

REFERENCE CASE PHOTOVOLTAIC



Engineering Services & Support for Photovoltaic Power Plant in Viterbo, Italy

KfW IPEX-Bank, the commercial subsidiary of KfW Bankengruppe, required independent project support from an experienced partner for the Viterbo Solar Park in Italy to ensure sound financial investment. That's why they turned to TÜV Rheinland.

Basic facts	
Client	KfW IPEX-Bank
Timeframe	January 2012 – May 2012
Project location	Viterbo, Italy
Main services	<ul style="list-style-type: none">▪ Technical due diligence▪ Technical advisory service▪ Certification of power plant
Involved regulations/standards	<ul style="list-style-type: none">▪ IEC 62446 - Grid connected photovoltaic systems▪ IEC 60364-1 - Low-voltage electrical installations▪ IEC 62548 - Installation and safety requirements for photovoltaic generators▪ IEC 61829 - Crystalline silicon photovoltaic array▪ IEC 61727 - Photovoltaic systems

Initial situation and requirements

The commercial subsidiary of KfW Bankengruppe, KfW IPEX-Bank focuses on long-term lending to develop economic and social infrastructure in order to support environmental and climate protection projects. For the Viterbo photovoltaic (PV) power plant, KfW IPEX-Bank needed the extensive independent project support of a lender's engineer as part of their policy for proofing sound financial investment.

Solutions, results

Our extensive experience in the photovoltaics sector and profound knowledge of international standards made TÜV Rheinland the best choice for KfW IPEX-Bank.

Throughout the entire project, we offered technical advice to enhance the quality and safety of the PV power plant. In addition, we provided technical due diligence to assess the project feasibility and to ensure that financial investments were based on verified data. In order to grant certification, our team of lender's engineers had to conduct several inspection and assessment services including a review of plant design, suitability of the components, power measurements both on-site and in the laboratory, a review of energy yield calculations, and the taking of infrared pictures of the on-site PV modules.

To guarantee compliance with all relevant standards and regulations, our experts performed a final plant acceptance inspection placing a special emphasis on safety and ultimately awarded the Italian PV plant in Viterbo a TÜVdotCOM Certification.

Did you know?

The Viterbo PV power plant has a capacity of 17,7 MWp.



Benefits for the client

TÜV Rheinland supported KfW IPEX-Bank by providing:

- Impartial, independent assessment supporting the plant as a sound financial investment.
- Highly-qualified and experienced experts to conduct the required photovoltaic services.
- Quality assurance and expertise to secure the investment.

Your contact:

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About TÜV Rheinland:

Founded 140 years ago, TÜV Rheinland is a global leader in independent inspection services, ensuring quality and safety for people, the environment, and technology in nearly all aspects of life.

We inspect technical equipment, products and services, oversee projects and help to shape processes for companies around the world. Since 2006 we have been a member of the United Nations Global Compact to promote sustainability and combat corruption.

Due to our extensive experience with solar power plants, we can help and support you in all project phases and ensure plant safety and reliability. We can also support you in achieving and maintaining profitability for largescale PV systems and solar thermal power plants – from choosing the right site to full-scale operations.

We provide a comprehensive range of services related to PV plants including site assessment and inspection, supervision of construction, plant monitoring with yield check and yield evaluation and unit inspections.