End of Warranty Assessment for Photovoltaic Power Plants in Italy

When Glennmont Partners required end of warranty inspection services for its investments in photovoltaic (PV) power plants (total capacity of 85.2 MWp), independent technical assessments were essential in order to claim possible refunds before end of warranty. That is why they turned to TÜV Rheinland.

### Basic Facts

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<th>Client</th>
<th>Glennmont Partners</th>
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<tbody>
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<td>Timeframe</td>
<td>2013</td>
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<tr>
<td>Project location</td>
<td>Italy – several locations</td>
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**Main services**
- On-site inspection with special focus on safety and technical functionality, detection and listing of defects
- Electrical measurements as proof of operation and thermography inspection
- Investigation of monitoring and security system
- Measurements as proof of performance

**Involved regulations/standards**
- IEC 62446: Grid connected photovoltaic systems - Minimum requirements for system documentation, commissioning tests and inspection
- IEC 60364-1: Low-voltage electrical installations - Fundamental principles, assessment of general characteristics and definitions
- IEC 62548: Installation and safety requirements for photovoltaic generators
- IEC 61829: Crystalline silicon photovoltaic array - On-site measurement of I-V characteristics
- IEC 61727: Photovoltaic systems - Characteristics of the utility interface
- IEC 60364-7-712: Low-voltage electrical installations - Requirements for special installations or locations - Photovoltaic (PV) power systems

### Initial situation and requirements

Glennmont Partners is a European investment company, focusing on alternative power generation projects such as wind farms, biomass power stations, solar parks and small-scale hydro power plants. As one of Europe’s largest clean energy investment specialists the fund has established a high reputation for delivering sustainable returns from alternative energy investments. End of warranty inspection services during asset operation were solicited in order to ensure that potential claims could be made ahead of deadlines. Additionally, proof of quality and functionality needed to be verified.

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Solutions, results

Due to its technical expertise and extensive experience in photovoltaic inspection services, TÜV Rheinland provided comprehensive on-site inspection services including investigation of both monitoring and security systems as well as specialized measurement of components to assure reliable operation. During on-site inspections focusing on safety and technical functionality, TÜV Rheinland prepared and submitted a complete recording of defects and abnormalities.

Thanks to these detailed reports, Glennmont Partners can be sure that installed components perform effectively for as long as possible.

Did you know?

Since 2007, Glennmont Partners has invested in 21 clean energy infrastructure projects generating a total capacity in excess of 350 MW.

Benefits for the client

TÜV Rheinland supported Glennmont Partners with:

- Independent inspection services ensuring quality, safety and performance.
- Highly-qualified experts to conduct the required assessments.
- Quality assurance according to national and international standards.
- Extensive experience in the field of PV power generation systems.

About TÜV Rheinland:

Founded more than 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.

Our comprehensive portfolio offers a wide range of services in all project phases and we can help you ensure plant safety and reliability. We can also support you in achieving and maintaining profitability for large-scale PV systems and solar thermal power plants – from choosing the right site to full-scale operations.

We offer you a comprehensive range of services relevant to photovoltaic plants including site assessment and inspection as well as construction supervision, sustainability and combat corruption.

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