CURRICULUM VITAE – MATTEO LEONARDI

Proposed role: Renewable energy, energy access expert

Family name: Leonardi

First names: Matteo

Date of birth: 20th October 1973

Nationality: Italian

Contact details: mtleonardi@gmail.com

Education:

Institution	Degree(s) or Diploma(s) obtained:
(Date from - Date to)	
Imperial College of London (1999-2000)	Master of Science, Energy Policy – Environmental Technology.
University of Milan (Univeristà statale di Milano) (1994-1999)	BA in Economic history. Final thesis: Environmental responsibility of firm; the electricity industry experience in UK from 1945 to liberalization

Language skills: Indicate competence on a scale of 1 to 5 (1 - excellent; 5 - basic)

Language	Reading	Speaking	Writing
Italian	1	1	1
English	1	1	1
Kiswahili	3	3	4
French	2	3	4

Membership of professional bodies:

- REEF, Renewable Energy Foundation: Member of Board; Delegate for SPES (Servizi Per l'Energia Solidale), "Services for cooperative energy solutions in developing countries". From 2012, www.spesweb.eu
- Retenergie -renewable electricity production cooperative. Member of Board, www.retenergie.it. From 2012
- ARTI Agenzia Regionale Tecnologia ed Innovazione regione Puglia- Puglia Regional Agency for Technology and Innovation: Member of scientific Committee. 2008-2009

Other training:

- Regulation of the Electricity Sector in Developing Countries, The Institute for Public-Private Partnerships (Feb 2017)
- Maps and geospatial revolution, GPS and mapping, on-line course at Pennsylvania State University (May 2015)
- CEER Training course for energy regulators (Council of European Energy Regulators), European University Institute; Robert Schuman Centre for Advanced Studies (October 2004)

Arusha, Tanzania Philips Rd, Plot 109, Block 02 +255 789 626665

Email: mtleonardi@gmail.com

Milano, Italy Via Cola Montano 8, 20159 +39 348 9290918 **Present position**: Energy and electricity market consultant

Years of experience: 15 years

General Professional Experience: Mr. Leonardi is a senior energy consultant with over 15 years professional experience. His area of expertise focuses on energy infrastructure development with particular reference to renewable energy sources, distributed generation and energy access technologies and policies in developing countries and rural contexts. Matteo has worked for public institutions, regulatory bodies, research agencies, NGOs, environmental associations and the private sector. He has long experiences in early phases of electricity infrastructure development, modern energy access impacts and opportunities on local communities, integration of renewable energy sources into electricity market, mechanism to promote renewables and off-grid/mini-grid development for rural energy access and electrification, mechanisms to start-up income generating opportunities, project assessment and evaluation. His experience is mainly focused in Europe and Africa where he has been long term resident for rural energy access and renewables development projects. He has been working for the National Association of Regulatory Utility Commissioners (NARUC) as a consultant to promote a favourable renewable legal framework in ECOWAS countries. He has been project manager for mini-grid projects and has run mini-grid assessment studies for a number of NGOs and the private sector. He is working in support of the development of Zambia and Cameroon Action Agenda within the SE4all national strategies. He started his professional career at the Italian Renewable Producers Association, he has worked for the Italian Electricity Authority following CO2 emission and renewable policies at national and European level. Matteo has considerable experience, at international level, in working in the area between the community, the institution, the private and the international cooperation sector. He has been involved in capacity building and training programmes for investors, institutions and regulatory bodies. He shows excellent skills working with different stakeholders at all levels. Matteo has extensively worked with industry actors, and has a good grasp of industrial and technological cooperation, technology transfer, investment opportunities and barriers towards sustainable energy development in developing countries.

