

Research and Countermeasures on The Comprehensive Budget Management of Oil Field Industry

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Abstract: Comprehensive budget management is the core content of enterprise management, which has practical significance to reduce cost, improve efficiency, integrate resources and enhance enterprise value. For oil enterprises with high energy consumption, high input and high risk, budget management has always been highly valued by the oil field industry. However, there are still many problems in the process of implementing comprehensive budget management, which makes budget management not play a powerful role. This paper analyzes the application status of comprehensive budget management in oilfield industry, expounds the necessity of its improvement, analyzes the existing bottleneck problems, puts forward the corresponding countermeasures, and gradually optimizes the entire system of comprehensive budget management in oilfield industry.

Keywords: Oil field industry, Comprehensive budget, Budget management.

1. Introduction

Since the 21st century, green development and sustainable development have become the new development concepts established in the new era. The inherent characteristics of oil field development and production have challenged the traditional oil and gas field budget mode, and the traditional cost-profit oriented budget management mode is no longer applicable. In addition, most of our oil field exploitation enterprises have entered the middle and late stage of development, the difficulty of development and cost control is increasingly difficult, and the technical requirements of exploitation are higher, coupled with the continuous low oil price, the production and operation are greatly affected. How to deal with the current predicament, optimize the overall budget management of enterprises, and effectively reflect the benefit of oil and gas development, has posed a challenge to the oilfield industry.

2. Current Situation of Overall Budget Management in Oilfield Industry

(1) An organizational system for comprehensive budget management

At present, the total budget management organization system of Chinese oil field companies is formed by the company head office and the subsidiary companies affiliated to group, which forms two levels of management organization. It is composed of four parts, including the budget decision-making body, the budget preparation body, the budget implementation body and the budget assessment department. Each body is an organic whole connected with each other.

The budget management Committee of the Group and its subsidiaries is the decision-making body of the overall budget, responsible for the formulation of the budget management system, regulations and other programmatic documents; The Committee for Comprehensive Budget Preparation shall, in accordance with the general budget objectives and annual business plans issued by it, prepare the budget outline, decompose the budget indicators and implement them to each budgetary responsibility unit, and design the budget indicator system in the investment center, the profit center and the cost

center respectively. The executive agencies of the enterprise cooperate with each other to carry out production activities according to the superior plan; Finally, the budget assessment department will assess the completion of the current budget based on the budget period and budget implementation. Thus, the overall budget management forms a complete closed loop.

(2) Budget making

Oilfield industry budgeting follows the "top-down, top-down combination, hierarchical preparation, step by step summary, comprehensive balance" procedure. The Comprehensive Budget Management Committee of the Group company begins to prepare the budgeting work of the next year from the beginning of September. According to the profit realization of the current year and the forecast of the future production and operation situation, the strategic objectives of the next year are determined. After the discussion and approval of the relevant functional departments of the company, the profit budget targets of the next year are preliminarily determined. Relevant functional departments shall make overall planning, optimize and balance according to the actual situation of production, formulate the overall budget proposal, and then submit it to the Budget committee of the Group company for examination and adjustment; At the end of the year, the management authority shall, on the basis of examining and summarizing the budget report of the subordinate enterprise, prepare the overall budget report of the company and submit it to the Group Company.

When budgeting, incremental budget law is used, which is based on historical cost, combined with the budget period business volume and related factors for cost adjustment. At the same time, guided by cost or profit, through the target cost or target profit backward, the formation of a budget content system with business budget as the main, capital budget and financial budget as the auxiliary. The operational budget is the budget related to the operation of the oil company and is the basis for the preparation of other budgets, including the contract budget, production budget and procurement budget. Financial budget refers to bringing all the production, operation and investment activities of the subordinate enterprise into the scope of budgeting. It mainly includes benefit budget, cost budget, cash flow budget and financial

position budget. Capital budget is mainly about oil field transportation equipment, exploration equipment and other fixed assets investment and investment in capital finance.

(3) Budget implementation

Budget implementation is an important part of comprehensive budget management, that is, each department according to the assigned tasks and targets of the budget plan into reality, usually by functional departments and grass-roots units to complete, requiring the lower level of the budget unit must strictly comply with the requirements of the higher level of the budget unit. Due to the particularity of the oilfield industry, there are many holding companies under the group company, which involve various businesses and dispersed production regions. Due to the limited distance and space, the upper management cannot directly monitor the implementation of the budget of all subsidiaries, so the finance department is usually entrusted to promote the budget work. In the implementation of the budget, if there is a big difference between the target budget and the implementation result, each responsibility center shall timely report the difference to the department, at the same time, the reasons for the difference shall be reflected in the budget of the next month, and then the responsible person of the department shall explain to the Committee of Budget Management or the Financial Department, timely analyze the causes and possible consequences of the difference, and take measures to correct it. Ensure annual budget targets are met.

