



International Engineering Bidding and Quoting Statics and Quotation Compilation Skill

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Abstract

By learning from foreign advanced ideas, this paper summarizes and compares the engineering cost management modes and theories in America, England, and Europe, and advances suggestions for the international bidding and quoting tactics and quotation compilation skills of China's construction industry.

Keywords: Engineering bidding and quoting, Compilation skill, Suggestion

Under the international background of economic multi-polarization and globalization, the competition in international contract market is fierce. Many world famous large corporations never stop to explore and take new fields except to stabilize their traditional markets. Lots of developing countries input more human resources and materials in order to obtain market shares. Therefore, it is difficult to get market shares in international construction market by bidding.

In order to achieve the expected goal in the competition for foreign engineering, we must master foreign engineering cost management modes and theories. In the author's opinion:

(1) In foreign countries, according to the sources of investments, projects can be sorted into the government-invested projects and the private-invested projects. The government adopts an indirect method to achieve the engineering cost management. The government-invested project and the private-invested project are under the management with different force and depth. The government mainly focuses on government-invested projects. England adopts a centralized management for government-invested projects. Corporations design plans and constructions based on relevant area standards and cost indexes in the regulated scope. America adopts two manners for the government-invested projects. Firstly, a special institution appointed by the government manages the engineering directly. Secondly, entrust contractors to manage projects by public bidding. For private-invested projects, foreign advanced engineering cost management does not interfere with specific construction process but offer policy guidance and information direction. Private-invested projects are regulated by the law of market economy, reflecting the government's macro management and indirect control over costs.

(2) Reviewing foreign cost management, basis for cost management is necessary. In America, the standards for costs calculation are not constituted by the government. There are not regulated basis and standards for costs calculation. Indexes and costs standards are usually regulated by large engineering consulting corporations. Local consulting agencies calculate the materials and costs for construction area unit and take them as standards for costs estimation. Besides, in America the Federal government, the state government, and the local government make up relevant costs standards for government projects under their administration according to accumulated engineering cost materials and references from engineering consulting agencies. In England, all participators in certain construction engineering should follow the fundamental principles of calculation and cost estimation. The Standard Method of Measurement Building Works (SMM) is constituted by the Royal Institution of Chartered Surveyors and is widely accepted by all parties. It is popular in England. Besides, the Standard Method of Measurement Civil Engineering is also in effect at present.

(3) To get exact price information in time from the construction market is the key for owners and contractors maintaining the competitive advantages and winning profits. Cost information is important basis for buildings' evaluation and settlement, which signalizes the price change of construction market. In America, the construction cost index is usually compiled by consulting agencies and news media, which is issued every Thursday.

(4) In England, owners usually entrust materials surveyors to evaluate a project. The evaluation is based on comparison

and coefficients. In long-term evaluation practices, surveyors have rich case materials for engineering costs. They even form a database for engineering costs. They have unique standards for each item in bids. The evaluation for the engineering is based on the market. It is a complete dynamic evaluation. In America, the evaluation is the task of the design department or the special evaluation agencies. In estimating the costs for engineering, cost evaluators should not only consider the special elements of a project, but make detailed risks analysis for the project in order to prepare for the budget. By mastering different budget ratios, cost estimators can adjust the general level of cost estimation. In compiling the cost estimation, America does better and considers the impacts of dynamic factors on cost estimation. We can learn a lot from these methods in foreign countries.

(5) The contract is signed by all parties, which is important in foreign engineering cost management. The contract can restrain all parties. It is meaningful for the actualization of all parties' interests and duties. Therefore, foreign countries give prominence to the contract. All activities must follow the items regulated by the contract. And some countries even apply the common form for the contract, such as the FIDIC. Its contents include agreements, contract articles, and appendix.

We should pay attention to these problems as follow in bidding for international engineering.

(1) Before the bid, make decisions decidedly. After getting foreign engineering information from intermediary agencies, agency companies, and foreign corporation partners, the enterprise decision-making level must make decision quickly according to the key elements for engineering, such as the features, the conditions of host country, and the short-term and long-term aims. If necessary, the enterprise can make a feasibility analysis. For example, when an enterprise knows the power transportation project (150 miles and 33KV) in Uganda, Eastern Africa, somebody may think that it is only a short line in a far and poor country. And it is meaningless and non-profitable. However, the enterprise's decision-making level decides to join in the bidding from a strategic view considering the great Eastern Africa market. The enterprise does not aim at this line. What's more important is to enter the Africa power market and get more and larger projects. Bidding decision concerns the evaluation on the enterprise's self conditions, such as labors, technologies, languages, etc. Only by this way, an enterprise can win fames and profits at the same time.

(2) Research and analyze the owner carefully. On one hand, the enterprise should organize talents to compile the bid. On the other hand, the enterprise must try every means to understand the owner, such as the sources of funds, its fame inside and outside, its other projects, and its equipments used by other projects. All these information is vital for the prices, schemes, and selection of equipments in the bid. For example, as we select equipments for a power station project funded by certain country, we originally want to use domestic equipments. But after investigating the country's other power stations, we find that the country emphasizes on brands and endurance. Their transformers are from German. The diesel engine is PERKINS and CATERPILLAR from America. So, we adjust the original bid and change items concerning the equipments. Furthermore, we find that the country lays more stresses on environment protection. They carefully protect the ecological environment and the tourism sources. Therefore, we add a chapter about environment protection into the construction design. To analyze the mind of the owner is also important. Usually, the owner with tight funds mainly considers lower investment. The owner with rich funds emphasizes on brands, fames, and advanced technologies. If an owner needs power in urgent, we can ask higher price. But we must guarantee the deadline. If possible, we can accomplish the project in advance.

