

1 Curriculum Vitae Asier Larretxea

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Date of Birth : August, 19th, 1981
Place of Birth : Donostia - San Sebastian, Spain
Nationality : Spanish

KEY QUALIFICATIONS

Asier Larretxea is a senior consultant associated to SQ Consult, leading several on energy strategy, power system analysis and the introduction of sustainable energy solutions in the built environment, for policy makers and industrial partners.

He has directed and coordinated international projects in the energy sector at different levels (from international policy to building level projects), such as: “risks and opportunities from the power sector transformation for distribution system operators (DSOs)”, “Electricity market reforms (ERMs) and discussed Capacity Remuneration Mechanisms (CRMs)”, “Impact of distributed solutions in the power sector configuration”, “International review of microgrid research activities”, “Research on advanced international energy performance and water efficiency regulations for residential and service buildings”, “Implementation and market analysis for promotion of Renewable Energies and technology in the Basque Country”, “Sustainable Energy Plan for Province of Gipuzkoa”, “Research for the development of a tool to assess the energy use on new urban developments”, “The development of the solar thermal legislation for Chile”, the “research on the international estate of the art on district heating and cooling” and various technical studies for building performance optimization, among others.

Together with his activities in SQ, since the beginning of 2013 Asier is conducting a PhD research, using complexity theories to analyze the energy transition (towards a smarter, more sustainable and more decentralized electricity systems), improve decision making processes for industry, and identify upcoming risks and opportunities. The research is being conducted at the Innovation, Environment and Energy Department, Copernicus Institute of Sustainable Development (Utrecht University). Furthermore, Asier works at the Corporate Strategy Department of Eneco (Dutch Utility).

In addition to his activities as project manager, Asier is experienced in topics related to energy system’s modeling, system’s analysis, Sustainable Development, Sustainable Construction (he is familiar with BREEAM and Green Building Tool assessments (GB-Tool)).

In the past, Asier worked at Ecofys, an international consultancy firm as Project Manager in the department of Energy in the Built Environment and at Wageningen University as a researcher.

Asier holds a MSc. in Urban Environmental Management, specialized on Sustainable Buildings and Energy in the Built Environment by the Wageningen University and Research – WUR (The Netherlands). He concluded his studies on Landscape Architecture and Urban and Regional Planning at WUR. He is also an MSc Agriculture Engineer at the Public University of Navarra (Spain).

EDUCATION AND TRAINING

- 2013- Copernicus Institute of Sustainable Development. Utrecht University.
PhD Research: Complexity theories for the analysis of the energy transition.
- 2004-2006 Wageningen University and Research, The Netherlands
Master in Urban Environmental Management esp. Sustainable Buildings and Energy in the Built Environment”.
- 2004-2005 Wageningen University and Research, The Netherlands
International Studies of Landscape Architecture: Urbanism and Regional Planning.
- 2003-2006 Public University of Navarra, Spain
Agriculture engineering (Master).
- 1999-2003 Public University of Navarra, Spain
Technical Agriculture Engineering
Distinction with Best academic curricula (2003).
(10) Graduate with honours.
Finalist: National Prize of Landscaping and gardening, IBERFLORA (2004)

LANGUAGES

- English: Excellent
- Spanish: Mother tongue
- Basque: Mother tongue
- Italian: Good
- Catalan: Reading and understanding

WORK EXPERIENCE

- 2009- to present SQ Consult B.V. International.
Senior Consultant Energy. Efficiency, Renewables and energy systems.
- International project management, delivering high quality projects.
 - Identifying new business opportunities on Renewable energy, energy efficiency and sustainable construction in buildings and urban areas.
 - Acquisition on Spanish and Latin American markets.
 - Renewable energy policies and implementation strategies.
 - Expert in energy efficiency and the integration of renewable energies in the built environment. Planning and implementation.
 - Knowledge management and quality control.

