

Management of taxation processes to stimulate rational use of natural resources in the electric power industry

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Abstract. An approach is proposed to manage the processes of tax deductions, which increases the efficiency of taxation for organizations operating in the electric power industry of the Russian Federation in order to stimulate rational environmental management based on the use of environmental technologies.

1 Introduction

Presently, the economic activities of power industry facilities cause significant damage to the environment. With the constant development of environmental technologies, minimization of this damage can be achieved through the implementation of such technologies directly by the subjects of the electric power industry. Realization, of such high-tech investment projects is often not economically profitable for electric power industry subjects, and the existing economic mechanisms for stimulating rational use of natural resources in the electric power industry are not effective enough.

The number of disputable situations in the interpretation of the provisions of the Tax Code of the Russian Federation is constantly growing, because the specificity of relations in the electric power industry does not allow one to accurately answer questions about the dissemination of certain norms enshrined in the Tax Code. In these conditions, the development of effective management decisions on the taxation of the electric power industry subjects stimulates projects using technologies that saving the environment [1,2].

2 Materials and Methods

Analysis of tax management processes for stimulating rational use of natural resources in the electric power industry. The analysis of conflict situations in the field of taxation of subjects of the electric power industry brought on first place the problem of managing tax deductions. Statistical analysis of the decisions of the courts of various instances over the

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past ten years has revealed a certain contradictory bidirectional pattern of conclusions for the electric power industry organizations that applied the right to tax deductions.

Firstly, these are cases in which decisions are made in favor of the taxpayer. For example, the tax authority refused to deduct the value added tax (VAT) charged to the taxpayer organization as part of a payment under a contract with the seller of electrical energy and pointed out that the taxpayer had no right to refund from the budget of the tax, since the organization did not supply electricity to the consumer, but only compensated the losses to the guarantor supplier.

The court, on the contrary, found that the buyer had concluded with the seller a contract for the purchase and sale of electrical energy to compensate for technological losses in electric networks, under the terms of which the seller, at the buyer's request, purchases electrical energy in the amount of actual losses, and the buyer accepts and pays the seller specified amounts of electric power for terms of the contract. Satisfying the requirements of the taxpayer for invalidating the decision of the tax authority, the court proceeded from the fact that the obligation of the network organization or other owner of electric grid facilities, to which power receivers or electric power facilities are technically connected technologically, upon concluding such an agreement and paying the cost of losses arising in belonging to them networks, installed part 4 of Art. 26 of the Federal Law of March 26, 2003, No. 35-FL "On Electric Power Industry", paragraph 51 of the Rules for Non-discriminatory Access to Electricity Transmission Services and the provision of these services, approved by Decree No. 861 of the Government of the Russian Federation of December 27, 2004; paragraphs 2, 120 of the Basic Provisions for the Operation of the Retail Electricity Markets approved by the Resolution of the Government of the Russian Federation of August 31, 2006 No. 530, in force during the disputed period.

The court acknowledged that electricity in this case is not sold to consumers, but is purchased by the organization for the implementation of its own activity - the provision of services for the transmission of electrical energy in order to compensate for technological losses arising in the process of its transportation. In such circumstances, the organization acquires electricity on a reimbursable basis to compensate for losses, which is a necessary part of the material costs for the implementation of its own electricity transmission activities, which is subject to VAT in accordance with Art. 146 of the Tax Code of the Russian Federation. Therefore, the taxpayer justified the right to deduct VAT.

Secondly, these are cases in which decisions are made in favor of the tax authorities. For example, the basis for adding value added tax was the findings of the inspection of the company's overstating of VAT deductions. The tax amount that has been deducted is paid by the enterprise to the open joint-stock company (OJSC) when calculating the amount of actually lost electrical energy in electric networks during its transportation on the basis of acts of reception and transmission of electric power and invoices. Under the terms of the contract concluded by the enterprise with the OJSC, the enterprise undertakes to render services to the customer for the transmission of electric power through the implementation of a complex of organizational and technologically related actions that ensure the transmission of electricity through the technical devices of the electrical networks owned by the enterprise. Moreover, OJSC is obliged to purchase electric energy in the amount of actual losses, and the enterprise - to pay for the cost of electricity purchased in order to compensate losses in its networks. In this way, under the said contract, the company transfers electricity to the enterprise for consumers and electricity to compensate for the resulting actual losses of electric power in the company's networks. In the opinion of the tax authority with which the court agreed, the enterprise does not have the right to a tax deduction for the value-added tax calculated in connection with the lost electricity during its transfer, because the lost electricity during the transportation of electricity is not realized and, therefore, by virtue of the provisions of Clause 1, Art. 39, sub. 1, paragraph 2 of Art. 146 of the Tax Code of the

Russian Federation there is no object of taxation. In the absence of further realization of a part of the acquired electricity in the form of its losses in value terms, there is no object of VAT taxation.

