

Discussion on Project Management Mode and Power Engineering Management

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Abstract: In view of the current development of power engineering management, traditional management methods can no longer be applied to the management of current power engineering work. Therefore, it is necessary to innovate and optimize existing project management modes, transform traditional management concepts and models, focus on addressing the problems in project management and improve management. This paper mainly analyzes the project management mode and power engineering management.

Keywords: Project management mode, Power engineering management, Problems, Countermeasures

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1 Introduction

The development of modern power supply enterprises should emphasize on the development and innovation of project management mode and the improvement of power engineering management. Due to factors such as resource constraints, however, many problems in project management are pending to be resolved. As a result, the requirements of project management cannot be met, and it is difficult to play its role in power project management. Although the power engineering project management model and development momentum are relatively satisfactory at present, some policies are issued and funding are provided in China to promote the development and innovation of project management and power engineering management. However, traditional management concepts and models will still limit the development of power engineering,

and will not effectively achieve the expected results. This is definitely unfavorable to the development of power engineering as the economic and social benefits of power industry enterprises will be limited. Therefore, it is necessary to strengthen the development of the project management model, improve the innovation of the project management model, and increase the efficiency and level of power project management.

2 Role of project management in power construction

The role of project management in the implementation of power construction can be mainly reflected in two aspects:

2.1 Conducive to improving the standardization and systematic development of power construction projects

In the development of power engineering, management personnel must accurately understand the complexity and system of power project engineering. The engineering works can be carried out smoothly to facilitate the innovation and standardized development of power engineering management work. In the project management work, coordination between different departments must be done to ensure the effective implementation and smooth development of project management, and improve the quality of project construction and economic benefits of the enterprises.

2.2 Conducive to the improvement of construction efficiency

In generally, the constructors need to appropriately set up various departments in the power project management work in view of the actual situation. They should also make sure that the coordination and

cooperation between various departments are good to improve the management of power engineering construction. For example, the power engineering planning department is mainly responsible for the design and analysis of the design drawings. Meanwhile, the calculation of engineering cost according to the design drawings is carried out to ensure that the estimated project cost is within a controllable range. Thus, the construction enterprise needs to purchase raw materials according to the estimated cost. During the implementation of this work, the construction enterprise must coordinate and communicate with the finance department^[1]. Then, the supervisors will need to control and supervise the quality and progress of the power engineering construction to prevent errors in certain parts of the construction, avoiding a negative impact on the efficiency and quality of power engineering.

3 Analysis of problems in power engineering management

The current stage of project management and power engineering management mode and their innovation have shown great development. However, most of the leaders of power enterprises have insufficient understanding of power engineering management and project management, resulting in weak ability in the innovation of engineering project management as well as difficulty in upgrading the power engineering management level. This is definitely not conducive to the development of power supply enterprises and the power industry, and ultimately affects quality of life of people at large. Therefore, it is necessary to strengthen the innovation of project management and power engineering management, recognize the shortcomings in current enterprise management and the reasons for these problems, and properly implement the works pertaining to innovation and improvement of project management mode.

3.1 Low quality of management personnel and uncertainties in the quality of project

Judging from the current power engineering management, the capability and quality of most management personnel have to be improved. Besides, their cultural sense is less than satisfactory, which leads to weak management awareness among the personnel, difficulty in management benefit improvement, and difficulty in introducing new technologies to achieve project innovation^[2]. In addition, most managers are not

really willing to accept new ideas and new technologies, resulting in inadequacies in investment mentality and inefficient implementation of budget and investment work. In addition, the progress, quality and efficiency of power engineering construction are affected if the management and organization of management personnel are lacking, hindering the improvement of level and mode of power engineering management.

3.2 Difficulties in controlling the construction schedule control and low coordination between departments

The construction control must be performed well during the development of power engineering management work. Apart from that, both power supply enterprises and construction units should cooperate. The works involved in the electric power engineering construction is relatively extensive, and different works are handled by special departments. For example, the finance department is mainly responsible for the allocation and recovery of funds; the business department is mainly responsible for commercial activities and business exchanges. To ensure smooth progress at work, every department must communicate and coordinate with each other and ensure proper work handover to make sure the work development is in control. In addition, the project management personnel also need make sure that each department has certain work functions and the employees are well aware of their job scope such as responsibilities and obligations for their respective work. The staff also needs to have the right, positive attitudes towards their works in order to improve the quality of power engineering and competitive strength in the market.

3.3 Insufficient capital budget and low management efficiency

The capital budget in the power engineering management work is a very important factor. The capital budget is also the priority in the work, yet it is also the difficult to achieve at work, which directly affects the project completion and decision-making. Therefore, it is necessary to do good analysis regarding the problems in this aspect. For example, if the management personnel did not properly review the work upon the completion of the project, and the quality control for the payment of equipment, materials, etc. was not carried out properly, this will eventually lead to various violations at work or deliberate obstruction of supervision work internally. This will also affect the efficiency of power

engineering, and limit the function of each department. Therefore, it is necessary to do a good job in the capital budget work of power engineering.

