Title (en)
METHOD FOR DESIGNING AND OPERATING A WIND POWER PLANT, WIND POWER PLANT, AND WIND FARM

Title (de)
VERFAHREN ZUM AUSLEGEN UND BETREIBEN EINER WINDENERGIEANLAGE, WINDENERGIEANLAGE SOWIE WINDPARK

Title (fr)
PROCÉDÉ POUR DÉPOSER ET POUR FAIRE FONCTIONNER UNE ÉOLIENNE, ÉOLIENNE ET PARC ÉOLIEN

Publication
EP 3969742 A1 20220323 (DE)

Application
EP 20727208 A 20200515

Priority
• DE 102019113044 A 20190517
• EP 2020063692 W 20200515

Abstract (en)
[origin: CA3139008A1] The present invention relates to a method for designing and operating a wind power plant (100) for generating electrical power from wind, wherein the wind power plant (100) comprises an aerodynamic rotor (106) having rotor blades (108) which have adjustable blade setting angles, wherein the rotor blades (108) have a plurality of vortex generators (118) between the rotor blade root (114) and the rotor blade tip (116), characterized in that the vortex generators (118) are provided in the longitudinal direction of the respective rotor blades (108) up to a radius position (r/R), which is determined according to the air density (?A, ?B) at a location of the wind power plant (100). The invention furthermore relates to a rotor blade (108) of a wind power plant (100), an associated wind power plant (100) and a wind farm.

IPC 8 full level
F03D 1/06 (2006.01); **F03D 7/02** (2006.01); **F03D 13/30** (2016.01)

CPC (source: EP US)
F03D 1/0633 (2013.01 - EP US); **F03D 7/0224** (2013.01 - US); **F03D 13/30** (2016.05 - EP); F03D 7/0224 (2013.01 - EP); F05B 2240/3062 (2020.08 - EP US); F05B 2270/327 (2013.01 - EP); F05B 2270/335 (2013.01 - EP); Y02E 10/72 (2013.01 - EP)

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
DE 102019113044 A1 20201119; CA 3139008 A1 20201126; CA 3139008 C 20240102; CN 113906211 A 20220107; EP 3969742 A1 20220323; JP 2022533604 A 20220725; JP 7522771 B2 20240725; US 2022220933 A1 20220714; WO 2020234182 A1 20201126

DOCDB simple family (application)
DE 102019113044 A 20190517; CA 3139008 A 20200515; CN 202080036768 A 20200515; EP 2020063692 W 20200515; EP 20727208 A 20200515; JP 2021568127 A 20200515; US 202017612125 A 20200515