TCP on Wind Energy Systems (Wind TCP)

The Wind TCP's mission is to stimulate co-operation on wind energy research, development, and deployment (RD&D). The Wind TCP provides high quality information and analysis to member governments and commercial sector leaders by addressing technology development, deployment and its benefits, markets, and policy options.

Main areas of work

- Resource and site characterisation
- Advanced technology for wind energy
- Energy systems with high amounts of wind
- Social, environmental and economic impacts
- Communication, education and engagement

Key activities and accomplishments (2017-2018)

- Best practices publications on Wind and Solar Energy Curtailment, Wind Integration Impacts in Hydro-dominated Systems, Capacity Value of Wind, Power System Stability Issues
- Recommended Practices on Wind Energy Projects in Cold Climates
- Recommended Practices on Floating Lidar Systems (offshore wind resource assessments)
- Adaptive Management White Paper on environmental assessment and monitoring for wind energy systems project

Blades for Block Island project in the US transported from Denmark. Source: LM Wind Power

Intertidal project in Xiangshui, China. Source: Goldwind

Priorities and projects (2019 – 2020)

- Industry research objectives will continue to focus on larger land-based and offshore wind turbines
- Research into floating offshore wind is becoming more prevalent as developers pursue wind resources farther from shorelines and at greater depths
- Reducing cost and improving reliability through improved technology and information sharing continues to be a primary objective

Multilateral collaborations

- Collaboration on grid integration and forecasting with the TCP on Photovoltaic Power Systems (PVPS TCP)
- Interest in further potential collaborations in the following areas:
  - Cost of energy
  - Systems engineering
  - Distributed energy

Renewable Energy

Membership

• Wind Europe • Chinese Wind Energy Association

Why should your organisation become a member of the Wind TCP?

Participation in the Wind TCP is a cost-effective way to leverage available research funds. Wind TCP members collaborate on RD&D projects to increase the impact of wind technology. The research topics are relevant to land-based, offshore, and distributed wind power development.

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