(4) Budget Control

Each oil company takes the budget as the basic basis for organizing production activities, and strengthens the supervision and control of the budget process through pre-planning and post-assessment, so as to promote the realization of budget objectives. Advance planning is reflected in the overall analysis and prediction of the input and output of various production, operation and investment activities by each budgetary responsibility subject, so as to prepare the budget and ensure that all activities are carried out in accordance with the scheduled plan. The post-assessment department is mainly responsible for the budget assessment, focusing on the expenditure of costs and the completion of monetary capital revenue and expenditure business. For the deviation in the implementation of the budget, timely analyze the reasons for the difference, and then communicate with relevant personnel.

(5) Budget check.

In accordance with the principle of equal rights and responsibilities, each oil company has established a budget execution results assessment responsibility system centered on benefits, basically forming a two-level budget assessment system, in which the company evaluates its subordinate enterprises and the subordinate enterprises assess their subordinate units.

In budget assessment, oil companies often use key performance indicators (KPIs) for budget assessment, focusing on production completion and cost overruns. Including sales revenue, cost expenditure, business taxes and surcharges, oil and gas production, budget price and other indicators, mainly divided into three categories of efficiency, operation and control indicators a total of one percentage. For various indicators, detailed indicators are set and weighted according to the actual situation of each department, basic scores and lower limits are specified, assessment scores and

lower limits are compared, and solutions are proposed through monthly or annual meetings and combining with the production situation to objectively analyze the completion of various indicators and causes of budget deviation.

3. Necessity of Improvement

(1) The budgeting is incomplete

Most oil field companies adopt the incremental budget method as the main budgeting method. This method is based on the cost of the base period and the workload is relatively small. However, it implies an assumption that the business activities of the company in the previous period are reasonable and necessary, and there is no need for adjustment. However, due to the impact of the oilfield development environment, some operational projects may not happen in the current period, based on the past cost level, in fact, is the default of all the expenditure in the past is reasonable, follow the trend may cause resource waste and unreasonable expenditure, so the incremental budget law is not scientific.

(2) The budget is not comprehensive

At present, the budgeting content of this industry includes business budget, financial budget and capital budget. In the operational budget and financial budget, the benefits and costs of oil and gas are especially emphasized, which makes the budget contents mostly related to the daily business activities and investment activities, and ignores the financing budget, cash budget and other contents. The main reason is that most oil exploitation companies are based on the profit-oriented budget management mode, so there is a bias and misunderstanding in the budget content. In fact, financing, investment and production operations are closely linked. The financing budget can provide a financial support in advance, and on this basis, the investment and production management can carry out activities based on the financing budget. The investment budget provides the material basis for production and operation. The oil field industry needs exploration equipment and transportation equipment to extract and transport oil. The operating budget provides the basis for the preparation of the financing and investment budget, which shall be decided according to the costs of oil and gas exploration, crude oil exploitation, oil and gas transportation and crude oil smelting.

In addition, budget assessment focuses on the assessment of financial indicators, so many enterprises in the budgeting of profit as a value oriented. However, as the country vigorously advocates the road of ecological civilization, energy conservation and emission reduction, and proposes "carbon neutrality", China's oil industry also conforms to the trend of The Times, assumes social responsibilities and takes the road of low-carbon development. Therefore, when the oilfield industry makes a comprehensive budget, it is necessary to consider not only the production budget, but also the non-production budget related to social responsibility, such as energy conservation, emission reduction, safety and environmental protection, so as to realize the sustainable development of the oilfield industry.

(3) Lack of full participation in budget implementation

Influenced by the limitation and asymptotic of the traditional financial thought and the formality of the system, the budget execution of oil field companies is mostly done by the financial personnel and related business personnel. In the implementation of the budget, various departments often

believe that the financial department should be responsible for handling various data, indicators and statements. However, in the actual production process, there may be conflicts of interest among various departments, which need to be solved through joint discussion and consultation between the production department, procurement department, sales department and human resource management department. Therefore, it is unrealistic to rely solely on financial departments to promote budget implementation. In addition, due to the lack of strict implementation, the comprehensive coverage principle in the comprehensive budget management becomes a mere formality, resulting in the departments and grass-roots staff are not active, do not pay attention to the budget, the budget becomes a "paper talk", so that the budget becomes only the management personnel to pay attention to the problem, resulting in the implementation of a good budget from the source.

