

# ENGINEER



international scientific journal

**SPECIAL ISSUE**

**E-ISSN**

3030-3893

**ISSN**

3060-5172



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**ENGINEER**

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**E-ISSN: 3030-3893**

**ISSN: 3060-5172**

**SPECIAL ISSUE**

**16-iyun, 2025**



**[engineer.tstu.uz](http://engineer.tstu.uz)**

**“QURILISHDA YASHIL IQTISODIYOT, SUV VA ATROF-MUHITNI ASRASH  
TENDENSIYALARI, EKOLOGIK MUAMMOLAR VA INNOVATSION  
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## Development of a quality management system for housing and communal services (HCS)

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**Abstract:** The article examines the methods of quality management of housing and communal services, which is a set of measures, methods and means aimed at preserving and developing the housing stock, increasing the level of safe and comfortable living of the population in apartment buildings, and developing quality standards for the provision of housing and communal services to the population. Thus, the quality standards of housing and communal services should be characterized by the final parameters of the service. The "consumer" does not care how and as a result of what actions certain technical, economic and statistical indicators of the standard are achieved. At the same time, the "consumer" is interested in the sustainable and stable quality of services that are provided to him under the contract

**Keywords:** Housing and communal services, management systems, customer, efficiency monitoring, funds, consumer solvency, energy resources, tariffs, elevator, doors, management efficiency.

### 1. Introduction

Currently, the urgent task of all branches of government is to assist housing and communal services enterprises in creating a quality management system, the purpose of which is to improve the efficiency of enterprises in terms of the manageability of all processes in the production and provision of housing and communal services. In other words, the implementation of a quality management system for housing and communal services will increase the transparency of interaction between government levels, streamline the activities of the Municipal Customer, General Customer and executors of the municipal order for the provision of high-quality services to the population, and improve the efficiency of contractual relations in this area.

The quality management system for housing and communal services is a set of measures, methods and tools aimed at preserving and developing the housing stock, increasing the level of safe and comfortable living of the population in apartment buildings, and developing quality standards for the provision of housing and communal services to the population [1].

### 2. Materials and Methods

An effective quality system must meet the needs and expectations of the consumer and protect the interests of the service provider. Quality and consumer satisfaction are the most important criteria for the provision of housing and communal services in the context of economically determined tariff growth. Failure to achieve the goals in the area of housing and communal services quality entails adverse consequences for the consumer, the contractor and society as a whole [2].

In connection with the above, it can be concluded that it is relevant to develop a housing and communal services quality management system that provides for a set of indicators and evaluation criteria, on the basis of which it is possible to monitor the effectiveness of individual areas of reforming the industry.

The indicators of the quality of housing and communal services are assessed dynamically and allow us to draw a

conclusion about how the quality of the services provided is improving and costs are reducing for both the provider and the customer (for example, saving money, energy, etc.)

The organizational and economic indicators of the quality of housing and communal services include:

1) The level of satisfaction of residents with the quality and efficiency of housing and communal services (determined by the change in the number of complaints filed by the population, requests for troubleshooting, and appeals by residents to higher authorities over a certain period of time).

2) Change in the level of solvency of consumers of housing and communal services, characterized by the absence of debt for payment of services received (there is a connection with the level of satisfaction of residents with the quality of housing and communal services).

3) Change in the level of trust of citizens in management companies, which is reflected in the term of the concluded agreement for the management of an apartment building.

4) Changes in the accident rate, expressed in the number of accidents in an apartment building and adjacent utility networks over time (this indicator is especially indicative for checking the effectiveness of introducing innovations in the field of safety into the building management and maintenance process: vandal-proof coatings for elevators, doors, attic floors and access to utility rooms, shatterproof windows on stairwells, sensor lighting and video surveillance, etc.). The main financial and economic indicators of the quality of services for housing and communal services enterprises are such as "profitability" of production, "cost price" of products, the size of tariffs for housing and communal services, "profit" of a housing and communal services enterprise, the amount of tax deductions.

### 3. Results and Discussion

Technical and economic indicators of improving the quality of housing and communal services based on innovations are:

1) Change in the condition of the housing stock and adjacent utility networks, as well as the condition of the adjacent territory in dynamics (assessment of objects on a scale: new (from 1 to 3 years), relatively new (from 4 to 7 years), average depreciation (from 8 to 25 years), high depreciation (from 26 to 40 years), dilapidated (over 40



years) and emergency). Innovations will be highly effective, after the implementation of which, in relation to a specific house, its condition will be assessed as excellent at a greater age.