Professional experience

Date from - Date to	Location	Company& reference person (name & contact details)	Position	Description
10/12/2016 31/01/2017	Ghana Burkina Faso	Technologies Giuseppe Enne, Project coordinator ennegiuseppe@gmail.com Monica Serrantoni, Project manager monicaserrantoni@gmail.com	Evaluator	Final evaluation of EU founded project "Provision of modern, affordable and sustainable energy services to rural poor communities in West African countries from Jatropha curcas oil: an integrated approach based on technological transfer and capacity building improvement". ACP-EU Energy Facility, Grant Application Form, 10th European Development Fund
01/10/2016 present	EU Eastern partner countries	Kantor Nikos Tourlis, Project Manager nikos.tourlis@gmail.com	Consultant	Assessment of existing mechanisms to promote PV roof top technologies in selected countries. Identification of barriers, recommendation for a favourable institutional framework. Armenia, Azerbaijan, Belarus, Georgia, Ukraine, Moldova
01/09/2016 present	Italy	WWF Mariagraziamidulla, Head of Climate Change Unit, m.midulla@wwf.it	Consultant	Author of the report: "Policies and measures to accelerate the energy transition and the phase out of coal generation in the electric sector". Consultant for KR foundation project "Driving European asset owners' energy investments from coal to renewables"
01/2016 present	Zambia Cameroon	SOFRECO/African Development Bank dorian.vasse@sofreco.com	Renewable energy policy expert	Consultancy service for support to SE4ALL country action processes in Zambia and Cameroon. Energy access, renewable and energy efficiency measures and policies with reference to the SE4all targets. Contribution for the countries Action Agenda and Investment prospectus.
01/2014 present	Italy	Politecnico di Milano, marco.merlo@polimi.it	Energy access expert	Collaboration with Politecnico di Milano, Energy department, working group on energy access projects. Mini-grid development and impact assessment of energy access on rural communities. Research and practical case in Tanzania.
03/2015 03/2016	Tanzania	ENGIE (GDF-Tractebel), Power corner initiative frederic.madry@tractebel.engie.com	Consultant	Assessment of mini-grid systems in rural Tanzanian villages. Survey of over 100 villages, socio-economic assessment on four selected villages. Development business and community mini-grid management model.
09/2015 03/2016	Italy	WAME World Access to Modern Energy association Pippo Ranci, President, Pippo.ranci@gmail.com	Author	Author of the book on modern energy access and the achievement of Sustainable Development Goal # 7. Il mulino, Poveri di energia, Pippo Ranci, Matteo Leonardi, Laura Susani, 2016.
03/2015 03/2016	Tanzania	Istituto Oikos elena.vercillo@istituto-oikos.org	Project developer	Project developer, governance and regulation expert for EEP project to start up a revolving fund to finance PV off-grid systems in rural secondary schools in Tanzania. Regulatory aspect and tariff settings

06/2015 03/2016	Tanzania	MPDO masaai pastoralist development organization mpdolareto2005@gmail.com	Project developer	Project developer for USaid project to bring electricity services in rural primary schools of Tanzania, Monduli District.
05/2013 - 05/2014	Ghana and other ECOWAS countries	Naruc (USA) - National Association of Regulatory Utility Commissioners, Erin Hammel, Technical Manager, ehammel@naruc.org	Consultant in energy policy and regulation	Advisor in energy policy and regulation in West Africa (ECOWAS countries). Working with ECOWAS regulatory bodies in integration of renewables in existing electricity markets Author of a principles of renewable energy regulation document in ECOWAS country and technical workshops director.
06/2013 05/2016	Italy	Fondazione AEM, WAME World Access to Modern Energy association laura.susani@a2a.eu	Consultant	Scientific advisor for the association WAME and EXPO 2015, World Access to Modern Energy. Providing technological, social and economic contents for the association. Methodology to assess project impacts, distributed generation, rural electricity access and cooking technologies options and barriers.
03/2014 03/2015	Tanzania	Oikos East Afica paola.mariani@istituto-oikos.org	Consultant	Supervisor of off-grid/mini-grid renewable projects in AruMeru District, Tanzania. Follow the implementation of renewable energy projects, (Politecnico di Milano/Polisocial, Ekoenergy, Energy Assistance), support the organization in its energy strategy, develop new project opportunities.
12/2013- 04/2014	Congo (RDC)	SofiaGlobal, Arnout Mertens arnout.mertens@sofiaglobal.org	Consultant	Consultant on socio economic impact and opportunities following the entering into service of ELKAP1 off-grid hydro tubine in Kapanga region, Congo. Developing strategy document to assure ELKAP generating capacity long term sustainability, increase income generating opportunities and extend the system to serve remote customers.
2005 – 12/2013	Italy	Ref-e economics, engineering, energy, environment, Pia Saraceno, President, pia.saraceno@ref-e.com	Senior consultant	Senior consultant on energy policy and energy markets, renewable energy investments, long term renewable and energy efficiency policy impact assessment, electricity tariffs, renewable and energy efficiency incentive mechanisms and costs. PV market and incentive scheme analyst.
10-11/2012	Italy	ICS-UNIDO United Nation Industrial Development Organisation, Mr. Stefano BOLOGNA, Project Manager, +43 1 260 260	Short term expert	Renewable energy policy expert, rural electrification and energy access in developing countries. Scientific advisor for the organization of UNIDO-Politecnico di Milano conference: Sustainable Energy Strategies in Low and Middle-Income Economies. Support for training selection and organization
12/2012	Nicaragua	ACRA, Tiziana Trentadue, Desk Officer Tel: +39 02 27000291 tizianatrentadue@acra.it	Energy consultant	Energy consultant within the Project "intervento a tutela della biodiversità nella Riserva della Biosfera Rio San Juan", Nicaragua, socio economic assessment of off-grid PV system, integration of PV as an income generating opportunity for the local community.

