

# Research on the Comprehensive Value Evaluation of Power Grid Enterprises' Overseas Investment Projects

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**Abstract:** China's power grid enterprises' overseas investment scale has expanded rapidly in recent years, and the international competitiveness has rapidly increased. The expansion of overseas assets and the increasingly complex external environment situation have put forward higher requirements for power grid enterprises in overseas project selection and value assessment. Power grid enterprises need to systematize and quantify the evaluation method of overseas investment project value, and not only evaluate the project economic value, but also consider the comprehensive value. This paper decomposes and evaluates the comprehensive value of power grid enterprises' overseas investment projects, and puts forward the evaluation index system.

## 1. Introduction

Considering the international development goal of power grid enterprises, valuable overseas investment and acquisition projects are not only directly reflected in tangible and obvious values such as the financial value and market value of the projects. It can also drive the overseas power project contracting, electrical equipment export, technical consulting and other types of international business of power grid enterprises, enhance the international influence of power grid enterprises, influence the formulation and implementation of power grid enterprises' strategy, improve the international visibility of the brand, accordingly realize the enterprises' hidden value increment.

Therefore, the overseas investment project value of power grid enterprises mainly includes dominant value (also known as tangible value or connected value) and recessive value (also known as intangible value or indirect value). Dominant value includes financial value and market value, while recessive value includes business driving value, international driving value, and strategic value and brand value.

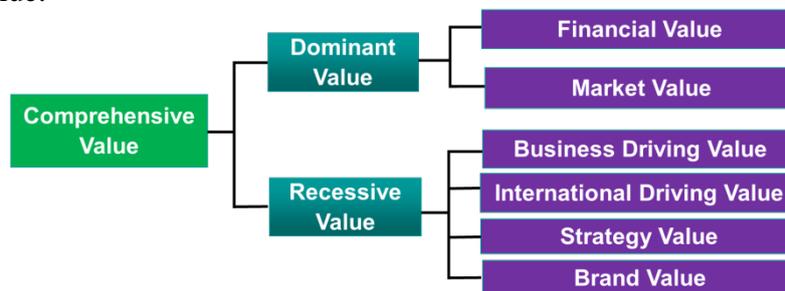


Fig. 1 Schematic Diagram of Comprehensive Value Composition of Power Grid Enterprises' Overseas Investment Projects

## **2. The Dominant Value of Power Grid Enterprises' Overseas Investment projects**

### **2.1 The Dominant Value of Power Grid Enterprises' Overseas Investment projects. Financial value**

One of the most intuitive goals of overseas investment of power grid enterprises is to maximize their financial value. For overseas M&A projects, shareholders' investment value should be maximized through financial value maximization, because shareholders, as the ultimate owners of power grid enterprises, their interests are one of the fundamental interests of the power grid enterprises.

### **2.2 Market value**

The market value is generally reflected in three aspects: first, based on stock price and debt value. Second, based on intangible assets, profitability and other potential factors. Third, based on the theory of utility satisfaction. Similar to the market value of other enterprises' investment projects, the market value of power grid enterprises' overseas investment projects can be estimated according to accounting statements and securities market information.

## **3. The Recessive Value of Power Grid Enterprises' Overseas Investment projects**

### **3.1 Business driving value**

The international business of power grid enterprises mainly includes overseas power grid investment, international power project contracting, export of electrical equipment, technical consultation, etc., and has formed a relatively complete power industry chain. Among them, overseas grid investment plays an important driving role in the international power project contracting, export of electrical equipment and technical consultation.

### **3.2 International influence value**

The international influence value of overseas investment projects of power grid enterprises is mainly reflected in the following aspects: China's power standard output, participation in international organizations and holding important positions, international exchanges, actively fulfilling overseas social responsibilities, and establishing a good overseas image, etc.

### **3.3 Strategic value**

Power grid enterprises' overseas investment project can form various valuable strategic resources, mainly including power assets themselves (power grid as a strategic industry, sensitivity, power grid assets, is a kind of strategic resources), human resources, capital resources, technology resources, research and development resources, material resources, marketing and service resources, etc.

### **3.4 Brand value**

The brand value brings intangible assets to the power grid enterprise, which reflects all of the stakeholders (owners, employees, users, domestic and overseas governments, raw material and equipment suppliers, engineering contractors, shareholders, consultancy, the public) of psychological cognition of the power grid enterprise brand, thus it is the result of the power grid enterprises and project stakeholders' joint action.

## **4. Comprehensive Value Evaluation Index System for Overseas Investment Projects of Power Grid Enterprises**

Based on the analysis of the comprehensive value structure of power grid enterprises' overseas investment projects, and on the basis of fully listening to the opinions of experts, this paper determines the index system, including 2 first-level dimensions, 6 second-level dimensions, 9 third-level dimensions and 22 indicators.

Table 1 Comprehensive Value Evaluation Model Index System for Power Grid Enterprises' Overseas Investment Projects

First-level Dimension	Second-level Dimension	Third-level Dimension	Evaluation index (or nested index system)	
<b>Dominant value</b>	Financial value	Comprehensive evaluation of financial performance (nested index system)	profitability	Rate of return on total assets
				Net sales profit
			Growth ability	Net profit growth rate
				Growth rate of net assets
			Ability to operate	Total asset turnover
				Inventory turnover
	Cash ability	Cash on sale ratio		
		Net profit cash ratio		
	Market value	Market value	Market analog value of revenue	
			The market analog value of book assets	
Market analog value of net cash flow				
<b>Recessive value</b>	Business driving value	Driving international power project contract amount		
		Driving export of electrical equipment contract amount		
		Driving overseas technical consultation contract amount		
	International influence value	International standardization	the number of publishing international standards	
		Participation of international organizations	Number of senior positions in international organizations	
	Strategic value	Evaluation of strategic resource allocation (nested index system)	Organizational control ability	Improvement of international business control system
				The length of time from top level decision to project implementation
				International business management information system coverage
			Core resource operational capability	Human resources supporting
				Capital supporting
Material purchasing supporting				
R & D supporting				
marketing resources supporting				
Brand value	Brand value	Brand value in the "top 500 World brands" compiled by World Brand Lab		

## 5. Conclusion

The comprehensive value of power grid enterprises' overseas investment project is reflected in the comprehensive impact of the project, which is reflected in two levels: dominant value and recessive value. The dominant value mainly includes the financial value and market value brought by the project. The recessive value includes business driving value, international influence value, and strategic value and brand value. Power grid enterprises should consider the comprehensive value of overseas investment projects and establish the comprehensive value evaluation index system to make the investment strategies.

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