



7th INTERNATIONAL WORKSHOP ADVANCES IN CLEANER PRODUCTION

Academic

“CLEANER PRODUCTION FOR ACHIEVING SUSTAINABLE DEVELOPMENT GOALS”

Renewables Energies in Colombia and the Opportunity for the Offshore Wind Technology

RUEDA-BAYONA, J.G. ^{a*}, GUZMÁN-GUERRERO, F.A ^b, CABELLO, J.J ^c, SILVA-CASARÍN, R.S ^d,
BASTIDAS-ARTEAGA, E^e, HERRILLO-CARABALLO, J.H ^f.

a Universidad Militar Nueva Granada. Department of Civil Engineering, Bogotá, Colombia.

b Universidad del Norte. Department of Civil and Environmental Engineering, Barranquilla, Colombia.

c Universidad de la Costa. Energy Department, Barranquilla. Colombia.

d Universidad Nacional Autónoma de México. Instituto de Ingeniería, Ciudad de México, México.

e Université de Nantes, Institut de Recherche en Génie Civil et Mécanique, Nantes, Francia.

f Swansea University, Zienkiewicz Centre for Computational Engineering, Swansea, United Kingdom.

*Corresponding author, juan.rueda@unimilitar.edu.co, ruedabayona@gmail.com.

Abstract

This paper displays a review of the literature which shows international actions that have motivated different countries to establish strategies to reduce CO₂ emissions and the high dependence on fossil fuels. Additionally, advances and challenges of the offshore wind energy are presented through the experiences of several countries. The administrative framework of the renewable energy, the potential of marine energy, and the needs and opportunities of Colombia are shown. The present document gathers technical, economic, administrative and legal information of the renewable energies in Colombia that may be used for taking decisions of different stakeholders.

Keywords: wind energy, offshore, renewable energy, Colombia, marine energy.