

THE METHODOLOGY OF ASSESSING THE EFFICIENCY OF THE ELECTRICITY SECTOR IN FORECASTING THE DEVELOPMENT OF THE REGIONAL ECONOMY

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Abstract

Currently, the service sector and energy complex appeared numerous business entities that has led to increased competition between them relations. Enterprises of this sector to ensure sustainable development and improve the efficiency of have to improve approaches in the fight for customers, to improve organizational and economic mechanisms. The solution of economic problems associated with low efficiency, lack of investment and risk management in activities of enterprises in the sphere of energy management, calls for new scientific understanding.

Acute problems are scientific and practical research to develop methods of performance evaluation, strategy development, competitive behavior and optimization of business processes of enterprises in the sphere of providing energy services.

The main objectives of power sector reform: electricity restructuring with the separation of competitive (production and sale of electricity) and monopolistic spheres in the electric power industry; the preservation of a unified infrastructure of electric power industry, including main power grid infrastructure and Supervisory control system; the liberalization of the electricity market and the creation of competitive relations in the sector of electricity trade; the creation of conditions for inflow of investments into the sector and build new generating capacity.

In conditions of strong competition for end consumer retail companies may have limited profit margin from main activities in the form of sales increment in the resale of electricity to consumers. The possibility of increasing revenues energy sales companies are mainly related to the expansion of the services range, diversification, and integration with other energy companies, in order to find ways to develop and improve the efficiency of enterprises in the sphere of provision of energy supply services, it is necessary to pay attention to the mechanism of activity of the enterprises of the sphere and to reveal its contents.

Existing techniques of an estimation of efficiency of activity of the energy enterprises and especially the sphere of provision of energy supply services are not suitable for an estimation of prospects of development of the enterprises of this complex, their application is not sufficiently stimulate the staff to the improvements,

and not fully correlated with the goals and strategy of an enterprise. Problems of management of enterprises in the sphere of providing energy services, particularly related to the development and choice of development strategy and competitive behavior, is not sufficiently studied.

Keywords: regional economy, electricity sector, risk management, sector reform

1. INTRODUCTION

Currently, in the field of energy services, there were numerous entities that has led to increased competition between them relations. The enterprise of a services sector to ensure sustainable development and improve the efficiency of have to improve approaches in the fight for customers, to improve organizational and economic mechanisms. The solution of economic problems associated with low efficiency, lack of investments and risks in activity of the enterprises of sphere of services, requires a new scientific understanding.

Analysis of modern theoretical and practical sources revealed that the issues of estimation of efficiency of activity of the enterprises, improvement of the organizational mechanism of management and optimization of business processes of enterprises in General, at the moment do not have a satisfactory solution. Existing techniques of an estimation of efficiency of activity of enterprises of sphere of services and especially the sphere of provision of energy supply services are not suitable for an estimation of prospects of development of enterprises, their use is not enough stimulates the staff to the improvements, and not fully correlated with the goals and strategy of an enterprise. Problems of management of enterprises in the sphere of providing energy services, particularly related to the development and choice of development strategy and competitive behavior, are poorly understood.

Relevant in this regard are scientific and practical research to develop methods of performance evaluation, strategy development, competitive behavior and optimization of business processes of enterprises in the sphere of providing energy services.

Theoretical and practical problems of increase of efficiency of activity of subjects of economy in different aspects researched in the scientific works of E.A. Arustamov, A.I. Gavrillov, V.V. Kovalev, A.P. Makarenko, A.I. Panov, A.A. Smirnov and others.

Some aspects of functioning of the enterprises of sphere of services is considered in works of foreign scientists: E. Altman, W. Beaver, S. Bru, R. Kaplan, John. M. Keynes, K. Mcconnell, F. Kotler, M. Porter, A.M. Friedman, P.L. Joskow, S. Hunt, D.M. Newberry, F. Wolak, etc.

It should be noted that still remains poorly understood theoretical and methodological aspects of efficiency of activity of enterprises in the sphere of energy services, despite the significant amount of work in the industry. Modern system of indicators and methods of performance evaluation, in particular, are not fully and comprehensively assess and make recommendations on increase of efficiency of activity of the enterprises of sphere of providing energy services.

