

# ANDREAS LÖSCHEL



## CURRICULUM VITAE

### PERSONAL DATA

Date of Birth: 7. September 1971  
Place of Birth: Rothenburg ob der Tauber  
Marital status: married with Claudia Löschel, 4 children: Tilman (1999), Benno (2001), Ida (2004) and Martha (2009)  
Address: Centre for European Economic Research (ZEW)  
L7, 1  
68161 Mannheim  
Tel.: ++49 621 1235200  
loeschel@zew.de

### CURRENT POSITIONS

- since 8/2007 Head of the Research Department “Environmental and Resource Economics, Environmental Management” at **Centre for European Economic Research (ZEW)** (~ 22 full time researcher staff, annual external funding more than € 1 million)
- since 11/2010 Professor of Economics (W3), esp. “Environmental and Resource Economics”, **University of Heidelberg**
- since 10/2011 Chairman of **German Governmental Expert Commission** to Monitor the Energy Transformation
- 2010-2014 Lead author, Fifth assessment report, Working group III (Chapter 6 Assessing Transformation Pathways), **Intergovernmental Panel on Climate Change (IPCC)**
- since 2013 Research Associate, **Economics for Energy**, Madrid/Vigo, Spain
- since 2010 Research Associate, Centre for Climate Economics and Policy, Crawford School of Economics & Government, **Australian National University (ANU)**, Canberra, Australia

## RESEARCH INTERESTS

---

Energy economics and policy, environmental economics, economics of climate change, technological change, applied microeconomics, computable general equilibrium modeling

## PROFESSIONAL EXPERIENCE

---

7/2009–10/2010	Reader (Privat-Dozent) at <b>Oldenburg University</b>
9/2006–8/2007	Visiting Professor („profesor visitante equivalente a professor asociado“) of Economics at the <b>Universidad Pablo de Olavide</b> , Seville, Spain
10/2005–7/2007	Scientific Officer, <b>European Commission</b> , DG Joint Research Centre, Institute for Prospective Technological Studies (IPTS), Seville, Spain
12/1999–08/2005	Senior Researcher (since 2005 with tenure) at <b>ZEW</b>
05/2004–06/2005 since 2003	Lecturer, <b>Pforzheim University of Applied Sciences</b> , Pforzheim Research Collaborator at the Joint Program on the Science and Policy of Global Change am <b>Massachusetts Institute of Technology (MIT)</b> , Cambridge (Mass.), USA
10/1998–7/2003	Fellow at the Interdisciplinary Institute for Environmental Economics, <b>University of Heidelberg</b>

## EDUCATION

---

6/2009	Habilitation (Dr. rer. pol. habil.), <b>Oldenburg University</b> , university teaching credential for economics Habilitation Title: Sustainability Impact Assessment with Computable General Equilibrium Models
2003	Dissertation (Dr. rer. pol.), Department of Economics, <b>University of Mannheim</b> , Germany Advisor: Prof. Dr. Klaus Conrad (Univ. Mannheim) Dissertation Title: Economic Impacts of Climate Change Policy (summa cum laude)
1998–2003	Doctoral Studies in Economics, Graduate Program ‘Environmental and Resource Economics’, <b>University of Heidelberg</b> and <b>University of Mannheim</b> , Germany
9/2003–12/2003	Studies in the “Program on Negotiation” at <b>Massachusetts Institute of Technology (MIT)</b> and Fletcher School of Diplomacy, <b>Tufts University</b> , Cambridge (Mass.), USA
11/1992–10/1998	Diploma in Economics (Diplom-Volkswirt), <b>University of Erlangen-Nuremberg</b> , Germany Specialization: Statistics and Econometrics Diploma thesis: From Pay-as-you-go to Fully-funded Pension Systems
9/1994–5/1995	M.A., Economics, <b>Wayne State University</b> , Detroit, USA
8/1993–9/1993	Studies in Economics, <b>University of California, Los Angeles (UCLA)</b> , USA
9/1982–7/1991	Graduation from secondary school (“Abitur”), Reichsstadt-Gymnasium, Rothenburg ob der Tauber, Germany

## RESEARCH VISITS

---

- 1/2013–06/2013 Senior Visiting Scholar am Institute of Energy, Environment & Economy, **Tsinghua University**, Beijing, China (invited)
- 10/2010–11/2010 Visiting Researcher, Crawford School of Economics & Government, **Australian National University (ANU)**, Canberra, Australia
- 10/2011
- 09/2010 Visiting Scholar, Economist Visitors Programme, **European Commission** (Directorate General Industry and Enterprise), Brussels, Belgium
- 5/2005–7/2005 Visiting Scholar, Department of Economics, **Stanford University**, Stanford, CA, USA
- 8/2003–12/2003 Visiting Scholar, Joint Program on the Science and Policy of Global Change am **Massachusetts Institute of Technology (MIT)**, Cambridge (Mass.), USA
- 5/2004

## TEACHING EXPERIENCE

---

- Winter 2012 **University of Heidelberg**, „Climate Change and Development“ (2 hours per week)
- Summer 2012 **University of Heidelberg**, „Introduction to CGE Modeling“ (2 hours per week)
- Winter 2011 **University of Heidelberg**, „Introduction to CGE Modeling“ (2 hours per week)
- Winter 2011 **University of Heidelberg**, „International Technology Transfer“ (2 hours per week)
- Summer 2011 **University of Heidelberg**, „Climate and Justice“ (2 hours per week)
- Winter 2010 **University of Heidelberg**, „Transition towards a Green Economy“ (2 hours per week)
- 2010 **University College London (UCL)**, School of Energy and Resources, Adelaide, Australia, „The EU Emissions Trading Scheme“, MSc Course Climate Change: Modelling & Policy
- 2010 **University of Mannheim**, Mannheim Business School, „Sustainability - Macroeconomic and Company Perspectives on Climate Change“, Executive MBA Class
- 2010 **Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ)**, „Environmental Economics“
- Winter 2008 **University of Heidelberg**, “Climate Change and the Economics of Adaptation” (2 hours per week)
- Summer 2008 **Tübingen University**, Forum Scientiarum Sommerakademie “Climate Change – Natural Science and Policy in Dialogue” (1 hour per week)
- Summer 2008 **Darmstadt University**, “Economic Aspects of Environmental Politics” (lecture in english) (1 hour per week)
- Summer 2007 **Universidad Pablo de Olavide**, Seville, „Principles of Macroeconomics“ (lecture in english) (3 hours per week)