(4) Budget control is not in place

Budget control dilemmas are often disputed by the business. Insufficient capital investment may not be able to complete the job development project on time; Too much capital investment may exceed the predetermined budget range, resulting in a large increase in costs, the project loss. The lack of budget control in the oil industry is mainly caused by the fact that exploration and development of oil and gas in the oil field industry need to go through multiple processes, from geological exploration, drilling, oil production, well workover to increased production, transportation, processing, to the final formation of finished products, which requires a large amount of investment, so it is difficult for oil field enterprises to control the cost. In terms of budget control, although from the overall point of view, the oil industry budget control system has taken shape and developed strict budget standards for energy consumption and material consumption, but throughout the budget implementation process and budget implementation results, it is not difficult to find that the company mainly emphasizes post-control. For example, approaching the assessment period, in order to narrow the difference with the assessment index, the higher the output, the greater the cost compression, which actually separates the corresponding relationship between output and cost. It also lacks effective means of control. As for the deviation in the process of budget implementation, the grass-roots staff cannot grasp whether the deviation is reasonable, so they can only take measures to reduce the cost overrun when the deviation occurs. However, the method is not reasonable.

(5) Lack of scientific assessment methods and reward and punishment measures

There are two main problems in budget assessment. One is the lack of scientific assessment methods. As companies take profit as a reference for value in budgeting, the use of key performance indicators (KPIs) as an assessment method inevitably leads to the assessment focusing on financial indicators as the entry point. Only focusing on financial indicators will cause the industry to pay too much attention to short-term interests at the expense of long-term interests, such as staff training and development, customer relationship development and maintenance. In order to change the performance evaluation system that takes business performance as the core of each company and make budget assessment more scientific and reasonable, relatively speaking, the balanced scorecard evaluates the budget item by

item from four dimensions and analyzes the completion of the situation, which can make up for the shortcomings of the traditional financial index assessment method to a certain extent. Second, reward and punishment measures are not fully implemented. During the assessment, companies use budget standards to assess the responsible units and persons, and take the assessment results as the basis for rewards and punishments. However, the assessed side too much emphasizes the impact of objective factors on production activities, deliberately avoiding subjective reasons, and the assessed side inevitably evaluates the assessed side with personal feelings, so that the assessment is carried out under the "colored glasses". In addition, there is no matching reward and punishment measures after the assessment, and the lack of due incentive mechanism makes the assessment work mere formality.

4. Improvement Measures

(1) Improve budgeting

Each oil company should integrate the incremental budget, rolling budget and zero-based budget into the budgeting according to the production development of the company. First of all, combined with the medium - and long-term strategic goals, do a good job of budget cohesion planning, to ensure the continuity and dynamic budget in the long run; Secondly, we will implement a rolling budgeting system of "quarterly monthly insurance and annual quarterly insurance" to refine the budget contents and continue the budget schedule. Thirdly, zero-based budget law is adopted to comprehensively review the rationality of each expenditure in the previous year at the beginning of the year, and analyze whether there is still the necessity of existence in the current year. Finally, combined with the current production situation, the incremental change situation and cost reasons combined analysis, determine the change range of incremental cost scientifically.

(2) Expand the scope of your budget

In view of the phenomenon that the budget content of the oilfield industry is mainly business budget, financial budget and capital budget, from the perspective of managers, in addition to including the special budget, cash budget and other productive budgets, but also consider the social responsibility related to energy conservation, emission reduction, safety and environmental protection and other non-productive budgets, reflecting the comprehensive principle of comprehensive budget management. At the same time, it is convenient to evaluate the subordinate companies. In addition, the comprehensive budget is combined with the strategic goals of the long-term development of the enterprise. The realization of the strategic goals is not achieved overnight, but through the completion of monthly, quarterly and annual budgets. Due to the short-term behavior of monthly and quarterly budgets, enterprises need to give overall consideration to the short-term budget and the strategic long-term budget when preparing the budget, and plan the annual budget on the basis of the medium and long-term budget to protect the sustainable development of the company.

(3) Implement full participation in the budget

On the one hand, the company as a whole should improve the understanding of comprehensive budget management. The main body of comprehensive budget management includes all the employees of the company. The full

membership of comprehensive budget management not only needs the attention of managers, but also needs the participation of every employee. More importantly, it needs the grass-roots staff to redefine the concept and importance of comprehensive budget management. However, many managers believe that ideological education is not necessary, but the staff ideological understanding of the comprehensive budget management is not deep, will not directly or indirectly participate in the budget process. On the other hand, the company should also conduct regular education and training for grass-roots staff, so as to integrate the comprehensive budget management with the production and operation of the enterprise, lay a good foundation for the comprehensive budget management, and make every employee agree with the concept of full staff of the comprehensive budget management. In this way, each employee is highly involved in the budget implementation, which will promote the cooperation and communication between departments, so as to achieve the purpose of full participation in the budget implementation.

