Design of Hyper Tall Onshore Wind Turbine Towers

Fact Sheet

Project Information

HYPER TOWER

Grant agreement ID: 747921

Project website

DOI
10.3030/747921

Project closed

EC signature date
22 March 2017

Start date
1 September 2017

End date
31 August 2019

Funded under
EXCELLENT SCIENCE - Marie Skłodowska-Curie Actions

Total cost
€ 183 454,80

EU contribution
€ 183 454,80

Coordinated by
THE UNIVERSITY OF BIRMINGHAM
United Kingdom

Objective

"HYPER TOWER is a very promising project that will lead to a radical increase in the wind turbine tower height and consequently to an increase in the energy potential harvested by wind structures. The project reaches its aims of constructing taller, more robust and economical towers by realizing 6 work packages that are formulated and developed in 2 years. In approaching the ""20-20-20"" targets, more and more energy has to come from sustainable energy sources and since ""The taller the wind tower is, the greener the energy is"", a constant trend of taller wind energy structures is observed. The civil engineers' challenge of constructing taller structures, with heavier machinery hanging at greater heights has led to the need of evolution of a

new tower configuration that can reassure the structure's robustness along with a feasible construction schedule.
Hyper Tower proposes the elaboration of a new-age tower cross-section and construction methodology, which are elaborated within the project's work packages. Assessment of existing tower configuration is performed, the proposal of a new-age tower section is elaborated, numerical and experimental results are assessed and compared to traditional tower configuration results and the final tower configuration is formulated."

Fields of science (EuroSciVoc)

natural sciences > computer and information sciences > **software**

humanities > history and archaeology > **history**

engineering and technology > **civil engineering**

engineering and technology > environmental engineering > energy and fuels > renewable energy > **wind power**

natural sciences > mathematics > applied mathematics > **numerical analysis**

Programme(s)

H2020-EU.1.3. - EXCELLENT SCIENCE - Marie Skłodowska-Curie Actions MAIN PROGRAMME

H2020-EU.1.3.2. - Nurturing excellence by means of cross-border and cross-sector mobility

Topic(s)

MSCA-IF-2016 - Individual Fellowships

Call for proposal

H2020-MSCA-IF-2016

See other projects for this call

Funding Scheme

MSCA-IF-EF-ST - Standard EF

Coordinator

THE UNIVERSITY OF BIRMINGHAM

Net EU contribution

€ 183 454,80

Total cost

€ 183 454,80

Address

Edgbaston
B15 2TT Birmingham
United Kingdom

Region

West Midlands (England) > West Midlands > Birmingham

Activity type

Higher or Secondary Education Establishments

Links

Contact the organisation Website
Participation in EU R&I programmes
HORIZON collaboration network

Last update: 15 August 2022

Permalink: https://cordis.europa.eu/project/id/747921