The international and European environmental regulation of marine renewable energies in the EU

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Abstract

Marine renewable energies (MREs) have become a priority in the EU in particular due to their potential contribution to mitigating climate change and providing competitive, affordable and secure energy. The exploitation of MREs gathered momentum in the EU with the Communication on offshore wind energy in 2008 and the Blue Energy Communication on ocean renewables in 2014. However, the deployment of MREs and the growth of the related industry can pose severe environmental risks to marine ecosystems. The installation, maintenance, operation and decommissioning of MREs, as well as the energy transmission to the grid and the development of the related industry, could compromise the protection of the marine environment. In addition, the conservation and preservation of the environment are among the EU's objectives, so that the development of MRE technologies should be sustainable and integrate environmental requirements.

Against this background, this thesis provides a comprehensive legal study regarding the international and European environmental regulation of MREs in the EU. Notably, the major objectives are to analyse the strengths and weaknesses of the international and European environmental law instruments on the protection of the environment against the impacts of MREs and to explore recommendations to strengthen protection.

The thesis demonstrates that the international and European environmental regulation of MREs in the EU provides a legal framework that is capable of protecting the environment against the impacts of MREs but needs to be further developed and specified in order to ensure protection. Moreover, the study shows that legal coordination between instruments can strengthen their ability to provide environmental protection. The analysis leads to the conclusion that considering MREs as projects subject to compulsory environmental impact assessment (EIA) under the EIA Directive and the consideration of key environmental obligations during the EIA process would strengthen the protection against the impacts of MREs.