(3) Study the bid inviting documents of the owner. Bid inviting documents are the main basis for compiling the bid. In some conditions, these documents may be the only basis. Therefore, we must study the bid inviting documents of the owner and understand these points clearly.

- a. Define the work scope exactly: without exact work quantities, we can not guarantee the preciseness of the price.
- b. Deadline: accomplish the project at the deadline without any condition. Compile the general network process diagram according to the deadline. Satisfy the owner as much as possible.
- c. Currency, exchange rate, and payment. Especially make it clear that concerns the installment ratio and restrictions. The owner usually determines the installment ratio based on the process of the project and set specific punishment articles for delay.
- d. The host country's charges for customs, taxes, and labor permission.
- e. Laws and regulations for disputes.

(4) Adopt a flexible quoting method. To compile a bid is a systematic and complicated task, which concerns many specialties and jobs, such as technologies, economy, foreign language, finance, materials, quality, and safety. All specialties must cooperate together and understand mutually. If conditions permit, professionals can research on the project in advance before the compilation of bid. By this way, we can know the natural conditions, construction environment, price, and competitors comprehensively. Then, we can compile a scientific and reasonable bid. All practices tell us that we can adopt these methods in quoting.

a. Unbalanced quoting. After fixing the total price, the enterprise can rationally adjust the price of sub- project according to the payment conditions. With the precondition of maintaining the total price in case of impacting the bidding, the enterprise can obtain funds as soon as possible. By this way, it can reduce the investment risk and achieve better economic benefits. In bidding for Uganda's power station line, the owner regulates that: the owner will pay 80% funds in 45 days after receiving all voices and materials. Then, plus the 10% advance payment, the owner pays 90% funds for us. Other funds are paid according to the engineering process based on installment. Therefore, after establishing the total price, we increase the costs for purchasing equipments and decrease the costs for construction fees. By this way, we reduce foreign investment and construction risks to certain degree. Besides, we can adopt the unbalanced quoting for other items. For example, if a sub-project needs more works than prediction, we can improve the price properly. If the engineering content is unclear, we can reduce the price properly. If the owner does not allow to adjusting the price, we should increase the price at the very beginning in case of unexpected risks. To sum up, the unbalanced quoting is a reasonable price distribution based on analyzing the owner's bid inviting articles. In practice, we should be careful in case of disgusting the owner.

b. Alternative quoting. If the bid inviting document has alternative scheme or not regulated scheme, we can make different schemes with different prices. In bidding for certain power station project, the owner asks bidders to design the lines according to the ecological environments in five states. In another project, bidders can make alternative schemes and compile quotations. So, we can prepare other scheme besides the original one. The total price of the later can be lower than the original in order to attract the owner and obtain favorable evaluations.

c. Decrease price suddenly. At the time of fierce commercial competition, quotation is a secret. Competitors want to know others' quotation. Therefore, as we compile the quotation, we can make the price higher. At last, we can decrease the price sharply and suddenly, which may be out of the idea of competitors. As a result, we can get a favorable position in bidding.

d. Maintain breakeven and plan for the long run. After the recovery of southeastern Asian economy, the construction market has great potentials, such as Cambodia, where all needs to be constructed again. Under this condition, once entering this market, an enterprise will get more and more projects gradually. Therefore, as we prepare bids for the power station project in Cambodia, we decrease the price many times, from more than 100 million down to 60 or 70 million. The lowest price aims at winning competitors and entering the market. Then, we can enter the whole southeastern Asian market. By this way, we can form a long-term cooperation, which can compensate the losses in the first bid.

(5) Improve the integrated quality of bidding staff. To bid for foreign engineering, the staff must possess the basic abilities, such as technologies, computer, economy, and calculation. Besides, they must continue to study in order to improve the integrated quality and turn into new complex talents.

a. Master basic foreign language. English is an international language. Most contracts are signed in English. If a worker can not know English, he or she can not read information concerning commerce and technology. As a result, he or she can not compile the foreign bid with high quality.

b. Master necessary foreign trade knowledge. Foreign engineering bid concerns lots of foreign trade knowledge, such as all kinds of terms concerning banks and customs. To master relevant knowledge will directly influences the exactness of commercial bids.

c. Know the labor policies in competitors' countries and the host country of the engineering. Generally speaking, the price of labor in developed countries, such as England, America, Japan, German, and France, is higher, while the price of labor in developing countries, such as Asian, African, and Latin American countries, is lower. Therefore, under the condition of knowing the competitors, quotation should be different. In bidding for foreign engineering, we should consider the economic factors and political factors. For example, whether there is anti-labor dumping policy in the host country of the engineering and whether the owner encourages contractors to hire local labors. If necessary, we can seek helps from the embassy of China in the host country.

d. Understand basic foreign ceremonies and habits. In bidding for foreign engineering, it is inevitable to contact with foreigners. On one hand, we should be familiar with the compilation of bid and the negotiation of contract. On the other hand, we should know basic foreign ceremonies and habits. Considering the different nationalities, beliefs, and personalities, we can study the psychology and adopt different methods in negotiation. By understanding each other, we can get more chances in market.

To sum up, to bid for foreign engineering is an extremely complicated work. It concerns lots of problems. To achieve successes is not easy. All suggestions are only based on the author's opinion. And the author hopes to arouse more attentions to this issue. By studying this issue, we can contribute more or less to the exploration on the world market.

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