



CURRICULUM VITAE

Name: Wolfgang Friedrich LUTZ

Date and place of birth: 24 March 1955, St. Pölten/Austria

Marital status: Married, four children (of full age)

Nationality: Austrian

Education: Dipl.-Ing. (M.Sc.) Mechanical Engineering, Faculty of Energy Technology, University of Stuttgart, Federal Republic of Germany (1980)
B.A. Philosophy, Erasmus University Rotterdam, the Netherlands (2013)

Position: Independent Expert
Founder and Director of Adviesbureau voor Energiestrategie (AES) – Energy Strategies for Sustainable Development, Ter Aar, the Netherlands (established 1991)
Founding Partner and Co-director of Sociedad Civil ESENERG – Estrategias Energéticas para un Desarrollo Sustentable, Asunción, Paraguay (established 2004)

Languages: German, English, Spanish, French, Dutch, basic knowledge of Russian

Professional affiliations: Member, European Council for an Energy Efficient Economy (ECEEE)
Member, International Association for Energy Economics (IAEE)
Member, Benelux Association of Energy Economics (BAEE)
Member, Netherlands Association for Latin American and Caribbean Studies (NALACS)

Key qualifications and experience: Wolfgang F. Lutz is an independent expert in sustainable energy policies, strategies and programmes, institutional and legal frameworks and policy instruments for the promotion of energy efficiency, renewable energy and rural energisation. Mr Lutz has realised numerous studies and projects in the fields of energy and related environmental policy, strategies, programmes and legislation, with emphasis on economic, social and environmental sustainability.

His expertise is founded on detailed knowledge of energy efficiency and renewable energy technologies and options, including end-use technologies, cogeneration, energy efficiency standards and labelling; solar, wind, small hydro power and biomass energy.

Mr Lutz has many years of working experience in emerging and developing countries of Latin America, Central and Eastern Europe, Asia and North Africa. The main emphasis of his work is to facilitate energy efficiency and sustainable energy in the context of international social and economic development and globalisation.

Mr Lutz has been working as advisor and senior consultant for international multilateral and bilateral organisations, including the European Commission (various DGs and programmes), the UN Economic Commission for Latin America and the Caribbean (UN-ECLAC), the World Bank, UNDP, the Energy Charter Secretariat and GIZ, as well as for national ministries and government agencies in various countries.

Mr Lutz has an extensive experience to work with public and private stakeholders and has excellent communication and management skills. In many of the projects listed below, he has acted as a team leader, coordinating contributions of international and local experts. From 1998 – 2001, he was in charge of organising and promoting, on behalf of the European Commission and UN-ECLAC, the EU-Latin American Inter-parliamentarian Dialogue on the Promotion of Energy Efficiency and Sustainable Energy. From 2009 – 2011, he was Director of Latin American Programs of the *Collaborative Labeling and Appliance Standards Program* (CLASP).

As a recognized expert in this field, Mr Lutz has been frequently invited as a speaker at international seminars and conferences. He is an associate editor of *Energy for Sustainable Development* (published by Elsevier) and was an external tutor of master research projects at the Universities of Delft (the Netherlands) and Zaragoza (Spain). From 1996 – 2001, Mr Lutz served as member of the Advisory Board of the ALURE Programme of the European Commission.

His personal interests include international development, philosophy, geo-sciences, nature, ecological landscape gardening, hiking, sports and realising an environmentally sustainable lifestyle.



Professional experience:

1991 – present:

Independent Consultant, Director Adviesbureau voor Energiestrategie (AES) – Energy Strategies for Sustainable Development, Ter Aar, the Netherlands

Principal projects (summarised):