The purpose of the study is to justify theoretical and methodical approaches and practical recommendations on increase of efficiency of activity of enterprises in the sphere of providing energy services.

Practical significance of the work is that it developed the recommendations directed on increase of efficiency of activity of enterprises of sphere of services, to Supplement and clarify the existing scientific knowledge on the activities of businesses providing energy services.

Analysis of international experience of reforming of electric power industry allows to allocate the following tendencies of development of market of energy supply services:

- splitting energy companies into compliance with the activity on production, transfer, distribution, sale and supply of electricity to final consumers;
- privatization of the companies;
- the creation of competitive relations in the industry;
- the establishment of an independent structural organizations in the field of dispatching and managing competitive electricity markets;

- giving the consumers the right of choice of service provider;
- integration and diversification of energy companies;
- creation of trading platforms for competitive electricity trading between producers, suppliers and consumers in energy retail services.

The creation of competitive market of energy services will contribute to lower prices for services, improve the quality and range of provided retail services:

- in contrast to the theoretical possibility of low end prices for the consumer, almost universally saw an increase in prices, including because of their growth to economically justified levels;
- there was limited competition because of the complexity of implementation and high cost of installing automated accounting systems of electricity;
- development of energy retail services occurred on the background of trial and error, the lack of sophistication of governance mechanisms competitive electricity market;
- from private power companies, to reduce costs and the pursuit of profit, has eliminated the need for investment and innovation, resulting in reduced spare capacity and the shortage of electricity and power;
- in place of government there were private monopolies that restricted the rights of end-consumers of electricity.

2. OPINIONS AND DISCUSSION

As a result of the reform of Russia's energy sector energy supply services in the wholesale and retail electricity markets at the moment are available in several types of retail companies:

1. Providers of last resort. Within the scope of their activities is the maintenance of any applied regional retail consumers on a territorial basis;

2. Independent sales companies:

- corporate intermediaries with the objective of reaching consumers in the wholesale market of electricity and capacity;
- an independent company that provide services for the sale of electricity to consumers interested in reducing costs for the purchase of electricity and power due to the accession to the wholesale market.

3. Retail companies established on the basis of the municipal network of the enterprises of wholesale Resellers of electricity, implementing the electricity from suppliers, or independent sales companies.

Alternative activities of energy supply companies is a separate output and work of consumers in the wholesale market of electricity and power.

With the emergence of new rules on wholesale and retail markets, many companies have acquired the status of guaranteeing suppliers:

- wholesale consumers-Resellers and established on the basis of their sales companies;
- retail companies established through the reorganization of regional energy companies;
- retail companies that cater to consumers connected to electric networks of OAO "Russian Railways";
- businesses that are isolated from the Unified energy system of Russia, and operating the transmission facilities or generating facilities.

Suppliers needs to obtain the status of the participant of the wholesale market. Against them there are a number of features: they are given a period of grace for the harmonization of systems for commercial accounting and is not subject to quantitative requirements, in contrast to the other subjects of the wholesale market.

In the Republic of Mari El the status of the guaranteeing supplier has acquired OAO "Marienergo".

The boundaries of the zone of operation of a guaranteeing supplier is determined by authorized bodies of Executive power. As the boundary that defines the area of operation of a guaranteeing supplier-the participant of the wholesale market, determine the point of delivery on the wholesale market. In fact, such boundaries coincide with the borders of the territories of constituent entities of the Russian Federation. If the

guarantee provider is not a participant of the wholesale market, the boundaries of the areas of responsibility are determined depending on the balance accessory of electrical networks, which are attached to serve the provider of last resort customers. Guarantee provider is the Central participant in the retail market and obliged in the zone of its activity to conclude the contract with any consumer who wished to enter into a contract. Other retail companies are free to conclude contracts with consumers and they cannot be forced to contract. If the consumer is not satisfied with the organization that provides him energy retail services, he may appeal to the guaranteeing supplier. Energy retail company can conclude the following types of contracts with consumers: the contract power, which includes the essential conditions for the sale and transport of electricity; the contract of sale in case of the conclusion which the consumer independently establishing the cooperation with network organizations.

