



ESTIMATION OF EFFICIENCY OF ORGANIZATIONAL AND ECONOMIC MECHANISMS OF THE GAS INDUSTRY

Matyakubov Jurabek

Researcher in Tashkent Institute of Finance, Uzbekistan

jurabekmatyakubov@gmail.com

Abstract

The gas industry of the Uzbekistan is an open socio-economic system, it is influenced by the external environment, which is a source of opportunities and threats both for the development of the industry and for the country's economy. This paper studies the state of efficiency of organizational and economic mechanisms of the gas industry in Uzbekistan. In addition, it includes how gas projects are financed. This paper suggests the indicators that can estimate the economic and organizational mechanisms of the gas industry in Uzbekistan. However the absence of the data in this industry does not allow to estimate it.

Keywords: gas industry, gas projects, financing, Uzbekistan

INTRODUCTION

In the current situation on the gas markets - shale gas and methane gas production, expanding the trade in liquefied natural gas, turning countries from importers into gas exporters (and vice versa), increasing market consumption in Asia-Pacific, reduce the cost of US gas - there is a need to evaluate approaches to the organization of the industry.

The issue of improving the efficiency of activities and, consequently, reducing risks for investors is central to increasing the competitiveness of the industry. Thus, the problem arises of the development and practical use of performance management mechanisms, depending on the strategic goals of the industry. Organizational and economic management mechanisms in socio-economic systems are a form of organization of interaction between market participants, companies and industry structures, internal business processes, as well as organizational

mechanisms to ensure this interaction. The choice of organizational and economic mechanism depends on the goals of strategic development.

In the formation of the organizational-economic mechanism, as well as its main elements, it is necessary to solve the following tasks:

- define the goals and objectives of the implementation of the management mechanism;
- identify the objects and subjects of management;
- develop management methods and tools;
- propose a system for monitoring results.

On the basis of the approved goals of the strategic development of the socio-economic system, target indicators are formed that characterize the effectiveness of the result of the system's activities. Currently, the Institute of Energy Strategy is developing an energy strategy until 2035, which will be monitored and revised according to the results of the industry every five years (if necessary), and the Institute will initiate the development of an energy strategy until 2050. The main goal of the industry development can be called the increase in energy security, energy efficiency, budget efficiency, environmental safety, social efficiency. In accordance with the designated areas, we will formulate the main tasks of the formation of the management mechanism.

Energy security. In the field of geology: approval of a new classification of reserves, based not only on technical but also on economic indicators of hydrocarbon production; obtaining geological maps of the country; attraction of investments.

In the field of mining: the production of domestic equipment and the development of its own mining technologies, in particular the development of technologies to ensure the environmentally safe development of mineral resources on the shelf; development of technologies and the economic rationale for the extraction and processing of unconventional gas (shale gas, methane gas, associated petroleum gas); increased production of liquefied natural gas (LNG).

In terms of implementation: expanding markets, maintaining the volume of supplies to existing consumers, the development of production and use of gas fuel. External energy policy: control of the onset of crisis situations in the economy, diversification of sales markets, control of global trends in pricing models and energy policies of gas importing countries.

Energy efficiency. Increasing the percentage of associated petroleum gas utilization, timely replacement of worn-out equipment, rational land use, efficient use of equipment by competent specialists.

Budget efficiency. Tax policy: elaboration of a flexible system of tax on mineral extraction.

Pricing: consider possible risks of raising tariffs in the domestic market to ensure equal price returns for Europe, Asia and the domestic market, partially liberalize prices in the domestic market to increase the share of independent producers, develop and improve exchange trading mechanisms. Investments: development of a competitive market for gas producing companies, elaboration of legislation base.

Environmental Safety. Production of our own high-quality equipment to reduce harmful emissions into the environment, enhanced control over the implementation of environmental protection measures during the construction of gas facilities, gas production and transportation.

