

Research on Environmental Accounting Information Disclosure of Yankuang Energy

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Abstract: Promoting green development and promoting harmonious coexistence between humans and nature is an inherent requirement for the comprehensive construction of a socialist modernized country. Coal enterprises are an important component of China's energy industry, and while promoting high-quality economic development, they have also encountered a series of problems such as pollution before treatment and resource waste. In recent years, among the many binding regulations issued by the government, the requirement for enterprises to disclose environmental accounting related information has been given top priority. Based on this form, this article takes Yankuang Energy as the research object, mainly analyzing it from two aspects of disclosure methods and content, and proposing relevant suggestions for improving information disclosure, in order to promote sustainable development of enterprises.

Keywords: Environmental Accounting; Information Disclosure; Coal Enterprises.

1. Introduction

The production and operation activities of enterprises are one of the main factors that exacerbate environmental pollution, so enterprises play a crucial role in reducing environmental pollution.

Due to the late start of China's corporate environmental accounting information disclosure system compared to developed countries, the quality of information disclosure is still not high [1]. In the 2014 revised Environmental Protection Law of China, only listed companies that cause severe pollution are required to disclose environmental accounting information compulsorily, while non heavily polluting listed companies are required to selectively disclose. Therefore, most enterprises will choose not to disclose. Due to the lack of specific standards for the disclosure form of environmental accounting information in China, every enterprise can choose the disclosure form according to its own nature. Generally, enterprises are more willing to disclose information that is beneficial to the environment but avoid discussing data that causes environmental pollution. Therefore, the authenticity of data disclosure needs to be studied [2]. At present, the shortcomings of environmental accounting information disclosure in Chinese enterprises are manifested in: incomplete content, lack of quantitative information, lack of auditing, and other issues [3]. Some companies also disclose information with certain historical significance. Therefore, strengthening the disclosure of environmental accounting information by enterprises, revealing their utilization of environmental resources, and governance is an inevitable requirement.

Environmental accounting element information is divided into assets, liabilities, and costs [4]. For the form of information disclosure, China tends to combine independent environmental reports with supplementary reports [5]. The disclosure of environmental accounting information is crucial for both the state and enterprises. On the one hand, it can reflect the fulfillment of corporate social responsibility and facilitate the supervision of enterprises themselves; On the other hand, it can achieve government and social regulation of enterprise environmental pollution, and promote the

construction of ecological civilization in China's environment [6].

2. Analysis of the Current Situation of Environmental Accounting Information Disclosure in Yankuang Energy

2.1. Enterprise Overview

Yankuang Energy Group Co., Ltd. was established in 1997, with mining, high-end chemical new materials, new energy, high-end equipment manufacturing, and smart logistics as the leading industries. Headquartered in Zoucheng City, Shandong Province, it is located at the center of China's coal consumption market and provides an important force for the construction of China's North South Coal Diversion Project.

2.2. Current Situation of Environmental Accounting Information Disclosure

2.2.1. The Model of Environmental Accounting Information Disclosure

Yankuang Energy mainly uses two forms of corporate annual reports and social responsibility reports. After 2020, it mainly discloses in environmental, social, and governance reports (referred to as "ESG reports").

In the social responsibility report, a separate green development module was set up to showcase the key performance of environmental protection and energy conservation, the concept of green management, and specific environmental protection measures of the enterprise; In the annual report of the enterprise, there is no independent environmental section yet, and environmental accounting related information is scattered in the notes to the financial statements.

2.2.2. Content of Environmental Accounting Information Disclosure

(1) Disclosure of environmental accounting information in the notes to financial statements

Due to the lack of independent environmental accounting subjects, environmental related items are all included in the

traditional accounting subjects in the notes to financial statements. Therefore, this article presents the environmental accounting information of Yankuang Energy from five

aspects: environmental assets, liabilities, equity, costs, and income.