The contract power is more affordable due to its complexity, since the beginning of rendering of services in transmission of electricity coincides with the date of commencement of sale of electricity under the contract of sale. People may conclude a contract in writing, the fact of payment of bills for electric energy is also the fact of conclusion of the contract. Other consumers enter into a contract in writing. Energy companies can refuse performance of obligations under the contract by the introduction of restrictions of power supply in cases when the consumer distorts the information on the actual energy consumption or violates the terms of payment for electricity and services for its transportation.

The power supply contract must describe the conditions of interaction of the power supply organization and consumers in the following parameters:

- border of balance sheet attribution of networks and operational responsibility;
- the scheme of power supply of objects of the consumer indicating the power sources and other parameters;
- data on metering devices of electric energy;
- obligations of the parties on the content of networks and devices;
- the magnitude of the emergency and technological reservation;
- modes of supply of the consumer;
- load;
- the obligation to observe the operation and control discipline;
- the contractual volume of consumption of electric energy or capacity;
- the contractual volume of energy consumption of consumers financed from budgets of different levels;
- the procedure for determining the actual consumption of electricity or capacity in physical and monetary terms;
- the procedure of payments for the consumed electric energy or capacity and terms of fulfillment of contractual obligations;
- the cost of the electric energy or power that is supplied to consumers at regulated tariffs and free prices;
- the order of introduction of the limitation of consumption of electricity or power;
- the conditions of interaction between retail companies with third parties in the interests of consumers to ensure stable and reliable energy supply of consumers.

Thus, the user can independently enter into with third parties the contract on rendering services on transmission of electric energy, a contract for the provision of services in operatively - dispatching management and other contracts related to the provision of a secure and sustainable energy consumer.

Guaranteeing supplier in the territory of the Mari El Republic is OAO "Marienergo". The main activity of OAO "Marienergo" sales to consumers of the Republic of Mari El of electricity and capacity purchased on the wholesale and retail electricity markets. Power supply is carried out according to the territorial principle, i.e. OAO "Marienergo" obliged to accept the services applied to any consumer whose power installations are located on the territory of the Republic. OAO "Marienergo" on the territory of the Republic of supplies to all categories of consumers, including population and housing, whose share in the total volume of productive electricity supply to consumers of OAO "Marienergo" is 40,9%. The main part of consumption of electricity is industrial consumers, representing 20.4% (table 1).

As a result of price competition is the main factor that may adversely affect the sale of electric energy is the

release of large consumers in the wholesale market of electric energy and capacity or the transition to competitive energy sales organizations, which will lead to a decrease in the proportion of deliveries in the retail market. For example, from 1 January 2014, the consumer Gorky railway-branch of OAO «Russian Railways», previously serviced by OAO «Marienergo», went on service OOO «Rusenergosbyt».

Table 1 The supply of electric power to consumers OAO «Marienergo» for 2016

| Name of the industry | The supply of electric power | |
|--------------------------------|------------------------------|---------|
| | thousand kW.h | share % |
| Total for OAO "Marienergo" | 2 926 174,0 | 100 |
| Industry | 595 892,0 | 20,4 |
| Agriculture | 110 231,6 | 3,8 |
| Forestry | 178,5 | 0,0 |
| Transport and communication | 155 926,4 | 5,3 |
| Construction | 95 850,0 | 3,3 |
| Housing | 776 212,1 | 26,5 |
| The population of | 421 920,7 | 14,4 |
| Other industries | 499 592,2 | 17,1 |
| The Federal budget of | 81 876,3 | 2,8 |
| The Republican budget | 82 616,5 | 2,8 |
| The budget of districts/cities | 80 003,0 | 2,7 |
| Budget settlements | 25 874,7 | 0,9 |

Market share of electricity sales attributable to OAO «Marienergo», in 2013 amounted to approximately 92.7% of the total volume delivered to consumers in the Republic of Mari El in 2014 was 83.3%, in 2015 accounted for 59.7%, and in 2016 60.2% (Fig. 1). Share of supply of electric power competitive sales companies in 2016 amounted to approximately 39.8 per cent. The decrease in the share of supply in the electricity market caused by the departure of large consumers.

