Information risks analysis in management of energy projects

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According to the calculations of the International Energy Agency (IEA), a record increase in the share of renewable energy sources is planned for 2022 in the world. In this regard, it can be said that renewable energy is a priority direction of the development of the energy industry and therefore requires a comprehensive study of the problem of project management, in particular in the area of information risk management.

Since the energy industry is related to innovative activities, information risks in this area have a high probability of occurrence and a significant degree of impact on renewable energy projects in particular. The specifics of the industry provide for the wide application of project risk management methodology tools at all stages of the project life cycle.

For the high-quality implementation of projects, in accordance with RMBOK, it is necessary to identify and systematize groups of information risks, the probability of which may threaten the implementation of these projects.

A risk is an uncertain event or condition that, if it occurs, will have a positive or negative impact on one or more project goals [1].

As for the definition of the concept of information risks, there is still no clear understanding of what an information risk is.

Thus, in [2] information risk is defined as the ability of a threat to use the vulnerability of information resources with the further aim of causing damage to the enterprise. In [3], the authors investigated information risks in digitization projects and drew conclusions about the need for periodic analysis of information security with modeling of threats and prerequisites for the probability of information risks.

Therefore, renewable energy project team members should proactively find and identify information risks at the initial stages and throughout the project life cycle in order to avoid or minimize the impact of risks and initiate or maximize consequences. Both risks and consequences have a set of possible response strategies that can be planned to be implemented

in the event of an information risk.

According to the project management methodology, in order to effectively manage information risks, the project team needs to obtain information about the level of risk impact and the degree of its acceptability for achieving project goals. This is determined by measurable risk thresholds (acceptable deviation from the target), which reflect the risk appetite of the project. The threshold is usually indicated and communicated to the project team, as well as reflected in the definitions of information risk exposure levels for the project.

The main characteristics of the elements of the risk management strategy are as follows: avoidance, escalation, transfer, mitigation, acceptance.

Active risk-taking can involve developing a contingency plan that will be triggered in the event of such an event, or it can be passive acceptance, which means inaction.

Summarizing the materials of scientific literature and research by scientists in this area, the following conclusions can be drawn regarding the management of information risks in projects [4, 5]:

Step 1. Identification of information resources of the project that may be the object of risk.

Step 2. Determining the degree of probability of information risk, i.e. conducting a quantitative and qualitative analysis of information risk.

Step 3. Assessing the value of losses in the event of information risks.

Step 4. Carrying out the procedure for countering and/or preventing information risks, using risk management tools.

Information risk management is a set of measures that include the processes of: risk identification, risk analysis and making effective management decisions aimed at preventing (reducing) the occurrence of risky situations and their consequences. Therefore, the task of information risk management is to reduce the impact of undesirable factors on the project life cycle in order to obtain results as close as possible to the desired ones that meet the project goals.

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