

April 25, 2018

Dear Editor,

We are re-submitting the manuscript, “A Guide to Solar Power Forecasting using ARMA models” for publication as a Brief Note in *Solar Energy*.

We have tried to incorporate almost all of the suggestions by both the Subject Editor and the Associate Editor. Specifically, we now state that our manuscript provides a guide for forecasting using ARMA models; we provide a comparison against both the smart persistence model and a single ARMA model (as opposed to hourly); we include a short introduction to ARMA models; and, we have expanded the list of references. We provide more details in the comment- to-the-editor file that we also provide.

Various economical, social, and political factors support the increasing share of solar energy to complement energy generated using conventional fossil fuels in our electric power systems [1]. Efficient and fast methods to forecast solar power are often needed for stochastic optimization models [2], and easy-to-incorporate forecasting models are required.

We provide a succinct step-by-step methodology methodology to build hourly solar power forecasts using historical data with an ARMA model. We provide conditions under which ARMA models are suitable; describe how to use various statistical tests and their suitability; and, provide metrics to estimate the fit. Finally, we use the model to develop future forecasts.

We believe the Brief Note will be useful for academicians and practitioners who are interested in solar power forecasting, as it provides directly implementable instructions to generate solar power scenarios.

Our manuscript is not under consideration for publication at any other journal. We look forward to hearing from you.

Sincerely,

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## References

- [1] Larry Stoddard, Jason Abiecunas, and Ric O’Connell. Economic, energy, and environmental benefits of concentrating solar power in California. Technical report, National Renewable Energy Laboratory (NREL), Golden, CO., 2006.
- [2] Wencong Su, Jianhui Wang, and Jaehyung Roh. Stochastic energy scheduling in microgrids with intermittent renewable energy resources. *IEEE Transactions on Smart Grid*, 5(4):1876–1883, 2014.