Modular structure of wind turbine models in IEC 61400-27-1

This paper presents the modular structure of wind turbine models to be published in a new standard IEC 61400-27 for “Electrical simulation models for wind power generation”. The purpose of this standardization work is to define generic simulation models for wind turbines (Part 1) and wind power plants (Part 2), which are intended for short-term power system stability analyses. Part 1 has passed the first committee draft stage, whereas Part 2 is in an early stage of development. Initially, the paper describes the interfaces between wind turbine, wind power plant and grid models, and then gives a more detailed description of the modular structure of the types of wind turbines that are included in Part 1.

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