Winter 2006	<b>Universität Pablo de Olavide</b> , Seville, „Principles of Microeconomics“ (lecture in english) (3 hours per week)
2006, 2007	Secretary General of the <b>European Commission</b> , “Impact Assessment Advanced Workshop”
Summer 2005	<b>Pforzheim University of Applied Sciences</b> , “Theory and Policy of Pension Systems” (2 hours per week)
Winter 2004	<b>Pforzheim Univ. of Applied Sciences</b> , “International Environmental Economics” (2 hours per week)
Winter 2004	<b>University of Heidelberg</b> , “Sustainable Development” (2 hours per week)
Summer 2004	<b>University of Heidelberg</b> , “Political Economy of Environmental Policy” (2 hours per week)

## AWARDS AND HONOURS

---

2011	Appointment as chairman of the <b>Energy Expert Commission</b> to Monitor the Energy Transformation by the German government
2010, 2011	Scholarship of the <b>German Academic Exchange Service (DAAD)</b> for a research visit at the Australian National University (ANU), Canberra, Australia
2010	Appointment as Professor of Economics (W3), esp. “Environmental and Resource Economics”, <b>Ruprecht-Karls-Universität Heidelberg</b>
2007-2010	<b>Handelsblatt ranking of German speaking economists</b> Top-100 Economists under 40 (2011: Rang 74, 2010: 62th, 2008: 55th, 2007: 74th), Top-100 German Economists abroad (2007: 89th), Top-100 German Economists abroad since 2003 (2007: 86th)
2005	Scholarship of the <b>Fritz Thyssen Foundation</b> for a research visit at Stanford University
2004	Award of the <b>Karin Isslinger Foundation</b> for doctoral thesis at the University of Mannheim, Germany, 2004
2002, 2004	Grant of the <b>German Economic Association</b> (“Verein für Socialpolitik”) financed through donations by the Deutsche Bundesbank for presentations at international conferences of good standing
2000	German Student Research Prize (First Prize) of the <b>Körber Foundation</b> for diploma thesis on privatizing old age security
1998–2001	Scholarship of the <b>German Science Foundation</b> (“Deutsche Forschungsgemeinschaft”, DFG) for doctoral studies at the University of Heidelberg and the University of Mannheim
1998	Award of the <b>Wiso-Fakultätsbund Nuremberg</b> for best diploma examination at the Faculty of Business Administration, Economics and Social Sciences, University of Erlangen-Nuremberg
1995–1998	Scholarship of the <b>Friedrich Naumann Foundation</b>

## **EXPERT REVIEWS**

---

2013	Member of the Evaluation Committee of the DFG Priority Program „Climate Engineering“ for the <b>German Science Foundation</b> (DFG)
2011, 2012	Reviewer for the <b>German Science Foundation (DFG)</b>
2011	Member of the Evaluation Committee of the <b>German Science Council</b> (Wissenschaftsrat) for the evaluation of the Wuppertal Institute
since 2011	Reviewer for the <b>Alexander von Humboldt-Foundation</b>
2011	Reviewer for the Research Council <b>K.U. Leuven</b>
2011	Reviewer for the <b>Research Foundation Flanders (FWO)</b>
2011, 2010, 2007, 2008	Expert reviewer for the <b>Research Council of Norway</b> (RCN), Energy research programme RENERGI
2011, 2010	Evaluator for the <b>Austrian Climate and Energy Fund</b>
2011	Reviewer for the German Research Council <b>K.U. Leuven</b>
2010	Reviewer for the <b>Federal Ministry of Education and Research (BMBF)</b>
2010	Expert for the Workshop on Scenario Development, <b>Intergovernmental Panel on Climate Change (IPCC)</b> , Berlin
2008	Member of the Evaluation Committee of the <b>Wegener Center for Climate and Global Change</b> , Graz University
2008	Scientific Expert, <b>European Parliament's</b> committee on Industry, research and energy, briefing on "RES Trading as an Option" for the EU directive on renewable energy
2008	Expert reviewer for the ERA-NET project CIRCLE (Climate Impact Research Coordination within a Larger Europe) for a call on "Research on consequences of climate change for policy making in the Nordic countries", <b>Finish Academy of Sciences</b>
2007	Expert reviewer for the Research Grants Board, <b>Economic &amp; Social Research Council (ESRC)</b>
2005-2007	Expert reviewer for 4th Assessment Report (AR4), Working Group II (Impacts, Adaptation and Vulnerability) and Working Group III (Mitigation), <b>Intergovernmental Panel on Climate Change (IPCC)</b>
2003, 2004	Expert evaluator for sixth EU Framework Programme (6FP), <b>European Commission</b> , Research areas "Sustainable development, global change and ecosystems"

**Journal Referee** for 'Climate Policy', 'Ecological Economics', 'Economic Modeling', 'Energy Economics', 'Energy Policy', 'The Energy Journal', 'Environmental and Resource Economics', 'Environmental Management', 'Energy Policy', 'European Environment', 'International Environmental Agreements; Politics, Law and Economics', 'Journal of Environmental Economics and Management (JEEM)', 'Journal of Policy Modeling', and 'Resource and Energy Economics'

