

# Research on the Current Situation of Carbon Disclosure of Chinese Listed Companies under the Dual Carbon Target

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**Abstract:** With the proposal of the "dual carbon" target, carbon emission has become the focus, and the requirement of carbon disclosure for enterprises has come. At present, there are still a few listed companies that disclose carbon information in China, and there is no unified way of disclosure, and the content of carbon disclosure is lack of consistency. Therefore, it is urgent to raise the awareness of carbon disclosure among enterprises and increase the number of disclosing enterprises by improving the awareness of social responsibility and mandatory disclosure requirements. The carbon disclosure reports will be more comparable by standardizing carbon disclosure requirements, unifying channels and formats. The quality and reliability of carbon disclosure will be increased by building a reasonable evaluation system and implementing effective supervision policies.

**Keywords:** Carbon Disclosure; Dual Carbon Targets; Chinese Listed Companies

## 1. Introduction

In September 2020, China made a commitment at the United Nations General Assembly to achieve carbon peaking by 2030 and carbon neutrality by 2060. With the goal of "carbon peaking and carbon neutrality", the issue of carbon emissions of listed companies has become a focus of public attention. However, the public has very limited access to the information about carbon emissions. The reason is that carbon disclosure is still the weak link of information disclosure of listed companies.

There is no consistent definition of the concept of carbon disclosure in academia. Carbon disclosure is usually mixed among carbon emission information disclosure, greenhouse gas information disclosure and environmental information disclosure. According to the newly promulgated Administrative Measures for the Legal Disclosure of Enterprise Environmental Information, environmental information includes pollutant emission information in addition to carbon emission information. And according to the definition of the concept of carbon emissions in the Measures for the Administration of Carbon Emission Trading (Trial Implementation), "Carbon emission: refers to the greenhouse gas emission generated by the combustion of fossil energy such as coal, oil and natural gas, industrial production process and land-use change and forestry, as well as the greenhouse gas emission caused by the use of purchased electricity and heat, etc. " The main source of greenhouse gases is the source of carbon emissions. Therefore, to a certain extent, it can be considered that carbon emission information is basically equivalent to greenhouse gas information. In summary, from a comprehensive perspective, greenhouse gas information disclosure and environmental information disclosure should be included in the discussion of carbon disclosure.

Although the carbon disclosure of listed companies in China has been developed for more than ten years, it is still in the initial development stage in terms of quantity and quality. It is necessary to continuously improve the relevant system and establish the regulatory mechanism. Therefore, this paper will analyze the current situation of carbon disclosure of listed companies and then further analyze the problems existing in carbon disclosure of listed companies in order to provide reference for future research.

## 2. Current Situation Analysis

### 2.1. Number of Listed Companies Disclosing Carbon Information

The carbon disclosure of listed companies in China adopts a voluntary disclosure policy, but from

the current situation, the proportion of enterprises that disclose carbon information by Listed Companies in each exchange is less than 20%, and the percentage of disclosed companies on the Shanghai Stock Exchange (SSE) is even lower than 10% (see Table 1). Non-mandatory disclosure makes enterprises have the autonomy to disclose. They will consider the impact of information disclosure on their business operation when choosing whether to disclose or not. Therefore, the number of enterprises choosing voluntary disclosure is low.

*Table 1: Comparison of carbon information disclosure in ESG reports of listed companies*

Exchange Name	Number of disclosed companies	Number of undisclosed companies	Percentage of disclosed companies
Stock Exchange	456	2124	17.67%
SSE	158	1451	9.8%
SZSE	118	882	11.8%

Data source: "2021 Carbon Information Transparency of Chinese Listed Companies" report

## **2.2. Channels of Carbon Disclosure**

The carbon disclosure channels of listed companies are diversified and decentralized. At present, there are two common ways of carbon disclosure. One is through internal reports, such as annual reports, ESG reports, and board of directors' reports, social responsibility reports, prospectuses and sustainable development reports. The other way is to participate in external carbon disclosure projects, such as CDP projects. Most of these companies are international operating companies and have the need to build up their environmental reputation in the international market.

## **2.3. Content of Carbon Disclosure**

When companies make carbon disclosure, they will take information according to their own situation, which makes the disclosure content of each listed company have the characteristic of differential presentation. In general, the disclosure content can be broadly categorized into six areas: special governance, risk assessment, response measures, target setting, participation initiatives and carbon data disclosure. Among them, the proportion of response measures is relatively high, and most of the companies that disclose carbon information have corresponding descriptions of response measures. However less than half of the disclosed companies have carbon data disclosure. In another word, companies prefer textual disclosure to data disclosure when disclosing carbon information. After the "dual carbon" target was proposed, about 1/10 of the disclosed companies disclosed their management targets for carbon peaking and carbon neutrality.

## **3. Problems Analysis**

### **3.1. Lack of Enthusiasm for Carbon Disclosure by Listed Companies**

From the number of enterprises disclosing carbon information, it is easy to see that enterprises are resistant to carbon disclosure. Disclosure of carbon information will certainly involve measures, penalties, risks and other related issues in terms of corporate environmental protection. This may have an impact on the decision of stakeholders in corporate investment and financing, thus affecting the development of enterprises. Therefore, the willingness of enterprises to independently disclose carbon information will not be very high.

