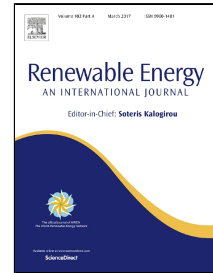


# Accepted Manuscript

Benefits of Forecasting and Energy Storage in Isolated Grids with Large Wind Penetration – The Case of Sao Vicente

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**Highlights**

- Rolling horizon ARIMA forecasting produces accurate wind speed forecasts in Sao Vicente.
- The case study shows combining wind forecasting and energy storage enhances diesel fuel savings.
- Wind curtailment could be largely reduced with the help of accurate forecasting methods and energy storage.
- Annual wind energy penetration could increase from the current 30.4% to 38% in Sao Vicente.

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