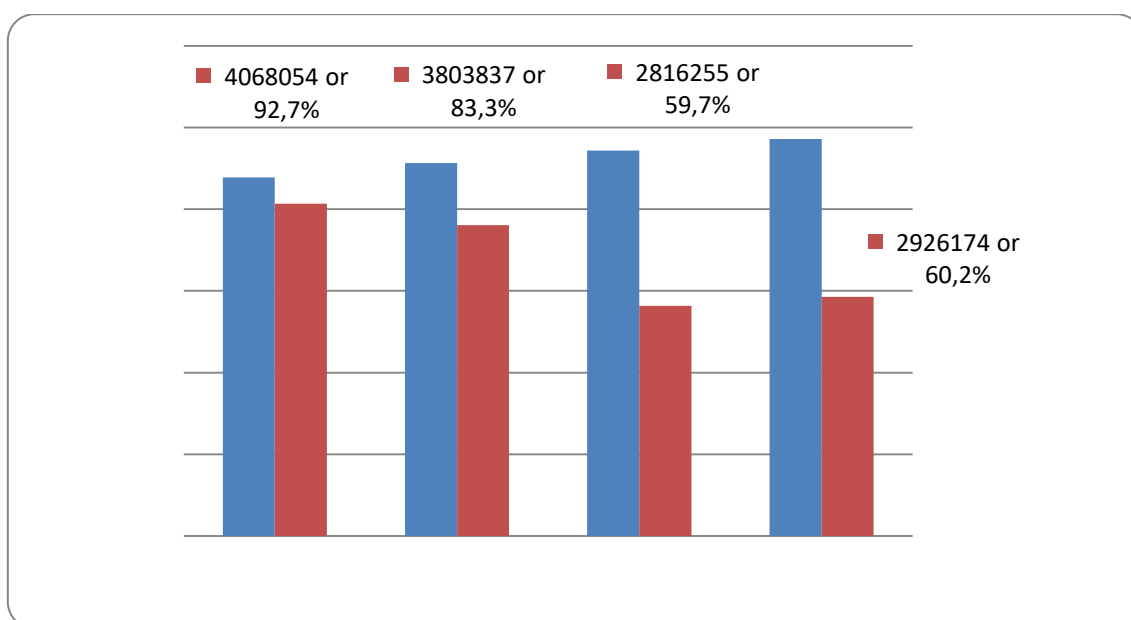


Fig. 1 The supply of electric power, thousand kW.h. (2012-2016).

Independent energy retail company open to large consumers with the proposals on transition to them on service. In this case, there is a risk associated with the activity of OAO «Marienergo company» as the supplier of last resort, because other conditions, except as established by the Executive authority of the Republic of Mari El in the field of state regulation of tariffs, to offer consumers could not, then as an independent power sales company may offer consumers any terms of the supply of electricity. The main advantage of competing independent distribution companies, low costs of procurement of electricity on the

wholesale market of electricity and capacity, respectively, a lower price supply to consumers of electricity, which is particularly attractive for large consumers, because the final price of the supplier laid down the magnitude of cross-subsidies. The independent sales companies offer more liberal terms of payment for electricity.

The impact on efficiency of activity of OAO «Marienergo» can have the following economic factors in the procurement process of electricity on the wholesale market of electricity and capacity:

- penalties for late payment of liabilities. In case of untimely fulfillment of obligations on payment may be assessed fines, excommunication from the market, purchase the entire quantity of electricity on the balancing Market. Solutions - through compliance with the established terms of payments and calculation and verification of the validity of applicable amounts;
- the effectiveness of business planning in terms of determining the sales volume of electricity in the day-ahead market, balancing market to perform its obligations under regulated contracts. Solutions through medium-term forecasting of expenditure and revenue items of the budget based on the statistics of participation in the wholesale market. The need for independent development of methods of forecasting of influence of the wholesale market on the financial results;
- growth of market prices for day-ahead and balancing market vs. the cost of electricity under regulated contracts. After the competitive selection of electricity company can't return in the regulated sector and is obliged to purchase electricity on the balancing market. The company cannot affect the prices of the balancing market, despite the fact that the rules of the wholesale market provides for price control through the adoption of price-cap and control of the Antimonopoly service;
- purchase of electric energy guaranteeing supplier only anaprilinum applications;
- the risk of buying excessive amounts of capacity under free contracts of purchase and sale of electricity and capacity. Ways to minimize the most accurate prediction of the required volume capacity for the next period. Which requires a detailed definition of necessary volume of purchases of power;
- the rise in capacity prices in the market competitive capacity outtake. Solutions – finding the best counterparties for the conclusion of free contracts for power, the consideration of mutually advantageous offers;

