# Brief Discussion on International Management Direction of General Contract of Power Engineering Projects

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**Keywords:** International Management, General Contract, Power Engineering Projects

**Abstract.** Along with the desire of employer and the demands of electric power construction is increasing, the electric power projects of engineering general contract are rising. In recent years, more and more electric power enterprises begin to bear lots of general contract projects of overseas. This paper firstly gives the concept of the general contract of power engineering projects, then analyses the current situation of the international general contract of power engineering projects. Finally, this paper gives some suggestions on the international management direction of general contract of power engineering projects to provide some references for the relative researchers.

## **Concept of General Contract of Power Engineering Projects**

General contracting of engineering projects refers to the contract including the survey and design, equipment selection, construction, material supply, commissioning construction project management acceptance commissioned by only a contract. General contracting of power engineering construction is a new construction mode in the field of power industry in China in recent years. With the development of market economy, the inherent law also makes the economic globalization become an inevitable trend of social development. The gradual implementation in the system and the concept of strategy to accelerate the development of electric power construction, and the International Convention and the international advanced level for the electric power industry has basically formed a fixed price, fixed time, guarantee the performance as the main feature of the turnkey project contracting, carry out and implement the new construction management pattern. Therefore, the construction management level and concept of the power industry have been increased to a newer and higher level, which has created better conditions and opportunities for our country's market economy and the international market. In actual power engineering general contract, because of the specific circumstances exist differ in thousands of ways, so the scope of the general contract of electric power project also varies with the project. The general contract of electric power engineering may be in charge of a qualified unit, or it may be jointly responsible for the unity of the units. Project general contracting units through the bidding competition and the owners signed a total contract, a power project from the beginning of the project to complete the project, the organization and management of the whole process. Power engineering project general contracting is a form of power engineering construction project management to social and professional development. It is also widely used in the international community.

## **Current Situation of International General Contract of Power Engineering Projects**

Since the economic globalization, the electric power enterprises in all countries all over the world have also developed the international cooperation as an important development strategy.

However, the system and mechanism of the electric power enterprises in the world are very different, the starting point and the goal of the international strategy are not the same. At present, the electricity enterprises internationalization strategy mainly for investment in power generation projects overseas, sole proprietorship, holding shares or power generation enterprise; merger grid assets or natural gas pipeline assets overseas, through wholly-owned, holding shares or related business; transmission and distribution in the field of power generation and carry out foreign consultation, such as the electric power. Through the implementation of international strategy to expand international business, some foreign power companies to increase international business share year by year, profits and even more than the local operating profit. The international operation of the general contract of electric power engineering is a gradual and long-term process, which is continuously developing along with the economic development of our country. So the general contracting of electric power engineering must conform to the national economic development, in line with the national strategic requirements. For example, in terms of mineral resources, the country put forward in the premise based on the domestic. This provides an opportunity for the development of mineral resources related to the general contracting of power projects. The engineering general contract of electric power cannot be for the sake of internationalization, blindly in overseas layout, the recruitment of several exotic employees called the internationalization, want to go. Domestic electric power engineering general contracting international business to have some basic conditions, we must first have their own core competitiveness, it must have a firm home market and market status, on the basis of exploring the international market, establish channels, gradually formed the localization, internationalization of the team, play the brand. Finally, when the competitive advantage appeared in the world, you will follow the international business. The key is to accurately grasp their own market position, in different industries, different countries and regions, make detailed analysis of different value chain, find their own force. Power engineering general contracting cannot put its own domestic and international operations into two systems. Two should operate within a system. In the early stage of internationalization, the domestic operation is the basis and guarantee of international operation and the international operation provides a benchmark and a model for the domestic operation, and it also urges the domestic operation to change the way of international operation. After reaching a certain degree of internationalization, the operation of the general contract of electric power engineering should not be divided into domestic and international. At the same time, with the two resources and two markets, the use of different ways of trade, foreign investment and development and overseas operations appeared, such as the emergence of a variety of international business.

#### **Directions of International General Contract of Power Engineering Projects**

Internationalization of Ideology. Electric power enterprises should put the development of the company in the global context. It adheres to the going out strategy. Overall layout and planning of overseas markets, from the domestic market to the international and domestic market development, access to domestic and foreign two kinds of resources, to seek international development. That should change from its own characteristics as the emphasis on consensus, emphasizing the common rules of the game, the initiative to integrate into the international rules of the game, to comply with national laws and international conventions, rational and standardized operation, strengthen the sense of social responsibility. Enterprise internationalization first should be based on a full understanding of their ability to the world market, resource distribution and possession, and the strength of potential rivals are fairly well understood, but also grasp the trends and technology development direction of the international market demand. Only in this way can the enterprise

according to its own situation and the corresponding development strategy and market positioning, but also the only way to choose a suitable customer base, in the international market constantly accumulate strength, establish brand image. The company top thought must transform. Although some enterprises take the international road, but the management of the international business is still not consciously used to manage the domestic business model, resulting in the lack of international business. In the field of power engineering internationalization, only the company's high-level recognition can really take the road of internationalization. Some of the key business personnel lacks of awareness of international business, in the production process, adhere to their own familiar domestic standards and regulations. All these will bring negative impact on the internationalization of the general contracting of power engineering. Therefore, the concept of leadership and key business personnel must be internationalized.

