

COMPANY PRESENTATION

InterEnergy srl is born in the 1997 from the collaboration of a group of freelance of the energetic field whom they give beyond 20 years carries out independent activity in the industrial engineering, project management, appraisal and planning investments, innovation and technological transfer.

InterEnergy is an engineering and technical consulting firm specialised in the field of sustainable energy, conventional and renewable energy sources, energy efficiency and rational use of energy, energy auditing and planning. The company has expertise in the development and execution of integrated sustainable development strategies.

Our Services include office-based studies, in-country appraisal missions, technology testing and monitoring, design and engineering, and project management. Executed projects range across providing expert advice, conducting advanced high-quality research monitoring, delivering training, and managing renewable energy and sustainable development projects.

The company relies on an interdisciplinary team of professionals (engineers, architects, economists, social scientists), and on a group of associates and collaborating organisations, from whom it draws additional resources as required.

InterEnergy is member of the Italian Electrical Industry Association **ANIE** and founding member of the Italian Photovoltaic Industry Association **GIFI**. The staff of the company has expertise in the creation and execution of integrated sustainable development strategies, and has been active also in Health, Water Supply, Education, Poverty Eradication and Sustainable Development projects in numerous countries throughout the world.

InterEnergy provides advanced solutions in the following technology fields:

Sectors:

- Solar Photovoltaic Energy
- Wind Energy
- Hybrid power plants and integrated energy solutions
- Conventional power plants
- Distributed Generation
- Combined Heat and Power Co-generation and Tri-generation
- Biomasse
- Sistemi di Immagazzinamento dell'energia



- Energy from Biomass
- Energy storage systems
- Biofuels and Biomass-to-Liquid
- Island energy systems
- Hydrogen and Fuel Cells
- Electric Vehicles and Hybrid propulsion systems
- Building-related Energy
- Urban Energy
- Desalination and Water supply

Activities:

- Energy planning and resource assessment
- Development of energy policy options and action plans
- Project identification and development
- Pre-project assessments (technical, economic and financial)
- Project management and planning
- Research project evaluation and monitoring
- Systems design and engineering
- Energy auditing and efficiency assessment
- Systems monitoring
- International prospection and market research
- Training

For any further details You may require, please contact us to, phone/fax No. ++39 06 99206927 – E-mail: info@interenergy.it



EXPERIENCES OF OUR STAFF

Sustainable development:

- Project Technical Assistance (PTA) to the European Commission in the management and monitoring of RTD&D contracts in the Non Nuclear Energy area, namely renewable energy sources, energy storage for stationary and for electric / hybrid vehicle applications, hydrogen storage and management, including project impact assessment and implementation of strategic and promotional actions (ongoing).
- **ENIRDGnet:** European Network for Integration of Renewable Energy Systems (RES) and Distributed generation (DG); technical assistance to Steering Committee of network totalling 37 members from 15 EU countries including utilities, manufacturers, research centres and national energy agencies (ongoing).
- Biomass Use for small-medium District Heating and Combined Heat and Power: Assessment of opportunities and market available technologies for applications in Italy, Austria and Slovenia. Responsible technical advisor of FAST (EU ALTENER cluster coordinator) (ongoing).
- Expert evaluations on behalf of European Commission: Impact Assessment of FP4 Non Nuclear Energy completed Projects (THERMIE B), DG Energy and Transport (2002), Proposal evaluation for DG XVII for Energy (Altener programme 1999-2000, Thermie 1997).
- Energy plan for the islands of Lipari and Salina (Eolian archipelago, Italy): energy audit and planning for gradual conversion towards a sustainable energy system based on renewable energy sources; on behalf of the municipalities of Lipari and Leni, financing by the Italian Ministry for Environment (2001-2002).
- Sustainable development on Italian islands: Guidelines on sustainable transports, Demand Side Management (DSM) and opportunities for combined production of Water and Power (CWP) by means of thermal seawater desalination + CHP; on behalf of CESI (2001-2002)
- Solar Photovoltaics Year 2010: investigation of current status of PV technology, industry and world market and formulation of strategies for European industrial and market development to the year 2010 (EPIA / EC -DG XVII ALTENER programme) 1997 and update 2002
- Energy Audit and Solarisation Plan for the cities of Genoa, Sevilla and Lyon: Proposal development and technical co-ordinator of project for energy optimisation and solar energy on the municipal buildings parks - Under EC DG XVII Altener II programme (1999-2000).



