

13 September 2012, Ohio, USA, Aeronautica Windpower



54/750 kW – First Turbine in Operation

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Highlights for the 12-day period

- I/O Checks to make the turbine error-free for operation
- Control program optimization and testing with the new MITA controller, including rpm control at cut-in to reduce inrush current, and power level control down to 10% of the nominal power
- Operational testing and running-in of the new designed NGA 26 blade giving a rotor diameter of 54 m
- Data and frequency analysis of the operation for optimization
- Update of manuals to the new system
- Leaving the turbine in Automatic Operation 13th September 2012; 3 am



Finalizing Electrical I/O, Mechanic and Hydraulic Testing



Adjustment



Control program testing



Checking torque before first cut in



Adjusting hydraulic

Control program, manuals and testing



Programming, testing and dinner



Anemometer exchange



Updating of manuals



Entertainment provided by Kenston High School

Top to bottom work process



View from top



View from bottom

Ready and go



"Goal"



Game ready

Testing controls



Overspeed tests before "Bombers" game



Free wheeling rpm control tests during "Bombers" game

Testing controls



Turbine in fully feathered brake position in front of an empty stadium



Free wheeling in fixed rpm during "Bombers" game

In operation



Operation on small and big generator and running with maximum power output setting at nightfall

The new and advanced features in this turbine are the larger 54 m rotor that can capture 20-25% more energy compared to the old rotor and the new Mita controller, which both provides the possibility of setting up a power output limit, and additionally reduces the inrush current during cut in sequences through freewheeling rpm control!



Team spirit and game changer!



An outstanding team spirit during the work process made it possible to get the turbine with a completely new type of blades and a new control system, with new and advanced features , up and running, and put in automatic operation in only 12 days (and nights)!

Final



Now leaving BOMBER country!

13 September morning! A last check of the turbine operation before leaving the site with the turbine in operation and with further optimization to be made remotely over the next 3 months by Norwin, Mita and Aeronautica...!