



Research on the Intensive Procurement Management System of Directly Affiliated Units of Energy and Power Enterprises

Xin Song, Peilong Wang, Ling He, Xuyang Dong, Mengdi Zhou, Jiaping Han*

State Grid Materials Co., Ltd., Beijing, China

*helenjp@126.com

Abstract. This article analyzes the internal and external situation of material management in directly affiliated units under the new situation of reform and development, and proposes innovative measures such as building a "five in one" procurement business system and creating a centralized procurement full process management information system. It focuses on solving the problems of difficult balance between centralized procurement standardization and efficiency, multiple potential risks, and difficult risk prevention and control in the intensive management of material resources in directly affiliated units of energy and power enterprises, comprehensively improving procurement quality and efficiency, and enhancing risk prevention and control capabilities.

Keywords: State owned enterprise reform, energy enterprises, directly affiliated units, procurement management

1 Introduction

The State owned Assets Supervision and Administration Commission has proposed to strengthen, optimize, and expand state-owned enterprises^[1]. The reform of central enterprises aims to improve quality and efficiency, and continuously enhance the vitality, competitiveness, and influence of energy and power enterprises. Energy and power enterprises are in a new stage of comprehensively creating world-class enterprises, and the tasks of reform and innovation, improving quality and efficiency, transformation and upgrading are very arduous^[2,3]. As an important organic component of energy and power enterprises, direct subordinate units can reduce costs and improve efficiency, and enhance comprehensive competitiveness, which is of great significance for achieving the strategic goal of an internationally leading energy Internet enterprise with Chinese characteristics^[4,5].

2 Situation Analysis

2.1 External Situation

The central government's comprehensive strict governance of the Party and the rule of law are constantly increasing, and government and social supervision are becoming increasingly strict, putting forward new and higher requirements for companies to strictly govern enterprises in accordance with the law. State owned asset supervision has shifted from asset management to capital management, from pre-approval to process supervision, and from indicator assessment to risk accountability. The reform of central enterprises aims to improve quality and efficiency, continuously enhance the vitality, competitiveness, and influence of enterprises. The State Council dispatched the company's supervisory board to conduct a list of issues and strengthen the supervision of enterprise operations. Material management, as an important component of the company's core resource management, has always been a focus of attention from all parties, a hot topic in social public opinion, and a key focus of various inspections, audits, and supervisory checks. Standardized management requirements are even stricter.

2.2 Internal Environment

Material management, as an important component of the energy and power enterprise management system, plays a crucial role in supporting the company's power grid construction and actively integrating into reform and development. The annual procurement amount of directly affiliated units exceeds 80 billion yuan. How to actively adapt to the business characteristics and development needs of directly affiliated units, strengthen control, standardize management, and improve efficiency as the center, improve the organizational structure and operation mechanism of procurement management, establish a centralized, unified, lean and efficient material control system, and comprehensively improve the modern management level of procurement of directly affiliated units is an important and urgent task facing the material intensive management of energy and power enterprises.

3 Current Diagnosis

3.1 Organizational Mechanism Construction

The responsibilities of the centralized management department are unclear, and there is a common shortage of personnel. Some directly affiliated units lack sufficient legal and supervisory support and guarantee forces, and do not have a dedicated material centralized management department or personnel, or the scope of management responsibilities is not comprehensive, including planning management, supplier management, and expert management. A small number of units lack legal personnel to participate in procurement activities, and some projects have no supervision records or have not appointed supervision personnel to supervise on site.

3.2 Material Plan Management

The management of procurement catalogs and batch plans needs to be improved. Some directly affiliated units have not prepared procurement plans or have not officially issued procurement catalogs as required, resulting in low procurement planning. The control of the authorized procurement process needs to be strengthened, and a few units' procurement catalogs do not clearly define the scope, methods, and implementing units of authorized procurement, resulting in multi-level procurement issues. Some units have not issued authorization procurement management system documents, and have not filed authorization procurement results or incomplete filing results. It is necessary to further improve the authorization management procurement system and strengthen the overall process control.

