



CUE2016-Applied Energy Symposium and Forum 2016: Low carbon cities & urban energy systems

The role of green finance in environmental protection: Two aspects of market mechanism and policies

Yao Wang^a, Qiang Zhi^{a*}

School of Government, Central University of Finance and Economics, Beijing, 100081

Abstract

Green finance is a new financial pattern to integrate environmental protection with economic profits, emphasizing “green” and “finance”, two of which are controversial issues. This paper probes into the status quo of green finance in the field of renewable energy and finds out some inadequacies. We devote attention to development of market mechanism and formulation of policies. By revealing the internal contradictions between green finance and environmental protection, we propose solutions intrinsically for better achievement of ecological balance.

© 2016 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Peer-review under responsibility of the scientific committee of the Applied Energy Symposium and Forum, CUE2016: Low carbon cities and urban energy systems.

Keywords: green finance; renewable energy; market mechanism; policies

1. Introduction

Green finance is a phenomenon that combines the world of finance and business with environmentally friendly behavior. It is an arena for many participants, including individual and business consumers, producers, investors, and financial lenders. Green finance can be expressed differently depending on the participant, and it may be led by financial incentives, a desire to preserve the planet, or a combination of both. Contrary to the traditional financial activities, green finance emphasizes more on the ecological environment benefit and pays more attention to environmental protection industry.

The study of green finance in academics currently is more concerned with simple concept and lacks detailed studies of green finance regarding to mechanism exploration, market research and so on. Based

* Corresponding author: Zhi Qiang *E-mail address:* zhiqiangthu@qq.com

on the review of previous research, this paper highlights the development of green finance, and raises problems and contradictions existing in the application of green finance. From the aspects of market and policy, we explore and reveal how green finance helps us to achieve ecological balance.

2. The status quo of green finance in the field of renewable energy

Presently the researches on energy concerning with green finance are more theoretical in interpretation, basically from the aspect of single energy in the energy industry, such as natural gas, oil, wind power, solar energy and so on. It is worth for us to explore how to reduce the risk and cost of financing through the means of green finance, perfect the financing mechanism and support the development of renewable energy industry.

For years, an ignored factor restricting the development of solar energy is the lack of appropriate financing system. The financing system should consider renewable energy processors and demand of users in order to better promote the extensive use of renewable energy.

The electricity cost of Renewable Energy Technologies is closely related to the cost of financing. Continued competitive electricity market will change the electricity power in the future and cause potential impact on renewable energy structure. It is believed that fierce competition can reduce the burden of the financing of renewable energy projects, thus achieving the goals already set for renewable energy.

The financial sector's support for wind energy can be discussed from the following several aspects: from the standpoint of bank, financing needs rational utilization of funds within a certain amount of time; financial instruments must be matched with the development of science and technology progress and financing needs of renewable energy; energy security law and energy fund accord with political objective in order to better promote the development of energy industry.

However, there is no research on the linked development of energy industry and financial industry and no specific analysis of the internal mechanism regarding to connection, mutual penetration and mutual influence between the two industries.

3. The market mechanism of green finance

Green finance market includes market-oriented mechanism and financial products that can control pollution emission, realize the ecosystem and avoid enterprises from unexpected nature change; the former is represented by emissions trading and the latter has various types, such as environmental funds, weather derivatives, nature-linked securities and ecological options, etc.

3.1 Emissions trading market mechanism

Establishing emissions trading market should meet three premises: first, the total amount of emissions trading in the region; second, the initial allocation of tradable permits amount; third, sufficient market information shared among emissions trading parties. In addition, the establishment of an emissions trading market includes the transaction subject, transaction procedure and how to manage and regulate the market, etc.

One of the famous cases that environmental regulators use financial market mechanism to solve the problem of air pollution, water pollution and the problem of biodiversity is that Slovak government and Japan's Sumitomo corporation signed the deal of emissions trading of 200000 tons in 2002; the deal is regarded as the start of global emissions trading market.

Download English Version:

<https://daneshyari.com/en/article/5446380>

Download Persian Version:

<https://daneshyari.com/article/5446380>

[Daneshyari.com](https://daneshyari.com)