

<b>Thesis Title</b>	<b>Perception of Stakeholders on the Required Policy Measures for the Improvement of the Energy Performance of Greenhouses</b>
<b>Programme of Studies</b>	MSc in Energy Systems and the Built Environment
<b>Course</b>	MES 580 Master Thesis
<b>Area of Study</b>	Energy Policy
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<b>Short Description</b>	<p>The agricultural sector is one of the main greenhouse gas (GHG) emitters worldwide. According to a report entitled Cool Farming published by Greenpeace the total global contribution of agriculture to greenhouse gas emissions represents between 17 and 32% of all global human-induced GHG emissions. The main sources of agricultural greenhouse gases include nitrous oxide from soils, methane from cattle enteric fermentation, biomass burning, rice production, fertiliser production, irrigation and land conversion to agriculture. Although the importance of the agricultural sector in mitigating the negative impacts of the global warming is inevitable, the European acquis has still not adopted a comprehensive policy on the energy efficiency of this sector. Directive 2010/31 on the energy performance of buildings excludes agricultural buildings from the minimum energy requirements. Also the directive 2012/27 on the energy efficiency does not set any requirements for the agricultural sector.</p> <p>The purpose of this study is to report the perception of stakeholders on the necessity for developing and implementing a comprehensive policy framework for the energy performance of greenhouses. In terms of this study, interviews with 15 stakeholders were conducted focusing on their view in the promotion, development and adoption of greenhouse that use less energy and produce fewer greenhouse gases. The stakeholders were identified by defining the authorities that affect the greenhouse design, the parties that are affected by the greenhouse performance as well as other parties that are interested in this subject. The information was gathered with the use of an open format questionnaire and the responses were post processed using linear regression, revealing trends in the perception of the stakeholders on this issue.</p> <p>Through this process it was revealed that the majority of the stakeholders does not have a clear view on the actual energy performance of greenhouses. The process also revealed the joint approach of the majority of stakeholders on setting minimum standards concerning the exploitation of renewable energy sources to cover the energy demands of greenhouses, with a trend on solar energy and biomass. The process also revealed some other interesting aspects, including suggestions for additional taxation on producers that do not follow best environmental practices in their greenhouses. The findings of this study are anticipated to provide useful feedback on the development of a European policy on the minimum energy requirements of greenhouses.</p>