3.4 Imperfect management mode of power engineering projects

In order to improve the level of power engineering management and enhance the innovation of project management mode, the analysis and research on the existing project management work are required to be performed well, and the original project management mode should be appropriately adjusted to make adjustments to the weak aspects and inadequacies of the project^[3]. In general, there are many problems in the supervision work of the existing project management mode, which can be mainly divided into the following points: First, the supervision unit is relatively late to intervene in order to supervise the work progress, and its participation in the early stage is generally insufficient. Thus, the unit cannot involve in the supervision and management of the whole process. Secondly, the supervision focuses too much on project quality management, largely neglecting the requirements of project investment and progress. Finally, the requirements of the staff in supervision unit are high, but they are not treated equally in return. As a result, the supervision unit fails to perform its duties effectively. Thus, it is necessary take timely and effective measures and methods to improve.

4 Specific applications of project management mode in power project management

Through the analysis of the problems in the project management mode, it is beneficial to implement the relevant management measures from a multi-angle perspective, and enhance the innovation of the project management mode and improve the power engineering management level. In view of the innovation of power project management mode, it is necessary to carry out scientific management in light of the actual situation, and strictly control the supervision agency and management projects. In addition, it is also necessary to improve the mentality and quality of the management personnel, improve the implementation of the project management work mechanism, and enhance the innovation in management work.

4.1 Management flexibility in accordance to specific conditions

The analysis of the construction of electric power

engineering indicated that there are certain differences in the internal and external management modes of enterprises in various regions. It is necessary to do good adjustments in the management strategy in light of the actual situation, and effectively solve the problems of huge expenditure and large scale of engineering in power project management. The construction progress will be stalled if the original project management mode has been used in the project management work. This issue will also give rise to problems such as low efficiency and cost increase. Therefore, it is necessary to adapt to local conditions, adopt a flexible management method, and ensure the rationality of the management mode by analyzing the internal and external environment. Also, the advantages of the power engineering project management mode should be fully maximized.

4.2 Monitoring and controlling management project to improve the effectiveness of supervision agencies

Judging from the current power project management mode, there are still many problems in the supervision work. For example, in the traditional project management, the supervision work is ineffective and lacks authority. Therefore, it is necessary to do adjust the supervision work so that the supervising personnel can play their role in supervising the construction of electric power engineering. The supervision work should be implemented on three aspects such as construction work carried out by constructors, construction progress and the quality of the construction. The supervising personnel should also examine and coordinate the work in all aspects. They should instantly find out any problems in the project management, and assist the relevant personnel to identify, explore and solve the problems effectively in order to ensure the effective implementation of power project management and supervision.

4.3 Transforming the mentality of staff and improving the quality of management personnel

From the current project management mode and the innovation development process of power engineering management in China, many employees in the current power engineering management work have not established a correct work mentality, and at the same time, their work attitudes may not be correct, etc. In consequence, the efficiency of power engineering

management and the quality of management will be affected. Therefore, in the development of electric power engineering, it is necessary to provide training, such as technical and cultural training for the young, new staff of the enterprise. This may effectively improve the business capabilities and comprehensive quality of the employees, and build a high-quality, high-capacity power engineering management team which will lay the foundation for the development of power engineering.

4.4 Improving the project management with implementation of defined job-scope system

The development of power engineering project management and engineering management innovation work need to be based on a sound project management mechanism to improve relevant management systems and rules. It is necessary to standardize the work and technical aspects of engineering projects, implement core responsibilities in project management, lay the foundation for the work of power engineering projects and the implementation of the system, and promotes the innovative development of power engineering management. On the other hand, it is also necessary to implement the job scope system for management work on employees and establish a comprehensive reward and punishment system to ensure that all employees in the project construction are responsible for their works as defined in job scope and can better control their

behavior.

5 Conclusion

Taken together, the exploration and analysis of the innovation of the project management modes and power engineering management are conducive to the discovery of problems in the project management. At the same time, the management level of power engineering can also be improved, laying the foundation for the development of power supply enterprises and the power industry. In order to promote the improvement of power engineering management level and innovation in line with the development trend, as well as fulfill the requirements of power engineering development, it is necessary to integrate the problems in traditional project management to improve the management level of power engineering and ensure that the power system and equipment operation are effective and safe.

References

- [1] Wang J. A preliminary study on the innovation and application of power engineering project management mode[J]. *Da Ke Ji*, 2019(23):68–9.
- [2] Xian JH. A Brief Discussion on the Innovation and Application of Power Engineering Project Management Mode[J]. *Construction Engineering Technology and Design*, 2019(21):3269.
- [3] Luo ZZ. On the improvement measures of power engineering project management mode[J]. *Global Market*, 2019(20):158.