## **OTHER ACADEMIC ACTIVITIES**

---

2011 - 2016	Member of the steering committee of the <b>Helmholtz Alliance</b> “ENERGY-TRANS: Future infrastructures for meeting energy demands [Zukünftige Infrastrukturen der Energieversorgung]
since 2013	Member of the Board of Trustees of the Academy Project „Energy systems of the future“, <b>Nationale Akademie der Wissenschaften Leopoldina, Union der deutschen Akademien der Wissenschaften</b> and <b>acatech</b>
since 2013	Member of „Forschungsforum Energiewende“ at the <b>Federal Ministry of Education and Research (BMBF)</b>
since 2013	Member of the Scientific Advisory Board of "et - <b>Energiewirtschaftliche Tagesfragen</b> "
since 2011	Founding Member of the <b>Heidelberg Center for the Environment (HCE)</b> , University of Heidelberg
since 2010	Senior Member of the <b>Mannheim Centre for Competition and Innovation (MaCCI)</b> , University of Mannheim and ZEW
since 2010	Member of the <b>International Expert Group on Earth System Preservation (IESP)</b> , Institute of Advanced Studies on Sustainability, Garching
since 2010	Member of the <b>EU-Advisory Board of the Leibniz Gemeinschaft (WGL)</b> (representing Section B – Economic, Social and Regional Sciences)
2013	Member of the <b>Selection Committees</b> for the Chair in Resource Economics (W3) at TU Freiberg and Energy Economics (W2) at the University Erlangen-Nuremberg
2012	Member of the <b>German delegation</b> at the International Maritime Organisation MEPC 64 meeting in London, UK
2010-2011	Research collaboration with the Center for Energy Economics and Strategy Studies at <b>Fudan University Shanghai</b> on “Climate policy perspectives on the sectoral level for China and Europe” supported by the Federal Ministry of Education and Research (BMBF)
2008	Associate Editor, <b>International Journal of Ecological Economics &amp; Statistics</b>
2007	Member of the <b>delegation of the European Commission</b> at the climate conference in Bali, Indonesia
since 2006	Member of the <b>Standing Research Committee on Environmental and Resource Economics</b> , German Economic Association (Verein für Socialpolitik)
since 2002	Participation in studies on “Multi-Gas Mitigation and Climate Change” (EMF 21) (2002-2004) und “Climate Change Scenarios: U.S. Domestic and International Policy Architectures” (EMF 22) (2004-2009), EMF 24 (2009 - today), <b>Energy Modeling Forum (EMF)</b> , Stanford University

since 2004 Co-Founder of the **Climate Policy Network (CPN)**, a transatlantic forum to discuss climate policy and research, ZEW, Fondazione Eni Enrico Mattei (FEEM), MIT and Resources for the Future (RFF)

### Op-eds:

*Frankfurter Allgemeine Zeitung*, Beilage Smart Technology, „Monitoring der Energiewende – eine Eröffnungsbilanz“, February 2013

*Financial Times Deutschland*, „Klimaschutz: Wir verlieren den Überblick“, 18. October 2012

*Handelsblatt*, „Mit Wunschdenken lässt sich kein Strom sparen“ (with T. Mennel), 8. June 2011

*Frankfurter Allgemeine Zeitung*, Ordnung der Wirtschaft, “Vollkommene Sicherheit oder Tyrannei von katastrophalen Ereignissen” (with W. Buchholz and M. Schymura), 27. May 2011

*Süddeutsche Zeitung*, “Russland kann im Klimaschutz mehr leisten“ (with V. Alexeeva-Talebi), 18. August 2010

*Financial Times Deutschland*, “Ran an die Atom-Milliarden“ (with N. Wölfling), 24. July 2010

*Handelsblatt*, „Die Börse ist farbenblind“ (with A. Ziegler), 22. September 2009

*Frankfurter Allgemeine Zeitung*, Energy Supplement, “Unterstützung für ambitionierte Klimapolitik“ (with V. Alexeeva-Talebi), 29. April 2009

*Handelsblatt*, „Kosteneffizienz ist Mangelware“ (with N. Anger), 4. Dezember 2008

*Süddeutsche Zeitung*, “Staatlicher Zwang verdirt das Klima - Für mehr Rationalität in der Umweltpolitik“ (with B. Sturm), 13. November 2007

### Portraits:

*3sat, Nano*, „Mehr Energie einsparen“, 19. Dezember 2012

*Die Rheinpfalz*, „Rastlos fürs Weltklima“, 29. April 2011 (also *Geislinger Zeitung*)

*Rhein-Neckar-Zeitung*, Zur Person, „Die Dinge sind oft viel zu komplex“, 27. April 2011

*Schwäbische Zeitung*, Zur Person, „Experte berät Politik“, 26. April 2011

*Badisches Tagblatt*, „Vom wissenschaftlichen Exoten zum gefragten Berater“, 26. April 2011

*unispiegel, Universität Heidelberg*, Ein Weltreisender in Sachen Umweltökonomie, 1/2011

*Staatsanzeiger für Baden-Württemberg*, „Portrait der Woche – Andreas Löschel: Unsicherheiten beseitigen“, 2. Juli 2010

## **COMMISSIONED RESEARCH PROJECTS**

---

I am responsible for acquisition, coordination and management of a wide range of projects at ZEW. The annual external funding currently exceeds € 1 million.

Economic iNsTRuments to Achieve Climate Targets in Europe – ENTR'ACTE, ZEW, European Commission, FP7, 8/2012–7/2015, Project coordinator (Overall budget: 3.8 million EUR)

Zukünftige Infrastrukturen der Energieversorgung [Future infrastructures for meeting energy demands], Helmholtz Alliance, 2011-2016, Lead researcher (ZEW budget: 1.5 million EUR)

Ökonomik einer integrierten und langfristigen Klima- und Energiepolitik, ZEW, Leibniz-Vorhaben im wettbewerblichen Verfahren (SAW-Verfahren) im Rahmen des Paktes für Forschung und Innovation, 2010-2012, Project coordinator (Overall budget: 800 kEUR)

KFW-ZEW-CO2 Market Barometer, ZEW, 12/2008-12/2012, Project coordinator

ZEW-Energiemarktbarometer, ZEW, 02/2002-12/2012, Project coordinator

Monitoring der energiepolitischen Zielerreichung, ZEW, commissioned by Bundesverband der Deutschen Industrie (BDI), 2011-2012, Project coordinator

The Relevance of Voluntary Efforts and Fairness Preferences for the Success of International Climate Policy, ZEW, commissioned by the Federal Ministry of Education and Research (BMBF), 2011-2013, Lead researcher

Climate Policy and the Growth Pattern of Nations, ZEW, commissioned by the Federal Ministry of Education and Research (BMBF), 2011-2013, Lead researcher

Die Bedeutung von Gerechtigkeitsprinzipien für erfolgreiche Kooperation – Eine Analyse der Auswahl und Wirkung von Verteilungsregeln in internationalen Klimaverhandlungen [The role of equity preferences for successful cooperation], ZEW, commissioned by the Federal Ministry of Education and Research (BMBF), 2010-2012, Project coordinator

Induced Climate-Related Innovations, Crowding Out, and Their Impacts on Competitiveness, ZEW, commissioned under the call Strengthening Efficiency and Competitiveness in the European Knowledge Economies (SEEK), 2010-2012, Lead researcher