- development (research) project for the gradual conversion of conventional island grids into hybrid renewable/diesel systems, Responsible technical advisor of ANIT (Ansaldo) EC DG XII JOULE III programme (1998-2000)
- Energy efficiency improvement plan for the City of Genoa: Assessment of overall energy balance of the city and identification of first outlines for the future energy plan of the city, on behalf of ARELIG (Agenzia Regionale Energia Liguria S.p.A) 2001
- ALTENER Proposal Evaluation: on behalf of European Commission Directorate General XVII for Energy, expert evaluation of project proposals submitted to Altener programme 1999-2001
- International Energy Agency IEA Executive Conference on "Photovoltaics: II Valore del Sole" 3-5 Nov. 1999 Venice. Technical Conference Secretary acting on behalf of the Organising Committee, concept papers development, co-ordinated all conference preparation and implementation activities
- Thermie Proposal Evaluation: on behalf of European Commission DG XVII for Energy, expert evaluation of project proposals submitted to Thermie programme in the Photovoltaic field 1997.
- Renewable Energies on Mediterranean Islands: investigation of technical potentials and socio-economic conditions/barriers for the introduction of renewable energy applications on Mediterranean islands (on behalf of the Italian national utility ENEL under the EC DG XII APAS programme) 1996
- Solar Boats for Venice: Italian partner consultant for a feasibility study concerning the application potentials in Venice of electrical and solar powered boats (on behalf of Eurosolar Bonn under the EC - DG XII - APAS programme) 1996
- **EURE:** Strengthening co-operation among leading European utilities regarding the development and integration of renewable energies (EC DG XII). Area 2: technology transfer to eastern Europe and developing countries 1995
- Data Acquisitioning for M7 Wind-Generator: Responsible for design and turn-key supply/installation of a remote monitoring system aimed to collect operational data from an experimental M7 single blade wind-turbine-generator of Riva Calzoni 1995
- Solar PV Rooftops ENEL (Italian national utility): Assessment of the solar photovoltaic (PV) energy potential of rooftops in the Italian Apuglia region and design of an application standard for building integration of PV retrofits.1994
- Zambelli Photovoltaic Pumping Station: System design & engineering, mounting supervision, installation, commissioning and start up of a 70 kWp solar PV pumping station (demonstration plant financed by EC DG XII); 1982-1988
- DELPHOS I ENEA PV Power Plant: Design/engineering, installation supervision, commissioning and start up of first 300 kWp section of experimental PV power plant. 1988



Energy audits:

- Energy efficiency in Hospitals: Energy audit of public hospitals in the Liguria Region (Italy), guidelines for energy efficient design of new hospitals, energy improvements and micro-CHP application in existing facilities; responsible technical advisor of Agenzia Regionale Energia - Liguria S.p.A (2003)
- Energy efficiency improvement plan for the City of Genoa: Overall energy audit of the city and identification of first outlines for the future energy plan for the city of Genoa, on behalf of ARELIG (Agenzia Regionale Energia Liguria S.p.A) (2001-2002)
- 940 MW Combined Cycle Combined Heat and Power plant (Caserta): first technical and environmental impact evaluation, on behalf of SONDEL-FALCK (1999-2000)
- Combined Heat and Power Plant ASI Marcianise: technical and economic evaluation study of operational potentials of the CHP plant of Consorzio Ancedisa - Marcianise Sud - Caserta (Italy) 1998
- Energy Audit International Airport Rome: Co-ordinator for investigation of the energy consumptions of the international airport of Rome (Fiumicino), identification and cost/benefit analysis (return of investment) of potential energy saving interventions. 1994

Renewable Energy Power Plants (realisations):

- Data Acquisitioning for M7 Wind-Generator: Responsible for design and turn-key supply/installation of a remote monitoring system aimed to collect operational data from an experimental M7 single blade wind-turbine-generator of Riva Calzoni 1995
- DELPHOS I ENEA PV Power Plant: Design/engineering, installation supervision, commissioning and start up of first 300 kWp section of experimental PV power plant. 1988
- East Oweinat Egypt: Design/engineering of hybrid renewable power plant including 200 kWp solar PV array, 325 kW wind-turbines and 15 kW biogas generator for rural electrification in Sahara desert. 1988
- Zambelli Photovoltaic Pumping Station: System design & engineering, mounting supervision, installation, commissioning, start up, monitoring and operation supervision of a 70 kWp solar PV pumping station (demonstration plant financed by EC DG XII); 1982-1988



Telecommunications, Information technology:

- Telefonia di Base: Project manager of monitoring, analysis and evaluation study on large-scale investment programme aimed to improve basic telephone infrastructures in southern Italy supported by the ERDF (EC - DG XVI). 1995
- EC Interventions in Telecommunications: Co-ordinator of strategic evaluation study for the assessment of the socio-economic impact of EC interventions in the telecommunications sector in southern Italy (ERDF -European Commission DG XVI). 1995
- COMPASS (Company Performance Analysis and Strategic Specification) (EU ESPRIT III programme): Software tool-set development enabling SME's to optimise business objectives and strategies. 1995
- **BIDPREP** (ESPRIT III): Software tool for automatic bid/proposal development in industrial enterprises on the basis of historical data available from previously executed projects (1994)