- Accelerating Green Energy Transition in Honduras through Sustainable Energy Investments and Utility Improvement Measures – Advice on energy audits and distributed electricity generation in public buildings in Honduras (World Bank, for Ministry of Energy, Honduras, February 2023 – present).
- Standards for refrigerants and design of a programme to accelerate the transition to efficient refrigeration and air conditioning equipment with low global warming potential (GWP) in Panama, (World Bank, for National Energy Secretariat (SNE), Panama, July 2022 – present).
- Adviser to Project: “Strengthening the Quality Infrastructure to Promote Energy Efficiency in the MERCOSUR” Survey of general practices of the use of energy labels in Asunción and the central region of Paraguay (ESENERG, for PTB Germany, April 2022).
- Elaboration of the National Energy Efficiency Strategy of Panama (ENUREE), including advice to the National Energy Secretariat (SNE) and stakeholder consultations (World Bank, May 2021 – June 2022).
- Expert’s advice on the development of the Energy Efficiency Action Plan, supporting the implementation of the new Energy Efficiency Law of Chile (E2BIZ Chile, for Inter-American Development Bank and Ministry of Energy Chile, March 2021 – February 2022).
- Co-organisation of the International Workshop on Green Hydrogen for public and private stakeholders in Paraguay and Uruguay (ESENERG, for GIZ, February – May 2021).
- Caribbean OCTs Resilience, Sustainable Energy, Marine Biodiversity Programme (RESEMBID). As Technical Advisor Sustainable Energy: Participation in Consultation and Formulation Missions to OCTs (Curaçao, Saba, Saint Barthélemy, Sint Eustatius, Sint Maarten); review of concept notes and project documents from various OCTs under the Sustainable Energy Component of the Programme and follow up (Anguilla, Aruba, British Virgin Islands, Cayman Islands, Curaçao, Montserrat, Turks and Caicos Islands and regional), (Expertise France, for European Commission, October 2019 – present).
- Technical assistance to the support programme of the European Union to the Energy Efficiency and Renewable Energy Sectors of Algeria. Principal expert in charge of the component Energy Efficiency Standards, Labelling and Conformity evaluation of energy consuming products (IBF International Consulting, for EU Delegation Algeria, April 2019 – July 2021).
- Implementation Guide for the National Energy Efficiency Standards and Labelling Programme of El Salvador, including advice to the National Energy Council (CNE) and stakeholder consultations (World Bank, March 2018 – March 2019).
- Assistance to SNE Panama and stakeholders in the elaboration of technical energy efficiency standards and regulations for lighting products (World Bank, December 2017 – December 2018).
- Technical assistance to the Ministry of Regional Development, Building and Housing and to the State Agency on Energy Saving and Energy Efficiency (SAEE) of Ukraine in the implementation of Article 8 (Energy audits and energy management systems) of the Energy Efficiency Directive 2012/27/EU (INTEGRATION, for GIZ Programme Energy Efficiency Reforms in Ukraine, September 2017 – present).
- Implementation Guide for the National Energy Efficiency Standards and Labelling Programme of Panama, including advice to the National Energy Secretariat (SNE) and stakeholder consultations (World Bank, March – December 2017).
- Advice on energy labelling and certification of public and commercial buildings in Mexico (Consortium GOPA – INTEGRATION, for *Programa Energía Sustentable*, CONUEE Mexico – GIZ, April – November 2016).
- FINTECC Ukraine – Policies for stimulating climate technologies manufacturing and transfer in Ukraine: Advice in the transposition of EU Ecodesign legislation and regulations for industrial and lighting products, and in green public procurement, Team Leader (ICF International for European Bank for Reconstruction and Development – EBRD, March 2016 – February 2018).
- Assistance in the elaboration of the National Energy Agenda of Belize and Grenada, based on the Energy Planning Manual of the Latin American Energy Organisation OLADE (ESENERG for OLADE, February 2016 – March 2017).
- INOGATE Technical Secretariat (ITS): Senior Key Expert for Sustainable Energy, in charge of ITS activities in energy efficiency and renewable energies in Eastern Partnership countries: Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine, focusing on energy efficiency and renewable energy policy related activities, e.g. energy services, mandatory energy audits, energy certification of buildings, energy labelling and ecodesign, lighting market transformation, combined heat and power and district heating, mapping of technical and economic potentials of renewable energy, administrative procedures for wind parks, policy dialogue on sustainable energy, and sustainable energy information centres for public awareness raising (Revelle Group s.p.r.l., Consortium led by Ramboll Danmark A/S, for European Commission, DG NEAR, January 2015 – April 2016).



