

Dr. Klaus Hying CONSULTING

Authorised Expert for Photovoltaic Equipment (TÜV)

Marktplatz 21, D-67547 Worms, Germany

Phone: +49 6241 3694088, Mobile: +49 170 1875265

hying@pv-sachverstaendiger-hying.de

<http://www.pv-sachverstaendiger-hying.de>



Geprüfte
Qualifikation
Gültig bis:
14.10.2016



www.tuv.com
ID 0000040035

“Forget oil. Solar is the energy of
the 21st century”

Larry Hagman

Service offering:

- Advice during planning stage
- System acceptance for commissioning
- Documentation of shortcomings
- Advice for rectification of defects
- Drafting of acceptance reports
- Damage reports for insurance companies
- Failure analysis
- Electrical check; $I-V_{curve}$, I_{SC} , U_{OC} , I_{MPP} , U_{MPP} , P_{MPP} , P_{STC} , R_{ISO}
- Infrared investigation
- Interpretation of electroluminescence measurement

unprotected cables



clamping



shading



indirect lightning strike



safety devices bypassing

wrong connector



inverter on wood

hail >6mm



In recent years, photovoltaic power plants have become an important part of our energy mix. Due to its scalability from small rooftop installations to MWp power plants, its low maintenance requirements and attractive price level, photovoltaic systems are increasingly attractive to investors. The expected lifetime is more than 30 years.

To avoid any shortcomings, I recommend to execute an audit during design phase and during commissioning.

As expert for photovoltaic equipment, I check the design of new photovoltaic equipment and execute acceptance tests including documentation of all defects.

In case of yield losses or damage at existing installations, I carry out trouble shooting, to identify the root cause for your losses and give advice how to restore the photovoltaic installation.

Damage reports for insurance companies include an assessment of the plausibility of the reported damage as well as advice how to restore the installation including cost calculation. A status report of the whole installation is also part of the damage report.

In order to hedge your yields, I recommend a regular visual inspection and electrical check of your system.