

Company Profile

Legal Name: Sistemes Avançats d'Energia Solar Tèrmica, SCCL

Registered Trademark: AIGUASOL

Headquarters: Barcelona

Company Description:

Established in 1999, AIGUASOL (www.aiguasol.coop/en) is a leading cooperative in Energy Efficiency and Renewable Energy planning and integration into buildings. The AIGUASOL team comprises over 20 professionals with a high level of technical and scientific expertise, including engineers, technical consultants, architects and physicists with considerable experience both in private companies and research centres. AIGUASOL is a locally based, globally active company, with offices in Barcelona and the Basque Country, as well as presence in Santiago de Chile, Lisbon, and Bogotá. The firm's regular activities comprise projects throughout Europe, Africa, Asia and South America.

AIGUASOL's aim is to create indoor and outdoor spaces and to devise exceptional, comfortable and efficient systems and processes that exert the least possible impact on the environment. By applying best practices in the creation process, AIGUASOL believes it can improve human experience while reducing the resources used. On the strength of its extensive knowledge, experience, neutrality and rigor, AIGUASOL sees sustainability as a key factor in getting people to give their all and feel comfortable in their surroundings.

AIGUASOL works from a variety of perspectives according to its clients' needs so as to offer appropriate solutions and optimum designs.

- **Consulting services.** Proposing solutions and allowing for conclusive and quantifiable decision-making to achieve the desired objectives.
- **Engineering services.** Developing detailed solutions from the early stages through to executive designs, implementation and subsequent monitoring.
- **R&D services.** Designing and marketing new technologies, methodologies and processes rooted in energy efficiency and renewable energy sources.
- **Software services.** Distributing, providing training in and maintaining simulation software and developing custom-made tools. AIGUASOL has developed the solar systems design and optimization tool TRANSOL based on TRNSYS, which has become a standard in the industry.



AIGUASOL Solutions

Over the past nineteen years, AIGUASOL has accumulated a wealth of experience in the fields of energy efficiency, renewable energy systems and environmental quality, both in commercial project implementation, energy planning, policy analysis and the appraisal of R&D&I projects, as key components of a common mission: to reduce greenhouse gas emissions in the framework of a circular economy, creating healthy and sustainable environments. The different solutions are client- and user-oriented, taking their specific requirements, needs and objectives into consideration.



Energy in buildings

Studies and projects in both new and existing residential buildings and all manner of large consumer tertiary buildings.



District networks and large-scale generation

Feasibility, design, implementation and monitoring of district heating and cooling (DHC) systems and other large-scale energy production systems.



Energy policy

Development of energy plans, investment strategies and subsidies as well as local, regional and national regulations.



Energy rehabilitation

Approaches, definition and dimensioning of energy rehabilitation activities in residential and tertiary buildings, whether a client's own investment or a third-party ESCO investment.



Energy management systems

Design and implementation of smart energy management systems: optimised management, preventive maintenance, results-oriented rehabilitation and benchmarking.



Net zero-energy buildings (NZEBS) and environmental certification

Concept, design, implementation and monitoring of net zero-energy buildings (NZEBS), private environmental certification and public energy certificates.



Energy intensity in the industry

Analysis and projects to reduce energy intensity and emissions in industrial processes and facilities.



Other client-oriented solutions

Other client-oriented solutions that require the calculation and optimisation of energy consumption and energy costs.



R&D&I solutions

Services for applied research in energy-related issues such as the development of specific elements, global solutions or product lines, the search for better building solutions, and so on.



Indoor Environmental Quality (IEQ)

Development of strategies to create healthy and comfortable buildings, by incorporating Indoor Environmental Quality requirements and standards in the building's design. Specific consulting service as well as CAI and WELL certifications.



Outdoor Environmental Quality (OEQ)

Development of strategies to improve Outdoor Environmental Quality with a view to promoting healthy and comfortable urban environments. Implementation of monitoring and communication projects on air quality (LIQUENS).

AIGUASOL works for real estate developers, property owners, building contractors, ESCO and investment fund companies, professionals (architects and engineering companies), professional associations, public agencies, multilateral organizations, industries and manufacturers, the primary sector, public services and research centres.

International Cooperation for Development

AIGUASOL is a cooperative with strong environmental and social values, with the commitment to bring clean, affordable and reliable electricity to the global population, regardless its nationality, religion, gender, or any other distinction. Accordingly, our team works towards the achievement of the **UN Sustainable Development Goals (UNSDGs)**, with a special emphasis on UNSDG 7 – Affordable and Clean Energy.



UN Sustainable Development Goals (UNSDGs)

Furthermore, in our **Cooperation for Development projects**, the energy services provided by AIGUASOL serve as a mean to achieve other UNSDGs, usually with a focus in areas with limited access to reliable and affordable electricity. In such context, AIGUASOL promotes high-quality energy access with the aim to encourage socio-economic development of the local population, including reduction of poverty and social inequality, improvement of health and educational services, increase of employment, productive uses and efficient obtention of resources, among others. AIGUASOL's Cooperation for Development projects are usually focused in the following areas:



Rural electrification, usually in the form of green minigrids powered by renewable energy, or Solar Home Systems (SHS)



Capacity building and technical training for either end-users of energy, local private and public institutions, individuals, non-profit entities, etc.