2011 – 2012 2011 – 2012	Italy Italy >	ENEA National Agency for New Technologies, Energy and the Environment, Director Advisory Unit carlo.tricoli@enea.it Fondazione Energylab	Energy and environment consultant Energy report	Consultant for the development of a common methodology to assess renewable energy and carbon free technologies costs. Energy market assessment of Congo Brazzaville. Evaluation of grid technologies	
2011 2012	Congo Brazzaville	luca.valota@energylabfoundation.org	author	versus decentralized generation options. Corporate social responsibility in the development of new electricity infrastructures.	
2011 – 2012	Italy	Ecorisoluzioni, Dario Sabbatini, dario.sabbadini@alekos.net	Energy consultant	Off-grid system design, energy efficiency measures in small size off-grid scheme for rural electrification. Economic evaluation of alternative electricity access options, off-grid electricity tariff design for long term project sustainability.	
11/2008 – 07/2011	Tanzania	Istituto Oikos / Oikos East Africa, Rossella Rossi, President, rossella.rossi@istituto-oikos.org Ramhadani Kupaza, Director, ramadhani.kupaza@oikoseastafrica.o rg	Project manager	Manager of "Best Ray" project: "bringing energy services to Tanzanian rural area". EU funded project aimed at providing two rural Districts of Northern Tanzania with renewable energy services and energy policies. Developing sustainable models for Community Energy Resource Centres. Developing District energy policy guidelines.	
07/2006 01/09/2013	Italy	WWF, Mariagrazia Midulla, Head of Climate Change Unit, m.midulla@wwf.it	Advisor	Advisor on energy policy: renewable energy, energy efficiency, fiscal mechanisms, tariff structures of energy goods, particularly for rural electrification purposes. Innovative incentive schemes to promote green economy. Energy scenarios, position papers over Kyoto mechanisms, emission trading and flexible mechanisms. Ecological footprint. Partner of the top ten EU funded project on energy efficiency for domestic appliances.	
07/2005- 11/2008	Italy	Aper: Association of Renewable Producer, Roberto Longo, Hononary President, longo@aper.it	Head of the "green certificate unit"	Advisor on the design of national renewable incentive scheme. Market fundamental analysis of renewable energy credits: demand and supply, price projection of green certificate.	
2005	Slovenia	FISI Spa, Finanziaria Italiana per lo Sviluppo Industriale (Italian industrial development holding)	Consultant	Consultancy over Slovenian integration in EU energy market. Electricity cross border harmonization and reciprocity of renewable incentive schemes. Evaluation of industrial opportunities following optimal harmonization of Slovenian electricity market within the EU.	
2005-2006	Italy	ENEA National Agency for New Technologies, Energy and the Environment, Advisory Unit, Former Director: mannacarlo@fastwebnet.it	Consultant	Consultant on national energy policy strategies: security of supply and long term greenhouse emission targets. Governance issues and implication of subsidiarity into national and regional decision making process. Cost-benefit analysis of energy efficiency and renewable incentive scheme.	

