



MAINTENANCE / O&M
SOLAR SERVICE

voltalia

www.voltalia.com

WHO WE ARE

Founded in 2005, Voltalia is an international player in renewable energy generation and storage, acting both as Power Producer and Service Provider for its Clients.

With a historic purpose to *"Improve global environment, fostering local development"*, Voltalia has officially become a "Mission-Driven" company in 2021 to enhance its environmental and social commitments.

A FULLY INTEGRATED SUSTAINABLE BUSINESS MODEL



MAINTENANCE O&M SOLAR SERVICE

Voltalia's Operation and Maintenance service ensures the continuous efficiency of your PV asset. Over 24 hours a day, 7 days a week and 365 days a year, we work to improve plant performance and maximize its return.

5.6 GW in operation demonstrate our reliability, credibility and bankability to customers. Our trained and certified teams act locally in different geographies across the globe, supported by a central monitoring team and system allowing Voltalia's O&M Service to stay ahead in this business segment.

KEY FIGURES*

5.6 GW

in operation for Voltalia
& Third parties

20+

countries on
3 continents

315+

dedicated
O&M specialists

MORE THAN 15

years experience
worldwide

*as of 31/12/2023



SCOPE OF SERVICE DELIVERY

CENTRAL SUPERVISION AND REMOTE OPERATION

- Automated Alarms Dispatching,
- Automated Reporting,
- Real time Performance Dashboard,...
- Forecasting
- Analytics Performance
- Technical helpdesk

OPERATIONS MANAGEMENT CENTER (VPH)

- Continuous operation 24/7, 365d/yr
- Highly qualified supervisors
- Dedicated state-of-the-art infrastructure
- Procedures to guarantee maximum performance
- Data engineers support to guarantee the highest quality of data

VOLT-POWER SYSTEM (VPS)

- Dedicated Software platform for real-time monitoring and performance optimization, developed according to Voltalia's requirements
- Non-intrusive and system agnostic technology
- Integrate with Maintenance Management and Reporting platforms

PREVENTIVE MAINTENANCE MANAGEMENT

- Drone and robotics applications
- Specialized and certified own Field teams
- On-Site Diagnostics and Troubleshooting
- Equipment Repair and Replacement
- Project Repowering and Retrofitting
- Supply Chain Logistics and Procurement
- Computerized Maintenance Management Software

SPECIALIZED O&M SERVICES

- Thermograph inspection (ITC Certified)
- MV, HV and SCADA experts
- PV modules manufacturer's competences
- Inverters Manufacturer's certified service partners
- Predictive maintenance
- Equipment repair lab
- Internalization of manufacturers competences
- Central field service support with expert team

INVERTERS REPAIR INFRASTRUCTURE

- Infrastructure dedicated to repairing of inverters and other PV equipment, at the component level

OPERATION _{TO} MAXIMIZE ASSET VALUE & REVENUE

PEOPLE	PROCESS	SYSTEMS
Operation Management Center / Center of Expertise for Global support <ul style="list-style-type: none"> • 24/365d remote support and on-site O&M PV experienced teams with critical knowledge, know-how supported by >1GW experience Responsible Management <ul style="list-style-type: none"> • Effective decision for Long-term Asset Management 	KPI Management <ul style="list-style-type: none"> • AV (Availability) / PR Guarantee • Client centric with higher IRR & reduced OPEX • Real-time KPIs monitoring and follow-up • Short reaction time 	Operation Management System <ul style="list-style-type: none"> • Technology-independent • 24/7 Control Center • Automatic generation of work orders for preventive and corrective actions • Data Engineers support • Remote operation and control

MAINTENANCE _{TO} MINIMIZE DOWN-TIME & ENERGY LOSS

PEOPLE	PROCESS	SYSTEMS
Local Field Technical Team <ul style="list-style-type: none"> • Skilled workforce and continuous training Supportive Back Office Team <ul style="list-style-type: none"> • Quick response to enable field efficiency 	Data / Evidence-based Maintenance <ul style="list-style-type: none"> • Continuous improvement processes, based on LEAN Six Sigma philosophy • Fast response time with local O&M teams 	Computerized Maintenance Management System <ul style="list-style-type: none"> • Integrated management of Preventive Maintenance (Planning / Execution / Reporting) and Corrective Maintenance (Anomaly detection / action tracking) • Real time monitoring of the maintenance status of the solar PV asset/plant

SERVICE WE CAN PROVIDE

SCOPE				SERVICES	Project Performance support	Basic	Advance	Full	Special
STANDARD PACKAGES	OPERATION	Dispatching	Dispatching				●	●	●
		Monitoring	Real time* remote supervision & Performance analysis + Reporting				●	●	●
			Daily remote supervision & Performance analysis + Reporting					●	●
		Remote Operation	Remote operation					●	●
		Monitoring	Resource and Energy Production Forecast						●
		Performance Management	●						●
	MAINTENANCE	Preventive Maintenance	HV Substation		●	●	●	●	●
			LV Visual Inspection		●	●	●	●	●
			MV/HV Visual Inspection		●	●	●	●	●
			Inverters		●	●	●	●	●
			String test			●	●	●	●
			Thermography inspection - PV Panels			●	●	●	●
			Thermography inspection - LV (Junction box, inverters, ac boxes)			●	●	●	●
			Thermography inspection - HV (Transformers, Switch gear)			●	●	●	●
			I-V curve tracing on-site				●	●	●
			Calibration Services				●	●	●
		Corrective Maintenance	Transformers and MV Substations				●	●	●
			Spare Parts Management - Inventory management			●	●	●	●
			Spare Parts supply						●
			Corrective Maintenance interventions and repairs				●	●	●
			Inverters / components repairs				●	●	●
			Warranties Management				●	●	●
			Insurance Claims				●	●	●
			Major Overhauls and Replacement						●
Landscape Management			Modules Cleaning Interventions						●
			Vegetation Management						●
	Rodent control						●		
ADV	Guarantees	Technical Support		●	●	●	●		
		Response time			●	●	●		
		Availability			●	●	●		
		Performance Ratio							

SCOPE		SERVICES
SPECIALIZED SERVICES	Monitoring	Access to Asset monitoring platform with data scientist support
	Preventive Maintenance	Thermography inspection
		I-V curve tracing on-site
		Calibration Services
		Inverters
		HV Substation
	Corrective Maintenance	Corrective Maintenance interventions and repairs
		Inverters / components repairs
	Preventive Maintenance	Major Overhauls and Replacement
		Modules Cleaning Interventions
Vegetation Management		
Engineering & Advisory	Rodent control	
	Maintenance analysis and optimization	
	Performance analysis (data driven)	
	Claiming process technical support	
	Due diligence (technical site assesment)	
PROJECTS	Upgrades	Engineering consultancy
		Repowering
		Revamping
		Retrofitting

Voltalia O&M offers a complete range of Services to adapt to customer needs. We are flexible to cope with specific project requirements. Our main focus is Quality and Flexibility to make sure the plant will operate at best efficiency and availability rates.

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