

# The Influence of Low Carbon Economy on Corporate Social Responsibility

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## Abstract

Under low carbon economy environment, as the pioneer of implementing low carbon economy, corporations have to follow current tendency, change ideas, and take their social responsibility actively, so as to win new competitiveness and achieve sustainable development per se. Firstly, we illustrate the positive influence of low carbon economy on corporate social responsibility through elaborating the internal and external pressure that low carbon economy brings to corporations. Then we propose the approaches to be utilized by Chinese corporations to take social responsibility under low carbon economy background. Finally, we call corporations to do something and confront the challenge in low carbon economy age actively.

**Keywords:** Low carbon economy, Corporate social responsibility, Corporate benefits

## Preface

From global overview, great adjustment of relevant industries characterized by low carbon and changes of global specialization structure are coming soon. U.S.A., Japan and Europe have invested enormously in low carbon industry field. And the emerging economies like China, Brazil and India also take low carbon economy as a new increasing point of future economy in the ascendant. China has the most carbon releasing, therefore, it is very important to change traditional production- and living modes and reduce carbon releasing for future China's sustainable development. Specially, as for Chinese corporations, some of the key links among global industrial chain, along with a new low carbon economy tidal wave, if they want to win low carbon competitiveness, they have to expedite changing production mode actively, simultaneously make every effort to take new corporate social responsibility in low carbon age, and achieve long-term development.

## 1. Low Carbon Economy and Corporate Social Responsibility

### 1.1 Low Carbon Economy

Low carbon economy primarily emerged in British energy white paper in 2003, "Our energy's future: creating a low carbon economy", which is the green economy based on low energy consumption and low pollution. The

core is to promote whole social economy to transform into high energy efficiency, low energy consumption and low carbon releasing. Definitely speaking, the development mode of low carbon economy is based on “low- and high in three aspects respectively” (low energy consumption, pollution and releasing and high effectiveness, efficiency and benefits), directed on low carbon development, with reduction of energy and releasing as development mode and with carbon counteraction technology as development method.

Low carbon economy derives from late 20<sup>th</sup> Century. Its symbol is “United Nations Framework Convention on Climate Change” Kyoto Protocol constituted on whose third conference in Japan in Dec. 1997. And in Dec. 2009, the Copenhagen Conference was held, whose main topic is to study out a new climate agreement to take over expiring “Kyoto Protocol” and confront the influence of world climate change in new century on human living environment. The Copenhagen Conference intimates the coming of low carbon economy age.

### *1.2 Corporate Social Responsibility*

Corporate social responsibility (CSR) means, when corporations create profits and take law responsibility for shareholders, they need to be responsible for staff, consumers, community and environment. CSR require corporations to transform the traditional idea, i.e. a single target—profit, but emphasize on the value of human during production process and on the contributions to consumers, environment and society.

Traditional CSR consists of the followings: (1) Economic responsibility. Corporations provide society with goods, services and employment opportunity, and contribute to national economic development. (2) Obey laws. Corporations represent good models on obeying laws and regulations, running with honesty and credit and constructing law-dominated society altogether. (3) Ethics and charity responsibility. Corporations help weak populations and improve social welfare.

After 1960s, with the emerging of international environmental protection movements and sustainable development ideas, reduction of energy consumption and environmental protection are also classified into the scope of CSR. Entering 21<sup>st</sup> Century, along with global climate change and low carbon economy coming up, the CSR reports of many multinational corporations center on staff, community responsibility and so on as well, gradually switching to contents relevant to environmental protection and carbon releasing.

Before Copenhagen Conference in 2009, Chinese government promised to reduce carbon releasing per GDP by 40-45% of 2005 by 2020. This promise will impose most of the responsibility on corporations. When the internal- and external environment of corporate development changes, corporations need to adjust their own development strategy in time according to the changing environment. They should be with the tendency and take the new social responsibility of low carbon and environmental protection in new age, so that they could achieve long-term development.

## **2. Corporate Pressure to Take Social Responsibility under Low Carbon Economy Background**

### *2.1 External Pressure by Carbon Economy*

#### *2.1.1 Financing Pressure*

It is well known that finance industry is regarded as the main force of modern economic development. Under low carbon economy, some departments of Chinese government have established new policies on environmental protection continuously. Since 2007 some green financing products have been brought out, such as green credit, green insurance, and green security. In July 2007, Ministry of Environmental Protection of China, the People’s Bank of China and China Banking Regulatory Commission issued “Proposals on Implementing Environmental Protection Policy and Preventing Credit Risks” together, which is an important political document on green credit to restrict the expansion of high energy consumption and high pollution. In November of the same year, China Banking Regulatory Commission issued “Proposals on Enhancing the Social Responsibility of Banking and Financial Organizations”, which declares saving energy, protecting and improving natural environment are the essential social responsibilities that banking and financial organizations should take.