3.3 Agency Management

The standardization of signing agency commission contracts needs to be improved. A few units did not sign or did not sign the bidding agency commission contract in a timely manner, and the contract was signed later than the time of the agency procurement activity. The standardization of contract texts urgently needs to be strengthened. Some units have not used the procurement agency service contract template of State Grid Corporation of China, resulting in inaccurate or missing contract signing dates, unclear division of rights and responsibilities in contract terms, and incomplete contract signatures. Supervision over the qualifications and fees of agency agencies needs to be strengthened. A small number of units have situations where service fees are charged beyond the scope of the agency contract, the deposit is not refunded in a timely manner, the bank interest on the deposit is not refunded, the deposit is transferred from the personal account, and the deposit is charged in excess of the proportion. The ability of the agency needs to be improved. The work quality is not high, and there are issues such as inadequate preparation of procurement documents, inaccurate publication of notices and announcements, incomplete recording of procurement process documents, and delayed organization and transfer of documents. Insufficient staffing and low quality. Directly affiliated units have complex procurement categories, high timeliness requirements, scattered procurement batches, and a large workload for business implementation; Some projects have small procurement amounts and low levels of intensification, resulting in an imbalance between agency service fees and implementation costs. Agency agencies have low enthusiasm and motivation to undertake business.

3.4 Standardization Aspects of the Procurement Process

The selection of procurement methods is not standardized. Some units have a large proportion of non bidding procurement, mainly using non bidding methods such as competitive negotiation and single source procurement. There are situations where the approval procedures for procurement methods are incomplete or not standardized. The preparation of procurement documents is not standardized, and a few units have not

used the bidding document template. The procurement documents lack key elements such as professional qualification requirements, veto clauses, scoring weights and points, and price score calculation methods. There are irregularities in the formation of the judging panel and the lack of rigor in the evaluation process. A small number of units have set the evaluation and review time too short to complete the basic evaluation process. The bid opening time does not match the bidding announcement time, the bid opening process records are not standardized, and there is a lack of document sealing, submission time, and signatures from supervisory personnel. The evaluation criteria of individual project experts are not objective enough, and the scoring differences are too large. The evaluation report lacks professional expression, incomplete content, and incomplete signatures. The number of recommended winning candidates and technical scoring methods are different from those in the bidding documents. The records of the evaluation process are inconsistent with the results of the evaluation report.

3.5 Management of Review Experts

The standardization of expert selection needs to be strengthened, and some units have not set up dedicated personnel to be responsible for expert selection and notification work. The confidentiality of expert selection and notification environment needs to be further strengthened. Some units have not formulated an expert selection plan or have no records of selection and notification. A small number of experts from certain units have not clearly defined the proportion of selected and alternative candidates, resulting in a discrepancy between the actual number of candidates selected and the number of candidates in the selection plan. The expert approval process needs to be strengthened, and there are situations where recommended experts have not been approved, have not strictly followed the approval procedures, or lack the signature of the recommending department in the approval procedures. Some units have not conducted expert responsibility evaluation and have not established corresponding assessment mechanisms.

3.6 Integrity and Confidentiality

Some units have not organized procurement personnel or bidding agents to sign integrity and confidentiality commitments. The format of the anti-corruption confidentiality commitment letter is not standardized, and the standard format of State Grid was not used. A few units did not fill in the project name. The implementation of anti-corruption and confidentiality training is inadequate, and some units have not seen any records of anti-corruption and confidentiality training.

4 Basic Ideas

Focusing on the development strategy of building an international leading energy Internet enterprise with Chinese characteristics, we will thoroughly implement the deployment of enterprise material intensive management, improve the organizational

structure and operating mechanism of procurement management, form a management system with clear responsibilities, clear interfaces, unified standards, and scientific processes, actively adapt to the business characteristics and development needs of directly affiliated units, strengthen the standardized procurement management of directly affiliated units, and comprehensively improve the modern procurement management level of directly affiliated units.

