

Interactive comment on “Model-free Estimation of Available Power using Deep Learning” by Tuhfe Göçmen et al.

Anonymous Referee #1

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The paper entitled “Model-free Estimation of Available Power using Deep Learning” presents an interesting topic to the journal “Wind Energy Science”. The paper cannot be accepted in the present form, please find as follow my comments: Major – The paper presents some plagiarism issue, not for rejecting it, but I suggest to correct it because it looks like copy and paste with minor changes: Lines 16-26; 45-60; 74-78; 84-96; 178-179; 191-195 – The abstract shows what the paper describes, it is good, but it does not show the novelty of the paper. – The main novelties should be also shown clearly in the introduction – I have not seen the keywords in the paper. – To describe all the variables mentioned in the equations employed – To describe and justify the hiper-parameters of the NN employed (“the final network has 3 hidden layers with 100, 100 and 40 LSTM neurons, as indicated in Figure 5.”) It is not clear

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enough. – To include Appendix A to the text of the paper. The curves shapes are a bit strange from my experience, are they correct? I do not say that they are wrong. – Please detail clearly how the accuracy is calculated, and where is obtained the accuracy of 1% mentioned in the abstract Minor – Do not use acronyms in the abstract – Use the acronyms origin before to use them, of to use the acronym when they are mentioned before, and do not repeat, e.g. turbulence intensity. To revise all the paper carefully. – What does DTU mean? Technical University of Denmark? – Terms as “heavily” are not correct for a scientific paper. – Do not include a large number of references together. They should be reduced or describe their contribution in the paper individually. See e.g. “e.g. Ministere des Affaires Economiques (2019); Energinet.dk (2017); 50Hertz, Amprion, Tennet, TransnetBW (2016); 20 Elia, Belgium (2015); EirGrid (2015); National Grid (2014).”: 1-2 is good, could be until 3 in certain cases, no more. – “or as delta control” not correct – “The wind turbine operator can then announce its participation in the reserve market online or ahead of time with the intention of performing delta or balance control.” To rewrite it, it is confuse – What is U in equation 1?

Finally, just curious, how have you plotted Fig. 6b-d?

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