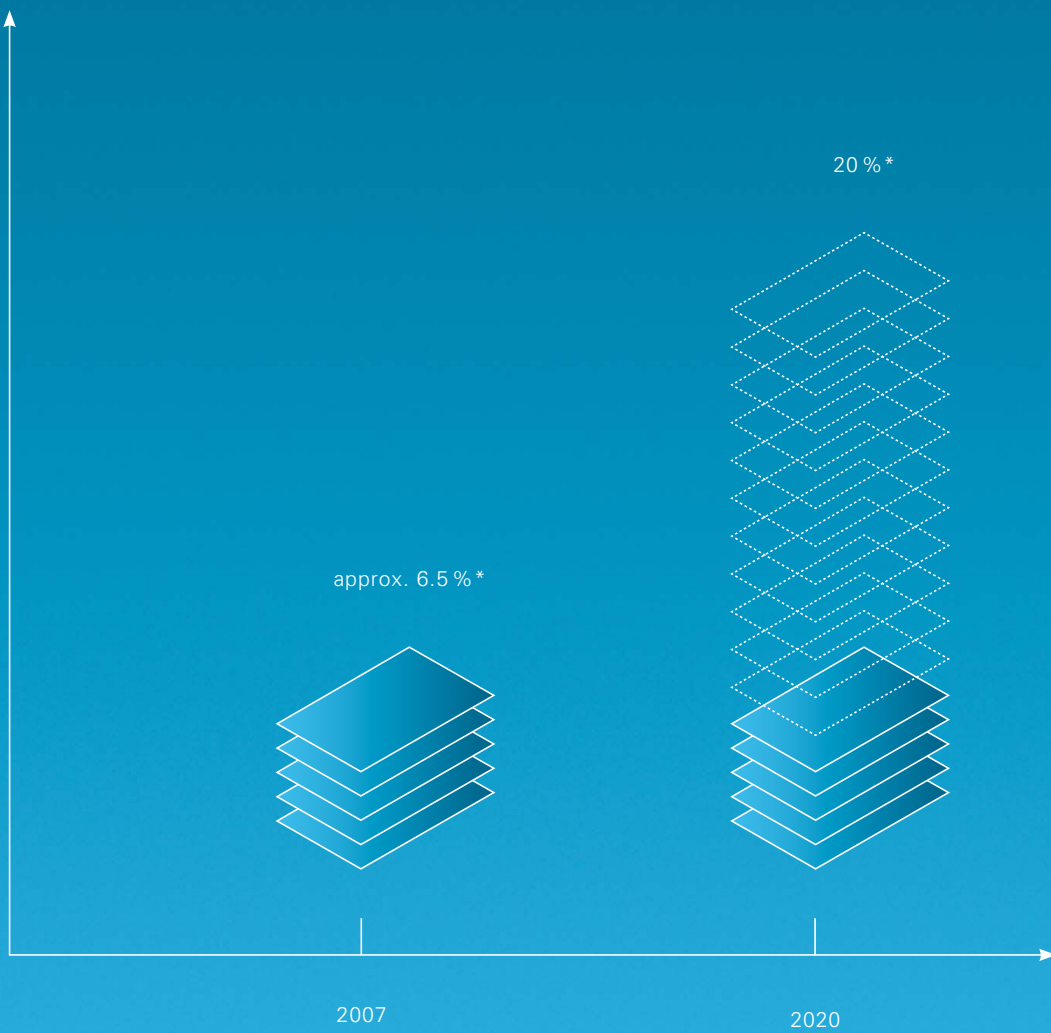

THE RELIABLE WAY TO INCREASE YOUR YIELD

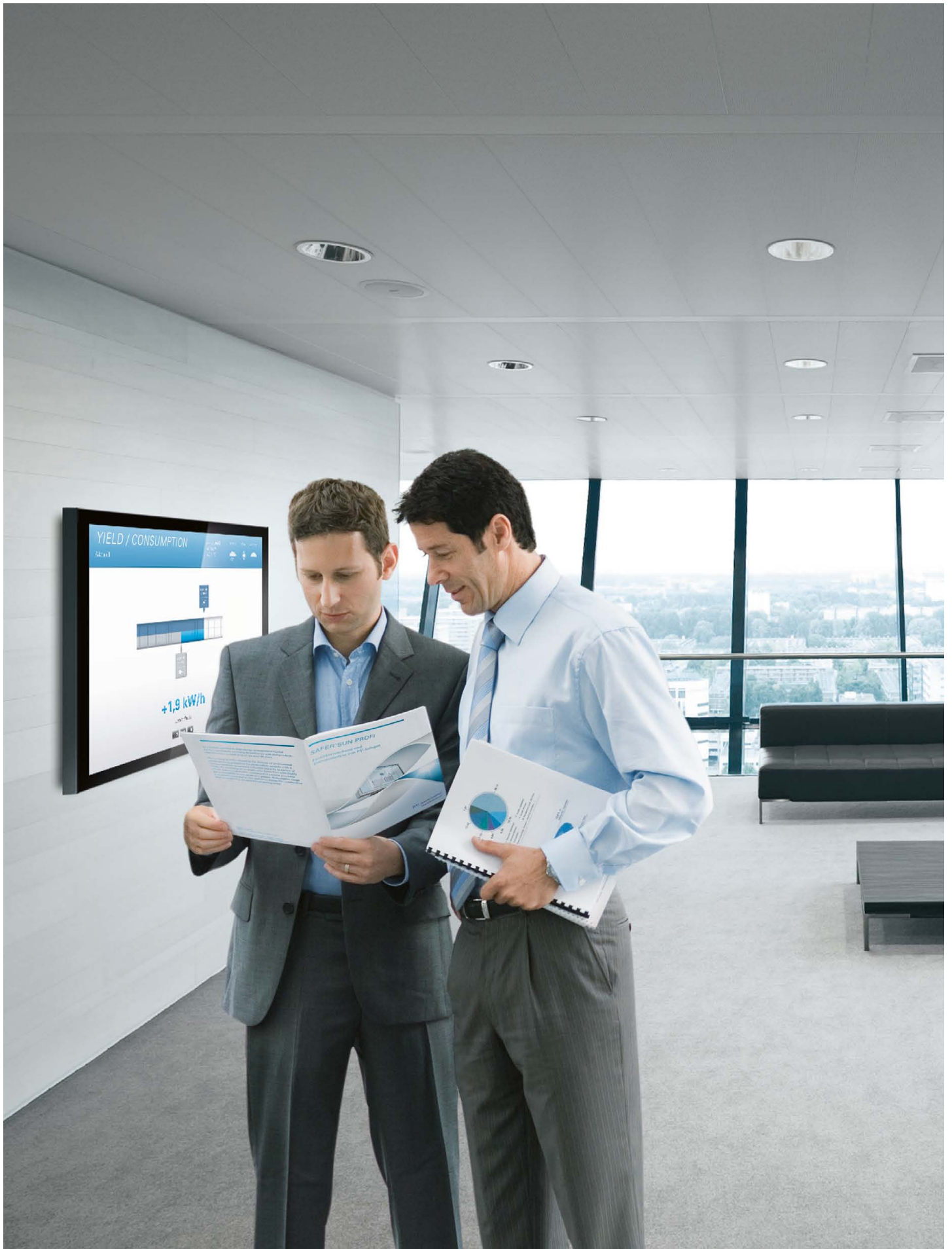
*Independent advice and intelligent
solutions for solar systems*



* The aim of the Renewable Energy Act (EEG) is to increase the share of renewable energies in Europe's overall energy mix to 20 percent by the year 2020.

TURNING KNOW-HOW INTO RESULTS

The sun gives us 100,000,000,000,000 kWh of energy every hour. Which is more than the entire world's population needs in a year. In the move to tap this energy efficiently, more and more private and public providers are looking for intelligent solar power solutions. These solar investments are long-term by nature. And their return on investment (ROI) depends not only on the choice of location and quality of the installation, but also on operational factors. meteocontrol draws on a consulting and service portfolio of unique depth and quality to guarantee maximum return on solar investments. Anywhere in Europe.



HOLISTIC APPROACH FOR DAILY GAINS.

Why leading investors, financial players and project developers rely on meteocontrol's knowhow

Photovoltaic (PV) systems are highly complex installations. They require extremely high up-front construction and operational costs. Which makes it essential to call on the expertise of independent specialists from the very outset. meteocontrol can help you systematically maximize the yield on your PV investment. As a dedicated consultant and technical service provider, meteocontrol is ideally positioned to minimize risks, lower total cost of ownership and secure the success of your investment.

THE ENERGY AND WEATHER EXPERTS