Internationalization of Talents. The internationalization of talents is the most important guarantee for the success of international business. Going abroad, talent localization is an important embodiment of internationalization. But in China, we should expand the scale and scope of the introduction of overseas talent in order to adapt to international business needs and increase the talents with international vision and experience of the domestic and overseas efforts to attract more foreign employees, to send training, study, work, learning to let power employees in overseas competition environment and exercise to promote staff awareness and knowledge, thinking, technology and international standards, promote the staff change ideas, update the knowledge structure, so as to enhance the overall quality of enterprise internationalization. The selection of electric power staff should be based on competency model. In the past the enterprise selection of expatriates by several staff performance, democratic appraisal or leadership recommendation, so the selection of the employee performance may be particularly prominent, high political consciousness, but may not be able to adapt to the unfamiliar environment, overseas hard. Therefore, the competency model construction of overseas expatriates is very necessary, based on the competency model of employee selection can maximize the survival of overseas personnel. Many international types of contract firms in the sending personnel to go abroad and have a headache, good people do not want to go. The reasons why good people do not want to go are mainly lie in the concern about returning after the occurrence of a touch and affect their subsequent growth. Therefore, to actively participate in overseas project staff incentive power, occupation development plan must be carried out for expatriates, for expatriates to design appropriate promotion channels, senior management personnel for a level set must have experience in overseas project conditions, improve their long-term plan.

Internationalization of Management. International business requirements of domestic enterprises to introduce the operating mode, the method and experience of foreign advanced, perfect management system and norms in accordance with international standards, the enterprise management and operation with the international advanced management, to ensure first-class products and services. As a project oriented engineering company, it is necessary to adopt the international project management mode, to carry out specialized management and to improve the level of project management. Some of the key resources should be handled by the company, including financial management and fund management, centralized and unified prudent contract management, the project implementation method of days and months multiplying knowledge of other aspects of resource sharing. Due to the size of the company, usually the letter will be issued by the head of the company, so the company is bound to bear considerable financial risk. So the financial management and the operation of the fund must be controlled by the head of the company, and the experience of the majority of large foreign contractors in foreign countries has proved this

point. We should establish the headquarters which are responsible for the day of decision management and financial support and coordination, the headquarters Department is responsible for monitoring and service, and the project manager's selection, assessment, employment and management as the core of the project management. Contract management is also a very important part of the control of risk, by the head of the company responsible for the standardization and consideration of the work of the contract. A leading international engineering contractor experience tells us that the contractor's knowledge accumulation and perfection of the system is the company's scale of operations and risk control, the key to improve profitability. Therefore, we must carry out knowledge management to establish and perfect the knowledge system in the company from the perspective of knowledge sharing.

**Internationalization of Technology.** On one hand, the electric power engineering company should actively introduce the international advanced technology, and constantly improve the ability of technical development, promote to build their own core technology and expertise system in domestic and international, to improve international competitiveness. On the other hand, to strengthen the international protection of intellectual property rights, fair competition, cooperation and win-win. In this process, enterprises should establish national responsibility to promote and lead the development of the industry to a higher level, with top technical advantage and continuous innovation as the basis, to integrate into the global market, and create value. Effectively grasp the technical management, enterprise survival and development is the fundamental. Power system engineering project contracting is highly technical. The engineering management and contract management levels affect the results on the direct, serious threat to the credibility of enterprises, and ultimately lead to the survival and development of enterprises in the market. According to the international competition strategy selection, power engineering company should strengthen construction technology development in large span, towers, and strengthen the domestic counterparts of the exchange and learning of construction technology, to consolidate its leading position in the project technology to maintain the unique competitiveness and realize the further implementation of centralized differentiation strategy. In our country, the majority of enterprises rely on import technology, to have the core competitiveness. They must have a big investment in technology research and development. Only by strengthening the independent research and development can we change the status quo of China's enterprises with low cost advantage to earn meager profits and enhance the technological content of the internationalization management for enterprises in a higher level and deeper participation in the international division of labor.

## Conclusion

The electric power enterprises have advantages and disadvantages in the process of international operation of the general contracting of power projects in China. There is still a long way to realize the authentic internationalization of general contract of power engineering projects. Chinese enterprises should actively go out of the country, and strive to achieve the internationalization of the concept, talent, management and technology. Only in this way can we become bigger and stronger in the fierce market competition.

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