A Sectoral Assessment of the EU Decarbonisation Roadmap 2050, ZEW, commissioned by the European Commission, Directorate General Enterprise and Industry (ENTR), 2010-2011, Lead researcher

Lösungsansätze zur systemeffizienten Ausgestaltung der nationalen Mittelverwendung der Einnahmen aus der Versteigerung von Zertifikaten im Rahmen des EU-ETS, ZEW, commissioned by the Hessian Ministry of Environment, Energy, Agriculture and Consumer Protection, 2010-2011, Project coordinator

World Input Output Database: Construction and Applications (WIOD), ZEW, commissioned by the European Commission, Directorate General Research, 05/2009-04/2012, Lead researcher

A new Environmental Accounting Framework Using Externality Data and Input -Output Tools (EU), ZEW, commissioned by the European Commission, Directorate General Research, 02/2007-02/2011, Lead researcher

Full Costs of Climate Change, ZEW, commissioned by the European Commission, Directorate General Research, 2009-2011, Lead researcher

Design and Implementation of a Maritime Emission Trading Scheme, ZEW, commissioned by the Federal Ministry of Transport, Building and Urban Development (BMVBS), 11/2009-03/2010, Project coordinator

Possible risk of Carbon leakage induced by the third revision of the Emission Trading Scheme on Energy Intensive Industries, ZEW, commissioned by the European Commission, Directorate General Enterprise and Industry (ENTR), 2009-2010, Project coordinator

Die Entwicklung der Energiemarkte bis 2030 (Energieprognose 2009) [Energy scenarios for Germany up to 2030], ZEW, commissioned by the Bundesministerium für Wirtschaft und Technologie (BMWi), 05/2008-05/2009, Lead researcher

Global Sectoral Approaches: Sectoral Approaches as Part of a Post 2012 Framework, ZEW, commissioned by the European Commission, Directorate General Enterprise and Industry (ENTR), 05/2008-02/2010, Project coordinator

Understanding the competitiveness implications of future phases of EU ETS, ZEW, commissioned by the Department for Business Enterprise and Regulatory Reform (BERR), GB, 07/2008-10/2008, Project coordinator

Analysing the Economic Impacts of the Renewables and Climate Change Policy Implementation, ZEW, commissioned by the European Commission, Directorate General Enterprise and Industry (ENTR), 09/2007-02/2008, Project coordinator

Employment Impacts of Biofuels Promotion – An Input-output Analysis, Joint Research Centre - IPTS, commissioned by the European Commission, Directorate General Transport and Energy (TREN), 06/2006-11/2006, Scientific Officer

The Economy-wide Impacts of an Increased Use of Renewable Energy: A Quantitative Assessment with a Hybrid CGE Model, Joint Research Centre - IPTS, commissioned by the European Commission, Directorate General Enterprise and Industry (ENTR), 11/2005-11/2006, Scientific Officer

EU-wide Extended Input-Output Analysis Tools, commissioned by European Commission, DG Joint Research Centre, Institute for Prospective Technology Studies (IPTS), 01/2006 – 03/2007, Scientific Officer

The Development and Detailed Evaluation of a Harmonised “European Hydrogen Energy Roadmap” (HyWays), commissioned by European Commission, DG Research, 5/2004 – 4/2007, Co-researcher (until 08/2005)

Case Study Comparisons and Development of Energy Models for Integrated Technology Systems (Cascade Mints), commissioned by European Commission, DG Research, 1/2004 – 12/2006, Co-researcher (until 08/2005)

Future Use of the Kyoto Mechanisms, commissioned by Federal Environmental Agency (UBA), 12/2004 – 7/2006, Project coordinator (until 08/2005)

Integrated Climate Policy Programme Hessia 2012 (INKLIM), ZEW, commissioned by Hessian Ministry of Environment, Rural Development and Consumer Protection, Wiesbaden, 10/2004 – 12/2005, Project coordinator (until 08/2005)

Indicators and Quantitative Tools for Improving the Process of Sustainability Impact Assessment (IQ Tools), commissioned by European Commission, DG Research, 1/2004 – 6/2006, Co-researcher

Innovation and modern energy technologies (Modeling Experiment V of the Forum for Energy Models and Energy-Economic Systems Analysis in Germany), commissioned by the German Ministry of Economics and Labour (BMWA), 4/2004 – 6/2005, Project coordinator

Climate and Energy Policy Assessment Model (CEPAM), commissioned by European Commission, DG Joint Research Centre, Institute for Prospective Technology Studies (IPTS), 1/2003 – 6/2005, Co-researcher

Modelling the Transition to Sustainable Economic Structures (TranSust), commissioned by European Commission, DG Research, 2/2003 – 1/2005, Co-researcher

The Dynamics of Innovation and Investment and its Impact on Policy Design in Energy and Environment for a Sustainable Growth in Europe (DYN-GEM-E3), commissioned by European Commission, DG Research, 11/2002 – 10/2004, Co-researcher

Methodologies for Integrating Impact Assessment in the Field of Sustainable Development (MINIMA-SUD), commissioned by European Commission, DG Research, 11/2002 – 10/2004, Lead researcher

Long-run Contribution of the German Energy Sector to European Climate Goals (Modeling Experiment IV of the Forum for Energy Models and Energy-Economic Systems Analysis in Germany), commissioned by the German Ministry of Economics and Technology (BMWi), 1/2003 – 6/2004, Co-researcher

Greenhouse Gas Emission Control Strategies (GECS), commissioned by European Commission, DG Research, 9/2000 – 8/2002, Co-researcher

Climate Change Policy and Global Trade (CCGT), commissioned by European Commission, DG Research, 2/2001 – 7/2002, Co-researcher

Environmental and Climate Protection in Liberalized Energy Markets (Modeling Experiment III of the Forum for Energy Models and Energy-Economic Systems Analysis in Germany), commissioned by the German Ministry of Education, Science, Research, and Technology (BMBF), 4/2001 – 3/2002, Co-researcher (from 12/1999)

The Role of Innovation and Policy design in Energy and Environment for a Sustainable Growth in Europe (TCH-GEM), commissioned by European Commission, DG Research, 4/2000 – 3/2002, Co-researcher