Social efficiency. Improving the quality of the selection of students in educational institutions, ensuring the passage of industrial practice, allowing a fundamental understanding of the studied disciplines. Stimulating the restoration of the innovation cycle: basic research - applied research - experimental development - finished samples - production. The increase in the number of jobs due to the emergence of high-quality domestic labor and technology, the lack of the need to attract foreign experts. Improving the standard of living of the population due to the increase in jobs in both gas and related industries.

The factors that have a direct impact on the efficiency of the functioning of the system are of paramount importance in the formation of the organizational economic mechanism. In determining the factors of the functioning of the control mechanism, we determine the factors of the external and internal environment of the system, which, in our opinion, have the greatest influence on its activity and determine its effectiveness.

Environmental factors.

1. Economic and political situation in countries - importers and countries - exporters of gas.
2. Pricing and energy policy in international gas markets.
3. Development and implementation of innovations.

Factors of the internal environment.

1. Production Efficiency
2. The degree of innovative perception.
3. The financial condition of enterprises.
4. Budget efficiency.
5. Organization of business processes.
6. Human resources.
7. Social responsibility.

The objects of management in the formation of the mechanism are the industry companies. When forming the subjects of management by the author, groups of subjects are distinguished: the executive bodies of state administration and the management of gas companies of different

levels. Formation of subjects of management at different levels will provide the ability to control the implementation of management decisions after their development, which fundamentally affects the efficiency of the management mechanism.

HOW ARE GAS PROJECTS FINANCED?

Providing funds for large-scale energy investments is always the primary task of project sponsors, and deciding how a project should be funded is one of the most important decisions a company makes. Therefore, it is important to understand the principles that guide companies in making such decisions. Sponsors face two major problems: should they use cash from operations or debt? And if debt is used, should it be guaranteed by the parent company or repaid with money generated by the project itself (i.e. how much creditors should the funds have)? Different companies choose different ways of financing, even for the same project. For example, the owners of the Tamar field differently financed their shares. Noble Energy, the operator and the largest shareholder, financed its share from the funds received from the parent company, as well as from income from operations, bonds and loan funds. In contrast, Delek Group, which is the second largest owner, issued \$ 2 billion in bonds of 2014, secured by revenues generated by the project itself (i.e., with a limited appeal to the parent company), of which \$ 1 billion refinanced previous loans for this project even within the same enterprise, partners can choose different ways of financing, based on their respective needs and preferences.

How a company decides to finance a project depends on factors such as the size of its balance sheet, the existing level of debt (leverage), the overall level of capital expenditures, risk tolerance, creditworthiness, which is indicated by its ability to provide debt at competitive rates, size and risk profile of the funded project. It is difficult to predict what financing structure a company can choose for a new project.

Project financing is widely used to finance large-scale infrastructure projects in general and oil and gas projects in particular. High initial capital costs combined with reliable cash flow and high margins as a result of either high market demand (oil) or long-term contracts (gas pipelines and LNG) make these projects attractive for limited investment. In the period from 2008 to 2014, almost 1.5 trillion dollars were raised worldwide. The United States has been financing projects in various sectors of the economy, with about 20% of these funds being channeled into the oil and gas sector. The availability of project financing for any particular project depends on the overall liquidity of the global financial system and the relative competitiveness of this project.

METHODOLOGY

To assess the effectiveness of existing and proposed mechanisms for the gas industry, it is proposed to use the following methodology. The purpose of the methodology is to assess and monitor the effectiveness of organizational and economic management mechanisms in the gas industry. Evaluated the effectiveness of budget spending, the dynamics of changes in the performance of organizations, changes in indicators characterizing the quality of life of the population of gas producing areas, the degree of innovative perception of companies, the introduction of management methods and principles that ensure the transition to more efficient management models of the industry. The assessment results allow you to identify areas requiring priority attention of, regional and municipal authorities, to form a list of measures to improve the performance of the executive authorities, including investment optimization, and also to identify internal resources (financial, material, personnel, etc.) in case of need to improve the efficiency of the industry and control the results obtained.

