Analysis on Zero Inventory Management of New Energy Enterprises

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Abstract. The improvement of cost management and control of new energy enterprises is of great significance for realizing the harmonious coexistence between man and nature. The improvement of enterprise value is benefited from making full use of each cost input to obtain profits. Therefore, it is very important to find out the shortcomings in cost control and optimize it in time. “Zero inventory” is a cost-saving management model that many new energy companies have already implemented, or are exploring. The basic idea of “zero inventory” management is that the enterprise tends to zero the inventory of raw materials, products and finished products in the procurement, production and operation, to avoid the opportunity cost of inventory occupation, and to prevent inventory from being outdated as well as risks such as falling prices and damage. This paper takes the necessity of implementing zero inventory management in new energy enterprises as the starting point, analyzes the problems existing in the cost control of new energy enterprises, and puts forward some suggestions for improvement.

1. Introduction
Resource shortages and environmental problems have begun to plague the sustainable development of today's society. Resource-saving and environment-friendly products have gradually become people's demands. To achieve harmony between man and nature, the development of new energy industry has become one of the important means to solve these two problems. Therefore, the development of new energy companies has attracted more and more attention at home and abroad. However, the International Energy Agency (IEA) has shown in the study of international power demand from 2000 to 2030: One of the main reasons hindering the development of new energy sources is the high cost of new energy, especially the high-tech solar energy, biomass energy, Wind energy, etc. At the same time, the 2008 China New Energy Industry Report pointed out that the cost issue is the bottleneck for large-scale replacement of traditional energy by new energy sources. It can be seen that the high cost of the new energy industry has become a major problem that restricts the value of new energy companies, so it is particularly important to realize the “zero inventory” of new energy enterprises.

2. Conditions for successful operation of zero inventory management in new energy enterprises
All manuscripts must be in English, also the table and figure texts, otherwise we cannot publish your paper. Please keep a second copy of your manuscript in your office. Implementing “zero inventory” management is not an easy task. It requires enterprises to achieve balanced production. The
departments of supply, production and sales of enterprises must implement unified planning, careful arrangement and rational allocation, quantity and time of procurement, and production processes, arrangements and quality are strictly required. In short, pay attention to the following aspects:

The first: All departments of the enterprise must cooperate closely, coordinate in a coordinated manner, and coordinate with each other. The “zero inventory” management requires that enterprises must synchronize the production and operation needs with the supply of raw materials, so that the material circulation and the processing speed of the enterprise are at the same beat, thus ensuring that the supply, production and sales operations are carried out in a planned and procedural manner.

When the sales department requests the goods from the production department of the enterprise according to the order, it must specify the variety, quality, specifications and delivery time of the order; the production department organizes the production according to the approved order; the workers in the production process must have higher quality and technology; the production department after the procurement requirements are requested, the procurement department should quickly organize the procurement and control the quality, price, quantity and arrival time of the purchased raw materials.

The second: Arrange expenditures reasonably and strictly control procurement costs. One of the main goals of implementing “zero inventory” management is to reduce costs and save expenses, thereby improving economic efficiency. However, the implementation of “zero inventory” management will inevitably increase the number of purchases, which will result in more procurement costs and a relatively higher procurement cost. This requires enterprises to strictly control the operating procedures on the one hand, control the transportation loading and unloading costs, on the other hand, to maintain good relations with major suppliers, and to minimize procurement costs to avoid saving storage costs offset by other expenses.

The third: In order to increase market share, establish a stable sales network. From the definition of “zero inventory”, it can be known that “zero inventory” management emphasizes market-oriented and fixed production. Therefore, enterprises should formulate corresponding propaganda measures and competition methods according to market conditions and sales conditions at different times and in different regions, develop sales channels, strive for stable orders for enterprises, establish a stable and reliable sales network, and organize production in a balanced manner to avoid production has fluctuated significantly. At the same time, enterprises must strictly control the cost of the sales link, and try to implement direct transactions, money and goods, so as to shorten the delivery time, accelerate the recovery of funds, and improve the efficiency of capital use.

The fourth: The production and operation of the enterprise is highly automated. Automated production control can immediately meet the needs of customers, on the other hand, it can minimize the inevitable defects in the production process, and eliminate the adverse effects of the production of defective products on the entire production process. To this end, enterprises must implement information management in the departments of supply, marketing, finance, and planning. According to different market requirements, Agile effectively organizes production and operation, and monitors all aspects of supply, production and sales at any time.

The fifth: Business managers must establish a "zero inventory" management philosophy. Because in the actual production and operation, the use and consumption speed of the enterprise inventory is uncertain, the product reproduction cycle has fluctuations, and the sales quantity is unstable, the company's product reserves cannot be zero every moment. Therefore, the implementation of "zero inventory" management actually requires each department to compress the retention time of materials as much as possible and reduce the inventory amount, so that all links of supply, production and sales are included in the planning track.

The sixth: Establish a network of procurement channels that are effective and reliable and can respond quickly to the outside world. The procurement department of the enterprise should carefully understand the situation of various suppliers, compare the quality, price, transportation conditions and volume of raw materials of various manufacturers, and clarify the procurement location, procurement target or variety, and establish a strict procurement network. At the same time, we must fully grasp the information advantages and meet the procurement needs quickly and efficiently. Enterprises should
strengthen long-term stable cooperation with suppliers to ensure that enterprises can obtain the raw materials and purchased parts needed for production in a timely, quality and quantity manner.

