A review of the Croatian legislation regarding the possible exploitation of renewable energy sources at sea

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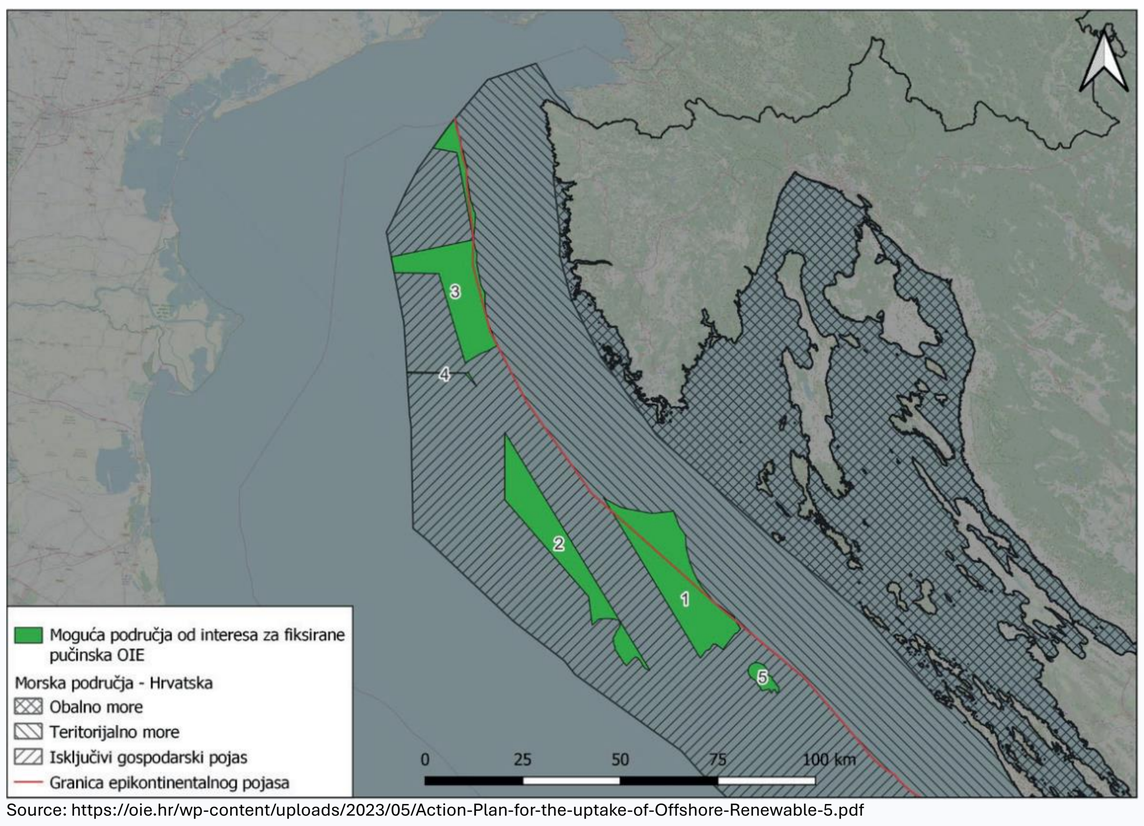
Introduction

In Croatia, energy production using the sea and wind is usually mentioned in relation to the EU's endeavors for the „climate-neutral future". The Action Plan for the Uptake of Renewable Energy Sources at Sea in Croatia (the Action Plan), from 2023, aims at both the territorial sea and exclusive economic zone (EEZ). By declaring its EEZ in 2021, Croatia acquired the right to exploit offshore renewable energy sources (ORES) and the jurisdiction over artificial islands, installations and structures. The Adriatic Sea is a semi-closed and shallow sea with a sensitive ecological balance. Thus, a possible introduction of new activities and associated infrastructure must be founded on a comprehensive analysis of their influence on the marine environment and other maritime activities. Legal aspects of such activities and infrastructure are of particular importance, which relates to the newly acquired sovereign rights of Croatia in the EEZ, too.



Source: https://oie.hr/wp-content/uploads/2023/05/Action-Plan-for-the-uptake-of-Offshore-Renewable-5.pdf

Objectives

The primary objective of this research is to contribute to defining what legal framework is necessary for a possible exploitation of ORES in Croatia, and whether the existing legal rules are adequate. A subsidiary objective of the research is to stimulate a meticulous assessment of all risks, to point out the regional dimension of the EU's approach to such projects and to stand up for deliberation, protection and realization of Croatian national interests.

Materials & Methods

This research starts from the analysis of the content and projections of activities and necessary infrastructure related to ORES, based on Croatian and foreign expert and scientific literature, video-materials and computer animations. Neither the United Nations Convention on the Law of the Sea (UNCLOS) nor the Croatian Maritime Code (Pomorski zakonik – PZ) contain a definition of artificial islands, installations and structures. Therefore, we analyze international legal literature, states' practice as well as the PZ rules on various maritime objects. In addition, we analyze and compare various other definitions and terminology used in Croatian sub-laws enacted under the auspices of various departments. Furthermore, the analysis touches upon the content of criminal law and laws on coast guard, research and exploitation of hydrocarbons, obligations, mining, spatial planning, etc.