(4) Strengthen operational control

In order to realize the whole-process control budget management before, during and after the event, oilfield companies can build a dynamic and comprehensive budget control system through the Internet platform and big data, and strengthen the in-process control of key oil and gas costs such as material and fuel costs, transportation costs, and downhole operation costs. The upper limit of this month's budget shall be set by each business department and basic unit of the oilfield company according to the production and operation conditions and their own cost and expense indicators. It can be executed only if it meets the "total budget at the beginning of this month + budget increase of this month < upper limit of this month's budget". In addition to timely adjustment and analysis of differences in budget implementation, a system of reporting budget implementation on a regular basis is also required. For operational items that require excessive expenditure, information explanation shall be provided and approved by the Budget and Management Committee. For each expenditure, the system will automatically classify each budget item according to the nature of the business, so that each expenditure will be clearly recorded, thus strengthening the operational control during the implementation of the budget.

(5) Improve the budget assessment mechanism

Improve the budget assessment system. The balanced scorecard (BSC) was introduced into the budget assessment. Balanced Scorecard is a new performance management system that integrates the budget assessment index and the comprehensive budget management control system from the perspectives of finance, customers, internal operation, learning and growth. It breaks the traditional performance evaluation system with financial performance as the core, and expands the content of assessment, including not only financial dimension but also non-financial dimension, which not only meets the requirements of the company's strategic development, but also improves the scientific nature of budget assessment. For example, the assessment indicators at the employee level are the ratio of imported talents and the rate of excellence of employees. It is stipulated that salary should be linked with performance, so as to stimulate the internal motivation of learning and work of employees. Among them, there will be introduction fees, training fees,

etc., which will be included in the above comprehensive budget control system, and directly link the assessment objectives of specific functional departments with the costs incurred. The assessment indicators of the customer layer are the market share occupied, the growth rate of new customers and the retention rate of old customers. Among them, the cost of business publicity, advertising and the cost of maintaining customer relations will be incorporated into the comprehensive budget management and control system, and the performance of relevant departments will be measured by quantitative indicators, so as to achieve reasonable assessment. From the perspective of internal management process, the assessment indicators focus on business growth, risk control and other aspects. The value flow related to these aspects of the internal process, as well as the incurred security management expenses are incorporated into the budget assessment system, so as to control costs and improve economic benefits. Finally, the assessment effect at the financial level is the comprehensive effect of the previous three dimensions. Because these four aspects are interrelated and influence each other, the realization of the other three indicators ultimately guarantees the realization of the financial indicators. Taking operating income and return on capital as the assessment basis reflects the current company's operation, profitability and growth, and directly serves as the assessment basis for the overall budget management effect of the whole company.

Implement budget assessment and reward and punishment measures. Set up an independent budget assessment and supervision organization to supervise the assessment process, the assessor and the assessed to ensure that the assessment is fair, just and reasonable; To conduct qualification screening for assessors, investigate whether there is a correlation between assessors and assessors, and implement the avoidance system; Reward employees and departments with excellent budget performance, enhance employees' sense of accomplishment and sense of belonging, play an exemplary role, so as to stimulate the enthusiasm of the company to implement the budget; Timely communicate with employees with poor budget implementation results; For those who fail to complete the annual assessment objectives, punishments of different degrees will be given according to the circumstances, such as warning, deduction of bonus, removal on the spot, etc., especially serious ones will be linked with the appointment of department leaders.

5. Conclusion

The comprehensive budget management of petroleum industry is progressing and improving gradually. After years of reform and practice, the comprehensive budget work has achieved some results. But on the whole, the budget preparation is not complete, the budget content is not comprehensive enough, the participation of all staff needs to be improved, the budget control is lacking, and the assessment mechanism needs to be improved.

In view of the problems existing in the comprehensive budget management of the petroleum industry, the comprehensive budget management system has been perfected by giving full consideration to the business and management characteristics of the petroleum industry. First of all, in the budget preparation of a variety of budget methods, complete budget preparation. Secondly, the financial budget and non-financial budget into it, improve the budget content,

make it scientific and reasonable. Third, strengthen ideological education and learning training, will be the comprehensive budget of the concept of full staff deep in the heart of every employee. Fourth, we will establish a dynamic and comprehensive budget management and control system to strengthen operational control over budgets. Finally, the balanced scorecard is taken as the method of overall budget management performance assessment, and the budget assessment is proposed from four dimensions, and the implementation of budget assessment and reward and punishment measures, from the perspective of assessment to ensure the implementation of comprehensive budget management, promote the integration of overall budget management and production and operation.

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