



**University of
Zurich^{UZH}**

Department of Banking and Finance

Prof. Dr. Marc Chesney

Bachelor Thesis

The EU Emission Trading Scheme and its impact on the development of renewables

Submitted by:

Sandro Benz

Supervisor:

Prof. Dr. Marc Chesney

Jonathan Gheyssens

Date of submission:

01 February 2012

Abstract

Climate change caused by humans due to the emission of greenhouse gases into the atmosphere can be seen as one of the biggest market failures in our history. Although this problem has been recognized decades ago, measures to stop global warming have only been implemented recently. Therefore the EU has set up the world's largest emission trading scheme (EU ETS) with the ultimate goal to reduce CO₂ emissions. Abating emissions substantially while still providing enough energy for the world's growing population is a major issue today. Solutions to this are renewable energy sources that both cause no greenhouse gas emissions and provide electricity. Hence this thesis will investigate the influence of the EU ETS on the development of renewables. By first analyzing the EU ETS' design and characteristics, it becomes obvious that the emission permit allocation method and process are crucial to establish a price on carbon that maintains the environmental effectiveness of the cap-and-trade system. Decentralized grandfathered allowances and a resultant low CO₂ emission price only brought about moderate emission reductions for the first (2005-2007) and second (2008-2012) trading periods. Thus, as it is examined in the second part of the thesis, the EU ETS creates only few incentives to spur the development of renewables. In addition, it turns out that supportive measures and policies are necessary in order to accelerate the deployment of fossil fuel alternatives and to protect firms from spillovers derived from investments or R&D activities low-carbon technologies.