

Study on the Domestic and International Implementation and Review Models of Project-based Greenhouse Gases Reduction Act

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ABSTRACT

In recent years, climatic variation problems caused by greenhouse gas have become the global biggest environmental issues, in particular after the Kyoto Protocol became effective, which urged international communities to develop various emission reduction mechanisms and norms actively. At this time, if Taiwan could follow the international trend of development, study and determine the domestic emission reduction considerations and norms, as well as assist industries to develop emission reducing activities, it is no doubt that Taiwan's industrial competitiveness would be upgraded and the goal of sustainable developing would be achieved. In this study, the international planned reduction activities for emission, including the UN Clean Development Mechanism and Joint Implementation, the Voluntary Carbon Standard from International Emissions Trading Association and ISO 14064-2 standards were collected and studied, and the case analysis of international emission reduction was cooperated with to draw up the questionnaire. By then, through the application in Analysis of Hierarchy Process, statistical analysis and Importance-Performance Analysis, to discuss the views and recommendations from various experts, which were of considerations and norms about domestic initial reduction plan, as well as the management measures and coping strategies of domestic industries, which were of issues about greenhouse gas reductions; finally, based on the analysis results, the short, medium and long-term practicable reduction plans and management strategies and suggestions were advanced. Through the results of study and analysis, following conclusions were summarized: 1. At present, the promotion of clean development mechanism has had the most results among international communities; it has the most stringent standards for relevant implementations, and became the reduction mechanism with most countries involved in actively. As VCS standards is applicable to countries and regions without the application of the Kyoto system, so there is a considerable application potential for Taiwan companies. And because the ISO 14064 and ISO 14065 series standards have international recognition features, so they are the third party verification norms with the most consensus, which are widest used by the countries around the world. 2. Among the 15 kinds of plans in UN CDM, nowadays, the plans about energy industry are the most in Scope 1, hereinto, related power generation plans of renewable energy has the highest proportion; according to the study results, as to the extra dissertation part, the dissertation contents focused on such three items as legal norms recognition, investment analysis and the universality, so as to demonstrate the proposed project comply with the requirements from extra regulatory of CDM. 3. Most experts agreed with promoting the voluntary reduction plan in domestic industry at this stage, it should be implemented in a gradual manner, that is, set corresponding measures according to different management objectives; they also suggested that, set the domestic reductions mechanisms and standards based on CDM and voluntary carbon standard. And in the future, cooperate with the national development policy and the status of industry implementation to modify gradually, so as to meet the requirements of international specifications. 4. As to the coping status of greenhouse gas reduction issues, most industries collect relevant information, waiting for the planning and implementation from government, and do the greenhouse gas inventory and reduction on their own, so as to cope the possible control requirements about total from greenhouse gas reductions law (draft) in the future. 5. According to the results of importance-performance analysis about the six major dimensions of greenhouse gas issues, if the dimensions with reduction measures or technical dimensions and other types of management activity dimensions fall on the first quadrant, which is in the range with improving priority, it is the dimension to be assessed and improved with priority in each industry. 6. On the aspect of reduction technologies, the short-term planning of each industry can implement related equipment update and plan improvement, the medium-term planning can implement development plans for related renewable energy, long-term planning can implement related settings and improving plans for energy-saving equipments. On the aspect of management strategies, he short-term planning of each industry can set related improving strategies for energy efficiency, the medium-term planning can set related strategy for participating in activities of international reduction communication, and the long-term planning can set related strategy for resource conservation. Keywords: greenhouse gases, Clean Development Mechanism, planned reduction activity, Analysis of Hierarchy Process, Important-Performance Analysis

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Table of Contents

封面內頁 簽名頁 授權書 中文摘要 英文摘要 誌謝 目錄 圖目錄 表目錄 第一章 緒論 1.1研究背景 1.2研究動機 1.3研究目的 第二章 文獻回顧 2.1全球各國溫室氣體管理現況 2.1.1國際「公約」與「議定書」之發展進程 2.1.2全球各國溫室氣體自願減量發展趨勢 2.1.3國內溫室氣體管理現況 2.2國際標準規範ISO 14064-2標準研析 2.2.1發展背景 2.2.2國際標準規範ISO 14064系列標準內容簡介 2.2.3 ISO/CNS 14064-2標準規範內容研析 2.3清潔發展機制之發展與研析 2.3.1前言 2.3.2清潔發展機制(CDM)?基本背景 2.3.3 清潔發展機制(CDM)?計畫執行程序 2.3.4清潔發展機制(CDM)?方法研析 2.3.5清潔發展機制(CDM)?發展方向 2.3.6清潔發展機制(CDM)?計畫發展現況 2.4共同減量機制之發展與研析 2.4.1前言 2.4.2共同減量機制(JI)?基本背景 2.4.3共同減量機制(JI)?計畫類型 2.4.4共同減量機制(JI)?計畫管理機制 2.4.5共同減量機制(JI)-執行流程 2.5自願性碳標準之發展與研析 2.5.1自願性碳標準(VCS) ?運作目的 2.5.2自願性碳標準(VCS) ?減量額度認可原則 2.5.3自願性碳標準(VCS) ?減量計畫登錄程序 2.5.4自願性碳標準(VCS) ?方法引用與雙重查驗程序 第三章 研究方法 3.1研究架構與流程 3.2研究方法理論 3.2.1文獻分析法 3.2.2分析層級程序法(AHP) 3.2.3 SPSS統計分析 3.2.4重要-績效分析法 3.3研究對象 3.4問卷設計 3.4.1專家問卷 3.4.2產業問卷 第四章 國際間溫室氣體減量方法與案例探討 4.1能源效率提升方法研析 4.1.1整合性基線與監測方法ACM0002 4.1.2小規模CDM方法AMS-II.B. 4.1.3小規模CDM方法AMS-II.E. 4.2 能源效率提升案例研析 4.2.1大規模能源效率提升計畫 4.2.2小規模能源效率提升計畫 4.3溫室氣體減量計畫外加性研析 4.3.1溫室氣體減量計畫簡介 4.3.2溫室氣體減量計畫外加性研析 第五章 我國產業因應溫室氣體管理與減量現況之調查與研析 5.1專家問卷分析 5.1.1專家基本資料填寫 5.1.2溫室氣體減量計畫外加性評比 5.1.3溫室氣體減量計畫審議程序之看法與建議 5.2產業問卷分析 5.2.1廠商基本資料分析 5.2.2企業對於溫室氣體議題之管理與認知現況 5.2.3企業因應溫室氣體議題之減量策略 5.3企業因應溫室氣體議題之減量策略分析與討論 第六章 結論與建議 6.1結論 6.2建議 參考文獻 附錄A 專家訪談問卷 附錄B 產業調查問卷 附錄C 整合性基線與監測方法ACM0002 附錄D 小規模CDM方法AMS-II.B. 附錄E 小規模CDM方法AMS-II.E. 附錄F Project 0878案例研析 附錄G Project 0686案例研析 附錄H 減量計畫外加性案例研析 附錄I 專家訪談內容開放譯碼表 附錄J 各產業SPSS統計分析結果

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