



# greentech and Tartessos - Joint Forces for PV O&M Local footprint with international track record





## Combined strengths for O&M in Spain Core benefits of the partnership

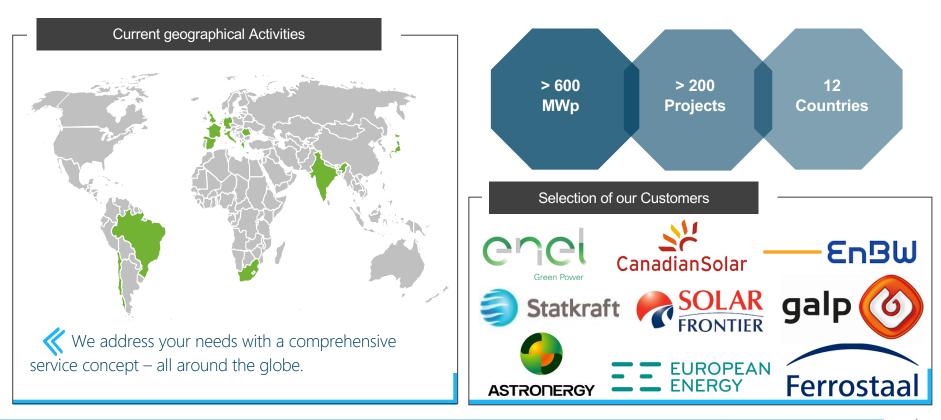
- O&M Experience from more than 600MW
- Proven team structure and processes for O&M
- Full Customer Centricity with transparent documentation and stakeholder management
- Leading Technology and IT-structure for O&M services

- In-depth understanding of Spanish PV market and regulation
- Local network of field service and service partners
- One-stop turnkey project development from greenfield to operation
- Comprehensive experience with various stakeholder groups and investor setups



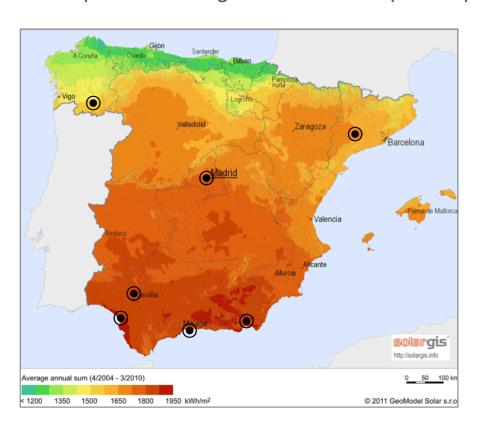


# Our customers are from various Sectors and Countries greentech and TPD footprint in 12 Countries on 4 Continents





## Clear Focus on the Spanish PV Market Widespread coverage of the entire Spanish peninsular



#### **Facts about Spanish PV market**

- 7.800 MW of new PV capacities have been installed in 2019 in Spain (with an increase of 66% compared to 2018) \*
- 24.000 MW of new PV capacities are expected to be installed in Spain in 2020 (record of new capacities in Europe) \*\*

#### We cover all Spanish regions

- presence of experts over the entire peninsular
- Spanish headquarter is located Seville with a strong presence in Andalusia – the region with the highest solar radiation in the Spanish peninsular
- network of partners spread over the entire Spanish mainland



## O&M is the key to a sustainable success of PV investments. The relevance of O&M Services

### Higher yield

- Thorough preventive maintenance
- Less breakdowns and repair costs
- Quick reaction to faults and minor performance
- Timely and sustainable repair works
- Unnecessary costs due to administrational issues are avoided

#### Risk reduction

- Keeping track of regulatory obligations and changes
- Meeting manufacturer warranty terms
- Reducing insurance claim ratio
- Increasing security of supply
- Fulfilling stakeholders' requirements

### Doing the right things right:

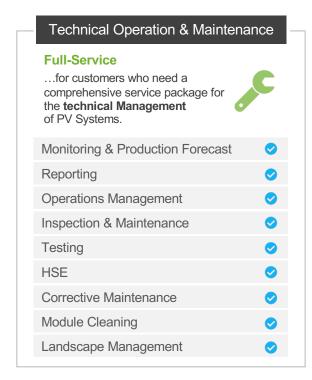
- Active member of Spanish PV association UNEF & Solar Power Europe O&M task force
- Certified with the Solar Best Practices Mark