2005-2007	Italy	Ministry of Economics and Finance	Consultant	Consultant for the introduction of environmental accountability procedures at local level. Proposal of fiscal reform mechanism Kyoto oriented, National and local level.	
2005	Italy	Asja Ambiente Italia spa	Consultant	Consultancy and training course on Italian green certificate market after Financial law 2008	
2005	Italy	Point Carbon	Consultant	Consultancy on the Italian green electricity market	
06-11/2007	Spain	AF-Mercados EMI, Sustainable Energy Consultancy Director, Leonardo.Lupano@afconsult.com	Consultant	Consultant about coherence and optimization of European Energy Council conclusion over 2020 energy and environmental targets; sectoral CO2 abatement costs and potential.	
2004-2005	EU	Council of European Energy Regulators (CEER)	Chairman	Chairman of the Task force on Environment for CEER. Harmonization of renewable incentive schemes in the EU electricity markets.	
10/2001 – 07/2005	Italy	Italian Electricity and Natural Gas Regulatory Authority, AEEG, Prof. Pippo Ranci, Former President, pippo.ranci@a2a.eu	Officer	Energy market policy: electricity market structure; modelling electricity pricesEnergy and Environment: regulation of environmental issues, renewable incentive schemes, energy efficiency, Kyoto Protocol and flexible mechanisms. Assistance to the Ministry of Industry for carbon credits allocation pursuant to Emission Trading EU Directive.	
2004-2005	Turkey	AEEG twinning project sergio.ascari@ref-e.com	Officer	Assistance within an AEEG twinning project to the Turkish regulatory authority on harmonization into the EU acquis for renewable and energy	
	Lithuania	AEEG, Twinning project francesca.davoli@afconsult.com	Officer	Assistance within an AEEG twinning project to the Lituanian regulatory authority on harmonization into the EU acquis for renewable and energy	
2000-2001	Italy	Ref.irs, Research Institute of economics and finance Claudia.checchi@ref-e.com	Energy and Environment consultant	Electricity dispatching modelling. Green certificate mechanism assessment and evaluation, environmental cost evaluation of new coal power plants.	
2000- 2001	Italy, Eastern Europe countries	APER _ SERVEN; Renewable Producers Industrial Association alessandrobrusa@laborex.ch	Energy and Environment consultant	EU and worldwide cost benefit analysis of different renewable incentive schemes. Legislative observatory. Involved in the following EU founded projects: JOINT project Joint Implementation for International Emission Reduction through electricity companies in the EU and Central and Eastern European Countries. Identification of JI projects in 5 Eastern EU countries REBUS: renewable burden sharing within the EU, effects of burden sharing and certificate trade on the renewable electricity market in Europe.	

Selected teaching experience:

- Università Cattolica, Milan, Italy:
 - Lecturer: MBA Altis Environmental Management: Energy and green economy of climate change. Electricity market and renewable technologies.
 May 2012, December 2012
 - o Lecturer: Economia dell'energia e gestione dei beni ambientali: Energy access for the poor, measuring modern energy access, current situation and case studies. 22nd May 2012, 21st March 2016
- Politecnico Master Ridef, Milan, Italy: Lecturer: Italian energy efficiency policy, fiscal rebate on energy efficiency investments in the domestic sector. 7th May 2012
- **Politecnico Architecture, Milan, Italy:** Lecturer at WSTC Workshop: appropriate technologies: definition and field experiences. Why people matter in technology design. *September 2011, 2012*
- Safe, Rome, Italy: Lecturer at the "master in gestione delle risorse energetiche" Renewable incentive schemes from WTO to kWh. 4th July 2006
- Università dell'Insubria- University of Insubria, Italy: Researcher for the University project: "Energy as a common good, implication of private individuals in the reform of contemporary energy markets". 2012

Main publications:

- Il Mulino, poveri di energia, Pippo Ranci, Matteo Leonardi, Laura Susani, ottobre 2016. English edition: Energy Poverty, ISBN 9788815266019
- Journal of energy storage: The role of electrical energy storage in Sub-Saharan Africa, Stefano Mandelli, Claudio Brivio, Matteo Leonardi, Emanuela Colombo, Marta Molinas, Eugene Park, Marco Merlo, http://www.sciencedirect.com/science/article/pii/S2352152X15300293, December 2015
- Elsevir Energy Procedia: the role of storage in emerging country scenarios, Mandelli, Molinas, Park, Leonardi, Colombo, Merlo, http://www.sciencedirect.com/science/article/pii/S1876610215014253, June 2015
- Naruc-Usaid: <u>Principles of regulating clean energy in the ECOWAS region</u>, October 2011; <u>Principes de reglementation de l'energie proper dans la region da la CEDEAO</u>, Octobre 2014.
- Sustainability: Energy Recovery From Sludge and sustainable development. A Tanzanian Case Study. Vincenzo Torretta, Fabio Conti, Matteo Leonardi, Gianluca Ruggieri. 2012, 4(10), 2661-2672
- Ediplan, Energylab, Access to Energy Focus on Africa; Preface by Pippo Ranci and Matteo Leonardi: "energy poverty and consumer rights" Milan, 2012
- Enea: Le fonti rinnovabili 2010; ricerca ed innovazione per un futuro low carbon: "incentivazione e mercato delle rinnovabili in Italia" (Renewable report 2010 Innovation for a low carbon future Renewable incentive in the Italian market)
- *Enea:* Rapporto Energia ed Ambiente 2006, Capitolo 4, "La via per Kyoto e le implicazioni dal sovranazionale al locale" (Energy and Environment Report 2006 Towards Kyoto subsidiarity implication from the international to the local level)

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• Enea: Le Fonti Rinnovabili 2005, Capitolo 2, "Meccanismi d'incentivazione e mercato delle rinnovabili in Italia" (Renewable report 2005 Incentive