Consolidate the achievements of two-level centralized procurement, strengthen centralized control of the first level platform, significantly enhance procurement management functions and professional collaboration capabilities, improve the procurement management system, effectively implement procurement management requirements, and achieve 100% centralized procurement control scope. Consolidate and improve the basic management level, clarify the process hierarchy and improve the content of the procurement management system, effectively promote and implement procurement management requirements, significantly improve the professional ability and quality of personnel, further enhance procurement quality and efficiency, and significantly strengthen risk prevention capabilities.

5 Strategic Recommendations

To ensure the implementation of management optimization ideas and measures, and to effectively implement them in practical work, it is recommended to accelerate the construction of a "five in one" procurement business system (including centralized procurement catalog, procurement strategy library, procurement document template, standard contract text, and standard procurement process), pilot the establishment of a material procurement full process management information system, and support direct units to significantly improve their centralized procurement management level in a short period of time to achieve management optimization goals.

5.1 Building a "Five in One" Procurement Business System

The "Five in One" procurement business system for directly affiliated units refers to the establishment of a standardized set of business standards and operational templates, the early planning and determination of key procurement elements and strategies, as well as the direct application of standardized procurement documents and contract texts, the implementation of standard procurement process manuals, and the rapid and effective standardization of procurement management behavior for directly affiliated units. Its specific content includes five aspects: centralized procurement catalog, procurement strategy library, procurement document template, standard contract text, standard procurement process.

(1) Using the centralized procurement catalog to guide procurement work

Energy and power enterprises organize their affiliated units to carry out centralized procurement catalog compilation work based on their annual procurement needs. The centralized procurement catalog of directly affiliated units is not simply a list of procurement items. The catalog clarifies the four core elements of "what to buy, who to

buy, how to buy, and how to supply", covering the requirements, principles, and strategies of centralized procurement management for energy and power enterprises. It specifies the types of procurement, demand frequency, procurement mode, procurement method, performance method, and other contents. The centralized procurement catalog is closely integrated with the specific procurement practices of each unit, reviewed and issued for implementation by the bidding leadership group of each unit. It can serve as the main basis for each unit to carry out procurement, and is of great significance for regulating procurement behavior, preventing and managing risks, and maximizing economies of scale.

(2) Building a procurement strategy library to improve procurement quality and efficiency

Based on the procurement catalogs of various units, according to the categories of purchased materials, key procurement elements such as qualification performance, evaluation weight, scoring criteria, and award principles are studied and determined in advance to form the procurement strategy library of our unit. When specific procurement transactions occur, procurement personnel refer to the procurement strategy library to implement procurement, effectively filling the gaps in the professional level of procurement personnel in direct units and improving procurement quality and efficiency.

(3) Strengthen the application of procurement document templates and standard contract texts

Based on the procurement characteristics and actual situation of directly affiliated units, energy and power enterprises shall organize the preparation and release of procurement document templates for directly affiliated units. The procurement document template system includes three categories: independent procurement by the tenderer, non platform procurement by the bidding agency, and platform procurement by the bidding agency, covering procurement methods such as bidding, negotiation, and inquiry. A total of 18 procurement document templates have been formed. Uniformly apply the 236 standard contract texts released by the group company to match each category of materials in the procurement catalog one by one. By strengthening the application of procurement document templates and standard contract texts, we provide a basis and guarantee for the rapid preparation of high-quality procurement documents.

(4) Develop a standard procurement business process manual

The procurement business process, as the core link of material management, is an important lever for standardizing procurement management, improving procurement efficiency, and achieving intensive control. The energy and power enterprises shall organize the preparation of a standard procurement business process manual for their directly affiliated units, and establish standardized operating procedures for the entire procurement process, including plan review, document review, document release, organizational review, calibration, and result announcement. Procurement personnel and bidding agencies of each directly affiliated unit strictly follow the standard procurement business process manual, carry out business step by step, improve the standardization of procurement implementation, and effectively prevent procurement risks.