Table 1. Environmental Asset Projects Involved in Yankuang Energy from 2020 to 2022
Unit: Thousand yuan

Project	Accounting Subject	2020	2021	2022
Monetary resources	Environmental Restoration and Governance Fund	589,247	1,266,382	1,982,000
Other current assets	Land collapse, restoration, reconstruction, and environmental protection fees	3,194,472	3,499,399	5,224,276
Other current assets	Environmental governance deposit	63,899	62,186	62,186
Deferred income tax assets not offset	Land collapse, restoration, reconstruction, and environmental protection fees	543,978	611,556	411,730
Deferred income tax assets not offset	Maintenance fee, development fund	342,804	415,726	467,710
Deferred income tax assets not offset	Reclamation costs	1,202,532	1,283,220	1,858,770
Other non-current assets	Exploration (mining) rights	18,366,439	11,375,707	13,090,901

Environmental asset projects mainly include monetary funds, other current assets, deferred income tax assets, and other non current assets. If the enterprise causes land collapse during commercial mining, the enterprise will compensate the original residents of the original mining area for this loss. However, due to the fact that the actual payment of this fee by the enterprise is not at the same time as the mining site, the enterprise will include this portion of land acquisition fees paid in advance as current assets in the accounts of land

subsidence, restoration, restructuring, and environmental protection fees. The more amount this subject has, the more investment a company has in environmental protection. From Table 1, it can be seen that the amount of this account in enterprises has been increasing year by year, indicating that enterprises are increasingly paying attention to environmental protection. The environmental governance deposit is used for environmental governance and ecological restoration activities.

Table 2. Environmental Liability Projects Involved in Yankuang Energy from 2020 to 2022
Unit: Thousand yuan

Project	Accounting Subject	2020	2021	2022
Other current liabilities	Land collapse, restoration, reconstruction, and environmental protection fees		959,579	1,100,080
Deferred income tax liabilities not offset	Fair value of mining (exploration) rights	5,910,789	5,939,643	5,911,950
estimated liabilities	Reclamation/Restoration and Environmental Restoration	3,410,119	3,692,198	9,189,449

The environmental liability items mainly include other current liabilities, deferred income tax liabilities, and estimated liabilities. The actual loss compensation amount caused by land collapse of the enterprise is lower than the amount provisioned, and is included in other current liabilities.

And provision shall be made for the expenses of the reclamation and environmental restoration projects of the mining site environment after mining, which shall be included in the estimated liability account.

Table 3. Environmental Equity Projects Involved in Yankuang Energy from 2020 to 2022
Unit: Thousand yuan

Project	Accounting Subject	2020	2021	2022
Special reserve	Maintain simple reproduction costs	1,247,560	1,383,694	1,745,227
Special reserve	Safety production cost	1,507,212	2,277,834	1,783,353
Special reserve	Reform Special Development Fund	611,513	611,513	611,513
Special reserve	Environmental governance deposit	24,560	24,560	24,560
Special reserve	Transfer Fund	26,875	26,875	26,875

The environmental rights and interests project is mainly a special reserve. In order to ensure the normal operation of the mining area, ensure the safety of staff, equipment renovation, and technological innovation, the enterprise calculates maintenance fees and safety production fees. From the table, it can be seen that the maintenance and safety production fees provided by enterprises have been increasing year by year, indicating that the number of equipment occupied by enterprises is increasing, and the coal production is also increasing year by year. The cost of safety production is

related to the safety expenditure of coal production equipment and coal mine construction facilities. The reform special fund is used for expenditures related to the construction of new mines. The environmental guarantee and governance fund is mainly used to maintain the ecological balance of the mining area, emergency response to natural disasters, pollution prevention and control, and geological protection and restoration. The amount of special reserve funds invested can directly reflect the environmental management level of the enterprise. The more funds a company invests, the more

emphasis it places on environmental protection, and it also indicates that the funds already invested can be effectively

utilized by the company.

