

DecomBlades partners



Siemens Gamesa is a global leader in the wind power industry, with a strong presence in offshore, onshore and service. Siemens Gamesa will add value to the project by applying its knowledge about blade structure and design, market expectations and promotion of circularity in the wind sector.



As the world's largest wind energy OEM, Vestas brings an extensive level of expertise around the composition and manufacture of turbine blades. Vestas contributes a broad spectrum of knowledge on the expected lifetime of a blade, its production volume, and on assessing the potential for recyclability.



LM Wind Power – a GE Renewable Energy business is a world leading blade designer and manufacturer, with more than 228,000 blades produced since 1978 corresponding to 11.3GW installed capacity. LM Wind Power will lead the work to establish product disposal specifications, supporting new business models for blade recycling solutions.



Ørsted is the world's largest owner and developer of offshore wind farms with more than 6.000 employees globally. For Ørsted it is important that there exist sustainable recycling solutions for all parts of our wind farms. Therefore, Ørsted will take the role as project lead in DecomBlades.



HJHansen Recycling will be lead on the work regarding the common prerequisite for all three technologies: Preprocessing (cutting of blades), transportation to recycling facilities and solutions on shredding and sorting of the blade materials.



MAKEEN Power has developed a technology that enables conversion of plastic waste to a useful resource. MAKEEN Power's role in the project consists of designing and building the pilot pyrolysis facility to recover and reuse the blade materials.



FLSmidth is going to investigate the possibilities of using shredded blade material and ashes from the pyrolysis process in the cement production process. The main objective of FLSmidth is to evaluate possible solutions on how to incorporate these materials in the cement production on a global scale.



Wind turbine blade

Manufacture and deployment



Wind farm

Blade end-of-life



Blade shredding and transport



Pyrolysis



Co-processing



Recycling materials into new products



Energy Cluster Denmark is the Danish innovation cluster for the entire energy sector. Energy Cluster Denmark will disseminate project results and develop new research and development projects based on the opportunities emerging in DecomBlades.



University of Southern Denmark, SDU, will conduct environmental and economic performance assessments of the different supply chains and apply a cutting edge hybrid assessment frame based on value chain analysis, life cycle assessment, material flow analysis and multi-criteria decision support.



Technical University of Denmark, DTU, will contribute within the fields of material characterization, engineering, assessment of material properties of reused glass fibers, surface properties and investigate the possibilities of increasing the quality and value of fibers obtained from pyrolysis.