

SANDIA REPORT

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CHARACTERISTICS OF FUTURE VERTICAL-AXIS WIND TURBINES

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ABSTRACT

As a DOE facility, Sandia Laboratories is developing Darrieus vertical-axis wind turbine (VAWT) technology. The objective of this technology is to assess the practicality of wind-energy systems for low-cost production and commercial marketing by private industry. This report describes the characteristics of current technology designs and assesses their cost-effectiveness. Better aerodynamics and future structural requirements combine for potential energy cost reductions of 35 to 40%.

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