Under the background of low carbon economy, finance industry gradually steps into green finance, which will direct corporations to a way of clean production and green production.

#### *2.1.2 Pressure from Industrial Adjustment*

Low carbon economy will transform modern industrial civilization into ecology civilization and initiate epoch of human economic development. The industrial development of China will surly step along new-pattern industrialized road and promote optimization and upgrading of industrial structure, as well as the transformation of growth mode. Low carbon economy will urge economic structure to switch from present energy consumption and extensive pattern to energy saving and intensive pattern, which will result in a change of social industrial

structure layout. Definitely speaking, inferior corporations with high investment, high energy consumption, high pollution, low benefits will certainly be washed out. And low carbon industrial cluster will be formed finally. Therefore, corporations have to make strategic adjustment and expedite reform, reorganization, and reconstruction so as to adapt a new round of industrial structure adjustment.

### 2.1.3 Pressure from Consumption Transformation

The pressure from consumption transformation represents two aspects: change of consumption concept and improvement of consumption environment. As for consumption concept, low carbon economy leads industrial civilization to ecology civilization, and “green consumption”, “healthy consumption” and other new consumption concepts will penetrate into hearts gradually. So when consumers select products, they are tending to consider their production mode, energy consumption and other factors which may affect corporate traditional production. With regard to consumption environment, the development requirement of low carbon economy promotes the government to establish good consumption environment for low carbon products. One hand, Chinese government is constructing the growth mode and consumption mode of energy saving and ecology environmental protection through establishing and consummating license system of discharging pollutants and indicial system of reduction of energy and releasing. On the other hand, Chinese government also will advance social civilization to improve consumption environment, figure ecology environment and encourage ecology consumption. Thus, corporations have to reestablish corporate culture in order to adapt and get involved in the ever changing consumption environment.

### 2.1.4 Pressure from Carbon Tax Domestically and Internationally

Carbon tax is imposed on carbon dioxide releasing during production, transportation and other processes of products. Along with human’s ever deeper view on climate change, the voice on imposing carbon tax domestically and internationally is bigger.

From global point of view, “Clean Energy Security Act of America” passed by American Boule on Jun. 26<sup>th</sup>, 2009 stipulates America has the right to impose carbon tariff on the imported products from the countries without reduction quota of releasing carbon, including China. In June of the same year, French government also formally declared they are about to establish scheme of imposing carbon tax on energy dissipation products, which will be implemented by 2011. In China, on Sep. 18<sup>th</sup> 2009, Chinese Energy Research Institute National Development and Reform Commission issued “Chinese Energy and Carbon Releasing Report by 2050” which makes suggestions and analysis on Chinese carbon tax, carbon releasing reduction system and so on. Subsequently, a report from Research Institute for Fiscal Science, Ministry of Finance of China, sponsored by Energy Funds of China, “On China Imposing Carbon Tax”, claims China may consider imposing carbon tax in five years, and also proposes definite framework of carbon tax system.

Imposing carbon tax seems to be an inevitable result, however, the influence of that on all corporations, especially plenty of Chinese corporations with high pollution and high energy dissipation, is huge as every process of corporations, such as production, transportation, sale, is likely to be listed on carbon tax scope.

## 2.2 *Internal Pressure from Low Carbon Economy*

### 2.2.1 Social Responsibility Correlates with Corporate Public Image

According to a poll by Hill and Harris, most of American people will measure the social responsibility influence of a product when buying it. High to 79% of people will consider the behavior of corporate social responsibility, simultaneously, 36% of them think that is an important factor influencing their purchase. Obviously, only focusing on social responsibility, corporations can establish their own brands in long-term development; only proving society with high-quality products and services, and showing good corporate image to consumers, corporations can gain return and approval from society and consumers. Regarding the above good circulation, corporations will be the final beneficiaries.

### 2.2.2 Social Responsibility correlates with Corporate Human Resource

The development of corporations is tending to depend on the initiative and creativity of staff. So during corporate growing, human capital is the basic source of corporate competitiveness. For the talented persons, what attracts them is not only salary and individual development, but also corporate good social image. At the same time, corporate taking social responsibility can promote corporate culture establishment and show corporate sense of mission and of duty, furthermore, form strong agglomeration and attraction. Therefore, the corporations which take social responsibility actively are easier to obtain and keep excellent staff, so that they could fulfill long-term and healthy development.

