

INTERNATIONAL ENERGY AGENCY

Implementing Agreement for Co-operation in the Research, Development and Deployment of Wind Turbine Systems

IEA Wind TCP Task 46 Erosion of Wind Turbine Blades 8th plenary meeting on September 19–20, 2024, Albuquerque, USA

Leading Edge Erosion Special Session September 19, 9:00 am – 12:00 pm MDT.

Agenda

9:00 Charlotte Hasager, Operating Agent (DTU, DK): IEA Task 46 Erosion of wind turbine blades

9:15 David C. Maniaci (Sandia National Laboratories, USA): Operation with Erosion, Aerodynamic Benchmarking and Next Steps in Classification

9:30 Alexander Meyer Forsting (DTU, DK): Validation of 3D CFD simulations of real-world leading edge erosion

9:45 Gerard Schepers (TNO, NL): IEA Task 47, TURBINIA, TURBulent INflow Innovative Aerodynamics: The need for collaboration with IEA Task 46

10:00 Coffee break

10:30 Heather Norton (WEICAN, CAN): The importance of surface preparation in leading edge protection durability

10:45 45 Quaiyum M. Ansari (University of Limerick, IE): Experimental and numerical investigations of droplet impact on filler putty thickness coating systems of offshore wind turbine blades

11:00 Aya Aihara (AIST, JP): Relationship between the impact force by water droplet and the surface

11:15 Nicolai Frost-Jensen Johansen (DTU, DK): Fitting VN data from rain erosion test data and the potential effects on predicted lifetime

11:30 Sara Pryor (Cornell University, US): Measuring hydrometeor size distributions for leading edge erosion estimation

11:45 Janis Putrams (Aerones, LV): Can you afford to ignore leading edge erosion? - Unveiling the next generation strategies for repair curvature 12:00 Adjourn (Lunch)

Participants of the Blade Workshop can attend, see https://energy.sandia.gov/news/2024-sandia-blade-workshop/ as well as IEA Task 46 members.