More than

FOUR GIGAWATTS

of experience

Energy planning, engineering,
and integrated advisory services

www.moroniepartners.com
ENERGY PRODUCTION AND MANAGEMENT
Development, design, construction supervision and health and safety operations for:
- PV plants
- Solar Thermodynamic plants
- Biomass and biogas plants
- Wind farms
- Hydroelectric plants
- Combined Heat and Power plants (CHP)
- Solar thermal and solar cooling plants
- Energy Efficiency actions
- Permission procedures for long distance transmission lines
- Energy audit and energy diagnosis actions
- Optimization and repowering of operating plants
- Incentives [Feed-in-Tariff, Feed-In-Premium, Green Certificates]

INNOVATIVE BUILDING
Innovative low energy consumption and passive buildings
- Energy and environmental certification
- High efficiency HVAC plants
- Civil and industrial electric plants

GREECE
PHOTOVOLTAIC PLANTS
28,8 MWp
Technical Advisory services.

BANGKOK (THAILAND)
PHOTOVOLTAIC PLANTS
1,3 MWp
Engineering services.

PROVINCE OF RAVENNA (ITALY)
PHOTOVOLTAIC PLANT
35 MWp
Technical Advisory services.

PROVINCE OF SALERNO (ITALY)
PHOTOVOLTAIC PLANT
24 MWp
Technical Advisory services.

PROVINCE OF FOGGIA (ITALY)
WIND FARM 32,7 MW
Technical Advisory services.

GALWAY (IRELAND)
WIND TURBINES 20,6,100 AND 250 kW
Technical Advisory services.

PROVINCE OF MACERATA (ITALY)
BIOGAS PLANT
1 MWe
Engineering services.

PROVINCE OF PESARO (ITALY)
ENERGY EFFICIENCY: MECHANICAL, ELECTRIC AND SPECIAL PLANTS
Engineering services.
TECHNICAL ADVISORY DIVISION
Check the quality of your investment

PHOTOVOLTAICS
Technical, instrumental and administrative Due Diligence
Performance Ratio Measurements
IR-Thermographic analysis in compliance with UNI EN 473
Laboratory tests in compliance with IEC 61215 and IEC 61646
Provisional and Final Acceptance tests (PAC and FAC)
Health and Safety Operations

SOLAR THERMODYNAMIC (CSP)
Technical and administrative Due Diligence
Plants and technology bankability Due Diligence
Direct Normal Irradiation Measurements
Advisory Services for suppliers selection
Tests on CSP tracking system

CONCENTRATION PHOTOVOLTAICS (CPV)
Technical, instrumental and administrative Due Diligence
Plants and technology bankability Due Diligence
Tests on CPV tracking system
Laboratory tests in compliance with IEC 62108
Provisional and Final Acceptance tests (PAC and FAC)

WIND
Technical Due Diligences
Wind Assessment
Annual Energy Production estimation (P50 P75 P90)
Power Curve measurement
N.D.T. on moving parts
Acoustics measurements

HIGH ALTITUDE WIND ENERGY
Consultancy for technologies and plants bankability
Project technical analysis and yield estimation
Technical-administrative and technical-instrumental Due Diligence
Asset management

HYDROELECTRIC
Technical Due Diligences
Installation site analysis
Verification of the technology
Hydrometric data analysis
Energy yield estimation

BIOGAS / BIOMASS
Technical Due Diligence
Advisory Services for technologies bankability
Third-party start-up verification
Biological Laboratory test
Production and procurement costs optimization
Atmospheric emission analysis
ENERGY EFFICIENCY

SERVICES FOR ENTERPRISES
- Technical advisory for ISO 50001 certification
- Customized Energy management services
- Energy Audit
- Energy diagnosis
- Energy supply contracts analysis
- Contracts analysis for third-party financing
- Feasibility studies on CHP and trigeneration plants
- High efficiency lighting solutions
- Energy efficiency solutions
- Consumptions monitoring
- Certification of achieved saving
- Technical Advisory on energy efficiency bonds request

ENERGY EFFICIENCY
SERVICES FOR FINANCIAL INSTITUTES AND INVESTMENT FUNDS
- Technical Advisory on bankability of specified technologies
- Technical due diligences
- Consumptions monitoring
- Certification of achieved saving

SERVICES FOR REAL ESTATE
- Real Estate evaluation
- Property valuation according to national and International Valuation Standards (IVS)
- Property valuation according to the guidelines for the assessment of properties as a warranty for the credit exposure (ABI);
- Specialized technical evaluation services for banks and investment funds aimed to the recovery of property (property conditions, abuse, technological plants verification) including:
  - Overall analysis of internal and external environmental impact to the property
  - Impact and cost for hazardous waste removal and disposal
  - Impact and cost impact for machinery waste removal and disposal
  - Overall machinery value assessment (disposal cost/benefit analysis)

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  - Impact and cost impact for machinery waste removal and disposal
  - Overall machinery value assessment (disposal cost/benefit analysis)

ASSET MANAGEMENT DIVISION
Our experience for your investment care

M&P Asset Management services help the investors for technical and administrative management of PV plant, in order to increase the investment value and the revenues ensuring the compliance with local laws and regulations.

The service includes:

Suppliers selection and O&M contract subscription
On field survey of O&M activities
Remote monitoring of PV plant performances
PV plants performance assessment
Support in the relationship with National Energy Management Operator, Custom Agency and Transmission System Operator
Support to administrative and accounting management of the investment
Legal and fiscal management support
**More than Four Gigawatts of experience**

Clean energy production for a better world.

**Moroni & Partners**, one of the largest Italian energy engineering consultants with more than 4 GW of experience, executes Engineering, Technical Advisory and Asset Management services.

A team of more than 50 professionals working on renewable energy sources and high energy efficiency systems is able to satisfy the needs of banks, investors, industrial customers, public entities and EPC contractors.

Three business divisions are the pillars of our structure:

**The Engineering Division:** executes the permission process, the design, the construction surveillance and the safety of power plants. Furthermore this division offers energy saving solutions in industrial, civil and tertiary sectors.

**The Technical Advisory Division:** carries out consultancy activities and instrumental analyses on operating energy plants, working with major banks and investment funds as well as with investors asking for an independent survey on their investment.

**The Asset Management Division:** performs a complete plant management, from performance monitoring to management of administrative and fiscal fulfillments related to RES activities.

**CERTIFICATIONS:**

Moroni & Partners cares about services quality, environmental respect, energy rational use and workers’ health and safety, obtaining these voluntary certifications:

- ISO 9001:2015
- ISO 14001:2004
- BS OHSAS 18001:2007
- Occupational health and safety

**TECHNICAL COMMITTEES:**

Moroni & Partners takes part effectively on the issue of technical regulations. It is a member of the following technical committees:

- **TC 82** - Solar photovoltaic energy systems
- **TC 88** - Wind turbines
- **TC120** - Electrical Energy Storage (EES) Systems
- **TC 313** - Smart grids
- **TC 315** - Energy Efficiency

**CERTIFIED OPERATORS:**

The staff of Moroni & Partners is constantly trained and certified and it is composed by:

- Thermographic Operators (Level 2 (UNI EN 473))
- PEI and PES technicians for under voltage works (CEI EN 50110-1; CEI 11-27)
- Certified operators for overhead works (art 37 and 77 D.Lgs. 81/2008)
- Energy experts (DPR 75/2013)
- Energy and Environmental experts (prot. Itaca [LR Marche 14/2008])
- Acoustic technicians (Law 447/95)

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**MA AWARDS 2016**

Energy Firm of the Year - Italy

Finest Asset Management Services - Italy