International Cooperation, Technology Transfer:

- Solar PV Electrification for Rural Development: Socio-economic surveys and conceptual design of rural development programmes through application and dissemination of small scale PV solar systems in: Philippines, Indonesia, Argentina, Jordan, Tunisia, Algeria, Senegal, Zimbabwe etc. (1990-2000)
- Urea Plant Mogadishu (Somalia): Supervisor and inspector for technology transfer and training programme for Somali technicians. Critical review of investment for a urea production facility in Somalia. 1989-1990
- Fisheries Development on Lake Victoria Uganda: Conceptual design and technical assistance to a fisheries development programme adopting technologies appropriate for local application (1989)



PUBBLICATIONS:

- 1. "Proiezioni di Mercato", Fotovoltaici n. 1/2005 pp. 50-51; Artech Publishing Milano;
- 2. "Incentivi determinanti a favore delle fonti energetiche rinnovabili in Germania", Gestione Energia, periodico di informazione tecnica per gli energy manager, N. 4/2004, ENEA-FIRE-ISNOVA Fabiano Editore
- 3. "Occhio al bilancio Dominano il petrolio, i trasporti e le centrali. Le occasioni sprecate per rinnovabili e cogenerazione. Radiografia del paese del sole", QualEnergia n. 4/2004, Editoriale La Nuova Ecologia, Roma
- 4. "La Germania sempre più all'avanguardia Aggiornamento della legge sulle rinnovabili", Energie Alternative, Mensile di notizie sulle fonti rinnovabili n. 11/2004, Supplemento alla Staffetta Quotidiana, La Rivista Italiana del Petrolio Editrice;
- 5. "Leggi tedesche per le rinnovabili: più efficienza del sistema e maggiori certezze per chi investe. Il modello "a tariffa" tedesco, oltre a sviluppare maggiormente il settore delle rinnovabili rispetto al sistema dei CV italiano, presenta anche costi inferiori per kWh prodotto". Ilsoleatrecentosessantgradi Newsletter di ISES ITALIA Sezione dell'International Solar Energy Society, Dicembre 2004
- 6. "La Germania accelera sulle rinnovabili La revisione della legge entrata in vigore lo scorso agosto", staffetta Quotidiana, La Rivista Italiana del Petrolio Editrice, 27 Nov. 2004;
- 7. "Sul tetto del mondo I successi in Giappone e Germania e lo stallo nel "paese del sole" Strategie industriali a confronto", QualEnergia n. 3/2004, Editoriale La Nuova Ecologia, Roma
- 8. "Resta il buio sul black-out Cosa successe la notte del 28 settembre 2003, Italia al buio Parere sul rapporto presentato dall'Autorità per l'energia elettrica e il gas, www.lanuovaecologia.it/energia/politiche/3151.php, 28 aprile 2004,
- 9. "Basta con le calunnie sul Fotovoltaico" Fotovoltaici n. 3/2004 pp. 20-22; Artech Publishing Milano:
- 10. "L'energia fai-da-te" QualEnergia n. 4/2003, Editoriale La Nuova Ecologia, Roma
- 11. "Il nord Europa dà l'esempio" QualEnergia n. 3/2003, Editoriale La Nuova Ecologia, Roma
- 12. "L'esempio della Germania" Energie Alternative, Mensile di notizie sulle fonti rinnovabili n. 5 anno 1 (2003), Supplemento alla Staffetta Quotidiana, La Rivista Italiana del Petrolio Editrice;
- 13. "Le caldaie super-efficienti" QualEnergia N.2/2003, Editoriale La Nuova Ecologia, Roma
- 14. "Italia, paese del Sole" Energie Alternative, Mensile di notizie sulle fonti rinnovabili n. 1 anno 1 (2003), Supplemento alla Staffetta Quotidiana, La Rivista Italiana del Petrolio Editrice;
- 15. "E' ora di premiare il kW solare" Energia Solare FV n. 2/2003 pag. 39-45; Artech Publishing Milano:



- 16. "PV-roofs on Italian minor islands An Opportunity and test Bed for Village Power and for Sustainable Development" Proceedings "PV in Europe From PV Technology to Energy Solutions Conference and Exhibition", Rome, Italy 7-11 October 2002.
- 17. "Germania, programma 100.000 tetti FV" Fotovoltaici n. 1/2002 pag. 39; "La marcia dei centomila" Fotovoltaici n. 3/2001 pp. 45-47; "Germania: Precedenza alle fonti rinnovabili", Fotovoltaici n. 1/2001 pp. 34-41; Artech Publishing Milano;
- 18. "Gradual Introduction of Photovoltaic Systems in Greek, Italian and French Island Utility Grids" 17th European PV Solar Energy Conference and Exhibition, Műnchen (Germany) 22-26 October 2001
- "Gradual penetration of photovoltaics into island grids and Grid Master Control Strategies" Proceedings 16th European PV Solar Energy Conference and Exhibition, Glasgow (UK), 1-5 May 2000
- 20. "Grid Master Control System for the Gradual Penetration of Photovoltaics into Island Grids" Conference POWER GEN '99 Europe, 1-3 June 1999 Frankfurt Germany
- 21. Conferenza Nazionale Energia e Ambiente, Roma Palazzo dei Congressi 25-28 nov. 1998, ENEA / ERVET Scheda 24 "Il consumatore come protagonista" (sezione tecnologica)
- 22. "Fotovoltaico: Evoluzione del Mercato al 2010", Quaderni del Sole, anno 1°, numero 2, ISES Italia, Edizioni Dedalo (1997), pp. 58-64.
- 23. "Renewable Energies on Mediterranean Islands" Proc. 14th European PV Solar Energy Conference, Barcelona (Spain) (1997), pp. 502-505.
- 24. "Solar PV Parking Roofs and their Evolution in Italy" Proc. 14th European PV Solar Energy Conference, Barcelona (Spain) (1997) pp. 1951-1952.
- 25. "Photovoltaics in 2010", Vol. 3: "The World PV market to 2010" EC DG XVII for Energy. Luxembourg: Office for Official Publications of the European Communities, 1996
- 26. "Solarbetriebene Boote für Venedig", Z. Solarzeitalter N° 3, Eurosolar, Bonn, pp. 3-8 (1996)
- 27. "Solar Powered Boats for Venice" Proc. 13th European PV Solar Energy Conference, Nice (France) (1995) pp. 2164-2167.
- 28. "Solar Photovoltaics to Year 2010: A Plan for Europe" Proc. 13th European PV Solar Energy Conference, Nice (France) (1995), pp. 1186-1189.
- 29. "Batteries and Charge Controllers for PV Systems" PHOTOVOLTAIC SYSTEMS, Fraunhofer-Institut für Solare Energiesysteme (FhG-ISE), Freiburg 1995, pp.109-141
- 30. "Large-scale projects" Solar Electricity, UNESCO Energy Engineering Learning Package, John Wiley & Sons UK, pp.182-189 (1994).
- 31. "The Successful Implementation of Photovoltaics in Developing Countries" Proc. 12th European PV Solar Energy Conference, Amsterdam, pp.2004-2007 (1994)
- 32. "Batterien und Laderegler für Photovoltaik-Anlagen" PHOTOVOLTAIK-ANLAGEN Fraunhofer-Institut für Solare Energiesysteme (FhG-ISE), Freiburg 1994, pp.111-139



- 33. "Assessment of PV Rooftop Integration into Southern Italian Architecture", Proc. 3rd European Conference on Solar Energy in Architecture and Urban Planning, Florence, pp. 282-284 (1993)
- 34. "ZAMBELLI PV Pumping Station (70 kWp) Operating Experiences and Results", Proc. 10th European PV Solar Energy Conference, Lisbon, pp. 822÷825 (1991).
- 35. "ZAMBELLI PV Pumping Station (70kWp) Plant Improvements and Results", Proc. 9th European PV Solar Energy Conference, Freiburg, pp.885÷888 (1989).
- 36. Mensile nautico BOLINA Editrice Incontri Nautici (Roma): Serie di articoli tecnico-divulgativi sull'impiantistica di bordo e sull'applicazione di generatori alternativi su imbarcazioni, dal 1988-1994.
- 37. "ZAMBELLI PV Pumping Station (70kWp) Optimization and monitoring", Proc. Euroforum New Energies International Congress, Saarbrücken, pp. 267÷268 (1988).
- 38. "Photovoltaic Pumping Station for Fresh Water Supply", Int. J. SOLAR ENERGY, Vol.3, 164÷172 (1985).
- 39. "Dissociated Nitrogen Tetraoxyde as a Working Fluid in Thermodynamic Cycles", J.NUCLEAR SCIENCE AND ENGINEERING, N°72, pp. 330÷346 (1979).
- 40. "Kreisprozesse mit Stickstofftetraoxyd", Z. ELEKTRIZITÄTSWIRTSCHAFT, N°24, pp. 821÷829, N°25 pp. 861÷866 (1978).