Abandoning Nuclear Power - Effects of an Immediate or Gradual Renunciation of Electricity from Nuclear Power Stations in Germany (Modeling Experiment II of the Forum for Energy Models and Energy-Economic Systems Analysis in Germany), commissioned by the German Ministry of Education, Science, Research, and Technology (BMBF), 10/1999 – 6/2000, Co-researcher (from 12/1999)

Environmental Taxes, International Competition and Employment in a Simulation Model with Monopolistic Competition, commissioned by Volkswagen Foundation, 7/1998 – 6/2000 (from 12/1999)

## **IMPACTS ON ECONOMIC POLICY MAKING**

---

Report of the Energy Expert Commission to monitor the energy transformation in Germany on the first monitoring report of the German Government, presented at a Federal Press Conference together with the Ministers Rösler (Economics) and Altmaier (Environment), 19 December 2012

Submission of Germany to the "Marine Environmental Protection Committee" (MEPC) of the International Maritime Organisation (IMO) on "Possible uses of revenues generated by an Emissions Trading System" (MEPC 62/5/15) is based on a study directed by me at ZEW

Recommendation of the Ausschüsse des Bundesrats on the „Entwurf eines Gesetzes zur Anpassung der Rechtsgrundlagen für die Fortentwicklung des Emissionshandels“ (Bundesrat Drucksache 88/1/11) is based on a study coordinated by me at ZEW

Communications from the Commission "Analysis of options to move beyond 20% greenhouse gas emission reductions and assessing the risk of carbon leakage" {COM(2010)260} and the "Background information and analysis" {COM(2010)265 final}; information and analysis provided by me have been extensively used and recognised

Friedrich-Ebert-Foundation, The future of coal in electricity generation in Germany [Die Zukunft der Kohle in der Stromerzeugung in Deutschland], Energiepolitik\_1 | 2009

European Parliament's committee on Industry, research and energy, Briefing papers on „Opportunities for renewable energy development in Europe“, briefing on "RES Trading as an Option", IP/A/ITRE/WS/2008-02

Policy paper by Climate Strategies summarising current research for the European Parliament, "The Role of Auctions for Emissions Trading", briefing on "Analytic tools to analyse leakage rates and policy instruments"

Impact Assessment accompanying the „Package of Implementation measures for the EU's objectives on climate change and renewable energy for 2020“ of the European Commission {SEC(2008)85/3}; information and analysis provided by me have been extensively used and recognised

Communications from the Commission "Biofuels Progress Report" COM(2006)845 and "Renewable Energy Road Map" COM(2006)848 and the accompanying Impact Assessments {SEC(2006) 1721} {SEC(2006) 1720}; information and analysis provided by me have been extensively used and recognised

Impact Assessment accompanying the Renewable Energy Road Map „Renewable energies in the 21st century: building a more sustainable future“ {SEC(2006) 1719}; information and analysis provided have been extensively used and recognised

Mannheim, November 2013

# ANDREAS LÖSCHEL

## LIST OF PUBLICATIONS

### ARTICLES IN JOURNALS OF THE SOCIAL SCIENCES CITATION INDEX (SSCI)

1. The voluntary provision of international public goods – an overview (mit D. Rübelke), **Economica**, forthcoming.
2. An empirical analysis of the CO<sub>2</sub> shadow price in Chinese thermal power enterprises (mit C. Wei und B. Liu), **Energy Economics**, 40, 22-31, 2013.
3. The Demand for Climate Protection - Empirical Evidence from Germany (mit B. Sturm und C. Vogt), **Economics Letters**, 118(3), 415–418, 2013.
4. The EU decarbonisation roadmap 2050: What way to walk? (mit M. Hübler), **Energy Policy**, 55, 190–207, 2013.
5. A new robustness analysis for climate policy evaluations: A CGE Application for the EU 2020 Targets (mit C. Hermeling und T. Mennel), **Energy Policy**, 55, 27-35, 2013.
6. The Value-Added of Sectoral Disaggregation: Implications on Competitive Consequences of Climate Change Policies (mit V. Alexeeva-Talebi, C. Böhringer und Sebastian Voigt), **Energy Economics**, 34(Suppl. 2), S127-S142, 2012.
7. Inequality, Communication and the Avoidance of Disastrous Climate Change (with Alessandro Tavoni, Astrid Dannenberg and Giorgos Kallis), **Proceedings of the National Academy of Sciences (PNAS)**, 108(29), 11825-11829, 2011.
8. On the Self-interested Use of Equity in International Climate Negotiations (with Andreas Lange, Carsten Vogt and Andreas Ziegler), forthcoming in **European Economic Review**, 54(3), 359-375, 2010
9. Auctioning of CO<sub>2</sub> Emission Allowances in Phase 3 of the EU Emissions Trading Scheme (with E. Benz and B. Sturm), **Climate Policy**, 10 (2010), 705–718.
10. Paying the Piper and Calling the Tune? A Meta-Regression Analysis of the Double-Dividend Hypothesis (mit N. Anger und C. Böhringer), forthcoming in **Ecological Economics**, 69(7), 1495-1502, 2010.
11. Indicators of Energy Security in Industrialised Countries (with U. Moslener and D. Rübelke), **Energy Policy**, 38(4), 1665-1671, 2010.
12. Energy security—concepts and indicators - Editorial (with U. Moslener and D. Rübelke), **Energy Policy**, 38(4), 1607-1608, 2010.
13. EU Climate Policy Up to 2020: An Economic Impact Assessment (with C. Böhringer, U. Moslener and T. F. Rutherford), **Energy Economics**, 31(S2), 295-305, 2009.
14. Oil and Unemployment in Germany (with U. Oberndorfer), **Jahrbücher für Nationalökonomie und Statistik**, 229(2+3), 146-162, 2009.
15. Technological Uncertainty and Cost-Effectiveness of CO<sub>2</sub> Emission Reduction (with V. Otto), **Energy Economics**, SUPPL 1, 4-17, 2009.
16. A Symmetric Input-Output Table for EU 27: Latest Progress (with J. Rueda-Cantuche, J. Beutel, F. Neuwahl and I. Mongelli), **Economic Systems Research**, 21(1), 59-79, 2009.