Ensuring suppliers have to develop a complex of measures to prevent the departure of large consumers for the service to other energy companies. The consequence of this protective tactic is often unfair behavior of energy retail companies:

- evasion from the coordination of groups of supply points of electricity in relation to electrical consumers looking to move the service to the competitive energy marketing company;
- delays in the process of conclusion of the contract on rendering services on electric power transmission and other actions that impede the direct access of consumers to wholesale electricity market or transfer the service to another power company;
- delays in consideration of complaints and claims in court.

To determine the capabilities of the supplier and risk of loss of financial stability due to the transition of the consumer to the service to other retail companies need to determine the margin of safety of the supplier and, accordingly, to consider the proceeds from the sale, as one of the main economic factors of increase of efficiency of activity of guaranteeing suppliers.

Revenue from sale of electrical energy equal to the product of the value of productive supply of electricity in real terms, measured in kilowatt-hours, and value of sales increment established by the state regulatory authority. Revenue depends linearly on the magnitude of the useful output, since the value of sales increment shall not be changed during the regulation period. The earnings increase with the increase in the electricity consumption of consumers. The growth of energy consumption one consumer has its limits, therefore, the increase in consumption in most of the cases depends on the increase in the number of consumers. On the other hand, the maximization of consumption affects the price of electricity, it forces consumers to save electricity at high prices. Profit as the difference between revenues from sales and total cost of implementation of energy activities also linearly depends on the number of consumers and will increase when they increase.

In order to assess the margin of safety we applied the method of economic modelling on the example of OAO «Marienergo». Economic modeling method is proposed to apply for the following reasons: a study of

economic dependency to real causes certain difficulties due to the significant diversification of consumers, a complex system of management; of the information not be disclosed.

The model is based on the actual production units of OAO "Russian Marienergo" preserving all the production, economic and institutional characteristics. When building the model it was assumed that for all consumers the sales company set to the same value of sales increment. The model structure follows the structure of OAO "Marienergo" reduced 14 times. In the course of building the model uses indicators of the real object for 2016 (table 2).

Table 2. The economic performance of production units OAO «Marienergo» for 2016

| Score | Value |
|---|------------|
| The costs of implementing energy retail activity, thousand rub. | 12381,588 |
| Productive supply, thousand kW.h. | 195896,331 |
| The sales allowance of OAO "MER", rub./ kW.h | 0,07872 |
| Revenue, thousand rub. | 15420,96 |
| The useful output at breakeven, thousand kW.h. | 157286,43 |
| Margin, thousand rub. | 3039,37 |

Practice shows that the costs for the provision of services connected with sale of electric power, social security contributions make up 20%, wages up to 60%, because the primary source of regional energy supply company's staff, competently performing their duties (tab. 3). Significant capital investments may be a building (office space), transport, office equipment and software products. Their proportion can be up to 10% of the total cost.

The cost of fixed assets has the potential to reduce in the case of acquisition of the property. However, in this case there is a need in credit resources, which may exceed the cost of fixed assets. Costs linearly depend on the number of service consumers. The reason is that the dependence between the number of consumers and wage costs. One employee can serve a maximum number of consumers, the increase in the number of consumers forced to increase the number of staff. In addition, with the increase in the number of consumers increased other variable costs for service consumers.

Table 3. The costs of implementing energy sales.

| Cost | % cost |
|-----------------------|--------|
| Salary | 40-60 |
| Accruals for salaries | 13-20 |
| Rent | 2-10 |
| Other expenses | 10-45 |

The costs of implementing energy retail activities can be considered conditionally constant, assuming no changes in the organizational structure of the sales company. Because during the regulated period sales allowance does not change and is conventionally a constant value, the revenue of the company depends on the volume of productive electricity supply (Fig.2).