The assessment is carried out in the gas sector in the following areas: financial sustainability, technical and technological parameters, social responsibility, government regulation and public-private partnership. The assessment is carried out using indicators developed by the author and necessary for conducting a comprehensive analysis of the effectiveness of the organizational and economic mechanisms of the gas industry. The choice of assessment directions is due to the analysis of the gas industry as a socio-economic system, in which it is important not only the sustainable development of the elements - companies, but also the implementation of feedback between the state and private companies to ensure the sustainability of all elements - the state, population, companies.

The official statistics of the Statistics Committee, annual reports of companies, data of tax authorities and executive bodies of state power should be used as initial data for evaluating the effectiveness.

Indicators of financial stability. The ratio of total debt to the total capitalization of the company, the rate of return on equity, the ratio of public and private investment, the percentage of foreign capital in projects.

Technical and technological indicators by activity. Exploration: the ratio of actually explored areas to those specified in the license for the period, the ratio of the increase in reserves to the volume of production for the period, the percentage of domestic machines and equipment used in the total value of machines and equipment, the use of innovative technologies relative to the total number of existing innovative technologies.

Design and construction: the ratio of the cost of construction and installation works laid down in the project and actually completed, the number of projects for which construction is

behind schedule or not started for any reason, the ratio of public and private financing of design and construction.

Extraction: the ratio of gas produced over the period to the balance of reserves, the percentage of domestic machines and equipment used in the total value of machinery and equipment, the percentage of innovative technologies used, the ratio of R & D funding to retained earnings, the ratio of intangible assets to total assets, energy consumption for extraction 1000 m cube of gas, equipment wear rate.

Refining: energy consumption for refining 1000 cubic meters of natural gas, associated petroleum gas, gas liquefaction, the ratio of harmful emissions exceeding the standard to total emissions, the ratio of R & D financing to retained earnings, the ratio of intangible assets to total assets, production of gas engine fuel from the total production, the rate of associated gas processing, equipment wear rate.

Transportation and sales: equipment depreciation ratio, the ratio of the cost of built backbone and distribution networks for the period to an increase in the potential value of the volume of consumption of connected objects, the accident rate, the ratio of R & D funding to retained earnings, the ratio of intangible assets to total assets.

Indicators of social responsibility. The increase in the number of workers - residents of Uzbekistan, the ratio of social payments to retained earnings, the ratio of injuries at work to production.

Indicators of the effectiveness of state regulation and public-private partnership. Percentage of budget allocations from revenues, including taxes and fees, increase in budget revenues, the ratio of the amount of tax deductions to revenues, the percentage of participation in projects of companies - non-residents of Uzbekistan, the ratio of budget payments for social development to budget revenues, increase in profits from public-private partnership , the share of public-private partnerships in total budget revenues.

The problem in the implementation of these indicators in analysis is the absence of data. The methodology suggests these indicators can be used to assess the present mechanisms in gas industry.

CONCLUSION

The introduction of organizational and economic decision-making mechanism to improve the efficiency of the industry can be carried out under the following conditions:

- application of the model of performance management of the industry based on index analytical indicators;

- introduction of software in organizations of the gas industry to ensure the possibility of monitoring the impact of management decisions made on the effectiveness of the organization;
- development of regulations for the interaction of management entities in the event of deviation of actual indicators from the specified target indicators.

Values of indicators can be analyzed in dynamics for a certain period, as well as for the current moment. The indicator is estimated by comparing its value with target indicators, with the value of the previous period. Values of indicators for companies in the industry are formed on the basis of their share in budget revenues, which the state generally receives from all companies in the industry. According to the author, it is an increase in budget revenues that is the main goal of state bodies for the further distribution of certain expenditure items. The task of the method is also to determine the harm while maximizing the profits of other elements of the system. It is proposed to convert the final values of the indicators into conditional indices to ensure the transparency of the assessment and the comparability of the indicators. If the data in this sector becomes available, it would allow us to use the indicators to analyze the current mechanisms.

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