- Technical Assistance for the elaboration of the National Energy Policy of Paraguay: Principal expert for the strategic priority "energy efficiency" (*Grupo de Investigación en Sistemas Energéticos* – GISE, National University of Asunción, for Vice-Ministry of Mines and Energy, Paraguay, December 2014 – December 2015).
- Study on Air Conditioning in Social Housing in Mexico (Consortium GOPA – INTEGRATION, for *Programa Energía Sustentable*, CONUEE Mexico – GIZ, July 2014 – March 2015).
- Energy Efficiency Standards and Labelling in Peru: Advice in the review and elaboration of Technical Regulations for energy efficiency labelling and minimum energy performance standards for ten product families (UNDP, for Ministry of Energy and Mines, Peru, August 2013 – January 2014).
- Sustainable Energy Action Plan of Antigua & Barbuda (IT Power, for Caribbean Sustainable Energy Programme, European Union Energy Initiative – Organization of American States, June 2012 – February 2013).
- Training plan in energy efficiency for the Chilean industrial and mining sector: international expert advisor (*Programa de Estudios e Investigación en Energía* – PRIEN, University of Chile, for Chilean National Energy Efficiency Agency, May 2012 – January 2013).
- Energy Efficiency Benchmarking of Federal Public Buildings in Mexico (Consortium GOPA – INTEGRATION, for *Programa Energía Sustentable*, CONUEE Mexico – GIZ, May – October 2012; July 2013 – March 2015).
- Twinning contract European Union – Ukraine "Improvement of the Policy Framework in the Sphere of Energy Efficiency and its Approximations to the Requirements of the EU Legislation", Key expert for Sub-components 2.1: Transposition of CEN/CENELEC Standards regarding the ecodesign of energy-using products, and 2.3: Labelling of household appliances; Cooperating expert in Sub-component 1.3: Energy audits and management (B.&S.U., Berlin, for EU Delegation Ukraine / German Federal Ministry of Economics and Technology, January 2012 – December 2013).
- Final evaluation of Programme "Coherent Energy Policy in Mexico, Central America and Colombia" (AGEG Consultants, for GIZ, August – December 2011).
- Review of energy efficiency, quality and environmental impact standards for household lamps and their possible application in the Mexican market (Consortium GOPA – INTEGRATION, for *Programa Energía Sustentable*, CONUEE Mexico – GIZ, January – February 2011).
- Energy Efficiency Action Plan 2010 – 2020 of the Republic of Chile: review of energy efficiency action plans in industrialised and emerging countries and strategic advice (*Programa de Estudios e Investigación en Energía* – PRIEN, University of Chile, for National Energy Efficiency Programme, Chile, August – December 2009).
- Consultant of Latin American Programmes of the Collaborative Labeling and Appliance Standards Program – CLASP, acting as Director of Latin American Programmes. Design and implementation of cooperation projects in the field of energy efficiency standards and labeling with the National Commission for the Efficient Use of Energy – CONUEE, Mexico and Ministry of Energy / National Energy Efficiency Programme, Chile. Coordination of virtual training course: Energy Efficiency Standards and Labeling (April 2010), in cooperation with OLADE (CLASP, June 2009 – July 2011).
- Virtual Training Course: Energy efficiency standards and labeling: lessons learnt in Latin America (in Spanish), (CLASP, for Latin American Energy Organisation – OLADE, June 2009).
- Programme Strategies and Policy Advice on Energy Efficiency: Study on energy efficiency campaigns (GTZ, January – July 2009).
- Standards and Labels for Promoting Energy Efficiency in the Russian Federation (UNDP-GEF, July 2008 – May 2009).
- Andean CSL – Capacity Building for the Removal of Barriers to the Development and Implementation of Energy Efficiency Standards and Labelling in the Andean Region (Collaborative Labeling and Appliance Standards Program – CLASP, for UNDP-GEF, October 2007 – October 2008).
- RTD4EDC – Research, Technological Development & Demonstration to Increase the Share of Renewables in Emerging and Developing Countries with European Technologies – Policy Assessment, Stakeholders Opinions, Best-Practices & Recommendations. Review of renewable energy RTD&D programmes and projects in Latin America (ESENERG, for European Commission, DG Research, international consortium, January 2007 – September 2008).
- Crecer con Energía – Linking Income-generating Activities and Micro-enterprises with Energy Services for the Poor in the Chaco Region in Bolivia and Paraguay: Policy reviews and recommendations for institutional development (European Commission, COOPENER Programme, international consortium, January 2006 – June 2008).
- Energy Efficiency Project Argentina of National Energy Secretariat, GEF, World Bank: Programme for energy efficiency standards & labeling; study on regulations, tariffs and economic incentives for efficient use of energy (National Energy Secretariat, November 2006 – December 2007).
- Energy efficiency in the residential sector from the perspective of the Energy Charter Protocol on Energy Efficiency and Related Environmental Aspects – PEEREA (Energy Charter Secretariat, March 2005 – December 2006).
- SILAE – Rural Energy Services of Local Initiative in Ecuadorian Amazonia: Analysis of the administrative and legal framework of independent rural electricity distribution; survey of decentralised cooperation with European partners (European Commission, EuropeAid co-operation office, international consortium, October 2003 – October 2007).
- Policy advice on energy efficiency standards and labeling programmes in Latin America (Lawrence Berkeley National Laboratory – LBNL, September 2006 – June 2007).