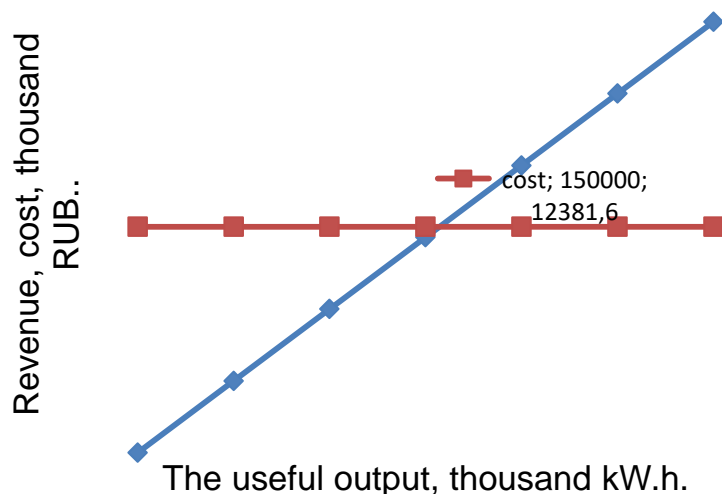


Fig. 2 The graph of the revenue from the productive supply.

The magnitude of the break-even point corresponds to the value of the useful home 157,286 million kW.h. The margin of safety in real terms corresponds 38,609 million kW.h, or in terms of value – 3,039 million.

Based on the analysis of the margin of safety can be concluded that the loss of one major customer with a significant consumption in real terms can increase the risk of losses. The competitiveness of the supplier can be maintained with the loss of a major customer in case the volume of sales of electric energy remaining groups of consumers are quite high. A key focus in order to maintain and increase sales is to promote the loyalty of all groups of consumers to the electricity supplier. The loyalty of large consumers is of paramount importance to guaranteeing supplier. Another important economic factor is the insolvency of consumers (tab. 4, Fig. 2, Fig. 3), which mainly belongs to the category of the population (households, population by direct calculations). In connection with the influence of external factors, problems also arise with industrial enterprises in terms of timeliness of payments for consumed electricity. Analysis of the structure of the debt of consumers of OAO "Marienergo" shows that the most problematic service are the utilities and the public, including the population, which is at the service of performers utilities (management companies of housing and communal services, associations of proprietors of habitation, etc.).

Analysis of Russian and foreign energy supply companies suggests that the problem of the development and choice of development strategy is quite relevant and under-researched. Most companies prefer the classic growth strategies (table. 4): intensive growth, integrated growth, diversified growth.

Table 4. Development strategies of energy supply companies.

| | | | |
|-----------------------|--|---|---|
| 1. Intensive growth | 1.1. Attracting new consumers | 1.2. Mergers or acquisitions of competitors | 1.3. Output in other regions |
| 2. Integrated growth | 2.1. Integration with generation companies | 2.2. Building of own generating capacities | 2.3. Integration with distribution networks |
| 3. Diversified growth | 3.1. Related diversification | 3.2. Unrelated diversification | 3.3. The concept of "multi-utility" |

Attracting new consumers who were not previously customers of the company. This is possible by offering low prices, flexible system of payment for services rendered unlike the competitors operating in the region.

Mergers or acquisitions of competitors. Through mergers or acquisitions energy retail company can expand its market share and to optimize the maintenance costs of consumers, increase consumer loyalty by offering better terms of service.

Output in other regions. Development strategy of the energy supply company requires both direct access to

consumers in other service regions, and by means of mergers or acquisitions of retail companies in other regions.

Integration with distribution networks. Strategy is widely used in some foreign countries, where the main buyers of electricity are the companies owning the distribution networks and resell electricity to end consumers. In Russia, such a combination is allowed within the boundaries of the territories not included in price zones of the wholesale market, technologically isolated areas. In other cases, the combination of these activities is a violation of law and may be subject to influence from the antitrust authorities. Withdrawal of anti-monopoly regulation could be the creation of an independent power company.

The concept of "multi-utility". To "multi-utility" include companies offering a wide range of services under a single window customer service. The strategy is based on the provision of services of power, water, heat, gas, garbage collection, ie full range of utility services, telecommunication services, etc. the Concept of "multi-utility" can be profitable and sufficiently attractive for strategic investors.

The choice of a particular development strategy of retail companies lies in the managerial decision-making and depends on the structure of services and scope of business, level of competition in the market of energy supply services, integration and interaction with generation and distribution companies.

