PV*syst* – REFERENCE SOFTWARE FOR PHOTOVOLTAIC SYSTEMS

UNIVERSITÉ DE GENÈVE

Problem – Challenge

With the increasing pressure of energy availability and environmental impact, a steady growth of individuals, firms, investors and public communities are now engaged in developing Photovoltaic systems and plants.

Concomitant with this rising activity is the growing need for efficient models able to simulate with good predictability the performance of such systems.

With the wealth of technologies, geometries, and configurations, being able to evaluate and optimize the output through careful selection of the adequate configuration is a big challenge. This should take into account external factors such as solar resource and exposure, shadings, temperature, wind, and provide an accurate simulation - a hot topic for engineers worldwide.

Solution

PVsyst is a software package for the study, sizing, simulation and data analysis of complete Photovoltaic systems. It is the result of almost two decades of development led by Dr. André Mermoud, in the Energy group of the Institute of Environmental Sciences (University of Geneva, Prof. B.Lachal).

Through its unique combination of elaborate physical models and breadth of parameters, it has become the reference software worldwide for architects, engineers and others professionals involved in photovoltaic system design and planning.

Among its features, the 3D simulation allow for precise evaluation of shading effects that can be combined with extensive meteo data to obtain reliable results.

PVsyst is now in operation in 2'800 firms in 60 countries worldwide (7'000 registered users).