Table 4. Environmental Cost Projects Involved in Yankuang Energy from 2020 to 2022

Unit: Thousand yuan

Project	Accounting Subject	2020	2021	2022
Taxes and surcharges	resource tax	1,825,305	2,783,847	3,670,263
Taxes and surcharges	Water conservancy construction fund	29,416	26,629	25,544
Taxes and surcharges	environmental protection tax	39,302	25,364	93,367
Taxes and surcharges	water resource tax	296,311	212,223	59,251
Taxes and surcharges	land use taxes	439,992	328,241	364,927
selling expenses	Royalties for mining rights	1,245,358	2,364,635	5,646,773

The environmental cost items mainly include taxes and surcharges, as well as sales expenses. If the degree of environmental damage caused by enterprises is higher, they will pay higher resource taxes for it. From the above table, it can be seen that the resource tax paid by enterprises is increasing year by year, indicating that the degree of

environmental damage caused by enterprises is also increasing year by year. Due to the formulation of relevant policies in China, enterprises are no longer required to pay mineral resource compensation fees starting from December 1, 2014. Therefore, enterprises will no longer list mineral resource compensation fees after this.

Table 5. Environmental Income Projects Involved in Yankuang Energy from 2020 to 2022

Unit: Thousand yuan

Project	Accounting Subject	2020	2021	2022
nonbusiness income	Special funds for VOCs governance projects			2,600
nonbusiness income	Air pollution prevention and control funds		4,200	

The environmental income of enterprises mainly comes from the subsidies provided by the state when implementing environmental policies and actively controlling pollution. In order to receive more subsidies, enterprises should attach great importance to the concept of protecting the environment, make reasonable use of natural resources, and implement the green development strategy proposed by the state.

(2) Environmental accounting information disclosed through ESG reports

The energy utilization table of Yankuang displays the environmental performance indicators and energy-saving and emission reduction situation of the enterprise in the production and operation process. By reviewing the social responsibility report and ESG report, it can be known that before 2018, Yankuang Energy disclosed indicators for gas emissions, water consumption, energy consumption, and sewage and waste emissions in enterprise production and operation. In 2019 and 2020, only written descriptions were provided, and there was no quantitative disclosure or analysis of environmental performance indicators. In 2021, the company will disclose its environmental practices and performance in the form of an ESG report. In the report, the environmental performance indicators of the enterprise were elaborated in detail from six aspects: wastewater and greenhouse gas management, gas emissions, general solid waste, hazardous waste, energy management, and water resource management.

According to the production and operation characteristics of Yankuang Energy, greenhouse gases, sulfur dioxide, nitrogen oxides, volatile organic compounds, and particulate matter are its main emissions. Among them, the company continues to promote the ultra-low emission renovation project of boilers, and the boiler flue gas of power plants and coal chemical units meets the ultra-low emission standards of pollutants. In terms of wastewater management, Yankuang Energy implements a high salt mine water treatment project, achieving water resource recycling and a sewage treatment rate of 100%. The company conducts research and application of technologies such as underground coal gangue separation

and filling mining to reduce coal gangue emissions from the source. At the same time, coal gangue, fly ash, and slag are used for building materials manufacturing, road construction, and land reclamation. In terms of energy management, the company has taken multiple measures to save water resources, promoted the reuse of reclaimed water and mine water projects, and successfully achieved various water-saving assessment indicators. In terms of carbon emission management, the company actively participates in CDP rating, discloses and responds to the company's management and governance measures in terms of greenhouse gas emissions. This fully reflects the company's integration of energy conservation, consumption reduction, and green business philosophy into the entire production and operation process. Make contributions to maintaining regional ecological security.

3. Problems in Environmental Accounting Information Disclosure of Yankuang Energy

3.1. Lack of Practical Information

The environmental accounting information disclosed by Yankuang Energy is mostly descriptive and lacks substantive content. The ESG report extensively explains the company's environmental philosophy, key environmental protection projects, and measures to achieve green business operations. Without a comparison between the company's own data and industry standards, it is unclear whether the company's emissions meet standards and whether environmental protection measures comply with regulations.

3.2. Poor Stability of Information Disclosure Quantity

The methods adopted by enterprises in disclosing environmental accounting information are entirely based on their own choices, and they will disclose information that is beneficial to them as much as possible according to their own

needs, resulting in different contents disclosed by enterprises every year. Yankuang Energy lacks coherence in the disclosure of environmental subjects in its annual financial statements, and the environmental performance indicators disclosed in its social responsibility reports vary greatly.

