

## MODELLING OF PHOTOVOLTAIC PLANTS INCLUDING OPTIONAL TRACKING

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### ABSTRACT

Political targets and financial incentives lead to increased installation of photovoltaic (PV) generation plants. Today's planning and design of such assets is usually based on global energy harvest considerations only. Efficient exploitation of the given insolation, on the other hand, would require for any grid-parallel or detached supply configuration to regard location specific temporal insolation including the impact of tracking. Therefore, a versatile PV simulation tool was developed, enabling to investigate the performance of PV systems as well as their interaction with the supply system under high temporal resolution and simulation fidelity. Exemplary application and verification of this tool is shown by modelling a real PV plant with bi-directional tracking for which one year's measurement data were available. Further application examples of the PV modelling are briefly sketched.