However, it is worth noting that the better the enterprises do in carbon emission reduction and other aspects, the stronger their willingness to disclose. Through carbon disclosure, such enterprises transmit the signal of corporate social responsibility to stakeholders, which improves the external evaluation of them, so as to obtain more market opportunities. Therefore, this problem can be solved by enhancing the awareness of corporate social responsibility. When companies realize the benefits of disclosure for themselves, they will strive to improve their disclosure information and convey positive information outward to enhance their corporate reputation and capture more positive market attention.

At the same time, after the "dual carbon" target was put forward, the Chinese government has issued relevant policies (see Table 2) to make specific requirements for carbon disclosure and implement mandatory disclosure for some enterprises. This will greatly increase the number of listed companies disclosing carbon information.

Table 2: Relevant policies after the establishment of the "dual carbon" target

Issue time	Name	Issuing Authority
October 2020	Guidance on Promoting Investment and Financing to Address Climate Change	Ministry of Ecology and Environment Development and Reform Commission People's Bank of China BCI Securities and Futures Commission
January 2021	Management Measures for Carbon Emission Trading (Trial Implementation)	Ministry of Ecology and Environment
January 2021	Guiding Opinions on Integrating and Strengthening Work Related to Climate Change and Ecological Environmental Protection	Ministry of Ecology and Environment
May 2021	The Reform Program of the Legal Disclosure System of Environmental Information	Ministry of Ecology and Environment
November 2021	Guidance on Strengthening Industry Integration to Promote Green Development of Industry	Ministry of Industry and Information Technology People's Bank of China BCI Securities and Futures Commission
November 2021	Opinions of the Central Committee of the Communist Party of China and the State Council on the complete and accurate implementation of the new development concept and the work of carbon neutral carbon peaking	Communist Party of China State Council
November 2021	Carbon Peaking Action Program by 2030	State Council
November 2021	Opinions of the Central Committee of the Communist Party of China State Council on Deepening the Battle of Pollution Prevention and Control	Communist Party of China State Council
December 2021	Measures for the Administration of Legal Disclosure of Environmental Information of Enterprises	Ministry of Ecology and Environment
January 2022	Guidelines on the Form of Legal Disclosure of Corporate Environmental Information	General Office of the Ministry of Ecology and Environment
February 2022	Guidance on Promoting High Quality Development of Steel Industry	Ministry of Industry and Information Technology Development and Reform Commission Ministry of Ecology and Environment
February 2022	Opinions on Improving Institutional Mechanisms and Policy Measures for Green and Low-Carbon Energy Transition	Development and Reform Commission Energy Agency

Data source: collated from www.gov.cn

### 3.2. Lack of Standardization of Carbon Disclosure

At present, there are no standardized regulations for either disclosure channels or disclosure contents. Companies disclose the relevant information according to their own understanding by setting up items. First of all, the inconsistent disclosure channels bring difficulties to the access of information. There is no effective way for the public to obtain information about the carbon status of a company. In order to have a comprehensive understanding, it will cost relatively more time. This becomes the source of information asymmetry between enterprises and the public. Secondly, the inconsistency of the disclosure content makes the disclosure information lack comparability. Enterprises often tend to prefer to disclose only information that is beneficial to them, or selectively reduce the disclosure of unfavorable information when making carbon information disclosure, which makes it impossible to compare carbon emissions directly from enterprise to enterprise. Furthermore, the disclosure content is mainly in textual form and lacks quantitative indicators. This also makes the data less measurable and places a high demand on quantitative research in carbon disclosure.

Therefore, there is an urgent requirement to unify disclosure channels and establish standardized disclosure reports. The data of carbon disclosure of all listed companies can be managed uniformly through a unified disclosure channel. The public can conveniently access the relevant information through these data resources, and it also facilitates access to data by relevant scholars. Setting up standardized disclosure reports and mandating the disclosure information of enterprises makes the

information comparable. It can make a more reasonable evaluation of enterprises' carbon emissions and also help theoretical research on carbon disclosure.

### **3.3. Lack of Corresponding Evaluation and Supervision of Corporate Carbon Disclosure**

Currently, the amount of carbon disclosure of listed companies is low and the quality is low. This is inseparably related to the absence of a reasonable evaluation system for the quality of carbon disclosure and the effective supervision of carbon disclosure in China. According to the "*Management Measures for Legal Disclosure of Enterprise Environmental Information*", enterprises will make legal disclosure of relevant enterprise carbon emission information by March 15, 2022. This is the first time that mandatory disclosure is made for some enterprises in China. The effectiveness of the disclosure needs to be measured by constructing a reasonable evaluation system. The construction of the evaluation system will help enterprises to improve their disclosure awareness and enhance the quality of disclosure.

Enterprises will conceal or weaken the unfavorable information based on their own interests in disclosure, which will reduce the credibility of disclosure reports. Therefore, along with mandatory disclosure, effective supervision must be carried out in a timely manner. Carbon disclosure should be included in the scope of audit, and the corresponding audit opinion report should be issued through CPA or third party audit. This may play a supervisory role in the disclosure of carbon information by enterprises. In the meantime, the relevant government departments should approve the carbon disclosure reports disclosed by enterprises with a particular focus on whether the negative information is disclosed normally. With a reasonable evaluation system and effective supervision, the quality of carbon information disclosure of listed companies is expected to be improved.

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