



## Solar PV Course - 2 days

(price € 570)

### **Session 1 Solar PV - Energy**

The Solar PV module in windPRO allows you to plan, design and perform energy yield calculations for PV plants using the same well-known environment of windPRO. The Solar PV tool is significantly improved in the new windPRO 3.6 with more models for the radiation and enhanced functionalities that make the design and layout of the PV plant fast and easy.

The course will focus on how to plan and design a PV plant that utilizes the available area(s) best. Land use and constraints will be taken into account when building the layout.

We will conclude the first day with the expected energy output from the plant and a run-through of losses, including advanced 3D modelling of shadow losses. The impact from wind turbines will also be treated and discussed in detail.

**Keywords:** Design, planning, solar irradiation, energy output, loss assessment, optimization, wind turbine shadow.

### **Session 2 - Visual and Glare**

A PV plant designed in windPRO can easily be visualized on photos with the PHOTOMONTAGE module. It is also possible to add fences, vegetation or any other 3D elements to make the simulation as realistic as possible, especially when combined to SketchUp with the Integration module.

With the new GLARE module, the impact of unwanted reflection of the sun's rays caused by the panels can be calculated and documented.

The course covers how to accurately set up a photomontage and how to input and simulate the visual data of the PV plant and other related 3D elements.

It will also be demonstrated how the Integration to SketchUp can be very useful when making photomontages.

Finally, we will calculate if and to which extent the glare from the PV plant can be expected to occur at the surrounding dwellings.

**Keywords:** Visual impact, trueview, panel design, dae, hedges, reflections, environmental impact assessment.

**Requirements:** Basic knowledge of windPRO is required before attending