

**PHOTOVOLTAIC**



## SGS REFERENCE PROJECTS PHOTOVOLTAIC

CLIENT	PROJECT	SCOPE OF SERVICE	FOCUS	EXECUTION COUNTRY	YEAR
<b>BELGIUM</b>					
Different Energy provider and Installer	approx. 3500 Residential plants < 10kVA	Electrical Conformity Green Certificate (CWaPE, VREG)	Controll of electrical conformity to required standards	Belgium	2009–2011
Different Energy provider and Installer	approx. 20 PV-Plants > 10kVA	Electrical Conformity Green Certificate (CWaPE, VREG)	Controll of electrical conformity to required standards	Belgium	2009–2011
<b>BULGARIA</b>					
Davidov Energy	PV-Roof Plant, Ustrem	Construction Supervision	100 kW PV-Plant	Bulgaria	2012
Lukoil Bulgaria	PV-Power Plant Burgas	Assessment of Conformity investment project Site Inspection	1.25 MW PV-Power Plant	Bulgaria	2012
Interservice Uzunov	Ravna Gora	Assessment of Conformity investment project Construction Supervision	5 MW PV-Power Plant	Bulgaria	2011
Energy Efect	Micro WPP“LISEC” Glojene	Assessment of Conformity investment project Construction Supervision Project Management	120 kW PV-Plant	Bulgaria	2010

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<b>CHINA</b>					
Martifer Solar		Pre-Shipment Inspection & Load Inspection	3 Container Thin Film PV-Modules	China	2011
Solvo Solar ET Solutions Windsheimer PV Technologie Swisse Soleil	Different Locations	Pre-Shipment Inspection & Load Inspection	Crystalline and Thin Film PV-Modules	China	2009–2010
<b>CZECH REPUBLIC</b>					
Solaria Energia	Benátky nad Jizerou	Health and Safety Coordination	4.5 MW PV-Power Plant	Czech Republic	2010
Solaria Energia	Cejetice	Health and Safety Coordination	2.5 MW PV-Power Plant	Czech Republic	2010
San Jose Tecnologias	Stráž pod Ralskem	Health and Safety Coordination	4.3 MW PV-Power Plant	Czech Republic	2010
<b>GERMANY</b>					
Sun Power	Partner Qualification	Quality Inspection	18 different roof installations	Germany	2012
Riesen Solar	PV-Plants, Schleswig Holstein	Inspection according to IEC 62446	1.5 MW PV-Power Plant	Germany	2012
Sun Power	Partner Qualification	Failure Analysis	4 PV-Power Plants	Germany	2012
Entsorgungsverband Saar	2 PV-Plant, Saarland	Inspection according to IEC 62446	68 kW and 40 kW PV-Plant	Germany	2012
Sun Power	Partner Qualification	Quality Inspection	70 different roof installations	Germany	2011
Prefa Solar Beijing Time Valiant Zhejiang Guangyi Sanxi guorun Solar Energy Jingchen Yanggu new Energy Tamesol Desa	Certificate	PV-Module Certification	Crystalline PV-Module IEC 61215/61730	Germany/ China	2011 2010

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Avancis Calyxo China Hisun PV Technology	Certificate	PV-Module Certification	Thin Film PV-Module IEC 61646/61730	Germany	2011 2010
Aleo Solar Solarworld Solarwatt Conergy Bosch REC Solar ET Solutions IBC Solar Solcontec SBE SpA Würz Energy Bull Holding Sunstar IB Maus Arise Technol. Calyxo Heckert Solar AC Energy Sunfilm Masdar Heckert Solar Signet Solar DOW Corning Avancis Heliosphera Applied Materials Odersun Solibro Asola Hofbräuhaus München Rusol, etc.	Pre-Qualification	Characterisation of PV-Module Performance  Mechanical Load Testing  Climate Simulation  Light Induced Degradatin Characterisation  Hot Spot Test  Low-Light-Behavior Temperature Coefficients  Salt Mist Resistance Testing  Gel Content Testing EVA/PVB/Backsheet Material Testing and Retesting Junction box/Connector Testing  Electroluminescence and IR Testing  Consulting Service for Manufacturer/System House	Power Measurement to Standard Test Conditions (STC) IEC 61215  IEC 61215 Load 5400 Pa  Damp Heat Temperatur Cycle Humidity Freeeze Special Profiles  Light Soaking Performance Measurement  Monthly production quality test  Thin Film Modules  IEC 61701  IEC 61730-2  PV-Modules  Production Management System	Germany	2012 2011 2010 2009