2) Change in the technical condition of equipment, utility networks and production capacities of the housing and communal services supplier in dynamics.

3) The level of uninterrupted service and compliance with standards of the services provided.

4) Change in the speed (time) and quality of application fulfillment after the implementation of the innovation.

The environmental indicators of the quality of housing and communal services include:

1) Dynamic changes in the quality (color, taste, chemical composition) of water supplied to homes.

2) Dynamics of the number and frequency of sick citizens - water consumers.

3) Dynamic changes in the level of pollution of the environment and nearby territories (emissions of harmful substances into the soil, atmosphere, discharge of toxic waste into water, etc.) (before and after the introduction of innovation).

The economic efficiency of quality management of housing and communal services can also be expressed by the following criteria:

- the ratio of the reduction in costs of housing and communal services enterprises from the introduction of innovations in the production process of housing and communal services (over a period of time) to the costs of their purchase;

- the dynamics of profits of housing and communal services enterprises from services provided, etc.

The social efficiency of quality management of housing and communal services consists in: increasing the level of solvency of the population (consumers of housing and communal services); increasing the level of comfort and quality of life of the population.

The proposed quality management system for housing and communal services is aimed at increasing the efficiency of using existing resources and opportunities, ensuring the real attractiveness of the industry for investors, creating conditions for sustainable functioning of the housing and communal services sector with mandatory improvement in the quality of provided housing and communal services, and clearly assigning functions and tasks between the participants that are necessary for their implementation.

The distinctive features of the quality management system for housing and communal services are:

- high quality and environmental safety of housing and communal services;
- consumer satisfaction with the quality of housing and communal services;
- promptness and accuracy of information exchange between government agencies, producers and consumers of services.

Within the framework of the developed system, it is possible to formulate specific tasks, the implementation of which ensures an improvement in the quality of housing and communal services: replacement of equipment at housing and communal services enterprises that has exhausted its resource with modern equipment; increasing thermal insulation of buildings and networks; reducing energy consumption of housing and communal services enterprises for their own needs; increasing the competitiveness of the services provided; improving the working conditions of employees of housing and communal services enterprises,

conducting additional training for personnel; reducing harmful emissions into the environment; widespread use of the system of accounting and quality control of raw materials and services provided; promoting energy-saving activities of energy consumers by housing and communal services producers.

The development and implementation of a quality management system consists of the following successive stages:

a) defining the needs and expectations of customers and other interested parties;

b) developing the organization's quality policy and objectives;

c) establishing processes and assigning responsibilities to those responsible for achieving quality objectives;

d) establishing and defining the necessary resources and providing them to achieve quality objectives;

e) developing methods and indicators for evaluating the results and effectiveness of each process;

e) practical application of these methods and indicators to determine the effectiveness and efficiency of each process;

h) developing and implementing a process for improving the effectiveness of the quality management system.

A housing and communal services organization implementing a quality management system for housing and communal services creates confidence in the capabilities of its processes and the quality of its services, and provides a basis for their continuous improvement. This can lead to increased satisfaction of customers and other interested parties and the success of housing and communal services organizations.

The proposed quality management system for housing and communal services can serve as a guide for housing and communal services organizations. It defines and specifies the desired results, and promotes the optimal use of resources. Achieving the goals in quality management of services will have a positive impact on the quality of the latter, the efficiency of work, financial indicators and, consequently, on the satisfaction and confidence of stakeholders.

To summarize the chapter, it should be noted that housing and communal services are the most important component of the life support system of the population. Achieving the appropriate quality of housing and communal services is the most important goal of the functioning of an organization that is part of the housing and communal services system. In turn, achieving the quality of housing and communal services should be combined with the optimization of costs for their provision, which is due to the monopoly position of organizations operating in the housing and communal services market.

Moreover, the quality of housing and communal services is the result of the interaction of government bodies, enterprises and organizations of the housing and communal complex, despite the fact that the role of the "performer" of housing and communal services is played by housing and maintenance organizations that provide services directly to the "consumer" [3].

## 4. Conclusions

Thus, the quality standards of housing and communal services should be characterized by the final parameters of



the service. The "consumer" does not care how and as a result of what actions certain technical, economic and statistical indicators of the standard are achieved. At the same time, the "consumer" is interested in the sustainable and stable quality of services that are provided to him under the contract.

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