### 3. Positive Effects of Low Carbon Economy on CSR

Developing low carbon economy is not only the approach to accomplish CSR, more significantly, it brings increasing corporate profits as well, so CSR and corporate benefits are both gained. We shall elaborate and analyze from the following three perspectives.

#### 3.1 Conformity between Innovation of Developing Low Carbon Economy and Corporate Benefits

J.A. Joseph Alois Schumpeter, an American economist, once pointed out that profits derive from innovation. In order to develop low carbon economy, corporations are necessary to induct new products of less energy dissipation, apply more intensive production mode, explore low carbon market, and look for more energy saving material source, therefore, developing low carbon economy is undoubtedly an innovative representation.

When corporations develop low carbon economy, they will emphasize preventing resource destroy and environmental pollution from the head of production process, and consider resource saving, castoff avoidance or reduction systematically on every strategy of that. One of the corporate innovations rests with producing green products whose production and utilization run through the whole low carbon economy and are the important links of low carbon economy and key factors of transforming industrial development mode. Corporations reduce using materials by producing products in order to accomplish optimized production and maximum recycling resource. Thus they could achieve reduction of energy and releasing, and also environmental pollution, at the same time, accomplishes optimal benefits on economy, society and ecology.

NEC is a multinational corporation, including commercial companies, telecommunication service, governmental IT and network products. It involved reduction of energy and releasing into corporate production and operation as its own mission in 2002. It reduced its direct carbon dioxide releasing in production and produce energy-saving goods to make consumers reduce carbon releasing. So this mode not only cuts cost for NEC, but also makes NEC products more competitive in the market. NEC has ranked first for two continuous years and by 12% market share among global telephone equipments in 2007.

As for the development mode of NEC on low carbon economy, its control on the direct carbon dioxide releasing in production is the introduction of a new production mode; its producing energy-saving products to make consumers reduce carbon releasing is the introduction of a kind of new product and exploitation of a new market. Finally, it continued to hold the champion of market share of global telephone equipments, which also effectively proves the conformity between innovation and corporate benefits on developing low carbon economy.

#### 3.2 Conformity between Uncertainty of Developing Low Carbon Economy and Corporate Benefit

Current society is mostly optimistic to prospect of low carbon economy, regarding it not only as contribution to human society, furthermore as a unique opportunity for global economic development. Meanwhile, possible resistance on developing low carbon economy is also noticed. Especially, this economic mode just starts and involves enormous investment, which adds some uncertain factors for it. However, the uncertainty of low carbon economy could probably create more benefits.

Frank Hyneman Knight, American economics professor, proposed in "Risks, Uncertainty and Profits" in 1927, that profits come from uncertainty. If market is certain, all the income corporations get from consumers will become social opportunity cost. Here, price is equal to sum of cost without any profit.

Although Knight focused on "profit", obviously benefit is more extensive than profit. When corporations obtain profits, they must get benefits as well. On developing low carbon economy, corporations could be conservative, or go ahead of other competitors. Obviously, the latter choice means encountering more uncertainties. In other words, directed by right decision and management, they should obtain more benefits surely.

#### 3.3 Developing Low Carbon Economy Brings Corporations with Brand Effect

It is well known of the brand effect on corporate benefit. Corporations can raise customer loyalty and governmental support by good brand image. Currently, it is easier for low-carbon-economy corporations to establish good public image compared to the corporations with high releasing and dissipation. So they can further more extensive market and capture market share so as to establish stable base for corporate benefits.

Regarding direct effects of low carbon economy on brand marketing, besides possible carbon tax discussed again and again by officials, the changes of global consumption values should be concerned by all brand managers. With low carbon economy tendency, some consumption values usually proclaimed in traditional brand marketing, such as showing off luxury and style, are likely to be embarrassed and put under the public magnifier of reducing energy and releasing, becoming the market poisonous drugs. Because the public has realized consumption can't be so casual to just satisfy individuals. Unreasonable and excessive consumption will leave too many troubles to

offspring. Therefore, “responsible consumption” will increasingly become global popular consumption values, which will influence all products, from luxury to fast moving consumer goods, without any exception. We take Britain, with strong consciousness of reducing dissipation, for example. An investigation result at the end of 2008 shows over two-third public in Britain prefer to purchase the products whose companies actively participate reducing energy and dissipation. In recent years, American Hollywood film stars greatly pursue gas-electricity mixed cars, which represent “low-carbon luxury” will replace “low-key luxury” step by step, and become a new value of top consumption.