5.2 Develop a Centralized Procurement Full Process Management Information System

Energy and power enterprises have a large number of directly affiliated units, diverse demand varieties, large procurement business volume, and difficult centralized control. It is necessary to use information technology to implement and effectively implement research results, support centralized procurement management, and achieve optimized management goals. In accordance with the standardization requirements of the "Five in One" procurement business system, a procurement full process management information system for directly affiliated units has been developed and constructed. The information system has been used to solidify the standard procurement business process, achieving successful transformation of research results.

The whole process management information system for material procurement includes three basic platforms: planning management, sourcing management, contract fulfillment, warehousing and logistics, as well as supplier management, expert management, and master data management. It conducts online approval and supervision of all demand plans, sourcing procurement, and fulfillment execution of all subsidiary companies, and takes the lead in achieving 100% full coverage of material procurement control. The main functional design of the system is as follows:

(1) Plan management function

The plan management function mainly includes online submission, centralized approval, and online allocation of all requirement plans. Combining with the centralized procurement catalog, the group headquarters will implement online demand allocation and clarify the implementation subject of sourcing procurement; Simultaneously establish a demand forecasting function to support the formulation of procurement strategies; Establish statistical analysis functions to achieve statistical analysis of procurement data and support management decisions.

(2) Source management function

The sourcing management function mainly includes procurement scheme approval, bidding announcement and procurement document release, supplier quotation, expert group formation, system review, procurement result release, etc. The system function is applicable to sourcing business of different procurement methods such as open bidding, competitive negotiation, and inquiry. The group can standardize the sourcing process through the information system and achieve online centralized approval of all sourcing results.

(3) Contract performance management function

The contract performance management function mainly includes standard contract text management, drafting of special contract terms, system submission, online approval, and electronic signing. The group monitors the application of standard contract text and controls the execution of sourcing results through information systems; Develop and establish a system tracking function for contract performance, monitor contract execution, and achieve early warning through system settings to ensure production and supply.

(4) Warehouse logistics management function

The warehouse management functions mainly include inbound and outbound, loading and unloading, inventory, transfer, outbound, etc; The logistics transportation management function mainly includes logistics demand reporting, approval, loading plan preparation, and monitoring of the logistics transportation process. The group effectively monitors inventory levels through warehouse management functions, supporting the work of "reducing pressure on the two funds"; By utilizing logistics transportation management functions, we have unified logistics needs and conducted centralized sourcing, effectively reducing logistics transportation costs.

(5) Three types of basic management platforms

1) Supplier Management Platform

The functions of the supplier management platform mainly include supplier classification and grading management, supplier qualification and capability evaluation, application for new suppliers, supplier performance evaluation, and disposal of supplier misconduct. The group uses a supplier management platform to include all newly added suppliers in the scope of control, implement centralized approval, and achieve unified management of suppliers.

2) Review Expert Management Platform

The functions of the expert review management platform mainly include expert classification and grading management, expert online application and approval, expert information storage, expert online extraction, expert performance evaluation, etc. The group utilizes a management platform to establish a unified expert database and implement unified management of review experts.

3) Material Master Data Management Platform

The functions of the material master data management platform include standard management of master data classification, feature items, and feature values, as well as online application and approval of new materials; The group utilizes a management platform to strengthen standard material management, establish a material selection library, promote the application of standard materials, continuously improve material aggregation, and support the economies of scale in centralized procurement.

6 Conclusion

This article aims to improve the quality, efficiency, and standardized management level of intensive procurement management in directly affiliated units of energy and power enterprises. By analyzing the internal and external situation of material management in directly affiliated units under the new situation of reform and development, the basic idea of building a centralized procurement management system for directly affiliated units is studied and established. Innovative measures such as constructing a "five in one" procurement business system and creating a centralized procurement full process management information system are proposed to solve the problems of difficult balance between centralized procurement standardization and efficiency, multiple potential risks, and difficult risk prevention and control in the centralized procurement management of directly affiliated units of energy and power enterprises, comprehen-

sively improve procurement quality and efficiency, and enhance risk prevention and control capabilities.

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