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Sillia Energie	PV-Module Manufacturing	Factory Inspection	PV-Module Manufacturing qualification to IEC 61215	Germany	2010
Sunfilm		Final Acceptance Test (FAT)	Thin Film manufacturing lines	Germany	2010
Sun Power	Partner Qualification	Quality Inspection	35 roof installations	Germany	2010
Malibu Solar Masdar PV		Final Acceptance Test (FAT)	Thin Film manufacturing lines	Germany	2010
Solar Power	PV-Plant Ceska Lipa PV-Plant Mozolov	Examination of Support Structure	Static Construction	Czech	2010
Sillia Energie	PV-Module Manufacturing	Factory Inspection	PV-Module Manufacturing qualification to IEC 61215	Germany	2009
Gitterrosten Meister GmbH	Goldbeck Solar	Initial Inspection	1.44 MW PV-Power Plant	Germany	2009
AC-Energy	Several different PV-Support Structures	Examination of Support Structure	Static and Solar Tracker Construction	Austria, Bulgaria, Czech, France, Germany, Greece, Portugal	2009
Solar Power	Several different PV-Support Structures	Wind- and Snow- Load Calculation	Static and Solar Tracker Construction	Austria, Bulgaria, Czech, France, Germany, Greece, Portugal	2009
Sillia Energie	Certification	PV-Module Certification	Crystalline PV-Module IEC 61215/61730	Germany	2009
Schmid Technologies	Manufacturing line	PV-Module Certification	Crystalline PV-Module IEC 61215/61730	Germany	2009
Signet Solat	Manufacturing line	Final Acceptance Test (FAT)	Thin Film manufacturing lines	Germany	2009
Solar Power	PV-Plant Vasapluli PV-Plant Fedi	Examination of Support Structure	Static and Solar Tracker Construction	Italy	2008
Solar Power	PV-Plant Regensburg PV-Plant Hettenkofen	Examination of Support Structure	Static and Solar Tracker Construction	Germany	2008
Solar Power	PV-Plant Holysov	Examination of Support Structure	Static Construction	Czech	2008
Solvo Solar	Purchasing	Pre-Shipment Inspection & Load Inspection	2 Container PV-Modules	Germany	2009

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<b>INDIA</b>					
Enerpon	XL Telecom Project	Visual Inspection	PV-Modules	India	2010
<b>ITALY</b>					
Sun Power	Pescara	Installation Quality Inspection	PV-Power Plant	Italy	2012
HSB Solomon	Cantore/Ginosa Marinella/Ginosa Stornara/Ginosa Gamascia/Galatina	Technical Due Diligence	4 PV-Power Plants with 9.31 MW; 4.37 MW 5.92 MW; 9.69 MW	Italy	2011
Fotovolt Italia S.r.l.	200 kWp PV-Plant	PV-Plant Inspection Performance Testing PV-Module Failure Analysis	PV-Plant Failure Analysis Crystalline PV-Modules	Italy	2011
HSB Solomon	Cariina & Serenissima	Technical Due Diligence	2 PV-Power Plants	Italy	2011
HSB Solomon	Raggio di Puglia	Technical Due Diligence	7.2 MW PV-Power Plant	Italy	2011
ENEL Green Power	PV-Power Plants S. Gillo Bussolengo, Ven. Lavoria Istia Maida, Calabria Amantea Calabria Castel S. Aangelo, Lazio Lucera, Puglia Apricena, Puglia	Technical Due Diligence	9 PV-Power Plants	Italy	2011
Solaria	8 different locations	Construction Coordination Safety Coordination	PV-Power Plants	Italy	2010
ENEL Green Power	Chioggia, Veneto S. Florio, Calabria	Technical Due Diligence	2 PV-Power Plants	Italy	2010
Tozzi Holding	Alfonshine in Ravenna S. Alberto in Ravenna	Final Test and Certification  Final Test and Certification	35 MW PV-Power Plants  35 MW PV-Power Plants	Italy	2010  2010
ENEL Green Power	PV-Power Plants in Puglia	Technical Due Diligence	7 PV-Power Plants	Italy	2009
Sun Power	Montalto di Castro	Structural and Welding Check	PV-Modules	Italy	2009

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<b>PORTUGAL</b>					
Martifer Solar SA	PV-Power Plant, Algarve	Health, Safety and Environment Inspection	6 MW PV-Power Plant	Portugal	2012
<b>SPAIN</b>					
Eolia N+1	PV Los Navalmorales	Technical Assistance	6.4 MW PV-Power Plant	Spain	2010–2012
Solomon Ass.	10 different PV-Plant locations	Technical Due Diligence	PV-Power Plants from 1.5 until 34.2 MW (76.4 MW)	Spain	2011
Sun Power	Olivenza PV Alange	Purchase Technical Assistance. Execution of Quality Control Plan. Planning and Budget Forecast Control.	18 MW PV-Power Plant 13.7 MW PV-Power Plant	Spain	2009–2011
REC Solar	3 different projects	IR-Inspection	PV-Modules	Spain	2009
Sun Power	Tinajerps	Execution of Quality Control Plan	10 MW PV-Power Plant	Spain	2008
Construcciones Crespo	1 PV-Power Plant	IR-Inspection	PV-Modules	Spain	2008
Sun Power	Almuradiel Manzanares	Execution of Quality Control Plan	2.5 MW PV-Power Plant 5 MW PV-Power Plant	Spain	2008

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Isofoton Guascor Foton Olivar Solar Baena S.L. Sky Global Solar S.A. INEL 2000 S.L. Masco Solar S.L. Fruits SECE Girona S.A. Energies Potencials S.L. Fotovoltaica del Peral S.L. Fotovoltaica del Cuco. S.L. SAEZ Solar de Barrax. S.L. Energia Solar Higuera S.L. Sejosa Gestió i Tramitació Capital Energy Centro Norte S.L.U. Gahelios S.L.U.	Several locations	Health and Safety Coordination	PV-Power Plants	Spain	2006–2008
<b>UK</b>					
Geni Capital	PV & Greenhouse & Wind Energy Projects	Technical Due Diligence	PV-Plants	United Kingdom	2009
<b>USA</b>					
Esfera International	AAE Solar Project	Pre-Shipment Inspection & Load Inspection		USA	2010
<b>ZIMBABWE</b>					
Ansaldo	Several PV-Plants	Visual QA Inspection Loading & Unloading Inspection Site Inspection Full Functional Test PV-Plant		Zimbabwe	2009

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