National/regional planning of energy resources and networks



Feasibility studies in the implementation of renewable energy projects (solar PV, biomass) and Energy Efficiency



Project impact analysis, including environmental and socio-economic



Policy, regulations and business models



Innovation projects

HOW WE DO IT

AIGUASOL has relevant international experience in energy consultancy and engineering, having implemented several projects in different geographical regions, including rural, remote areas and Small Island Developing States (SIDS).



Countries where AIGUASOL has provided energy services.

Consequently, the large variety of local environments in which our team has provided energy-related services brings AIGUASOL flexibility, versatility and capacity.

Finally, our international Cooperation for Development projects are generally conducted in **collaboration with local institutions, companies, entities or individual professionals**, which allows our team to perform its activities with the required knowledge of the local context, while creating valuable partnerships and integrating in powerful international networks.



Some Success Stories



Title: Grenada Power System Integrated Assessment Consultancy Project
Client: United Nations Development Programme (UNDP)
Year: 2022
Location: Grenada, (Caribbean)



Title: Assessment and promotion of productive uses of electricity in the Democratic Republic of Congo (DRC)
Client: The World Bank; Hydroconseil
Year: 2021-2022
Location: Democratic Republic of Congo (DRC)



Title: Content Developers and Lecturers for training materials within the Green Banking for Recovery – Capacity Building to Support a Sustainable COVID-19 Response with Green Energy Finance project
Client: RENAC energy & climate
Year: 2021-2022
Location: Sub-Saharan Africa



Title: Technical assistance for the analysis and revision of the tender documents for the installation of a reverse osmosis unit for the production of desalinated water and a photovoltaic power plant
Client: Luxembourg Development Cooperation Agency (LuxDev); Hydroconseil
Year: 2022
Location: Cape Verde



Title: Feasibility Studies for the Development of Minigrids in Burundi
Client: United Nations Development Programme (UNDP)
Year: 2021
Location: Burundi



Title: Promove Energia I: Project Preparation Facility Energy Resource Centre – Capacity Building and Technical Assistance
Client: European Commission; AETS consultants; FUNAE (Rural Electrification Agency in Mozambique)
Year: 2021
Location: Mozambique



Title: Consultancy services for selection, assessment and sensitization of Public Institutions for net-metering solar PV

Client: Ministry of Energy in Ghana; African Development Bank

Year: 2021

Location: Ghana



Title: INNOWIDE – Design and validation of a Smart Solar Modular Container (SSMoC)

Client: European Commission (Horizon 2020)

Year: 2021

Location: Ghana



Title: District Cooling prospection guideline document for Cuba / Cuba District Cooling business case roadmap and 2 prefeasibility studies

Client: United Nations Development Programme (UNDP); National Ozon Unit, Ministry of Science, Technology and Environment

Year: 2021

Location: Cuba



Title: Solar Electrification in Sabana Real and Sabana Yegua

Client: RENAC energy & climate

Year: 2020

Location: Dominican Republic



Title: Transforming Energy Access – Bio-Energy for Sustainable Local Energy Services and Energy Access in Africa (“BSEAA 2”)

Client: LTS International

Year: 2019-2021

Location: W Africa: Ghana, Nigeria;
E Africa: Ethiopia, Kenya, Uganda, Rwanda, Tanzania;
S Africa: South Africa, Mozambique, Zambia



Title: Technical and Financial Review of Project Proposals for the Implementation of Hybrid Solar Photovoltaic Microgrids for GIZ under the Nigerian Energy Support Program (NESP) II

Client: Integration environment & energy; German Corporation for International Cooperation (GIZ)

Year: 2019-2020

Location: Nigeria



Title: Carbon Finance Expert for the design of a Facility to stimulate the creation of low carbon projects by facilitating technical and financial assistance

Client: United Nations Development Programme (UNDP)

Year: 2019-2020

Location: Global



Title: District Cooling Capacity Building Webinars for LATAM and Caribbean

Client: United Nations Development Programme (UNDP)

Year: 2020

Location: LATAM and Caribbean (Dominican Republic, Mexico, Costa Rica)



Title: Pre-feasibility study for district cooling system implementation in the Medellín Innovation District

Client: Development Bank of Latin America (CAF)

Year: 2018

Location: Medellín, Colombia



Title: RENEWABLE ENERGY EXPANSION TO 100%: Plan for the development of the 100% renewable energy supply for St. Helena Island

Client: St. Helena Island Government

Year: 2015-2016

Location: St. Helena Island (British South Atlantic Overseas Territories)



Title: SWOT analysis and report on Mauritius smart city scheme

Client: State Land Development Company LTD (Mauritius)

Year: 2015-2016

Location: Republic of Mauritius



Title: Solar Program

Client: United Nations Development Programme (UNDP) Chile

Year: 2012-2013

Location: Santiago de Chile