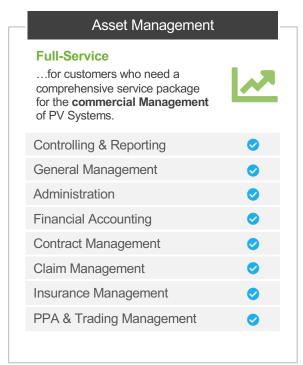


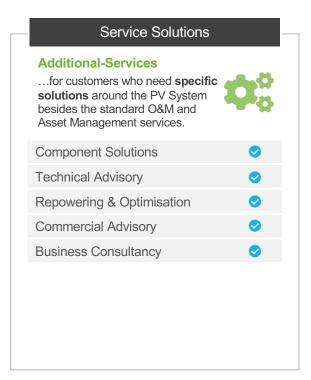




### Modular service packages for PV asset owners Customized products to serve all customers needs









## Making the difference in technical Operation & Maintenance Six distinctive facts about our O&M services

What does O&M mean for us?		
Gapless active and passive plant monitoring	24/7 immediate reaction to failures and performance reductions	
Customer specific reports & KPIs	Full transparency on performance on optimisation potentials	
Clear interfaces and account responsibilities	Committed and individual service relationship	For the best
360° Stakeholder Management	Communication & Conformity with regulatory Requirements	possible
Integrated field service and safe operation	High service quality and strict HSE policy	Return
Proven IT landscape with customer access	Comprehensible documentation of events and operations	



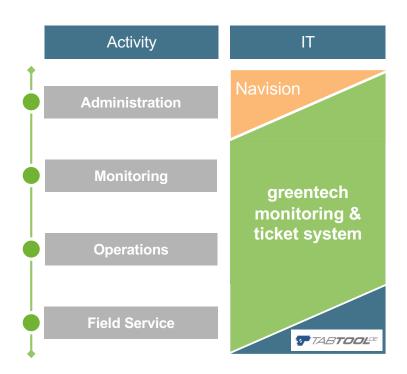
### Roles and Responsibilities are clearly defined Key departments and tasks in O&M

low do we work?				
Monitoring	Operations Management	Field service	Operations Support	Key Account Manager
	F	Roles and Responsibilities		
"Issue raiser"	"Issue solver"	"Solution Provider"	"Solution Enabler"	"Customer developer"
<ul> <li>Daily Monitoring: reactive (alarms) and active routines</li> <li>Mid- and long-term performance analysis</li> <li>Special data analysis</li> <li>Performance reporting</li> </ul>	<ul> <li>Main interface to customer</li> <li>Default analysis and solution development</li> <li>Managing preventive and corrective maintenance</li> <li>Contract management</li> <li>HSE Management</li> </ul>	<ul> <li>Technical counterpart for ops manager and administration</li> <li>Inspections, maintenance and testing</li> <li>Call outs and repair works</li> <li>Quality assurance contractors</li> </ul>	<ul> <li>Order processing: Sales quotes, Purchasing, Invoicing</li> <li>Dispatching</li> <li>Main interface to contractors</li> <li>Logistics and inventory management</li> </ul>	<ul> <li>"High level" interface to customer</li> <li>Managing special contractual and commercial topics</li> <li>Introduction to new solutions and services</li> </ul>





## Our IT infrastructure ensures a seamless digital workflow Integrated IT process







### Steering yield optimized PV Projects along the value chain Expert services in every project phase

#### Site studies and consulting

Profound studies and assumptions are crucial to guarantee the feasibility and profitability of your investments.

#### Permitting

One-stop partner for the complete permitting process with the different stakeholders and authorities.

### We ensure that your long term PV investment is successful

#### Site Identification & Qualification

With over 20 years of experience, the support of modern digital applications, a proven network of rural real estate agents and grid connection experts, we identify and qualify the best project site at the most competitive prices for your solar projects.

### **Construction Supervision**

Quality management and Owner's Engineer during planning and construction phase on behalf of the investor.

#### **Operation & Maintenance**

Keep up with all technology and regulatory developments. Achieve and optimize the proposed yield and costs.

### Get in touch!





T: +49 40 8060 6694 – 16 j.carstensen@greentech.energy www.greentech.energy

### Jörn Carstensen Managing Director

Industrial engineer in energy and environmental management. Entered the PV industry in 2006 and worked in different management positions. Since 2014, Jörn is developing major customers and new markets for greentech.



T: + 34 619 072 172 chacon@tartessospower.com www.tartessospower.com

### Juan Manuel Chacon Managing Partner

Electrical Engineer with a
Master Degree in Renewable
Energy. More of 17 years of
experience in the development
of renewable energy projects
worldwide working for
multinational companies as
Abengoa, Conergy and
Ferrostaal.