

Technical report 21-011e

Erratum to “Forecasting day-ahead electricity prices: A review of state-of-the-art algorithms, best practices and an open-access benchmark” [Appl. Energy 293 (2021) 116983]*

J. Lago, G. Marcjasz, B. De Schutter, and R. Weron

If you want to cite this report, please use the following reference instead:

J. Lago, G. Marcjasz, B. De Schutter, and R. Weron, “Erratum to “Forecasting day-ahead electricity prices: A review of state-of-the-art algorithms, best practices and an open-access benchmark” [Appl. Energy 293 (2021) 116983],” WORKing papers in Management Science (WORMS) WORMS/21/12, Department of Operations Research and Business Intelligence, Wrocław University of Science and Technology, Wrocław, Poland, 2021.

Delft Center for Systems and Control
Delft University of Technology
Mekelweg 2, 2628 CD Delft
The Netherlands
phone: +31-15-278.24.73 (secretary)
URL: <https://www.dcsc.tudelft.nl>

* This report can also be downloaded via https://pub.bartdeschutter.org/abs/21_011e.html

Erratum to “Forecasting day-ahead electricity prices: A review of state-of-the-art algorithms, best practices and an open-access benchmark” [Appl. Energy 293 (2021) 116983]

Jesus Lago^a, Grzegorz Marcjasz^b, Bart De Schutter^a, Rafał Weron^b

^a*Delft Center for Systems and Control, Delft University of Technology, Delft, The Netherlands*

^b*Department of Operations Research and Business Intelligence, Wrocław University of Science and Technology, Wrocław, Poland*

Abstract

This erratum corrects the error metrics of the LEAR models for the German (EPEX DE) market reported in Tables 2 and 3 of Lago et al. (2021) Applied Energy 293, 116983.

We would like to rectify the error metrics of the LEAR models in the Tables 2 and 3 of the paper [1] which were erroneously computed. The correct values can be found in the tables placed below and in the GitHub repository <https://github.com/jeslago/epftoolbox>, which includes the correct results for all datasets considered. The conclusions in [1] are not affected by this correction. We apologize for any inconvenience caused.

Table 2: Comparison between the two individual state-of-the-art open-source methods in terms of rMAE, MAE, MAPE, sMAPE, and RMSE. Each of the two methods is listed for four different configurations. The gray cells represent the best model for a given metric.

		DNN ₁	DNN ₂	DNN ₃	DNN ₄	LEAR ₅₆	LEAR ₈₄	LEAR ₁₀₉₂	LEAR ₁₄₅₆
EPEX DE	rMAE	0.407	0.422	0.406	0.394	0.469	0.458	0.431	0.437
	MAE	3.716	3.850	3.706	3.592	4.283	4.180	3.930	3.988
	MAPE [%]	77.145	137.449	100.214	90.578	133.377	115.612	123.391	120.242
	sMAPE [%]	14.970	15.356	15.508	14.680	16.544	16.272	16.795	17.148
	RMSE	6.796	7.304	6.271	6.080	7.713	7.397	6.526	6.502

Table 3: Comparison between the ensembles of the state-of-the-art open-source methods in terms of rMAE, MAE, MAPE, and sMAPE. The comparison also includes, for each market, the best individual performing DNN and LEAR model in terms of rMAE and MAE, i.e. the two most reliable metrics. The gray cells represent the best model for a given metric.

		DNN Ensemble	LEAR Ensemble	Best ¹ DNN	Best LEAR
EPEX DE	rMAE	0.374	0.395	0.394	0.431
	MAE	3.413	3.609	3.592	3.930
	MAPE [%]	94.434	113.979	90.578	123.391
	sMAPE [%]	14.078	14.744	14.680	16.795
	RMSE	5.927	6.508	6.080	6.526

References

- [1] J. Lago, G. Marcjasz, B. De Schutter, R. Weron, Forecasting day-ahead electricity prices: A review of state-of-the-art algorithms, best practices and an open-access benchmark, Applied Energy 293 (2021) 116983. doi:[10.1016/j.apenergy.2021.116983](https://doi.org/10.1016/j.apenergy.2021.116983).