meteocontrol combines in-depth know-how across the entire solar engineering spectrum with the insights gained from the latest meteorological data and forecasts. This cross-disciplinary approach has created a vast service portfolio offering maximum quality and reliability every step of the way.

INDEPENDENT ADVICE

meteocontrol provides vendor-neutral, objective advice and forecasts at all stages of a PV project – from the initial investment decision through the construction phase to actual operation. This protects the interests and ROI expectations of investors, financial players and project developers.

INTERNATIONAL EXPERIENCE

For over 30 years now, meteocontrol has been supporting solar projects across Europe. The investment value of installations planned and implemented in close cooperation with meteocontrol has since easily topped the 8 billion euro mark. In fact, meteocontrol still monitors many of these installations to help optimize operations. This broad experience base makes meteocontrol the perfect partner – for national and international projects of all sizes.



With over 23,000 PV systems delivering over 3.8 GWp, meteocontrol is market leader in the professional monitoring of PV installations (dated 10/2011).

GUARANTEED QUALITY IS A MATTER OF PLANNING

Ground-up reliability and efficiency – from yield reports to operations management

meteocontrol covers the entire lifecycle of a solar project, extending from planning to operations management. Taking all relevant factors into consideration, the company offers reliable forecasts and wide-ranging implementation services from a single source.