In both collective average statistical examples, organizations acquired electrical energy to support their own activities, but the conclusions in the first situation contradict the conclusions in the second. In such ambiguous decisions, the Ministry of Finance of Russia was forced to clarify the situation in an additional letter of September 29, 2014 No. 03-07-15 / 48602 that on the basis of paragraph 1 of Article 171 of the Tax Code of the Russian Federation the taxpayer has the right to reduce the total amount of value added tax, calculated in accordance with Article 166 of the Tax Code of the Russian Federation, on tax deductions established by Article 171 of the Tax Code of the Russian Federation. According to clause 2 of Article 171 and clause 1 of Article 172 of the Tax Code of the Russian Federation, the amounts of value added tax that are presented to taxpayers in the acquisition of goods (work, services), property rights in the territory of the Russian Federation, in case of their use for operations subject to an added tax value, are subject to deductions after the acceptance of these goods (works, services), property rights for accounting, on the basis of invoices issued by sellers of goods (works, services), and if there are conformance primary documents. In accordance with paragraph 3 of Article 32 of the Federal Law of March 21, 2003 No. 35-FL "On Electric Power Industry", the amount of electric energy losses not included in the prices for electricity is paid for by the network organizations in whose networks they originated in accordance with the rules of the wholesale and (or) retail markets order. Where in network organizations are obliged to conclude in accordance with these rules contracts for the sale and purchase of electricity in order to compensate for losses within the limits not included in the prices for electricity. In addition, paragraph 4 of the Basic Provisions for the Operation of Retail Electricity Markets approved by Resolution No. 442 of the Government of the Russian Federation of May 4, 2012 "On the Functioning of Retail Electricity Markets, Full and (or) Partial Restriction of the Electric Energy Consumption Mode" it is established that network organizations that purchase electric power (power) in retail markets for their own (economic) needs and in order to compensate for losses of electric power in the electric grid facilities owned by them on the basis of ownership or other legal basis, act as consumers.

3 Results

The approach to managing the process of tax deductions, which increases the effectiveness of taxation for organizations operating in the electric power industry in order to stimulate the rational use of natural resources.

The need for such improvement in tax management is dictated by empirical results and is defined as the simplest response to a conflict. However, with the development of the concept of the digital economy, decision support information systems have emerged that extrapolate from the set of statistical data the predictable optimal solution. For example, the investigated processes can be taken into account in GRC (Governance, Risk, Compliance) - systems of risk management and support of internal control systems (Fig.1) [2-5]. Such systems have proven themselves in information management (Fig.2). [3]

Currently, hundreds of legal expert systems based on artificial intelligence are successfully used in the world to emulate the work of an expert in decision-making. Legal expert systems have a different architecture, use databases to process and obtain expert knowledge on specific subjects in the legal field [6-8].

Known:

- deductive reasoning models;
- models emulating thinking process, built based on precedents, which store ex-amples and operate with them;

- models with illegible logic that create “illegible” concepts and objects based on precedents;
- neural models that mimic the structure of the human brain. Neural networks are able to recognize and classify patterns in the field of legal knowledge and deal with inaccurate input data.

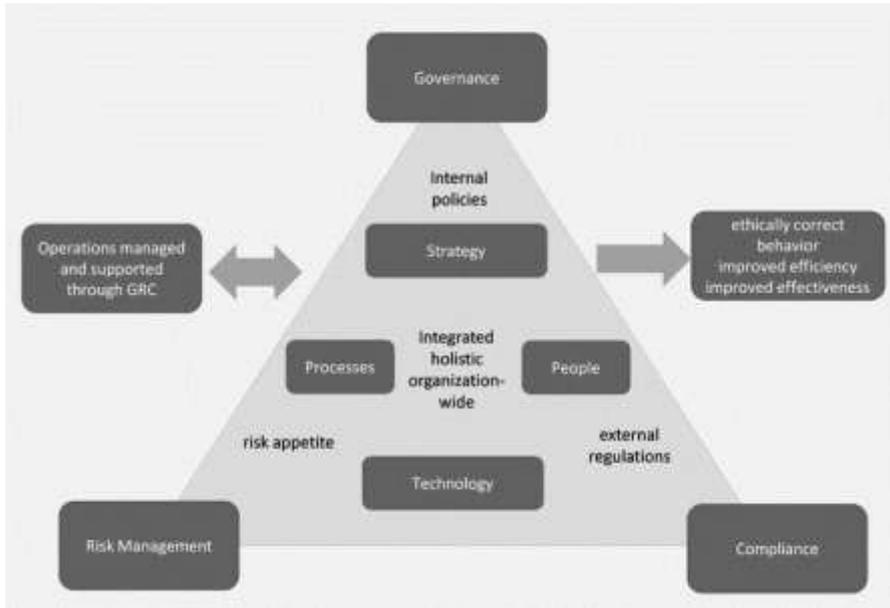


Fig. 1. Governance, risk management and compliance.

