

Interactive comment on “An active power control approach for wake-induced load alleviation in a fully developed wind farm boundary layer” by Mehdi Vali et al.

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Dear authors,

I was pleased to see this work and I believe that the authors are working on an important and interesting control problem. However, I also believe that a significant amount of literature is missing. For example:

- 1) V. Spudic, C. Conte, M. Baotic, M. Morari, "Cooperative distributed model predictive control for wind farms", Optimal Control Applications and Methods, 2014.
- 2) S. Siniscalchi-Minna, F. D. Bianchi, M. De Prada Gil, C. Ocampo-Martinez, "A wind

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farm control strategy for power reserve maximization", Renewable Energy, 2018.

3) H. Zhao, Q. Wu, Q. Guo, H. Sun, Y. Xue, "Distributed model predictive control of a wind farm for optimal active power controlpart I: Clusteringbased wind turbine model linearization", IEEE Transactions on Sustainable Energy, 2015.

4) T.N. Jensen, T. Knudsen, T. Bak, "Fatigue minimising power reference control of a de-rated wind farm" Journal of Physics: Conference Series, 2016.

5) A.D. Hansen, P. Sørensen, F. Iov, and F. Blaabjerg, "Centralised power control of wind farm with doubly fed induction generators", Renewable Energy, 2006.

6) B. Biegel, D.D. Madjidian, V. Spudic, A. Rantzer, J. Stoustrup, "Distributed low-complexity controller for wind power plant in derated operation", International Conference on Control Applications, 2013.

7) D. van der Hoek, S. Kanev, W. Engels, "Comparison of Down-Regulation Strategies for Wind Farm Control and their Effects on Fatigue Loads", American Control Conference, 2018.

8) S. Siniscalchi-Minna, F. D. Bianchi, C. Ocampo-Martinez, "Predictive control of wind farms based on lexicographic minimizers for power reserve maximization", American Control Conference, 2018.

9) S. Boersma, B.M. Doekemeijer, S. Siniscalchi-Minna, J.W. van Wingerden, "A constrained wind farm controller providing secondary frequency regulation: an LES study", Renewable Energy, 2018.

These are all articles that deal with wind farm APC/reference tracking/derate strategies, though are all not addressed. The last article in the list is even using the same high-fidelity code as the submitted work.

I believe that the above literature should be addressed in the submitted manuscript.

Regards

Interactive comment on Wind Energ. Sci. Discuss., <https://doi.org/10.5194/wes-2018-70>, 2018.

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