Through the above theoretical and empirical analysis, we acknowledge CSR and corporate benefits are not conflict, on the contrary, they are complementary with conformity which is more obvious and outstanding in low carbon economy.

#### **4. CSR Approaches on Developing Low Carbon Economy**

Currently, China has become the most carbon-releasing country in the world. Chinese corporations are the subjects of carbon releasing, representing low carbon economic benefits individually. When implementing low-carbon social responsibility, they should start from the following aspects.

##### *4.1 Develop Industries Friendly to Environment and Attach Importance to Low-Carbon Technology Innovation*

Every corporation needs to attach high importance to early investment, sufficiently use established clean-development funds and Chinese green carbon funds, set up long-term development layout and actively exploit and use high-efficiency and low-carbon producing technology. Corporations also should construct alliance platform for innovation of carbon technology in time, so that they could grasp technology on developing low carbon economy and relevant technology. Meanwhile, they can share resources, study together, extend productive technology chain, and then promote the transformation to low carbon.

##### *4.2 Encourage Management and System Innovation, and Form Good Green Production Atmosphere*

Corporations should implement innovations on production, circulation, consumption and recycle of products. Producers need to carry out not only clean production on manufacture stage, but also consider the effects of other stages of life circle on environment. They are supposed to increase using efficiency of resource and energy, and construct green production value of the whole process, including design, material purchase, manufacture, transportation & selling, consumption and recycle.

##### *4.3 Strengthen Healthy Interaction with Consumers and Promote Green Business Development*

As we all know only when green products and services are purchased and consumed by consumers, corporate green cost of production, selling and service can be complemented sufficiently, and profits are achieved. Corporations need to enhance disseminating green products on producing and selling, popularize relevant environmental protection knowledge, strengthen public environmental protection responsibility, and then drive market to promote the productive recycle of green-business society running continuously. It is obvious that the active interaction between participators is the durable power for healthy development of green business.

##### *4.4 Conform to Internationalization Actively*

If Chinese corporations are eager to win in international competition in low carbon economy age, their carbon releasing must be consistent with international standard, such as the carbon label on package, stating carbon releasing on production and selling process. Chinese corporations also need to strengthen technology communication and cooperation with the corporations of developed countries, especially EU and U.S.A. whose carbon abatement technologies rank first in the world, and introduce and digest energy saving and carbon abatement technology. They should exploit and enhance the cooperation with western corporations and non-governmental organizations to discover new cooperation mode for sustainable development.

##### *4.5 Emphasize on Cultivation of Corporate Culture*

Corporate culture is corporate spirit. Corporations should take corporate culture as a new element, construct corporate low carbon culture, and implement low carbon everywhere in the corporations. They have to strengthen staff training on low carbon knowledge based on their own internal and external conditions, penetrating clean production, energy saving and carbon abatement, green products and other relevant concepts into staff's value.

##### *4.6 Try for Policy Support on Developing Low Carbon Economy from Government*

In order to accomplish transformation of low carbon economy, besides corporate own efforts, corporations also need to make good use of governmental policy guidance to try for policy favor to clean production and recycling

low-carbon corporations, like subsidy and tax reduction. They should take advantage of governmental expanding rate fluctuation space of commercial banks on low carbon corporations, to provide business credit guarantee, and promote governmental financial organizations to offer financial favor policy for clean and low carbon corporations. So that it can encourage corporations to reduce carbon releasing, obey environmental law, and operate green products and services. Furthermore, they have to request government to establish carbon funds to encourage R&D of low carbon technology. The investment of carbon funds can promote breaking the key technology of low carbon and expediting the commercialization of technology.

## 5. Conclusion

Low carbon economy is a new economic mode or living mode that human transforms from industrial civilization into ecology civilization. It will essentially influence society, economy and corporations. Under the environment of low carbon economy, corporations are the subjects of implementing low carbon economy, the most direct individuals of representing low carbon economic benefits, and the base of constructing low carbon economy. As for corporations, transformation into low carbon economy is a good opportunity to raise productive efficiency, reduce cost, establish corporate public image and fulfill sustainable development. As the cells of national economy, only corporations change their ideas, take social responsibility, make good use of all kinds of resources and carry out low carbon production, national energy structure and economic structure can be adjusted subsequently, and China's economy can get rid of the restriction of traditional production mode and development mode, and then transform into low carbon economy.

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