

SAND78-0962

ECONOMIC ANALYSIS OF DARRIEUS VERTICAL-AXIS
WIND TURBINE SYSTEMS FOR THE GENERATION
OF UTILITY GRID ELECTRICAL POWER

VOLUME III: POINT DESIGNS

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ABSTRACT

Volume III of this study discusses major features of the Darrieus vertical-axis wind turbine design including the blades, the speed increaser, guy cables and cable anchors, transmission, clutch, brakes, and the electrical system. System weight characteristics are tabulated. The report discusses operation and maintenance costs and requirements and concludes with detailed descriptions of point designs for 120, 200, 500, and 1600-kW Darrieus vertical-axis wind-energy systems. These same point designs are used for the detailed economic analyses discussed in Volume IV.