

Discussion on Accounting Treatment of Carbon Assets and Carbon

Finance

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Abstract: In the “Carbon peak” and “Carbon neutrality” of the strategic objectives of the formulation, our country is also in full swing into the “Carbon” era. In the international carbon trading is a double-carbon target to follow the further link, in order to save energy and trade. The financial operations carried out by various institutions already include transactions related to carbon assets, and the financial activities of carbon assets and carbon financial operations are still in the process of being regulated in the form of financial accounting. Therefore, it is very meaningful to study the accounting treatment of carbon assets and carbon finance.

Keywords: Carbon Assets; Carbon Financial Accounting; Issues; Discussion

Introduction

The development of carbon trading in China from pilot market to national market shows that energy saving and emission reduction have reached a new development stage in China. The first phase of the “Carbon” target has ended the compliance cycle. Carbon assets, including national carbon allowances CEA, National Certified Emission Reductions CCE regional pilot carbon market carbon allowances, as an important carbon assets projects, has developed.

1. Carbon assets and carbon finance accounting overview

1.1 Overview of carbon assets

China's Carbon Asset Trading Scheme, proposed by the World Bank in 2006, was proposed by Wu Hongjie, a scholar, the carbon asset is a carbon emission right that is mandatory or a cap-and-trade project on the greenhouse effect of emissions, as well as on credits related to emission reductions. In financial accounting, the carbon asset is the enterprise through and the carbon resources related resources, through the carbon emissions trading mechanism to carry on the economic transaction. In the management of carbon assets, carbon emissions include the study of enterprises' carbon emissions themselves, the quantification of carbon emissions related to carbon assets and the quality assurance of data, carbon trading and compliance, carbon quotas, etc. , it's all part of the carbon asset system. Europe replaced its energy strategy with low-carbon technologies and implemented carbon asset management through MRV processes for carbon asset accounting. Carbon trading in the market, carbon asset management, through the use of life cycle in the carbon footprint, the whole process of control.

1.2 Financial accounting treatment of carbon assets

The assets in a company's balance sheet contain the subject matter of carbon trading, and the main content is the data related to carbon allowances and certified emission reductions. Financial assets and inventories, as the type of carbon asset on the balance sheet, are also intangible asset. Financial assets have the characteristics of market trading and pricing mechanism, so carbon assets should be based on fair value measurement, financial assets with trading nature. Some scholars argue that inventory is defined in the same way as the sale of a carbon abatement CDM (clean development mechanism) project, so it is inventory. Carbon assets in a business do not have a physical form, so intangible asset should include carbon assets. The national pilot scheme for carbon emissions trading adopts a "Dichotomy" for the main body of both the consumer and the investor to trade carbon assets^[1]. The concepts of “Environmental asset”

and "Investment environmental asset" should be applied in carbon asset financial accounting. In the CCER, the measurement and sale of carbon assets are recorded as a new carbon asset, which can be offset or sold according to the historical cost selected, or can also be a fair value, is a new type of asset that differs from financial assets and is intangible asset. According to this way of accounting classification, whether the measurement of carbon assets need to pay for the way of thinking to confirm the classification.

2. Carbon asset accounting treatment provisions and issues

Carbon assets in the accounting standards, has not yet formed a prescribed standard of treatment, in the "Interim Provisions on Accounting Treatment Related to Carbon Emission Trading" provides the practical operation of the accounting treatment of carbon asset activities issues.

2.1 Ministry of Finance document resolves part of the dispute

The Interim Provisions on the Accounting Treatment of Carbon Emission Rights Trading have adopted the category of "carbon emission rights assets"^[2] as the accounting and financial measurement of carbon assets, which has been confirmed, but the scholars have made two types of accounting treatment of carbon asset atmosphere, for the reason of whether to pay for the carbon assets when they are treated. See, do not need to do any accounting treatment for free carbon assets, but need to pay the actual financial carbon assets for the initial recognition of the value of the operation.

2.2 Carbon assets are not yet clearly measured over the holding period

In the Interim Provisions on Accounting Treatment Related to Carbon Emission Trading, the accounting carbon asset treatment of enterprises includes compliance, sales and write-off accounting operation process, all of which are required whether the carbon asset belongs to the category of free allocated carbon assets^[3]. If it is free, it is still not possible to carry out the accounting treatment operation, the purchased carbon assets for compliance, sales and write-offs, etc., then the non-operating expense processing. The accounting treatment is overwritten when carbon assets are managed using the publicly traded price at a point in time. The price of the carbon asset changes between the acquisition of the asset and compliance, but there are no regulatory requirements as to whether the enterprise has price fluctuations that are dealt with by the financial statements during the course of holding the carbon asset.