17. Environmental Taxation and Induced Structural Change in an Open Economy: The Role of Market Structure (with C. Böhringer and H. Welsch), **German Economic Review**, 9(1), 17-40, 2008.
18. Employment impacts of EU biofuels policy: combining bottom-up technology information and sectoral market simulations in an input-output framework (with F. Neuwahl, I. Mongelli and L. Delgado), **Ecological Economics**, 68 (1-2), 447-460, 2008.
19. Directed technical change and differentiation of climate policy (with V.M. Otto and J. Reilly), *Energy Economics*, 30 (6), 2855-2878, 2008.
20. Climate Policy Induced Investments in Developing Countries: The Implications of Investment Risks (with C. Böhringer), **The World Economy**, 31(3), 367-392, 2008.
21. Energy Biased Technical Change - A CGE Analysis (with V. Otto and R. Dellink), **Resource and Energy Economics**, 29(2), 137-158, 2007.
22. Decomposing Integrated Assessment of Climate Change: Methodology and Sample Application (with C. Böhringer and T. F. Rutherford), **Journal of Economic Dynamics and Control**, 31(2), 683-702, 2007.
23. Promoting Renewable Energy in Europe – A Hybrid CGE Approach (with C. Böhringer), **The Energy Journal**, Hybrid Modelling of Energy-Environment Policies: Reconciling Bottom-up and Top-down, 123 – 138, 2006.
24. Computable General Equilibrium Models for Sustainability Impact Assessment: Status Quo and Prospects (with C. Böhringer), **Ecological Economics**, 60(1), 49-64, 2006.
25. Efficiency Gains from “What”-Flexibility in Climate Policy - An Integrated CGE Assessment (with C. Böhringer and T. F. Rutherford), **The Energy Journal**, Multi-Greenhouse Gas Mitigation and Climate Policy, 405-424, 2006.
26. Recycling of Eco-Taxes, Labor Market Effects and the True Cost of Labor- A CGE Analysis (with K. Conrad), **Journal of Applied Economics**, 8(2), 259-278, 2005.
27. Climate Policy Beyond Kyoto: Quo Vadis? A Computable General Equilibrium Analysis based on Expert Judgements (with C. Böhringer), **Kyklos**, 58(4), 467-493, 2005.
28. Assessing Emission Allocation in Europe: An Interactive Simulation Approach (with C. Böhringer, T. Hoffmann, A. Lange and U. Moslener), **The Energy Journal**, 26(4), 1-22, 2005.
29. Market Power and Hot Air in International Emission Trading: The Impacts of U.S. Withdrawal from the Kyoto Protocol (with C. Böhringer), **Applied Economics**, 35(6), 651-664, 2003.
30. Carbon Taxes and Joint Implementation - An Applied General Equilibrium Analysis for Germany and India (with C. Böhringer and K. Conrad), **Environmental and Resource Economics**, 24(1), 49-76, 2003.
31. Technological Change in Economic Models of Environmental Policy: A Survey, **Ecological Economics**, 43(2-3), 105-126, 2002.
32. The Economic and Environmental Implications of the US Repudiation of the Kyoto Protocol and the Subsequent Deals in Bonn and Marrakech (with Z.X. Zhang), **Weltwirtschaftliches Archiv - Review of World Economics**, 138(4), 711-746, 2002.

## **EDITORSHIPS OF JOURNAL SPECIAL ISSUES**

---

33. New Directions in the Voluntary Provision of Public Goods, Editor of the Special Issue of **Economica** (with D. Rübelke).
34. The rise of emissions trading in Asia, Editor of the Special Issue of **Energy Policy** (with F. Jotzo).
35. Energy Security - Concepts and Indicators, Editor of the Special Issue of **Energy Policy** (with U. Moslener and D. Rübelke).

## **ARTICLES IN OTHER JOURNALS**

---

36. Das Erneuerbare-Energien-Gesetz in der Diskussion (with F. Flues and P. Heindl), **Wirtschaftsdienst**, 92(8), 515-519, 2012.
37. Weltklimakonferenz in Durban - Über Inhalte einigen wir uns später, **Wirtschaftsdienst** 91 (12), 806-807, 2011.
38. Versteigerungserlöse aus CO<sub>2</sub>-Zertifikaten im Spannungsfeld zwischen Bund und Ländern (with Christiane Reif, Martin Kesternich, Simon Koesler, Daniel Osberghaus and Stefan Korioth), **Wirtschaftsdienst** 91 (10), 712-716, 2011
39. Energiepolitik nach Fukushima, **Wirtschaftsdienst** 91 (5), 307-310, 2011
40. Sind Umweltzölle ein geeignetes Instrument zur Ermöglichung fairen Wettbewerbs zwischen Ländern mit hohen und geringen Klimaschutzanforderungen? ("Are border taxes an appropriate instrument to achieve a fair competition between countries with different climate policy levels"), **Zeitschrift für Wirtschaftspolitik**, 59(2), 174-181, 2010.
41. Linking von Emissionshandelssystemen – Chance für einen effizienten Klimaschutz? ("Linking emission trading systems – A chance for efficient climate policy") (with P. Heindl), **Energiewirtschaftliche Tagesfragen**, 10 2010, 18-20, 2010.
42. Energieprognose 2009 ("Energy forecast 2009") (with U. Fahl, M. Blesl, A. Voß, B. Bruchof, T. Götz, R. Kober, R. Kuder, M. Frondel, P. Grösche, N. Ritter, M. Preistrup, T. Schmidt, C. Vance, T. Mennel, and N. Wölfling), **BWK - Das Energie-Fachmagazin**, 10-2010, 6-12, 2010.
43. Steigerung der Energieeffizienz in Deutschland: Das neue Energieeffizienzgesetz [Increasing energy efficiency in Germany – The New Law on Energy Efficiency] (with T. Mennel), **Energie - Markt – Wettbewerb**, 5/10, 6-8, 2010.
44. Energieprognose 2009: Die Entwicklung der Energiemarkte bis 2030 [Energy Forecast 2009. The Development of the Energy Markets until 2030] (with U. Fahl, M. Blesl, A. Voß, M. Frondel and T. Mennel), **Energiewirtschaftliche Tagesfragen**, 9 2010, 30-34, 2010.
45. KfW/ZEW CO<sub>2</sub> Panel: Vermeiden oder kaufen - Deutsche Unternehmen im Emissionshandel [Abate or buy – German companies under the EU ETS] (with P. Heindl, V. Lo, A. Detken and V. Alexeeva-Talebi), forthcoming in **Zeitschrift für Energiewirtschaft (ZfE)**, 1/2010, 39-46, 2010
46. Retailmarkt für Strom und Gas: Funktioniert der Wettbewerb? [Retail markets for electricity and gas – Is competition working?] (with T. Mennel and N. Wölfling), **Energiewirtschaftliche Tagesfragen**, 1/2 2010, 10-14, 2010
47. Impure Public Goods and Technological Interdependencies (with D. Rübelke), **Journal of Economic Studies**, 36(6), 596-615, 2009
48. Fairness in internationalen Klimaverhandlungen - Kommentar zu Christoph Böhringer und Heinz Welsch [Fairness in international climate negotiations], **Jahrbuch Ökologische Ökonomik** 6 (Diskurs Klimapolitik), 276-282, 2009
49. Ende der Energiewende? [End of the Energy Transition?] (with U. Moslener), **Internationale Politik (IP)**, 64(6), 24-27, 2009.
50. Extending Working Hours: Why not work 42 Hours rather than 38? – A CGE Analysis for Germany (with K. Conrad and H. Koschel), **Empirica**, 35, 255-266, 2008.
51. Handel mit Emissionsrechten und Herkunftsnnachweisen in Europa – Das "Klima- und Energiepaket" (with U. Moslener), **Zeitschrift für Energiewirtschaft (ZfE)** 04|2008, 248-253, 2008.
52. Europäische Klimapolitik und Wettbewerbsfähigkeit (with V. Alexeeva-Talebi and T. Mennel), **Ökologisches Wirtschaften** 4.2008, 39-42, 2008.
53. Wegweiser für die „Bali-Roadmap“ - Ökonomische Konzepte für die Klimaverhandlungen nach Bali bis zur nächsten Klimakonferenz 2009 in Kopenhagen (with U. Moslener, K. Rennings and B. Sturm), in: **Wirtschaftsdienst**, 88(1), 28-30, 2008.