YIELD REPORTS

Approval from banks and investors

The first question investors ask is whether a PV system will pay off and when. To answer this question authoritatively, meteocontrol analyzes the current local weather data and the global

irradiance trends stretching back over the past ten years. It has access to the hourly satellite measurements made by the University of Oldenburg with a spatial resolution of 2.5 km x 2.5 km. Local inspections complement this data with concrete insights into defining factors such as shade or geographic features. meteocontrol then runs these figures through sophisticated simulation and mathematical algorithms. This data, coupled with meteocontrol's hands-on experience in remote monitoring of PV systems, results in reliable yield forecasts. Yield reports from meteocontrol give both investors and operators a maximum degree of predictability and are acknowledged by all banks

Vendor audits

*Yield reports and
Technical Due Diligence*

*Technical acceptance
and certification*

*Quality assurance during
system construction*

as an important criterion in a company's favor when applying for financing.

PROJECT EVALUATION, CONSTRUCTION SUPERVISION AND ACCEPTANCE
Quality assurance across the entire process flow

The yield of a PV installation depends largely on the correct configuration of the system and spec-compliant construction work. meteocontrol gives its customers the advantage of an all-embracing, objective and independent evaluation of PV projects. The company's technical consulting services include advice on the best system com-

ponents and management of component tests. This eliminates the risk of sub-optimum configurations. Furthermore, customers have the added benefit of early fault finding. meteocontrol experts supervise progress on-site to check that all construction and assembly work is carried out to standard. The company's portfolio is rounded off by vendor audits and technical acceptance checks, vendor protocol audits and ratings and sample measurements. With the result that meteocontrol customers can look forward to PV systems that go live on time and work to perfection.

System monitoring

Technical operation management

Dismantling and disposal



REMOTE MONITORING AND YIELD ANALYSIS

All the facts at a glance with safer'Sun

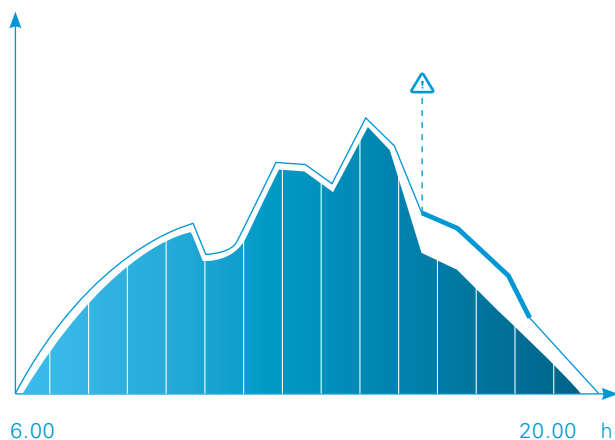
Yield optimization is a key success factor when investing in a PV system. meteocontrol delivers a sophisticated, web-enabled management tool that shows solar operators all key performance indicators at a glance. This means operators are instantly alerted to drops in performance. The safer'Sun intelligent monitoring system reads relevant yield values from the PV system and benchmarks these against simulated values, which are calculated on the basis of the current local meteorological conditions. An alarm is triggered if the actual values deviate significantly from the target values. This alarm is sent to the operator by e-mail, fax or text. safer'Sun is suited to installations of all sizes and all operating requirements, maximizing efficiency in the remote monitoring, management and maintenance of PV systems.

OPERATIONS MANAGEMENT

Maximum yield with the highest levels of predictability

To secure PV yield in the long term, operators need the right maintenance procedures and a rapid response in the event of an outage. To meet these requirements, meteocontrol offers professional management services and ensures that outages and faults are detected immediately. If possible, faults are resolved online. If not, service personnel tackle the issue on site. All maintenance and repair work is meticulously managed and documented so it can be traced at all times. With meteocontrol, customers have a direct line to a dedicated expert who is always ready to help with questions and operational issues.

Performance in kW



Securing PV yield with a professional monitoring solution. safer'Sun benchmarks the performance values from the PV system against simulated values, which are calculated by adapting the configured yield of the system to the current local meteorological conditions.

BUILDING SUCCESS ON EXPERIENCE AND QUALITY

For over 30 years, meteocontrol has been successfully providing its customers with independent and objective expert advice on how to intelligently capture energy. The company offers an end-to-end range of consulting services aimed at the efficient deployment of state-of-the-art photovoltaic technologies. Across Europe, meteocontrol has supported countless successful solar projects. Its expertise is a window of opportunity for any company looking to exploit the lucrative energy innovation business.



Moverpark
9.5 MWp output

Rooftop system
1 MWp output

80 rooftop systems
3.4 MWp output

Free field system
13.9 MWp output

Free field system
5.1 MWp output

meteocontrol
Augsburg, Germany

Free field system park
10 MWp output

Free field system
48 MWp output

4 free field systems
6 MWp output

Rooftop system
4.6 MWp output

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