, but also in consumption. One of the examples of measures to accelerate the processes of modernization of production and introduction of energy-saving technologies is the project "improvement of energy efficiency of industrial enterprises" under the Ministry of Economic Development and poverty reduction of the Republic of Uzbekistan. The project operates since 2011 year. On the project 325 million dollars of the World Bank. it uses preferential loans in its equivalent, as well as the funds of commercial banks in Uzbekistan. Thanks to this, most energy-consuming enterprises are able to significantly reduce the consumption of electricity and natural gas in the production of products. Since 2011, 101 investment projects have been implemented in more than 43 industrial enterprises. The implementation of these small projects allowed to save more than 524 million KW / h of electricity per year and 229 million cubic meters of natural gas per year. In addition, participating businesses have reduced CO<sub>2</sub> air emissions by more than 580,000 tons per year. The projects are being implemented in energy-intensive areas such as oil and gas, mining, chemical, electrical and energy, food, construction and processing.

For example, 15 projects at enterprises of JSC "Uzkimyosanoat", 17 projects in the field of building materials, including 14 projects among cement producers, 12 projects at JSC"

Uzbekneftgaz", 10 projects at JSC "Uzmetkombinat", were implemented at small and medium enterprises. - 15 projects, etc. Financing of small projects is carried out through six banks of the Republic of Uzbekistan: National bank, ATB "AsakaBank", ATB "Sanoatqurilishbank", ATB "Ortokbank", ATB "Asian Alliance Bank", ATB "Infinbank". In addition, it is now approved to allocate 100 million euros by the European Investment Bank, which in turn provides an additional opportunity to finance energy efficiency projects not only for large, but also for small and medium-sized enterprises.

Currently, in our country, within the framework of the project "increase energy efficiency of industrial enterprises" of each local manufacturer, favorable conditions are created in which it is possible to modernize its products using preferential credit funds. It is worth noting that the project will last until 2023 year. Industrial enterprises of our republic can apply to one of the participating banks for a loan. To do this, after receiving the approval of the application and the World Bank, it is sufficient to use the loan on preferential and favorable terms. It is easy to take steps to increase energy efficiency in production. But the savings and the results obtained are noticeable for a long time in large, small and medium-sized enterprises.

#### USED LITERATURES

1. Electric power and Energy Systems
2. Energy stores for Power Systems