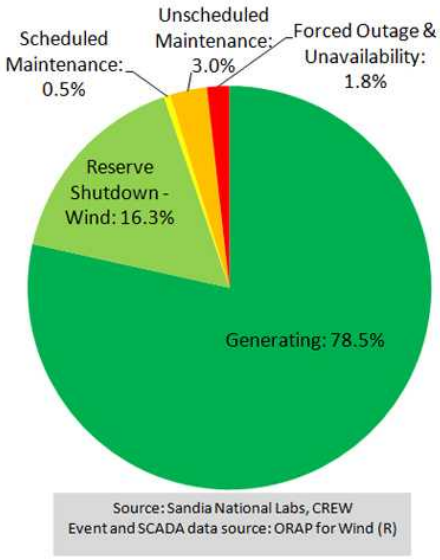
Continuous Reliability Enhancement for Wind (CREW) Database

The Department of Energy (DOE) published a 2008 report describing a scenario in which wind energy provides 20% of the United States electricity production by the year 2030. In order for wind generated energy to reach high electrical market penetration, there must be confidence in fleet operating performance levels. These are judged both by energy delivery and low operating costs. Sandia National Laboratories (SNL) has initiated a Reliability Collaboration and System Analysis activity in support of the DOE's mission to enable continuous reliability improvement of wind turbines in the United States. This activity centers around the Continuous Reliability Enhancement for Wind (CREW) Database, which is a DOE-funded national reliability database that enables the analysis of wind plant operations, to benchmark the reliability performance of the current installed wind fleet, including characterizing operating performance at a system-to-component level and identifying technology improvement opportunities.



Wind Turbine Reliability Benchmark Report

On October 31st, 2011, the CREW Database published the first public wind turbine reliability benchmark report to the wind industry. This public benchmark represents the first analysis of US wind fleet performance based on aggregated fleet reliability data and includes an initial, "directional" look at a system-level failure pareto, with both event frequency and duration explored, Availability Time Accounting and information regarding the data collection and analysis process utilized for producing the report.