

# On Problem and Solution of Power Project Management

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**Abstract.** As an important branch of management science, project management has been developed greatly and especially widely used in power project. However, complexity of power project leads to a series of problem for the management of power project. This essay aims to analyze the real problems in power project management and offer solution accordingly to make contribution to sustainable development of power project.

## 1. Introduction

Power Project includes two aspects: from broad sense, power is taken as power and energy; from narrow sense, it refers to projects related to producing, transferring and division of power. Building power project is a complicated and huge event, which influences project's quality from beginning to end. Only extremely strict control to all processes and factors when setting up projects can ensure the project to be qualified and safe, stable and reliable supply of power.

In China, there are actual problems existed in power project management; first, it is complicated; Second managers lack knowledge; third, managing function cannot be made at maximum; fourth, workers are too scattered; fifth, managing is not systematic and scientific. It becomes increasingly essential to build effective managing system and scientific management mold. PDCA Model is an effective way to control quality and enables power project to be systematic and reasonable. It has a great future.

## 2. Main features of power project management

### 2.1 The complicity of power project management

From the essence, power project management is an heavy and complicated system with many contents. To complete entire managing work needs cooperation from different departments and group. Any defects from one department will influence whole quality and efficiency of power project management. We must strengthen communication and cooperation between different departments to avoid any bad influence on power project management.

### 2.2 The creativity of power project management

Power project management aims to ensure safety and stability of power system. We need to explore effective and scientific management mold by means of, creative working way, high-tech and high-end talents. What is more, we need to quickly note current problems and try all efforts to push power project management developing in an energetic way.

### 2.3 Foreseeable life-cycle of power project management

Power project management includes many aspects. On one side, every projects has it is own life-cycle and needs to be developed according to sequence; on the other side, working duties and priority in different managing stages are not same. To ensure the integrity and sustainability, we must strictly control working times and plans of every project so that projects can be finished with high quality and high efficiency.

### **3. Existing problems in power project management**

#### **3.1 Backward in project's HR management**

The backward of power project management is embodied in three aspects: non-flexibility of HR planning, Unreasonable of organizational structure and non-standard development. First non-flexibility of HR planning exerts great influence on proceeding project; shortage of staff influence smoothly move of project; superabundant staff causes too much cost. Second, Unreasonable of organizational structure cannot form effective cohesion and competitiveness. Third: non-standard development leads to lack of enthusiasm and non-satisfaction to work. All these will be seen from the power project construction.

#### **3.2 Non-standard management of project cost**

Project cost plays an important role in project management. Non-standard management of project cost can be seen from below two points. From the first aspect: power project is state-owned so managers of project construction do not take cost management serious. Second aspect: deficiencies still exist in the whole process control, this will inevitably lead to the low efficiency of electric power engineering cost management.

#### **3.3 Imperfect project organization structure**

As an important carrier of project management, organization structure, to some extent, determines construction schedule, project quality and project cost. With the improvement of complexity of power engineering in our country, it asks for innovation of organization structure and improvement of ability to respond to market. As projects' scale become larger and project management becomes more complicated, traditional construction of power project management cannot meet daily development needs.

#### **3.4 Not-efficient quality control in project management**

This is mainly reflected in below aspects. First designers are not professional so the project has defects. Second, Construction team is with low technology; most staff construct following their experience not design drawings and construction standard; they may cut corners or simplify the installation program; Third, Supervisors do not perform inspection procedure strictly for some concealed projects. What they do is just the matter of formality[5]. The above issues directly led to the fact that the engineering quality is not guaranteed.

### **4. Solution to complete power project management**

#### **4.1 Improve effectiveness of project HR management**

To improve effectiveness of project HR management can be done by following aspects; First, strengthening HR management flexibility. Project HR planning need to be flexible to meet projects development considering current situation and changing environment outside. It is necessary to make sure HR Planning matches with project development. Second, optimizing project team. It is necessary to ensure members match with each other in knowledge, technology and age aspects. Third: Strengthening staff training systematically. To analyze training needs and set up complete training system are essential to ensure workers have clear job goals.

#### **4.2 Standardize project cost management.**

Standardizing project cost management not only asks managers to set up project cost management sense and use diversified methods to manage projects, but also asks them to follow below two rules. First dynamic control principle. In proceeding project, inner environments always change frequently. This asks for project management to be adjusted according to environment change. Second integrity principle refers to cost management involves in different departments. Not only constructors, but also managers. Cost control need efforts from every individual and every stage. we cannot take cost control as financial department or managers' s job.

### 4.3 Improve the project organization structure

Practice has proved that present pyramid organization structure in power project development cannot adapt to market development. It is urgent and essential to change that. Solution to linear system malpractice is compressing the hierarchy of organizational structure and making flat organizational structure[4]. A flatter organizational structure, on the one hand, reduces the information-passing and possibility of information distortion; on the other hand it enhances the flow of information between policy makers and the grassroots. Policymakers can timely grasp the project environment changes and trend. Staff can understand and implement decisions from policy-makers better. This will greatly enhance the subordinate's work enthusiasm and creativity, so as to add new vitality to the organization's sustainable development.

### 4.4 Improve Project Quality

PDCA Recycling management is to improve quality in every recycling by planning, executing, inspecting and dealing. (1) Plan. Project owner presents total quality control goal. Other staff involved in the project, on the basis of his own quality goal, make quality management solution according to relevant laws and regulations of quality obligation. The solution includes Construction designing plan. After approval from project owners, it will be implemented. (2) Do. Before starting constructing, Technical staff organizes relevant staff to communicate about technology and ask them to sign on communication records. Communicating is to make sure constructors and managers are clear about planning intentions and request. It is also need them to master constructing procedures and means. (3) Check. Checkists inspect whether the project is qualified. It includes self-inspection, mutual inspection, supervision and customer-inspection and acceptance, civil engineering acceptance, installation acceptance, intermediate inspection and completion inspection. Acceptance is to check whether the project is qualified, follows designing and standard request, or it is in the energized condition or can be used. (4) Action. For unqualified projects, it is necessary to analyze reasons and take some actions to deal with them. Then records are must to help prevent same problem in future.

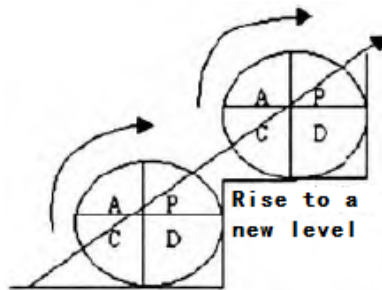


Fig 1. PDCA management model characteristics

## 5. Conclusion

The specialty of power project makes quality control extremely heavy because of many influential factors, great quality change and professionalism, thus it asks managers to control the quality strictly, handle every step perfectly, follow designing request and standard 100% to make sure good quality and meet customer needs. This will lead to sustainable development of power project.

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