

## BLADE TESTING AT WTTC

The Massachusetts Clean Energy Center's (MassCEC's) Wind Technology Testing Center (WTTC) offers a full suite of certification tests for turbine blades and blade sections 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 offshore wind and land-based turbine technologies.

- Full suite of multi-axis static and fatigue tests per IEC61400-23 standard, representing 20 years of field operation for the blades
- Three test stands and 100-ton overhead bridge crane capacity
- Testing of blade segments with special fixturing
- 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

Since opening in 2011, WTTC has run 35 distinct blade testing programs entailing hundreds of individual blade tests. WTTC is an ISO/IEC 17025 accredited Laboratory and a RETL (Renewable Energy Testing Laboratory) per the IECRE rules and procedures to test wind turbine blades.

The WTTC's technical team includes experienced blade test engineers and technicians. Industry testing partners include turbine manufacturers GE, Siemens-Gamesa, and Vestas and blade manufacturers LM Windpower and Blade Dynamics.

Collaboration with laboratories like National Renewable Energy Laboratory (NREL) and Sandia National Labs and universities like UMass, Georgia Tech, and CCNY enable a two way path for new testing methods and wind industry technology.

WTTC is innovating and constantly improving testing methods to better represent field operations in the lab and to improve testing efficiency for wind industry partners.