

Offshore Wind Energy in Europe – Actual Situation and Future Developments

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KEY WORDS: Wind Energy; Wind Farm; Offshore; Wind Turbine; Support Structure; Growian; Fino; European Wind Market.

ABSTRACT

This article presents the recent developments in offshore wind energy. The focus is put on the history, the actual situation and the future developments for the structural design and for the European wind market.

Typical offshore foundation structures and details are shown in examples in order to identify the specific considerations necessary for offshore wind farm design.

INTRODUCTION

Due to the world's rising energy consumption, the limited existence of fossil energy sources and last but not least the dramatic changes of the world climate, attention has been drawn to the extension of renewable energy. Among the various fields of renewable energy sources, the wind energy sector has grown significantly within the last two decades.

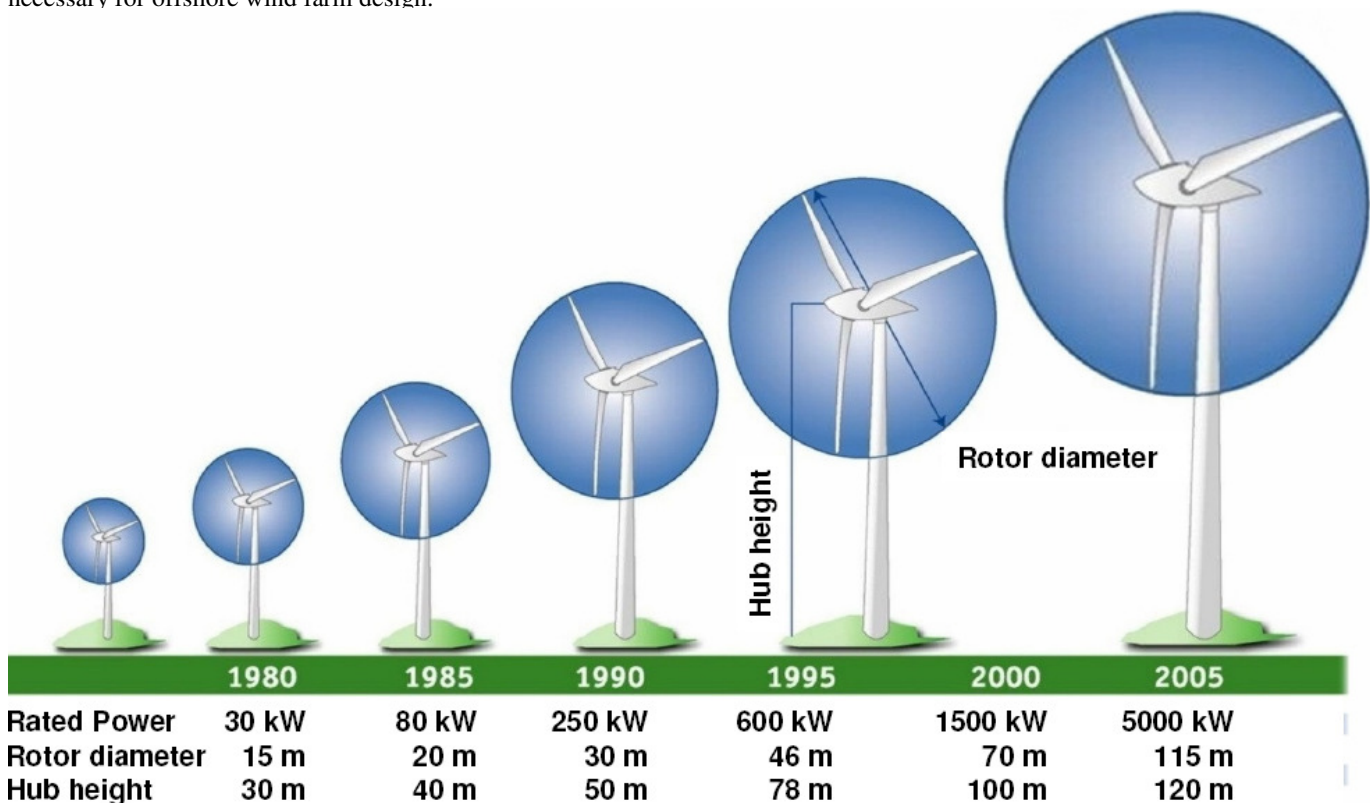


Fig. 1: Development of the rotor diameter and power rating; BWE