54. Regionale Klimaschutzprogramme – Zur integrierten Analyse von Kosten des Klimawandels und des Klimaschutzes auf regionaler Ebene (with U. Fahl, H. Koschel, B. Rühle and H. Wolf), **Vierteljahrshefte zur Wirtschaftsforschung** - Quarterly Journal of Economic Research, 74(2), 286-309, 2005.
55. Technological Change, Energy Consumption and the Costs of Environmental Policy in Energy-Economy-Environment Modelling, **International Journal of Energy Technology and Policy**, 2(3), 250-261, 2004.
56. Die Messung nachhaltiger Entwicklung mithilfe numerischer Gleichgewichtsmodelle (with C. Böhringer), in: **Vierteljahrshefte zur Wirtschaftsforschung** - Quarterly Journal of Economic Research, 72(1), 31-52, 2004.
57. Internationaler Emissionshandel nach In-Kraft-Treten des Kioto-Protokolls: Wichtige Rahmengröße für die nationale Klimaschutzpolitik (with C. Böhringer), in: **Zeitschrift für Umweltpolitik & Umweltrecht** (ZfU), 26(2), 129-144, 2003.
58. Assessing the Costs of Compliance: The Kyoto Protocol (with C. Böhringer), in: **European Environment**, 12(1), 1-16, 2002.

## **MONOGRAPHS AND BOOKS, EDITORSHIPS**

---

59. KfW/ZEW CO<sub>2</sub> Barometer 2012, Anreizwirkung des EU-Emissionshandels auf Unternehmen gering – Klimapolitische Regulierung wenig relevant für Standortentscheidungen (with K.-L. Brockmann, P. Heindl, B. Lutz and J. Schumacher), KfW Bankengruppe, Frankfurt am Main, 2012.
60. KfW/ZEW CO<sub>2</sub> Barometer 2011, Hoher Anpassungsbedarf im EU-Emissionshandel ab 2013 – deutliche Defizite bei der Vorbereitung in den Unternehmen (with K.-L. Brockmann, P. Heindl, B. Lutz and J. Schumacher), KfW Bankengruppe, Frankfurt am Main, 2011.
61. 10-Punkte-Programm zur Energiepolitik (with F. Behrendt, K. Bognar, J. Bugl , H. Drück, G. Erdmann, G. Harms, J. Kunze, J.F. Lambertz, W. Pfaffenberger, U. Potzel, O. Renn, M. Schreurs, and A. Voss), International Expert Group on Earth System Preservation (IESP), München, 2010
62. Entwicklung globaler Emission Reduction Credit Systems bei Fehlen eines internationalen Folgeabkommens für das Kioto-Protokoll (with P. Heindl, H. Koschel and S. Voigt), KfW Bankengruppe, Frankfurt am Main, 2010.
63. KfW/ZEW CO<sub>2</sub> Barometer 2010, Effizienzpotenziale des Emissionshandels noch nicht ausgeschöpft – Strategien und Management deutscher Unternehmen (with K. Kiehl, P. Heindl, V. Lo, H. Koschel and S. Koesler), KfW Bankengruppe, Frankfurt am Main, 2010.
64. The Fiscal Implications of Climate Change Adaptation (with C. Egenhofer, A. Behrens, A. Dannenberg, A. Georgiev, Peter S. Heller, J. Kremers, J. Mortensen, J. Nunez-Ferrer, D. Osberghaus, C. Reif and B. Sturm), European Commission - Economic and Financial Affairs, Brüssel, 2010.
65. Die Entwicklung der Energiemarkte bis 2030, Energieprognose 2009 (with U. Fahl, M. Blesl, M. Frondel, P. Grösche, T. Mennel and N. Wölfig), Essen, Mannheim, Stuttgart, 2009.
66. KfW/ZEW CO<sub>2</sub> Barometer 2009, Leaving the Trial Phase behind – Preferences & Strategies of German Companies under the EU ETS (with A. Detken, V. Alexeeva-Talebi, P. Heindl, V. Lo and M. Strunz), KfW Bankengruppe, Frankfurt am Main, 2009.
67. The future of coal in electricity generation in Germany [Die Zukunft der Kohle in der Stromerzeugung in Deutschland], Friedrich-Ebert-Foundation, Energiepolitik\_1 | 2009.
68. Perspektiven der wirtschaftswissenschaftlichen Forschung zum Klimawandel (with M. Schymura), Bundesministerium für Bildung und Forschung (BMBF), Bonn, 2009.
69. The Role of Auctions for Emissions Trading (with K. Neuhoff, F. Matthes, R. Betz, S. Dröge, A. Johnston, M. Kudelko, S. Monjon, L. Mohr, M. Sato, W. Suwala), Climate Strategies, Cambridge, UK, 2009.