3. Problems in the application of zero inventory management in new energy enterprises in China

Behind the zero inventory management model seems to bring together the advantages of all enterprise management: low cost, high efficiency and perfect processes. However, there are still some problems in the use of this model by new energy companies in China:

Firstly: The logistics management mechanism is imperfect and there is a lack of effective communication between departments. If the supply chain is destroyed, or if an unexpected event occurs, the company cannot adjust production according to customer needs in a short period of time, then the stability of the production and operation of the enterprise will be affected, and the operational risk will increase.

Secondly: Under the “zero inventory model”, orders may be more, and it is likely to be small. Suppliers may require additional markups, and companies lose the opportunity to obtain lower prices from other suppliers.

Thirdly: For ordinary enterprises in China, there may be a single source of risk, small batch supply resulting in higher transportation or distribution logistics costs, and a higher cost integrated information system platform.

The fourth: The level of informatization is relatively low, and the lack of a perfect computer management system is not only not conducive to the inquiry and statistics of the internal business of the enterprise, but also causes the effectiveness of the production and operation decisions of the enterprise to be greatly reduced.

The fifth: The constant changes in the market price level have put tremendous pressure on the supply of raw materials for enterprises, and the transportation and storage costs have been rising, which has greatly affected the inventory management of enterprises.

4. Suggestions for the implementation of zero inventory management in new energy enterprises in China

1) Analysis of the Causes of Inventory Management Problems in New Energy Enterprises in China

The main reasons for the problems in the inventory management of new energy enterprises in China are as follows: First, the internal control system of the enterprise is not perfect, the enterprise has not established and perfected the system of various functions; secondly, the enterprise operators have not given enough to the inventory management. Pay attention to the backwardness of enterprise inventory management; thirdly, the planned cost measurement method adopted by enterprises will make the measurement of inventory value inaccurate, especially in the case of severe price fluctuations in the market; Fourth, the implementation of the enterprise's inventory management information system is not in place; In the end, the company pays too much attention to sales performance and neglects inventory management, which is not conducive to the sustainable development of enterprises.

2) Suggestions on Improving the Management Level of Inventory in New Energy Enterprises in China

First of all, it is necessary to strengthen the awareness of inventory management of enterprises. In addition, it is necessary to strengthen the integrated management of enterprise inventory information management personnel, raw materials and funds to minimize inventory management costs and inventory, so that enterprises can operate more efficiently. Improve cost accounting methods, strengthen their flexibility, and enable them to quickly reflect market prices. Inventory planning must also meet market demand and do a good job of monitoring the market.

Zero inventory is just a means, not a goal. New energy companies must have a good hardware management environment: 1) High-tech management tools such as computers. The use of high-tech management methods such as computers can realize the integration of inventory management, collectivization, synchronization, punctualization and the establishment of information communication
basis for computer integrated management, in order to improve the scientific and accurate prediction of resource demand planning in each link to reduce inventory holding level. 2) High-tech logistics equipment. To achieve zero inventory, only "software" is not enough, and there must be a matching "hardware". At present, the logistics facilities and equipment of some domestic production enterprises have hindered the realization of "zero inventory", and it is urgent to speed up the updating of logistics facilities and equipment; 3) there must be a complete e-commerce support system. Enterprises must use modern communication technology and network technology to link all aspects of material procurement to form a complete e-commerce system. Strengthening the construction of equipment on the Internet will enable all work to be carried out online, effectively speeding up the flow of materials and funds, and achieving “zero inventory”. Finally, companies must guard against the abrupt changes in surrounding factors. 1) Market factors: There are two markets facing production companies, including the material procurement market and product sales market. The two market factors are different. For the sales market, it is changing all the time, and different regions have different demand for different products, so it is necessary to conduct sufficient research on the market, which is conducive to the realization of “zero inventory”; in the procurement market, After receiving the order, the purchasing department shall formulate a reasonable procurement plan in a timely manner, one is to pursue the lowest total cost of procurement, and the other is to meet the needs of the market; 2) Material consumption factors: The material consumption characteristics are important basis for selecting how to implement “zero inventory management”. For example, some general materials that consume more regularity are recommended. It is recommended to strengthen program management, establish partnerships with suppliers. The use of out-of-the-box purchases does not require inventory and implements “zero inventory” management.

In short, we must fully recognize the advantages and disadvantages of “zero inventory management” and use it reasonably in practical work. With the increasingly fierce competition environment and the continuous improvement of the company's management level, coupled with the gradual development and application of modern logistics technology, JIT, a modern inventory management concept, will surely become the first choice for most enterprises in the future. In addition, how to effectively control the development cost of new energy is a topic that is strongly concerned and deeply studied by scholars and professionals in various countries at this stage. The process of cost control is dynamic and needs to be improved in an all-round and uninterrupted manner. The key to cost control is to take the overall development of new energy as the starting point, fully combine qualitative analysis and quantitative analysis, implement comprehensive and reasonable cost, control of colleges and universities, and maximize the implementation of economic benefits; at the same time, we must effectively improve The competitiveness of enterprises in the international market, and then establish a sound scientific and rational market operation system, promote the ability to create value, and promote the long-term and stable development of new energy enterprises. Of course, in the specific development process of new energy companies, the factors involved are complicated, and they require technical and management research and analysis in various aspects to further contribute to the sustainable development of the country's new energy.

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