- RECIPES – Renewable Energy in Developing Countries: Current Situation, Market Potential and Recommendations for a Win-win-win for EU industry, the Environment and Local Socio-economic Development: Case studies in five Latin American countries (European Commission, DG Research, international consortium, January 2005 – December 2006).
- In-depth Reviews of Energy Efficiency Policies and Programmes of Central European countries in transition: Poland (2000), Hungary (2001), Bulgaria (2001), Romania (2002), Croatia (2004), (among other assignments), (Energy Charter Secretariat, Protocol on Energy Efficiency and related Environmental Aspects – PEEREA).
- Advice to the Energy Conservation and Efficiency Programme of the National Energy Secretariat, Argentina: (i) Identification of the characteristics, main features and options of the Programme, (ii) Development of the sub-programmes: energy efficiency standards and labeling; legal and regulatory framework for energy efficiency; alternative regulatory instruments and awareness raising to influence energy demand in emergency situations of supply, and tariff instruments to promote energy efficiency (GTZ, June – December 2003).
- Development of energy efficiency standards and labeling programme for household appliances in Algeria, for the Algerian National Agency for the Promotion and Rationalisation of Energy Use – APRUE (European Commission, MEDA Programme, September 2001 – December 2002).
- Advisor of Associated OPET Mercosur, established by UN-ECLAC and the European Commission (ECLAC, June 2001 – July 2002).
- Organization of a study tour for representatives of the Ministry of Public Works and Communications of the Republic of Paraguay with regard to energy sector organisation and regulation in Europe (Undersecretary of Mines and Energy, Paraguay, September – October 1999).
- Joint project of the European Commission and UN-ECLAC: “Promotion of Energy Efficiency in Latin America”. This assignment included an in-depth review of the role of legislation and regulation in the energy efficiency policies of the European Union and its Member States, contributions to the proposal of energy efficiency laws in several Latin American countries and the organisation of the Inter-parliamentarian Dialogue Europe – Latin America on Energy Efficiency and Sustainable Energy (ECLAC, January 1998 – August 2001).
- Institutional Cooperation European Union – Mercosur on Energy Market Integration: Study on the integration of energy markets in the European Union (European Commission, January 1998 - December 1999).
- Assistance to the Peruvian Ministry of Energy and Mines in defining a strategy for the National Energy Conservation Programme – PAE (European Commission, June – September 1998).
- Study and strategic plan for the development and implementation of energy efficiency standards and labeling in the Andean Pact countries (European Commission, Andean Programme for Energy Integration – PAIE, June 1995 – May 1996).
- Expert assignments for energy and international cooperation programmes of the European Commission: THERMIE (1995 – 1998), OPET Network (1997), PHARE (Romania, 1995 and 1996; Bulgaria, 1997).
- Evaluation of energy programmes and projects supported by the European Commission: THERMIE (1994 – 1996, 1998), OPET Network (1996, 1999), EC-ASEAN COGEN (1996 – 1997), COOPENER (2006), SAVE (2010 – 2012).
- Assistance to the Energy Efficiency Programme of the Chilean National Energy Commission – CNE in the fields of industrial energy efficiency and cogeneration (CNE, May 1993 – May 1995).
- Institution Building for Energy Conservation in Thailand: Research and development of criteria for the National Energy Conservation Programme (Asian Development Bank, National Energy Policy Office – NEPO, Thailand, September 1992 – April 1994).
- Seminars on energy management and advice to pulp and paper factories and textile factories in Argentina and Chile (GTZ, June 1992, November – December 1992).

