



IEA Wind Task 36 Forecasting

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Wind power forecasts have been used operatively for over 20 years. Despite this fact, there are still several possibilities to improve the forecasts, both from the weather prediction side and from the usage of the forecasts. The new International Energy Agency (IEA) Task on Wind Power Forecasting tries to organise international collaboration, among national weather centres with an interest and/or large projects on wind forecast improvements (NOAA, DWD, UK MetOffice, ...) and operational forecaster and forecast users.

The Task is divided in three work packages: Firstly, a collaboration on the improvement of the scientific basis for the wind predictions themselves. This includes numerical weather prediction model physics, but also widely distributed information on accessible datasets for verification. Secondly, we will be aiming at an international pre-standard (an IEA Recommended Practice) on benchmarking and comparing wind power forecasts, including probabilistic forecasts aiming at industry and forecasters alike. This WP will also organise benchmarks, in cooperation with the IEA Task WakeBench. Thirdly, we will be engaging end users aiming at dissemination of the best practice in the usage of wind power predictions, especially probabilistic ones.

The Operating Agent is Gregor Giebel of DTU, Co-Operating Agent is Joel Cline of the US Department of Energy. Collaboration in the task is solicited from everyone interested in the forecasting business. We will collaborate with IEA Task 31 Wakebench, which developed the Windbench benchmarking platform, which this task will use for forecasting benchmarks. The task runs for three years, 2016-2018.

Main deliverables are an up-to-date list of current projects and main project results, including datasets which can be used by researchers around the world to improve their own models, an IEA Recommended Practice on performance evaluation of probabilistic forecasts, a position paper regarding the use of probabilistic forecasts, and one or more benchmark studies implemented on the Windbench platform hosted at CENER. Additionally, spreading of relevant information in both the forecasters and the users community is paramount.

The poster also shows the work done in the first half of the Task, e.g. the collection of available datasets and the learnings from a public workshop on 9 June in Barcelona on Experiences with the Use of Forecasts and Gaps in Research.

Participation is open for all interested parties in member states of the IEA Annex on Wind Power, see ieawind.org for the up-to-date list. For collaboration, please contact the author (grgi@dtu.dk).