helioconsult GmbH
independent consulting and engineering services

your independent partner for renewable energy solutions

consulting  engineering

connecting  doing

training

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Managing Partner
Summary

• Company
• Our World
• Field of Competence
• Business Segments
• Phases and Services
• Project Services at a glance
• Partner Network
• Small Project Due Diligence
Company

- Founded 2018 as an holistic, independent consulting and engineering service provider for renewable energy projects
- Headquarters in Germany near Stuttgart
- 100% private owned
- Globally active
- Highly experienced team
- Knowledge from hundreds of renewable energy projects all over the world
Customer support throughout the entire lifecycle of projects in energy production, distribution and more efficient consumption
Field of Competence

Electric Power Generation
- Utility / Commercial Systems
- Residential Systems

Electric Power Distribution
- SMART-Grid

Power Transformation
- Power-to-X

X-Distribution
- X-Fueling Infrastructure

Power Storage
- X-Storage
- Battery Storage
Field of Competence

- **Motion**:
  - X-to-Power Fuel-cell
  - Electric Motor
  - Public Transportation

- **Living**:
  - Power Consumption
  - Efficiency / Cost Savings

- **Production**:
  - Power Consumption
  - Efficiency / Cost Savings
  - Blind Power (cos phi)
Business Segments

Large-Scale Solar
increasing production yield
and minimizing technical
and financial risks

With our full range of independent services for large solar projects we support our customers throughout the entire project lifecycle. From technical feasibility studies, full project due diligence, quotation evaluation to independent engineering services and project management.

Medium-Scale Solar
comprehensive services
with affordable prices for
systems <750 kWp

Our special designed services for medium solar projects up to 750 kWp DC-capacity. If you are planning a system on your facility, want to increase your power self-consumption e.g. with an battery-storage, need support through the quotation process or experience failures with your existing system, we have the right services for you.

Wind & Renewables Portfolios
combining different renewable energy solutions is key to success

A mixture of different renewable energy types in your portfolio increases production stability and reduces financial risks. We help to integrate and manage those portfolios independently. We provide full due diligence studies, and profound analytics. We support you during project transitions and with training and consulting throughout the entire lifecycle.
Business Segments

Battery Systems

increasing power self-consumption with optimized battery designs

The right dimensioning of a battery system is key to cost efficient use. Based on your consumption profile, requirements and local technical specifics, we develop optimized design solutions. We help to find the right system provider and support you through the entire planning, quotation and installation phase.

Motion

renewable energy will power our mobility in the near future

We support you designing optimized charging infrastructures, integrated seamlessly into new or existing renewable energy systems or power distribution networks. We help to maintain, monitor and manage those infrastructures. We develop concepts for new generations of transportation systems.

SMART-Grids

connecting, managing and distributing energy - efficient and secure

Stabilized and secured grids are essential. With various stakeholders in the renewable energy landscape we support our clients (utilities, portfolio owners and monitoring providers) with designated security concepts and risk assessments. We help building NOC centers, develop internal procedures and design secure monitoring concepts.
Services at a Glance

**consulting**
- Technical Advisory
- Technical Due Diligence
- Design Optimization
- Quotation Evaluation
- Bid Management
- Project Valuation
- Feasibility Studies
- Contract Negotiations
- Factory Audits
- Energy Efficiency Consulting
- SMART-Grid Concepts
- Electromobility Concepts

**engineering**
- Energy Yield Forecast
- Owner’s Engineering Services
- Site Inspection
- One-Site-Measurements
- Thermographic Survey
- System Performance Evaluation
- Construction Supervision
- Progress Reporting
- Insurance Reports
- Battery System Design
- Monitoring System Evaluation
- Repowering Concepts

**connecting**
- Lab Measurements
- Asset Management
- Financial Due Diligence
- Operation & Maintenance
- System Monitoring
- Glare Assessment
- Statics Assessment
- Geological Survey
- Weather Data
- Solar Power Forecast

**doing**
- Project Management
- Commissioning Coordination
- Coordination Removal of Defects
- Support International Projects
- Business Development
- Quality Management and Concepts
- Product Development

**training**
- Customer Trainings
- Scientific and Popular Lectures
- US Market Entry Specifics
  - Seminars
Partner Network

We are connect services: participate from our partner network of best in class providers.
The idea behind this approach is to offer a competitive service even for systems where total cost are of the essence.

Components are highly flexible and adaptable to customer needs.
Small DD - Process

- standardized process for end-customers
- definition of individual process and DD content for portfolio customers like banks / investors
- automatic data transfer (with customizable forms / apps)
- standardized reporting

https://www.helioconsult.com/project-submission-form.html
Small Due Diligence – flex components

1. **Yield Estimation:** based on standardized data submitted through helioconsult internet page (or checklist) calculated with PVSysts and Meteonorm irradiation data.

2. **Concept Review:**
   - used components
   - system configuration
   - stakeholders
   - regulations
   - compliance
   - monitoring

3. **On-Site-Status-Documentation:** through customer, helioconsult field team or partner with heliocheck app or checklist

4. **Regulations Review:**
   - technical content EPC / O&M / PPA contract
   - guaranties (PR / Availability etc.)
   - spare part concept
   - feed-in regulations (Tarif / PPA)
Small Due Diligence – flex components

5 Financial Base Parameter Review:
   • Project price
   • Service costs (O&M-contract)

6 System Performance Review:
   • PR calculation based on historic monitoring data compared with yield calculation

7 Final Report:
   • Independent third party status review and documentation
   • Summary flex components

8 Individual requirements:
   • Customer specific requirements for Due Diligence process