1991 – 1992:

**Centre for Energy Conservation and Clean Technology (CE), Delft, the Netherlands
Senior Consultant**

- In charge of projects in the fields of demand-side management and energy efficiency; strategic and policy studies on district heating, industrial energy efficiency and management, and hydrogen technologies.

1989 – 1991:

**M + P Raadgevende Ingenieurs B.V., Aalsmeer, the Netherlands
Consultant and Head of Division Energy Management and Technology**

- Developed Division Energy Management and Technology
- In charge of projects in the fields of energy efficiency, energy management and small-scale cogeneration in SMEs.

1980 - 1988:

Fichtner Consulting Engineers, Stuttgart, Federal Republic of Germany

1984 – 1988: Manager Latin America



- In charge of identification and initiation of energy infrastructure projects (electricity generation, transmission and distribution), biomass utilisation and small hydroelectric plants.

1980 – 1984: Project engineer/project manager for energy and environmental projects

- Industrial energy supply studies, including cogeneration; sectoral energy studies (for i.a. the German Federal Government); studies and projects for emission control of thermal power stations.

Publications

Lutz, W.F.: *Energy efficiency standards and labelling in Latin America - the issue of alignment and harmonisation*, paper presented at Conference EEDAL'15, Lucerne, Switzerland, 26 - 28 August 2015.

Letschert, V.E., McNeil, M.A., Pavón, M., Lutz, W.F. (2013): Design of Standards and Labeling programs in Chile: Techno-Economic Analysis for Refrigerators. Conference ELAEE 2013, Montevideo.

Lutz, W.F. (2008) : Definiendo el papel de la energía en las estrategias nacionales de reducción de la pobreza. *Energía y Desarrollo*. Edición especial. 32 (5): 2 – 5.

Lutz, W.F. (2004): Potential for energy efficiency: developing nations. Latin America. In *Encyclopedia of Energy*, ed. Cutler J. Cleveland. Elsevier Inc.

Lutz, W.F. ea (2003): Energy efficiency standards and labelling of household appliances in the Andean Community - national programmes and the prospects of regional harmonisation. Conference EEDAL'03, Torino.

Bouzeriba, M.S., Bouzera, D.E, Lutz, W.F., Waide, P. (2003): Energy efficiency standards and labelling of household appliances in Algeria - from programme design to implementation. Conference EEDAL'03, Torino.

Lutz, W.F. (2001): *Reformas del sector energético, desafíos regulatorios y desarrollo sustentable en Europa y América Latina*. Santiago de Chile: UN-ECLAC, Serie Recursos Naturales e Infraestructura, No. 26.

Lutz W.F. ea (2001): *El papel de la legislación y la regulación en las políticas de uso eficiente de la energía en la Unión Europea y sus Estados Miembros*. Santiago de Chile: UN-ECLAC, División de Recursos Naturales e Infraestructura, Serie Manuales No. 14.

Lutz, W.F. (1999): *Energy Sector Reforms in Latin America and EU - Latin American Energy Cooperation*. Luxembourg: European Parliament, Directorate General for Research, Division of Environment and Energy & Research, ET-Briefing Note 20.

Espinoza, J., Espinoza, P., Lutz, W.F., Maldonado, P., Navarette, P., Serrano, R. Parada, J., Iglesias, R. (1994): *Ciclo de Trabajo Fuentes No Convencionales y Uso Eficiente de la Energía. Situación actual y perspectivas*. Santiago de Chile: Comisión Nacional de Energía.

Complementary academic courses

Bachelor Programme Philosophy (part-time), Faculty of Philosophy, Erasmus University Rotterdam, the Netherlands (2006 – 2013)

Master course "Environmental Challenges in Latin America: Impacts, Conflicts and Partnerships", Centre for Latin American Research and Documentation (CEDLA), Amsterdam, the Netherlands (October 2012 – February 2013)

Master Programme Philosophy (part-time), Faculty of Humanities, University of Amsterdam, the Netherlands (2018 – present)

Other professional activities

Advisory Editorial Board Member of "Sustainable Energy Developments" (Book series published by CRC Press), since 2011

Ad hoc Reviewer for "Energy Policy" (Journal published by Elsevier), since 2010

Associate Editor of "Energy for Sustainable Development" (Journal published by Elsevier on behalf of the International Energy Initiative), since 2009

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