A supra-national TSO to enhance offshore wind power development in the Baltic Sea? A legal and regulatory analysis - DTU Orbit (11/10/2019)

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Offshore wind power development is expected to play an important role in meeting the EU climate targets. To integrate offshore wind power, advanced offshore infrastructures such as meshed grids are suggested to optimise the grid development. Meshed offshore grids refer to integrated offshore infrastructure where offshore wind power hubs are interconnected to several countries as opposed to radial connection linking the wind farm to one single country and market. However, development of meshed architectures is hindered by the legal and regulatory barriers.

Earlier research has identified the lack of cooperation and misalignments in national legal and regulatory frameworks as being the main risk factors in integrated offshore network investments. The purpose of this article is to investigate whether a supra-national TSO could facilitate regional cooperation and coordinated investments to develop meshed offshore grids.

Several studies have discussed the case of North Seas, but the Baltic Sea region has had less attention despite the large offshore wind development potential. In this paper, a multi-disciplinary approach combining legal dogmatics and regulatory economics is used to identify the existing barriers and the possible solutions. The Baltic Sea countries are used as illustration. We suggest legal and regulatory recommendations that comply with the EU energy policy targets of sustainability, competition and reliability.

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