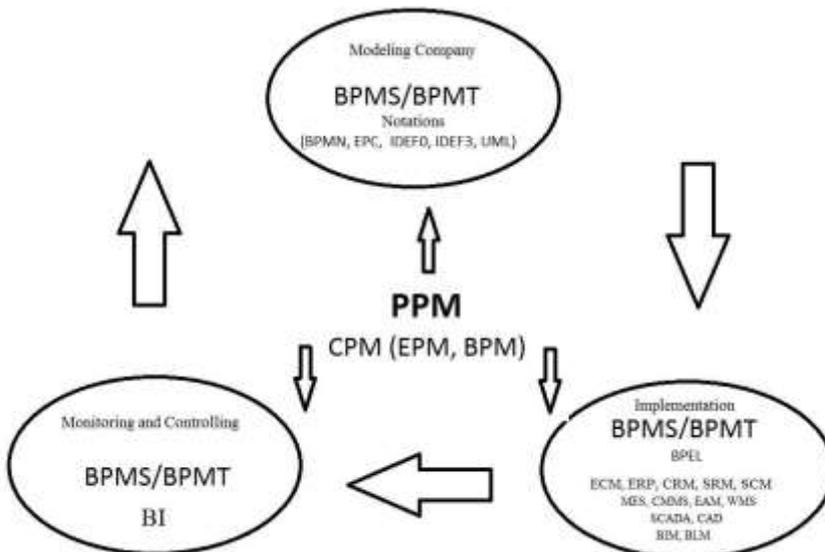


Fig. 2. Paradigm use of various types of management information systems company implementing the project approach.

On the basis of that fact, it is possible to develop a system for making an unambiguous decision on this issue, through which organizations will provide for this tax deduction when

planning their financial activities, and the state can provide the necessary targeted direction for spending funds saved through a tax deduction. So, for the electric power industry subjects, it is possible to envisage the direction of spending such funds for the modernization of equipment that contributes to reducing the harmful impact on the environment. Since most modern technologies are aimed at minimizing environmental damage and such developments are presented at every exhibition of innovations in the electric power industry, the stimulation to implement such investment projects is becoming increasingly popular.

4 Discussion

Unfortunately, such projects are considered quite expensive and economically unjustified. Any organization is primarily focused on making a profit and convincing the organization's management to find an opportunity to spend money on what is not necessarily going to be very hard [9-13].

The task of the state in these conditions is to create an interest, and also to "prompt" a possible source of funding for such an approach to the organization's activities in the electricity sector. When forming a mechanism where a part of the funds already spent by the organization will be returned to it to create better conditions for the environment, it will contribute to the education of a culture of respect for nature as a whole.

5 Conclusions

Organizations will be exempted from forced additional spending, and the state and society as a whole will receive the result in the form of additional measures to protect the environment. Of course, this approach requires detailed work on the mechanism for monitoring the use of funds saved by the tax deduction, the state, as well as in developing a set of measures required for various subjects of the electric power industry. With the participation of interested federal executive bodies and organizations engaged in the electricity sector, it is possible to envisage all aspects for the implementation of such an approach to promote rational use of natural resources.

References

1. S. Yu. Eroshkin, N. D. Koryagin, G. V. Kovkov, D. V. Panov, A. I. Sukhorukov, *Procedia Computer Science, Oxford* **103**, 605-608 (2017) DOI information: 10.1016/j.procs.2017.01.076
2. S. Y. Eroshkin, N. A. Kameneva, A. I. Sukhorukov, D. V. Kovkov, *Procedia Computer Science*, 609-612 (2017) doi: 10.1016/j.procs.2017.01.079
3. A. I. Sukhorukov, G. Shuhong, N. D. Koryagin, S. Y. Eroshkin, 2018 Eleventh International Conference "Management of large-scale system development" MLSD, 1-4 (2018) doi: 10.1109/MLSD.2018.8551859
4. <https://www.sketchbubble.com/en/powerpoint-templates/presentation-grc.html> (Last accessed 14.04.2019)
5. Aikenhead, M. (1995). "Legal Knowledge-Based Systems: some observations on the future". Web JCLI.
6. <https://bol.bna.com/automating-legal-advice-ai-and-expert-systems/> (Last accessed 24.03.2019)
7. <https://lawyerist.com/first-look-docassemble/> (Last accessed 04.03.2019)

8. <https://www.law.georgetown.edu/experiential-learning/centers-institutes/> (Last accessed 12.04.2019)
9. <https://techindex.law.stanford.edu/>> (Last accessed 13.04.2019)
10. N. P. Tereshina, A. V. Sorokina, Eleventh International Conference "Management of large-scale system development" MLSD, **1-4** (2017) doi: 10.1109/MLSD.2017.8109694
11. I. Ilin, O.V. Kalinina, O. Iliashenko, A. Levina, Procedia Engineering, **165**, 1673-1682. (2016) doi: 10.1016/j.proeng.2016.11.909
12. A.R. Bril, O.V. Kalinina, I.V. Ilin, A.S. Dubgorn, O.Y. Iliashenko, Forecasting the turnover growth in the risk management system as management decisions support. Proceedings of 2017 20th IEEE International Conference on Soft Computing and Measurements, SCM 2017. Paper number 7970692, **692-693** (2017) DOI: 10.1109/SCM.2017.7970692
13. O. Smirnova. ARPN Journal of Engineering and Applied Sciences, **14(3)**, pp.600-610 (2019)