- 2014- to present Eneco B.V.
Senior Consultant Energy Systems
- Project management, delivering high quality projects.
 - Analysis on impact of energy transition in current business models.
 - Identification of opportunities and risks on the energy system.
 - Support to the Fundamental Analysis team on energy modeling.
- 2006- 2009 Ecofys Spain SL.
Consultant Energy Efficiency and Renewable Energy
- International project management, delivering high quality projects.
 - Identifying new business opportunities on Renewable energy, energy efficiency and sustainable construction in buildings and urban areas.
 - Responsible for acquisition in the northern Spain. Total
 - Acquisition/contracted value year 2008: 270.000 €.
 - Expert in energy efficiency and the integration of renewable energies in the built environment. Planning and implementation.
- 2005 – 2006 *Wageningen University and Research, The Netherlands*
Coordinator and Researcher at Urban Environmental Management Group. Study of the Energy Performance in Buildings Directive (EPBD).
- Coordination of a research team for a study on the implementation of the legislation for renewable energies and energy efficiency in buildings, in Spain.
- 2005 *RAL Architectural office, Rotterdam, The Netherlands*
Internship: Coordination of “Workshops for the International Biennale of Architecture of Rotterdam”
- Coordinator of the technical/scientific content for the sustainable design workshop. Topics: Renewable energy production from inverse osmosis (Blue Energy) and “Decentralized water treatment systems (DESAR concept).

SELECTED [RESEARCH AND] CONSULTING ASSIGNMENTS

- 2016- Use of Cognitive maps and network theories for the analysis of expert views on the future energy system. Private, 2016;
- 2015-2016 Identification of main factors that influence future electricity system transformation Expert analysis. Private Utility, 2016.
- 2015-2016 Risks and opportunities from the power sector transformation for distribution system operators (DSOs). Private System Operator, 2015;
- 2015 Role of microgrids as enabler of decentralized energy business models. Private Utility. 2015;
- 2014 Smart Microgrids. Concept definition and role in the future power system. Private Utility. 2014;

- 2014 Defining smart microgrids: Literature review on international understanding of microgrid and smart grid concepts. Internal Research. Utrecht University. 2013-2014;
- 2013-2014 Electricity market reforms (ERMs) and discussed Capacity Remuneration Mechanisms (CRMs), Italy. EU Commission. 2013-2014;
- 2013-2014 International State of the Art of sustainable energy and water building regulations: European, US and Israeli case studies. Grundfos 2013-2014;
- 2012-2013 Advisory services on local low carbon energy systems. Various municipal governments, Regions of Catalonia and Basque Country. 2012-2013;
- 2012-2013 Towards innovative energy microgrid systems: Matching the curves of renewable energy supply with new efficient demand profiles. External Researcher. Various. 2012-2013.
- The research focuses on the deep understanding of microgrid systems in order to improve the reliability, security, efficiency and quality of the electricity supply infrastructure. The study identifies the interactions between fluctuating renewable supply, distribution, storage and active demand measures. Next, the research will focus on potential business models for “microgrid utilities”.
- 2010-2012 Development of the Sustainable Energy Plan for the Province of Gipuzkoa. Project director. Regional Government of Gipuzkoa. 2010 – 2012;
- 2011-2012 Research and preliminary projects to analyse market opportunities for biogas plants in 3 rural areas. Project director. Various rural development associations. 2011-2012;
- 2010-2011 Study for the promotion of renewable energy installations together with business opportunities for the Basque Region. Project director. LKS Scoop & Social and Economic Council of the Basque Country (CES Vasco). 2010 – 2011;
- 2010-2011 Evaluation of international best case examples to overcome the barriers in the promotion of Renewable Energies in the Basque Region. Project director. Social and Economic Council of the Basque Country (CES Vasco). 2010 – 2011;
- 2010-2012 Implementation of a sustainable energy supply infrastructure for a small village: Towards a feasible fully renewable energy supply. Project director. Regional Government of Gipuzkoa. 2010 – 2012;
- Feasibility study and design for the renewable energy supply infrastructure for a small village, including analysis of thermal and electricity demand curves, dimensioning of central biomass (woodchip) boiler, integration of solar thermal and PV systems for households and administrative buildings and a feasibility study for two 1MW wind turbines.
- 2010-2011 Advisor for the government on the energy strategy for the Province of Gipuzkoa. Regional Government of Gipuzkoa, Spain. 2010.
- 2008-2009 Pre-Assessment for BREEAM sustainable building certification in a 56.000m² shopping mall, Madrid. Project director. ING Real State Development. 2008-2009;
- “BREEAM Retail” advisor responsible for the improvement of the environmental performance of the building in design group of the company. An innovative design of the

