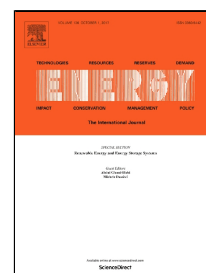


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Aerodynamic Performance Enhancements of H-rotor Darrieus Wind Turbine

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Highlights

- The Present study considers a new concept to improve Darrieus turbine performance.
- Investigation is performed depend on the Unsteady Reynolds Averaged Navier-Stokes.
- Two main effects are examined, namely, airfoil shape and wind-lens type effects.
- Darrieus turbine with S1046 airfoil showed the highest output performance.
- The wind-lens with a cycloidal diffuser improved the performance by factor 3.9.

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