2.3 Failure to meet the needs of corporate carbon asset management activities

In accounting for the compliance of carbon assets, there is debate as to whether the light management of carbon assets should be accounted for in the carbon asset allocation process. There are also other financial activities related to carbon assets that arise when companies trade in carbon assets. In the national carbon pilot regional market, carbon finance has been developed and a variety of businesses have been launched in various institutions corresponding to carbon asset pledged loans, sold back, escrow, demat, funds and other types of products that can be used to preserve or add value to carbon assets. The accounting treatment of carbon finance is clearly lagging behind the development of carbon finance business and needs to be expanded and explored in a standardised way before carbon finance business can be bound to enter the ranks of standardised and standardised development.

3. Discussion of the measurement approach for the holding phase of carbon assets

The selection of the appropriate measurement approach for the financial accounting of carbon assets is divided according to how the carbon asset corresponds to the transaction or the purpose of the transaction.

The rule of financial accounting for carbon assets is that the book treatment is zero for carbon asset allocations where no transaction amount exists. In is yo stage, the balance sheet, the zero value treatment for the free allocation of carbon assets, which is a reflection of the fair value of the carbon assets, which requires another increase in the assets of the enterprise. In the accounting measurement of the value of the enterprise's assets, when the corresponding item of revenue is recorded at zero value, there will be a regulation of the revenue indicator, so this book fair value method of measurement is susceptible to the suspicion of being an alleged revenue operation enterprise. Carbon assets should adopt this cost measurement method of zero value book value treatment when carrying out free allocation treatment of carbon assets in the holding phase.

4. Suggestions for the accounting treatment of various types of carbon finance operations

4.1 Carbon asset pledge loan business proposed to be disclosed in the notes

In a loan application by an enterprise to a financial institution, carbon assets are pledged to the financial institution as a pledge loan, and no other collateral is required in this process. There are already a number of banks and trusts that operate this business. Carbon assets have become a pledge in the context of corporate pledge loans, broadening the range of pledges available to companies and providing a new financing option for companies.

The ownership of the carbon asset is still owned by the business after it has been pledged and does not require an accounting treatment that is reflected separately in the financial statements. However, the financial statements can be made to disclose information on carbon asset pledges in the notes to increase the reliability of the information disclosed and make the financial statements more credible.

4.2 Carbon asset escrow and unborrowing business proposed to learn from the treatment of operating leases

The carbon assets are held in a professional trust for the company, and the carbon assets are handled by a professional institution according to the agreement, and the institution returns the carbon assets after the agreed date of charter. The carbon assets are held in trust with a set escrow objective and the institution is entrusted with the return of the proceeds from the carbon asset management process. When a carbon asset holding company lends carbon assets to another organisation, it is required to agree on a return period and the status of the carbon asset, and must also receive a fee for the loan of the carbon asset. Custody and lending of carbon assets is still a relatively uncommon activity in the market, and as the carbon market has developed, more companies have become involved in this business.

The other two types of business are carried out by way of revitalising the stock of carbon assets, including the fact that there is no transfer of ownership of the carbon assets, but only a process of leasing and renting the assets, and in a similar way to rent. In the case of the custody and lending of carbon assets, the accounting treatment of operating and leasing assets allows for the management of the proceeds of carbon assets. Custody agreements with other professional bodies for carbon assets require the payment of a custodian fee to the professional structure, which also needs to be recognised by the business as a separate expense.

5. Conclusion

In conclusion, the carbon trading market in China is still slow to develop and the carbon asset market in developed countries, is already relatively mature. In many areas of China, the carbon market is still regional in nature, and there is still a gap between the carbon market and the national unified standard, which needs to go through an excessive period to have a systematic mechanism, which is an iterative process, in order to make the carbon asset management mechanism more complete. The core enterprises of carbon assets are the main enterprises in the energy industry chain, and the enterprises related to the national grid should actively contribute to the ecological construction of the main force in the process of carbon asset trading. Only when the carbon asset industry has developed, the corresponding carbon financial accounting treatment can be better developed, in order to rationalise the accounting treatment for the free quotas of carbon assets and the carbon assets that need to be dealt with by trading funds.

References

[1] Ma YN, Gao XM, Wu J. Research on the construction of carbon asset management system in oil and gas enterprises[J]. Finance and Accounting Communication, 2022(20):109-113.

[2] Zhao CL. Discussion on the accounting treatment of carbon assets and carbon finance [J]. China CPA, 2022(09):86-88.

[3] Qiu KX. Research on the participation of power grid companies in carbon trading and carbon asset management [J]. Electrical Engineering and Electricity, 2022(09):64-67.