- energy installation (HVAC & lighting), management and control was proposed, including energy simulation services.
- 2009 Development of the technical requirements on the regulation for solar thermal collectors and systems. Project director. National Commission of Energy, Chile. 2009;
- Drafting of technical prescriptions for solar installations in Chile in order to fulfil the international quality standards, including the instructions for system dimensioning, shading desing, technical requirements of the machines and labeling.
- 2008-2009 Worldwide estate of the art of District Heating and Cooling and future implementation in Chile. Project Director. National Commission of Energy, Chile. 2008-2009;
- Identification of DHC business models infrastructure typologies, and technical requirements in countries with well established DHC markets, in order to install distrital infrastructures in 2 chilean regions.
- 2008 Study for obtaining Spanish best energy certificate in apartment buildings”. Project Director. Abaroa S.A. Project Developer. 2008.
- Advisor of the engineering department of the construction company, for the improvement of the building envelope and energy systems in a 48 apartment building project. The last goal focused on optimizing the energy factors in order to increase the new energy label according to the spanish legislation, using the official energy simulation tool.
- 2007 Energy efficiency and renewable energy implementation study in a warehouse. Project Director. INEL 2000 Engineering – Leroy Merlin. 2007;
- Energy advisor for the engineering company to improve the energy performance of the building. During the design process, several improvements were simulated and addressed in the building, such us: Building envelop optimization, building shading solution, glazing design, natural lighting, cross (natural) ventilation, HVAC design and COP optimization, and 500kW PV installation.
- 2006-2009 Energy Mirror systems for building energy management and monitoring. Project Director and Installation responsible. Public administration and private sector. 2006-2009;
- Installation of a visual EM devide with a double function: Identify the energy and water consumptions of the buidings and make building users aware of their impact on the consumption.
- 2006-2007 Research for the development of the Catalan tool for energy performance on location, (planning and urban developments). Expert. Catalan Government 2006-2007;
- 2006-2007 Support for implementation of the Spanish Building Code (CTE) on Energy Savings chapter for a logistics warehouse in Sollana (Valencia). Expert. Coperfil Group. 2006-2007;
- Energy advisor for the selection of materials and building solutions for the compliance with the new spanish building code regarding energy.

- 2007-2008 Development and organization of courses on Spanish Building Code (CTE) on Energy Savings chapter. Various project developers;
- Development of courses for engineering and architecture departments focused on legal, technical and financial aspects regarding ventilation and energy performance of buildings, based on the improved spanish energy building code.
- 2007 Development and organization of courses for energy efficiency and savings in the public administration. Catalan government. 2007;
- 2006-2008 Partner European Project “Check It Out! Energy at School”. European Commission. 2006-2008.
- Proposals for improvements of the energy performance on scholar buildings based on 25 energy audits and drafting of recommendations for the building managers.
- 2006 Coordinator for the study of the European Energy Performance Building Directive (EPBD) implementation in Spain. Wageningen Research Centre. 2006.
- Leader of scientific research group regarding the EPBD implementation process in Spain, with deep focus on the position of project developers, engineering companies and installation comanies involved.

SELECTED PUBLICATIONS AND REFERRED SCIENTIFIC ARTICLES

- 2006 Larretxea Barja, A. Blue energy: Salinity Gradient Power. On “Suburban Ark, Biennale of Architecture in Rotterdam, p. 42-46. 2006. The Netherlands.
- 2006 Larretxea Barja, A. DESAR Decentralized Sanitation and Re-use. Published on “Suburban Ark, Biennale of Architecture in Rotterdam, p. 28-33. 2006. The Netherlands.
- 2005 Min, B., Larretxea Barja, A. Design Meerstad: Visible Energy. Published on “Grounds for Change Energy Valley”, p. 65 - 68. 2005. The Netherlands.