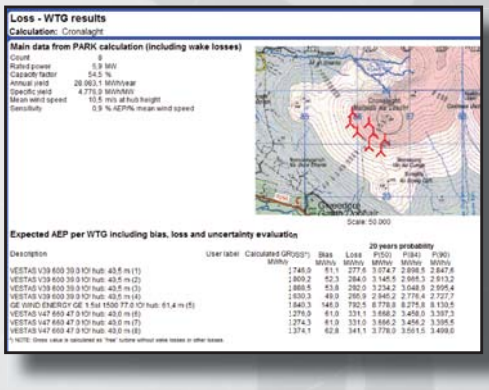
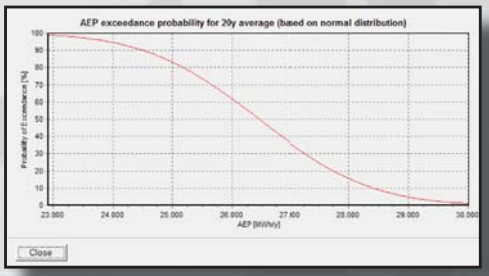
Coming WindPRO Features

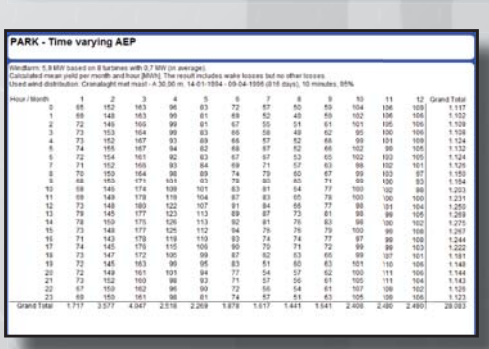
- **Loss, Bias & Uncertainty module** – for the bankable wind study. Loss calculation tools based on meteorological time series with detailed calculations of the primary loss components like high wind hysteresis, sector management and cold climate shut down. In interaction with the DECIBEL and SHADOW modules in WindPRO shut down/reduced mode operation is handled efficiently. Bias can be calculated fast and efficiently based on e.g. RIX correction. Complete uncertainty calculations with standard deviations and exceedance levels for the net energy yield (P90, P75, etc.) to produce bankable energy yield calculation reports directly from WindPRO.



- **PARK energy calculations with time variation** – additional reports with 24-12 tables and duration curves are produced based on time series with wind variations. Detailed data files with time varying production for production analyses in e.g. Excel can be extracted. Here the calculated production including transformation of the wind measurements to each WTG position and wake loss calculation for each time step gives new dimensions for analyzing actual versus calculated production figures.

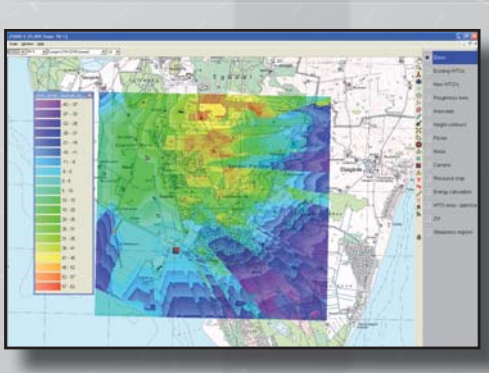


- **Radar calculations** included in the ZVI module. Both maps with restriction areas due to radars and a check if radar(s) will be influenced by a specific wind farm layout can be calculated.



- **Site Compliance / IEC module** using WAsP Engineering as calculation engine. The new industry standard for turbulence and IEC check calculations for wind farm projects.

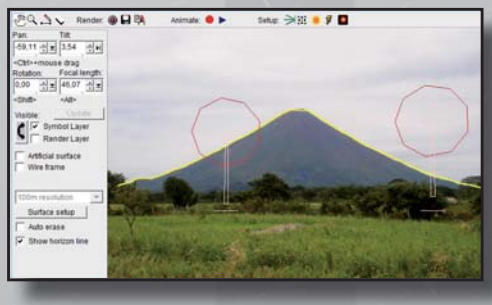
- **New Photomontage features:** Horizon line for camera calibration, import of camera specifications from photo and many other improvements.



- **Faster processing** of large data amounts + improved interface (import/export) with other data formats, like shape format.

- **Meteo Object and Meteo Analyser** several new features and improvements.

- **Norwegian noise models** - Norwegian noise model and prototype of the more detailed NORD2000 noise calculation model including terrain, wind velocity and weather conditions.



- **On-line data access to QSCAT** offshore wind data and North American Regional Re-analysis (NARR data for US).

- **Merging tool for BMI** background map files.

+ many more new features and enhancements

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