## The Nexus between Wind Energy, Biodiversity Protection and Social Acceptance: Evidence of Good Practices from Greece, Latvia, and Poland

Authors : Christos Bouras, Eirini Stergiou, Charitini Karakostaki, Vasileios Tzanos, Vasileios Kokkinos

**Abstract :** Wind power represents a major pathway to curtailing greenhouse gas emissions and thus reducing the rate of climate change. A wind turbine runs practically emission-free for 20 years, representing one of the most environmentally sustainable sources of energy. Nevertheless, environmental and biodiversity concerns can often slow down or halt the deployment of wind farms due to local public opposition. This opposition is often fueled by poor relationships between wind energy stakeholders and civil society, which in many cases led to conflictual protests and property damage. In this context, addressing these concerns is essential in order to facilitate the proliferation of wind farms in Europe and the phase-out of fossil fuels from the energy mix. The aim of this study is to identify a number of good practices and cases to avoid increasing biodiversity protection at all stages of wind farms' lifecycle in three participating countries, namely Greece, Latvia, and Poland. The results indicate that although available technological solutions are already being exploited worldwide, in these countries, there is still room for improvement. To address this gap, a set of policy recommendations is proposed to accomplish the wind energy targets in the near future while simultaneously mitigating the pertinent biodiversity risks.

Keywords : biodiversity protection, environmental impact, social acceptance, wind energy

**Conference Title :** ICREE 2023 : International Conference on Renewable Energy and Environment

**Conference Location :** Athens, Greece

Conference Dates : October 16-17, 2023

1