Based on the results of the study, the authors have developed algorithm of choice of development strategy of retail companies. To construct the algorithm, we used the following logical condition decision: the isolation of the region of functioning of the enterprise, the shortage of generating capacity, the level of competition, the ability to exit to another region, the possibility of attracting new groups of consumers, the demand for services, generating interest in the integration, the interest of network companies in the integration, the level of competition in the market of public services. The developed algorithm is applicable for both guaranteeing suppliers and independent suppliers.

As a tool of stimulation of personnel of enterprises to improve the effectiveness of applicant proposed the system of efficiency evaluation of production units of businesses providing retail services as an independent business units, which together determine the final outcome of the enterprise (tab.5).

For all indicators there are three performance levels: base, rate, goal. Set key performance indicators, the above levels of performance, and weighting key performance indicators in the calculation of the rating factor are set based on the degree of importance of a variable based on experience, intuition or expert assessments.

Table 5. The rating of efficiency of activity of the production unit.

| Key performance indicators | The weighting factor | Base, % | Rate, % | Target, % | The fact, % | Result №1, % | Efficiency from the Norm % | Result №2, % | Efficiency of the Target, % | |
|--|----------------------|---------|---------|-----------|-------------|--------------|----------------------------|--------------|-----------------------------|-------|
| The level of electricity sales | 0,55 | 94 | 98 | 100 | 100 | 150,0 | 82,5 | 100 | 55,0 | |
| The share of accounts payable in total sales | 0,05 | 4 | 7 | 10 | 10 | 200,0 | 10,0 | 100 | 5,0 | |
| The implementation rate of the plan cost | 0,15 | 100 | 97 | 95 | 95 | 166,7 | 25,0 | 100 | 15,0 | |
| Receivables of legal entities in the sales volume of legal entities | 0,20 | 35 | 33 | 30 | 30 | 250,0 | 50,0 | 100 | 20,0 | |
| The share of receivables zadolzhennostejj, equivalent to the population in their sales | 0,05 | 115 | 107 | 100 | 100 | 187,5 | 9,4 | 100 | 5,0 | |
| Rating efficiency: | | | | | | | | 176,8 | | 100,0 |

$$\text{Result № 1} = (\text{actual} - \text{base}) / (\text{base}) * 100\%, \quad (1)$$

where the fact – the actual value of the indicator;

base is the worst possible value, from which starts counting result;

norma - the level that must be achieved with consideration of all the factors and capabilities of the unit. This is a satisfactory indicator.

Result № 1 reflects the degree of meeting or exceeding standards. So, if the actual value is below the norm, private result on it from 0 to 100%. If fact surpasses the norm, the private result is above 100%.

$$\text{Result № 2} = (\text{actual} - \text{norm}) / (\text{target-rate}) * 100\%, \quad (2)$$

where the fact – the actual value of the indicator;

norma - the level that must be achieved with consideration of all the factors and capabilities of the unit. This is a satisfactory indicator value;

the goal is excessive level for which to strive.

Result № 2 reflects the degree of achievement of the target. So if the actual figure is higher than normal, but below the target, the private score it from 0 to 100%. If fact exceeds the target, then a partial result above 100%.

Effectiveness ratios are calculated as the product of the result on the weighting factors. Rating the efficiency ratio is calculated as the sum of the coefficients of efficiency.

The proposed rating system reflects a competitive principle of work of divisions and aims to stimulate staff to improve these indicators. As a tool to achieve and improve the built system of remuneration of staff of divisions depending on the results achieved. The proposed system determines a single result of the efforts of the staff and reflects the degree of implementation of the underlying business processes of enterprises in the sphere of providing energy services.

According to the authors, this system of estimation of efficiency of functioning of enterprise level production units improves the efficiency of all the functional subsystems of the enterprise, provides an opportunity to improve the quality of management decisions, aligned with the system of personnel motivation.

A systematic approach to the assessment of efficiency requires the development and application of an optimal set of performance indicators in the implementation of the chosen strategy of development of the enterprise. To this end, the applicant proposed a system of evaluating the performance of enterprises in the sphere of provision of energy services depending on the chosen development strategy:

- assessment of the effectiveness of horizontal development through expansion in their region in the service area of other retail companies;
- assessment of the effectiveness of horizontal development through expansion into other service areas;
- assessment of the effectiveness of vertical business expansion in the region through the provision of additional services;
- assessment of the effectiveness of vertical business expansion in other regions through the provision of additional services;
- assessment of the effectiveness of vertical business expansion through the development of their own generation;
- assessment of the effectiveness of vertical and horizontal business expansion through integration with other businesses.

