



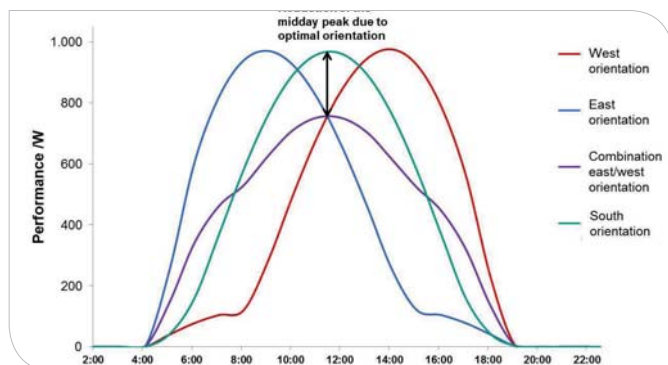
"ENERGIEWENDE" AT KIT – 1 MW PHOTOVOLTAIC STORAGE PARK

CLIMATE CHANGE OBJECTIVES OF THE FEDERAL GOVERNMENT

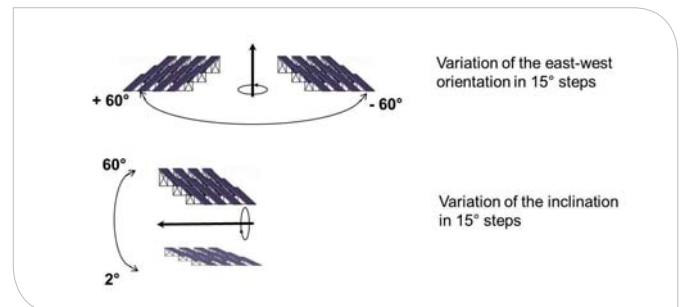
50 % of the German power consumption from renewable energy until 2030, 80 % until 2050

KIT-SOLUTIONS FOR THE "ENERGIEWENDE"

- Matching between power generation and load profile by optimal orientation of the photovoltaic modules
- Intermediate storage of excess energy
- Identification of the most cost-efficient system configuration of PV and battery



Performance of a PV system depending on the orientation (Data source: PVGIS)



54 orientation configurations with 5 different inclinations and 9 different azimuth directions for an optimal operation

- Development of hybrid power plants with different generators: PV, wind, biogas (CHP), conventional power plants
- Performance assessment of commercial components: PV modules, inverters, batteries and systems

GRID COMPATIBLE FEED-IN

HYBRID POWER PLANT

ECONOMIC ENERGY SUPPLY

Photovoltaics cooperation partners of KIT:

KOSTAL

SOLARWATT
Systemintelligenz