

BLADE TESTING AT WTTC

The Massachusetts Clean Energy Center's (MassCEC) Wind Technology Testing Center (WTTC) offers a full suite of certification tests for turbine blades up to 90 meters in length. WTTC also offers the latest wind turbine blade testing and prototype development methodologies to help the wind industry deploy the next generation of land-based and offshore wind turbine technologies.

- Full suite of static and fatigue tests per IEC61400-23 standard
- Three test stands and 100-ton overhead bridge crane capacity
- Blade material testing
- Dual axis static or fatigue testing
- Prototype development and blade repair capabilities
- Research and development partnerships
- Hands-on workforce training
- Strong commitment to client intellectual property protection
- Located on a deepwater port to accept all blade sizes

WTTC EXPERIENCE

The WTTC's principle technical team includes blade engineers from the Wind Industry and a technology transfer partnership with the National Wind Technology Center (NWTC) that is part of the National Renewable Energy Laboratory (NREL). WTTC has tested 25 plus wind turbine blades ranging in size from 40 to 60 meters since opening in 2011. In addition, WTTC engineers have previous experience testing blades at leading wind turbine design and manufacturing companies.

Wind turbine blade testing is a critical factor in maintaining high levels of reliability and evaluating the latest technological developments in airfoils and materials. Adequate testing will allow wind energy to be more competitive. In addition, blade testing is required as part of turbine certification to meet international design standards including IEC, GL, DNV. Meeting international standards allows developers to mitigate the technical and financial risk of deploying mass-produced wind turbines.