3. CONCLUSION

1. In the scientific community held differing opinions on the types of efficiency, which have their advantages and disadvantages. In this regard, the authors have elaborated the classification of types of enterprise efficiency. The proposed classification allows the efficiency together with a number of factors to fully assess the effectiveness of the enterprises in the sphere of energy management and the provision of their services.

2. In modern conditions remain poorly studied issues of the impact of individual factors on the business operations of energy facilities, the approaches to classification of factors of increase of efficiency of activity of

enterprises and the effectiveness evaluated by experts in different ways. Based on conducted research, the authors formulated the requirements to the system of classification of factors of increase of efficiency of activity of enterprises. The system of classification factors should: cover a substantial listing of factors to conform to the management system and take into account the specificity of the investigated object at the management level, to prevent the replenishment system through the involvement of newly identified factors.

The diversity of factors influencing the efficiency of the enterprises can be reduced to the following classifications: depending on the environment impacts: internal and external; depending on the level of analysis of economic processes: macroeconomic, mesoeconomic, microeconomic, institutional factors at the level of separate individuals; depending on the functional subsystems of the enterprise: technological, economic, organizational, resource, social, environmental.

In this regard, the authors have elaborated the classification of factors of increase of efficiency of activity of enterprises in the sphere of providing energy distribution services, which allows management companies to fully consider the impact of various factors on efficiency of activity of enterprises in the sphere of providing energy services.

The efficiency of the enterprises of the energy sector of services is uneven. Among the reasons it is possible to allocate a wide range of services provided by the service industries, and the presence of narrow factors influencing the performance of companies in the industry. In this regard, the authors have elaborated the classification of the main approaches to the estimation of efficiency of activity of enterprises of sphere of services, which extends to modern scientific ideas about how the assessment of efficiency of activity of enterprises of sphere of services.

3. The fundamental criterion of future development and increase of efficiency of activity of enterprises of energy management are analysis and formalization of business processes to identify shortcomings in the management and specify the strategic goals of the enterprise. The authors developed the scheme of the business process in providing energy services, including administering, providing, basic and advanced business processes. The scheme of the business process in providing energy services allows us to clarify the management real business objectives, focus on strategic issues, will allow to provide increase of efficiency of activity of the enterprises in the sphere of providing energy services.

4. System software consists of activities aimed at strengthening the competitive position of the enterprise: a comprehensive analysis, evaluation and forecasting, strategy development, elaboration of measures for implementation of the strategy. Currently the business of providing energy services is not sufficiently focused on defining and shaping the needs of consumers of services competitiveness. In this regard, the authors propose a system of practical measures to ensure the competitiveness of energy supply companies, allowing businesses to develop strategy and mechanism of implementation of chosen strategy, to identify additional areas for possible innovation in customer service.

5. Existing techniques of an estimation of efficiency of activity of enterprises in the provision of energy services is not sufficiently stimulate the staff of these enterprises to the improvements, and not fully correlated with the goals and strategy of the enterprises. This confirms the need for systematic work in the field of marketing and diagnosis of business processes with the introduction of the working Board of the control unit a certain set of performance indicators. Therefore, the authors developed a system of efficiency evaluation of production units of businesses provide energy supply services with a view to stimulating personnel of enterprises to improve the efficiency of their operations.

Many providers have difficulties in choosing an optimal set of performance indicators among the many indicators available, since all put into one system and keep the usability of it is difficult. In this regard, the authors propose a set of key performance indicators of enterprises in the sphere of provision of energy supply services, which can be reduced to a single dashboard for managerial staff of the enterprises in the sphere of providing energy services.

The developed methodical approach to assessment of efficiency of activity of enterprises in the sphere of providing energy services will improve the efficiency of all functional subsystems of the enterprise, will improve the quality of managerial decisions, will allow to link the assessment of the efficiency of motivation system of personnel in General will improve the effectiveness of services.

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