

Advanced Course

The advanced windPRO course is for the experienced windPRO user who wants to go deeper into windPRO and may have accumulated questions on its use.

This is also a good way to get introduced to the new features of windPRO 3.2.



Day 1

Advanced wind energy calculation in windPRO

- Introduction to windPRO 3.2
- Preparation of wind data
- Model validation
- WASP CFD
- MCP
- Mesoscale data
- Time domain AEP calculation

Day 2

windPRO tools for site suitability and performance check analysis

- SITE COMPLIANCE
- LOAD RESPONSE and Life Time Extension
- PERFORMANCE CHECK
- windOPS

Day 1: Wind modelling

The wind model is one of the most critical elements of a wind turbine project and also one of the most complex elements. The course goes beyond the simple wind model of the basic course and focuses on three vital phases:

- The analysis of the meteorological data including remote sensing instruments and data substitution
- The validation of the wind model. Is the model you have created correct and how can you verify it using cross-predictions, wind profile analysis and reference turbines? We will see how and when WAsP-CFD can be used to improve the results in complex terrain
- Long-term correction of the measurement, the methodologies and the plethora of reference data available including the EMD/ConWx meso-scale dataset

We also introduce the time domain energy calculation which runs parallel to the traditional method. During the day it will also be possible to discuss the complex site issues facing the participants.

Day 2: Suitability and Performance

The second day is all about designing the wind farm. Is it the right turbines for the site? Will the wind farm comply with criteria for turbulence, extreme wind, loads etc.? When the turbines are finally running how well are they performing? And can we use this information to improve our wind model.

This day is aimed at developers, operators and turbine suppliers who need to evaluate wind farm layouts before and after commission.



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