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FSI Simulation of Two Back-to-Back Wind Turbines in Atmospheric Boundary Layer Flow

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## ACCEPTED MANUSCRIPT

## Highlights

- A new formulation for ABL flow is integrated into an FSI framework
- Formulation employed in FSI of two back-to-back 5 MW wind turbines.
- A multi-domain modeling (MDM) approach is adopted for efficiency.
- Power-production deficit is predicted for the downstream turbine.
- Importance of FSI coupling in wind-turbine ABL simulations is highlighted.

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