

Cost calculation and analysis in power generation enterprises

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Annotation: The article examines the calculation and analysis of costs in power generation enterprises, in which products are one of the most important quality indicators, reflecting the results of economic activity of the enterprise, the technical and economic level of production, the calculation of the unit of works, services and all products sold, the object of calculation, the unit of calculation, its types are covered. At the same time, the economic elements of the costs that make up the cost of production and the calculation items are disclosed on the basis of data from the joint-stock company "Fergana Thermal Power Plant".

Keywords: electric power, energy, production, thermal energy, product cost, calculation, calculation object, report, calculation method, main cost, additional cost, normative, step-by-step, planned, estimated.

Introduction

energy is one of the main activities of the national economy and it is possible to assess the economic power of a country according to its level of development and potential opportunities. The energy economy is significantly different from other types of economic activity of the national economy. The main types of energy products are electric and thermal energy. There is no production without consuming this type of energy.

if industrially produced products are first placed in a warehouse and then sold to consumers, electricity and heat are consumed immediately by consumers. Today, the energy system of the Republic of Uzbekistan is a vertically integrated structure, which is managed by the Ministry of Energy of the Republic of Uzbekistan. [1]

In modern conditions, the energy system has a natural monopoly on the supply of energy to the service area. Today, there are monopoly markets for electricity, gas, precious metals, fertilizers, and transportation services, and many problems remain. [2]

the existence of a monopoly is a factor that hinders competition for product sales, i.e., a struggle that may occur in other areas. The natural monopoly objectively leads to the need for state regulation of electricity and heat prices. as economic activity and incomes increase, so does the demand for energy resources.

Main part

It is known that a product is anything that can meet a need (demand) and is offered to the market to attract attention, buy, use or consume. in the narrow sense, a commodity is understood as an external object, something that satisfies the needs of any human being because of its properties, in contrast to services, goods are provided in the form, not in the form of things. activity.

it should be noted that the concept of product in the energy sector is unique. First, there is no consensus that energy products are goods or services. the study of the physical properties of electricity allows us to conclude that electricity is a commodity, although it is not directly perceived as a thing, a thing, but affects other things, transfers their properties to them, and acquires material value. in addition, energy is recorded by metering devices and is available independently of the manufacturer.

energy has an indirect and instantaneous commercial value that is embedded in the products of other industries or directly meets the needs of customers. The use of electricity in almost all industries and households defines its versatility. Taking into account these aspects, we would like to focus on the study of the formation of costs and the current state of cost calculation in electricity generating enterprises.

Conclusion and discussion

cost is the most important quality indicator that reflects the results of economic activity of the enterprise, the technical and economic level of production and the quality of management. [3] This is the primary basis for price formation and has a direct impact on the amount of profit and the level of profitability of production.

The cost of a product is the value of all direct and indirect costs incurred in producing the product. [4]

It is well known that the categories of “income” and “expense” are fundamental concepts of accounting. [5] cost is the reduction of economic benefits in the reporting period in the form of the outflow or use of assets, as well as the occurrence of liabilities between participants that lead to a decrease in capital. [6]

Expenditures in the legislation and practice of accounting of the Republic of Uzbekistan are classified as follows:

costs included in the cost of production;

expenses not included in the cost of production, but included in the profit from operating activities and included in current expenses;

expenses on financial activity of the business entity, which are taken into account in the calculation of profit or loss from the business activities of the business entity;

Extraordinary damages. [7]

In the practical activities of enterprises, cost is divided into two concepts: costs, production costs for the production and sale of products (I) and unit cost :

Production cost:

1. Direct costs are costs (material costs) that are directly related to the output of the product.
2. indirect costs are costs that cannot be directly linked to the products produced (total workshop costs, total plant costs, management, production organization, etc.).
3. The main costs are the costs of this technological process.
4. additional costs are management, production organization costs.

The cost of the product is the most important indicator of the performance of the economic entity. The unit cost of goods, works and services and all sold products is calculated as a result of calculation.

calculation is a technique of analytical accounting of production costs and a procedure for calculating the cost of production. [8]

the object of calculation is the types of work and types of services for which it is necessary to have information about products of different levels of readiness, semi-finished products and partial products (parts, assemblies), their cost.

unit of calculation - a unit of measurement for the object of cost calculation. Variety of Computation Units in accounting theory have been reduced to several technological groups: natural units; conditionally natural; operational divisions; unit of time; reduced units.

calculation is a method of grouping costs, summarizing them, calculating the cost of accounting objects. The calculation is grouped according to a number of features.

Table 1
Types of calculations

№	Types	Description
1	Normative	Acalculated on the basis of technological standards in the goods and standards of use of means of production and working time. is used as a reference in production management practice, the comparison of which allows to identify ways and stocks to reduce the cost of the product, and to increase profits by reducing the cost of each type of product

2	project and planning	Design and planned calculation is used in the following cases: - substantiation of the level of selling prices for certain types of products; - identify the need for specific types of material, labor and financial resources; - the results of subsequent control and comparison of the quality of production management by comparing the data of design and planning and reporting calculations directly resulting from the excess of the actual cost of production over the design and planned cost describes additional gains from reducing losses or, conversely, production. real production cost compared to the project and planned
3	methodical	structured for assimilated products, provided for in the production program (annual, quarterly, monthly).
4	statistics	In addition to the purposes of comparison with data compiled and planned by accounting services, the production of various types of resources is an important tool for financial control over the rational use in this area.
5	Plan	made on a one-time basis for the product ordered or ordered

Cost calculation method is a method of analytical accounting of production costs on the objects of cost calculation and methods of calculating cost. to determine the method of calculation in the organization, it is important to know the form, type and essence of production, the duration of the production process, the type and essence of the product produced. The difference in production forms also means the difference in calculation methods. there are various classifications of cost accounting and cost calculation methods in the economic literature.

According to the most common classification, the following methods of calculating the cost of a product are distinguished.

Table 2
Classification of methods for calculating the cost of production

according to the classification feature	according to the calculation method
on the objects of cost accounting	step by step,
by periods cost determination	on an order basis, periodically
in the order of cost formation unit of cost.	general, single (single)
by calculation methods	direct calculation, cost addition, cost deduction, cost distribution, combination, normative.

As can be seen from the data in Table 2, the cost calculation method is a method of analytical accounting of production costs and cost calculation processes for cost calculation objects. to determine the method of calculation in organizations, it is necessary to know the form, type and nature of production, the duration of the production process, the type and nature of the product produced.

Conclusion

there are currently several methods of allocating costs by product type, some of which are: cost reduction principle, proportional quantification principle, price method, principle of distribution of similar products in proportion to individual production costs, energy equivalent method, exergy method, normative methods. The fundamental differences between energy products and products of other industries in electricity generating enterprises are:

- the impact of other economic activities on the cost of all goods;

- the goods and their payment do not match in time;
- the nature of the infrastructure - it affects the macro and microeconomics, the social conditions of society, etc .;
- inability to store large volumes of energy efficiently;
- energy is not a commodity, because all energy belongs to the common network;
- impossibility of energy rejection;
- technological unity and randomness of energy production, transmission, distribution and consumption processes;
- reliability and security of supply.

the technical report currently used in thermal power plants is based on the “physical” method, the essence of which is that all combined production is related to energy savings, leading to an increase in thermal energy costs.

information on the current state of cost accounting and cost research at power generating enterprises.

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