Source: www.grow-offshorewind.nlnewsitemadvancing-multi-use-in-offshore-wind-farms#show_1

Results

Production of electricity using wind requires wind turbines and submarine cables to connect them to substations equipped with transformers, or to so-called energy (artificial) islands, and further to natural islands or mainland. Energy islands can also host installations for desalinization of seawater, production of „green" hydrogen, ammonia, etc. Pipelines can be laid, too, while refueling of vessels can be enabled at offshore objects where the fuel is produced. Consequently, all that can further require auxiliary objects (even heliports), water and fuel tanks, maintenance of installations, docking of ships, transportation and lodging for the workforce, waste management, etc. Wind turbines can have foundations on the seabed, but can be of a floating type, too. However, even floating wind turbines must be, in a looser or tighter way, tied to the seabed, which depends on their size, wind conditions, sea depth, waves and currents power, and the geology of the seabed. An important advantage of floating wind turbines is their assembling at land and towing to desired operating location (and back, for maintenance). As neither UNCLOS nor PZ contain definitions of artificial islands, installations and structures, the infrastructure for exploitation of ORES can currently be deliberated only within the PZ's definitions of marine facilities, namely fixed offshore structures and floating facilities. Since the UNCLOS prescribes the obligation of removal regarding the installations and structures only, we conclude that artificial islands are permanent, de facto irremovable physical structures. In PZ's criteria, wind turbines and other infrastructure could be, depending on the way they are tied to the seabed, subsumed under either floating facilities or fixed offshore structures.

According to the PZ, the Croatian criminal law is applicable on artificial islands, installations and structures in the EEZ. However, the Criminal Code (Kazneni zakon – KZ) and Coast Guard Law (Zakon o obalnoj straži RH) still refer to the „protected ecological and fishing zone" („zaštićeni ekološko ribolovni pojas" – ZERP). Moreover, not all criminal offenses potentially relevant in relation to artificial islands, installations and structures are listed among the criminal offenses committed outside the Croatian territory, for example destruction of habitat and polluting with noise, vibrations or non-ionizing radiation. According to the Coast Guard Law, their officials possess authorities regarding the vessels only. The sub-law concerning the navigation safety facilities prescribes marking of wind turbines at sea, together with correlated authorities of harbormasters' offices. However, according to that sub-law, the navigation safety facilities are in internal waters and territorial sea. The provisions of the PZ concerning the non-contractual liability for damage caused to persons and things outside the ship refer to vessels only and include ship owner and ship operator as bearers. Hence, if damage is caused by floating facilities or fixed offshore structures, only general legal rules can be applied. The Action Plan points out that future developers of ORES projects should be aware of risks as well as of necessary measures to ensure low impact on nature. Various risks are mentioned across various phases of construction, operating, maintenance and decommissioning of the infrastructure, e.g., pollution during the dredging of sand and gravel or during the construction of foundations, thermal heating from energy cables, effects of electromagnetic fields, underwater noise, etc.

Source: IRENA (2021)

Source: www.brusselstimes.com154819denmark-preparing-the-biggest-building-project-in-its-history-creating-two-energy-islands

Conclusion

Even though the provisions of the PZ regarding the EEZ had been enacted yet in 1994, Croatia acquired the sovereign rights and jurisdiction regarding the exploitation of ORES and the artificial islands, installations and structures only upon having declared its EEZ in 2021, because the ZERP did not encompass them. While the PZ is the key legal linkage between the international law of the sea and the Croatian internal legal system, the description of activities and infrastructure associated with the exploitation of ORES indicates the need for a legal framework wider than one provided by the PZ and its sub-laws. Consequently, close cooperation between the state bodies responsible for maritime affairs, traffic, ecology, energy, mining, spatial planning, defense, etc., becomes imperative regarding both a detailed review of the content of activities and infrastructure, and a review and drafting of necessary legal provisions. To illustrate, our analysis of provisions related to maritime objects shows an insufficient harmonization of terminology and definitions covering essentially similar contents but prepared from the perspectives of different economic activities or departments.

The primary, both reasonable and legitimate interest of manufacturers of wind turbines, solar panels and other products upon which mitigation of climate changes' effects relies, as well as interest of those who extract and sell natural resources necessary to produce such products, is to earn money from the work they do. The legal framework within which they do their job is enacted by states, who must maintain balance between numerous material and non-material interests and values. Thus, when it comes to exploitation of ORES, as well as various other activities across the economy, the states must take care of risks from as early as the planning phases for the construction of infrastructure. Inter alia, it is important to regulate (ultra)hazardous activities, issuance of permits, types and criteria of the liability of owners, concessionaires, investors, operators, etc. Due to the specifics of the infrastructure in question and different legal regimes in different parts of the sea, the most appropriate legal rules concerning the liability for damage, particularly for the environment, are highly desirable. In the aforementioned and all other matters, the imperative is to avoid legal gaps and minimize the application of general rules.

As the obligation for removal of artificial islands is not prescribed, it is crucial to preserve restrictiveness in legally declaring a certain infrastructure an artificial island, while adoption of a legal definition would certainly be beneficial. Regarding the removal of installations and structures, the economic profitability must not become the decisive criterion, while that obligation could be legally tied to liability for damage, criminal responsibility, etc. Such obligations should also be specified in relation to submarine elements (steel constructions and ropes, concrete blocks, monopiles, etc.). Regarding the submarine cables and pipelines, the Croatian legal writers have already recognized the need for adoption of certain definitions, as well as the need for a single act to regulate the procedure and preconditions for their laying. Despite the well-argued suggestions of legal experts, not even the Act on Exploration and Exploitation of Hydrocarbons, whose structure and content can help in reflections on the legal framework for the exploitation of ORES, does not contain some important rules, for example about the status of offshore structures and the non-contractual liability for damage.

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