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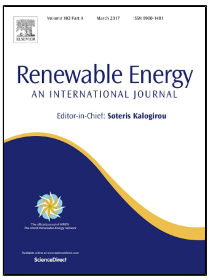

Benefits of Forecasting and Energy Storage in Isolated Grids with Large Wind Penetration – The Case of Sao Vicente

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PII:	S0960-1481(16)31120-X
DOI:	10.1016/j.renene.2016.12.061
Reference:	RENE 8398
To appear in:	*Renewable Energy*
Received Date:	22 December 2015
Revised Date:	09 December 2016
Accepted Date:	22 December 2016

Please cite this article as: Shengxi Yuan, Ayse Selin Kocaman, Vijay Modi, Benefits of Forecasting and Energy Storage in Isolated Grids with Large Wind Penetration – The Case of Sao Vicente, *Renewable Energy* (2016), doi: 10.1016/j.renene.2016.12.061

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.