4. Analysis on the Causes of Problems in Environmental Accounting Information Disclosure of Yankuang Energy

4.1. Internal Reasons

(1) Enterprises overly focus on their own interests

The nature of Yankuang Energy's enterprise is closely related to the environment. If we want to fully and truthfully disclose environmental information, it may cause damage to the company's image and reduce investors. At the same time, if the benefits generated by the funds invested by enterprises in environmental protection are insufficient to offset the costs of investment, it will lead to a reduction in investment in this area, thereby reducing the disclosure of environmental accounting information.

(2) Weak awareness of environmental information disclosure among enterprises

Due to investors' emphasis on paying attention to the positive and beneficial information of enterprises, enterprises neglect or even give up fulfilling their environmental protection obligations in order to obtain their own economic benefits. At the same time, in terms of environmental information disclosure, cold actions or even inaction are taken.

4.2. External Reasons

(1) Insufficient sound laws and regulations

At present, the regulations and systems for the disclosure of environmental accounting information by enterprises in China are not yet sound, which cannot constrain and guide enterprises to disclose. This makes it difficult for Yankuang Energy to confirm which accounting activities related to the environment need to be disclosed, how to disclose them, and whether they comply with relevant regulations, resulting in the company fully following its own wishes in terms of disclosure.

(2) Insufficient third-party supervision in society

In the current environment of energy conservation and emission reduction, the public is gradually paying attention to environmental protection issues, but there's a lack of attention to corporate environmental accounting information. The audit standards implemented in China don't involve environmental auditing, and due to insufficient professional skills, it will make the work of auditors in environmental auditing more difficult.

5. Countermeasures for Improving Environmental Accounting Information Disclosure

5.1. At the Enterprise Level

(1) Improve corporate governance structure

In order to avoid adverse selection and moral hazard in the environment, enterprises should improve their internal governance structure. Yankuang Energy can establish an independent environmental management department, specifically responsible for supervising and managing the

relevant work of the enterprise's environment, testing whether the enterprise's emissions meet standards, timely identifying errors in the implementation of environmental protection measures by the enterprise, and providing compliance opinions.

(2) Increase one's awareness of environmental protection

Enterprises not only need to establish a correct concept of environmental protection, but also actively disclose environmental information. To implement environmental protection throughout the entire production and operation process of enterprises, Yankuang Energy should form a good corporate culture. Strictly abide by relevant regulations, control the discharge of pollutants, and make environmental protection a long-term strategy for enterprise development to achieve green business.

(3) Improve the content of environmental accounting information disclosure and establish independent environmental accounting reports

The environmental accounting information disclosed by Yankuang Energy is included in the notes to the financial statements and is scattered. In the social responsibility report, the environmental performance indicators are also listed casually every year, mostly in text. Therefore, establishing independent environmental accounting reports can promote more centralized and concise information disclosure, making it easier for information users to understand more intuitively.

5.2. Social Level

(1) Improve relevant laws and regulations, develop a unified environmental accounting reporting model

The national legislative body should promptly introduce detailed and comprehensive laws and regulations, regulate the forms of disclosure for different types of enterprises, or establish a unified environmental accounting reporting model to form constraints. For heavily polluting enterprises such as Yankuang Energy, more detailed guidelines should be formulated, such as quantitative restrictions on enterprise pollutant emissions, resource recovery and utilization, and standardized disclosure forms.

(2) Establishing an Environmental Accounting Audit System

We should establish environmental audit services to audit the environmental activities of enterprises and issue audit reports. However, prior to this, professional knowledge and standards for environmental auditing should be established in the auditing standards, promoting the formation of more professional environmental auditors.

(3) Strengthen government supervision

Government departments should refine the responsibilities of each department, increase supervision of heavily polluting enterprises, and strictly review the content of environmental accounting information issued by enterprises. At the same time, establish a reward and punishment mechanism to reward enterprises that disclose information in a standardized and truthful manner; Different degrees of punishment will be imposed on enterprises with incomplete or non-disclosure disclosure.

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