70. RES Trading as an Option, European Parliament's committee on Industry, research and energy, Briefing papers on „Opportunities for renewable energy development in Europe”, briefing on "RES Trading as an Option", IP/A/ITRE/WS/2008-02, 2008.
71. Climate Change Policy and Global Trade (ed. with C. Böhringer), Heidelberg: Physica Verlag, ZEW Economic Studies 26, 2004
72. Empirical Modeling of the Economy and the Environment (ed. with C. Böhringer), Heidelberg: Physica Verlag, ZEW Economic Studies 20, 2003
73. Economic Impacts of Climate Change Policy – A Quantitative Analysis, Dissertation, Mannheim University, Mannheim, 2003 (<http://bibserv7.bib.uni-mannheim.de/madoc/volltexte/2003/75/>)
74. Umweltsteuern, internationaler Wettbewerb und Beschäftigung in einem Simulationsmodell mit unvollkommener Konkurrenz (with C. Böhringer, H. Welsch and V. Ehrenheim), Schlußbericht für die Volkswagenstiftung, Mannheim / Oldenburg, 2000
75. Vom Umlage- zum Kapitaldeckungsverfahren in der Gesetzlichen Rentenversicherung – Theoretische Analyse und Simulation des Übergangs, Forum Finanzwissenschaft 15, Nuremberg, 1998

---

## ARTICLES IN BOOKS

76. Modeling technological change (with M. Schymura), in: J. Shogren, *Encyclopedia of Energy, Natural Resource and Environmental Economics*, Chapter 63, forthcoming.
77. Designing Emissions Trading in Practice - General Considerations and Experiences from the EU Emissions Trading Scheme (EU ETS) (with P. Heindl), in: J. Xue und Z. Zhao, Annual Report on Chinas Low-Carbon Economic Development, Social Science Academic Press (China), Beijing, 360-378, 2011.
78. Alleviating Adverse Implications of EU Climate Policy on Competitiveness: The Case for Border Tax Adjustments or the Clean Development Mechanism? (with V. Alexeeva-Talebi and N. Anger), in: V. Ghosal, Reforming Rules and Regulations, CESifo Seminar Series, MIT Press, 105-127, 2010
79. Stocks, Flows, and Prospects of Energy (with J. Johnston, T.N. Demayo, D.L. Gautier, D.L. Greene, J. Ogden, S. Rayner and E. Worrell), in: Thomas E. Gradel and Ester van der Voet, Linkages of Sustainability, Strüngmann Forum Report, MIT Press, 2009, 389-419.
80. Korreferat zu Wolfgang Buchholz: Theoretische Grundlagen der Nachhaltigkeit, in: W. Franz, H. J. Ramser, and M. Stadler (Hrsg.), Umwelt und Energie, Wirtschaftswissenschaftliches Seminar Ottobeuren (Band 34), Tübingen: Mohr Siebeck, 2007, 43-45.
81. Integration von F&E-Entscheidungen in CGE und Energiesystemmodelle (with Uwe Remme and Markus Blesl), in: Forum für Energiemodelle und Energiewirtschaftliche Systemanalysen in Deutschland (ed.), Energiemodelle zu Innovation und moderner Energietechnik – Analyse exogenen und endogenen technischen Fortschritts in der Energiewirtschaft, Münster: LIT-Verlag, 2006, 233-264.
82. Harmonizing Emission Allocation. What are the Equity Consequences for the Sectors in and outside the EU-Trading Scheme (with T. Hoffmann and U. Moslener), in: C. de Miguel, X. Labandeira and B. Manzano (eds.), Economic Modelling of Climate Change and Energy Economics, Cheltenham (UK), Northampton, MA (USA): Edward Elgar (New Horizons in Environmental Economics), 2006, 65-78
83. Climate Policy (with C. Böhringer), in: C. Böhringer and A. Löschel (eds.), Climate Change Policy and Global Trade, Heidelberg: Physica-Verlag, 2004, 3-20
84. A Computable General Equilibrium Model for Climate and Trade Policy Analysis (with C. Böhringer and J. Francois), in: C. Böhringer and A. Löschel (Hrsg.), Climate Change Policy and Global Trade, Heidelberg: Physica-Verlag, 2004, 111-144

85. Climate Policies: Trade Spillovers, Joint Implementation and Technological Spillovers, Market Power, Investment Risks (with C. Böhringer), in: C. Böhringer and A. Löschel (Hrsg.), Climate Change Policy and Global Trade, Heidelberg: Physica-Verlag, 2004, 231-296
86. PACE – Ermittlung von CO2-Zertifikatepreisen (with C. Böhringer and F. Eckermann), in: Forum für Energiemodelle und Energiewirtschaftliche Systemanalysen in Deutschland, Stuttgart (Hrsg.), Energiemodelle zum Klimaschutz in liberalisierten Energiemarkten, Münster: LIT-Verlag (Umwelt- und Ressourcenökonomik 21), 2004, 123-136
87. Economic Impacts of Carbon Abatement Strategies (with C. Böhringer), in: C. Böhringer, M. Finus and C. Vogt (Hrsg.), Controlling Global Warming - Perspectives from Economics, Game Theory and Public Choice, Cheltenham: Edward Elgar, 2002 (New Horizons in Environmental Economics), 98-172
88. PACE – Policy analysis based on computable equilibrium (with C. Böhringer and A. Rohde), in: Forum für Energiemodelle und Energiewirtschaftliche Systemanalysen in Deutschland, Stuttgart (ed.): Energiemodelle zum Kernenergieausstieg in Deutschland: Effekte und Wirkungen eines Verzichts auf Strom aus Kernkraftwerken, Heidelberg: Physica-Verlag, 2002 (Umwelt und Ökonomie 34), 436-450
89. Joint Implementation as a Flexible Instrument – A CGE Analysis between a Developing and an Industrialized Country (with C. Böhringer and K. Conrad), in: J. Albrecht (ed.), Instruments for climate policy: Limited versus unlimited flexibility, Cheltenham (UK), Northampton, MA (USA): Edward Elgar, 2002 (New Horizons in Environmental Economics), 148-169
90. Eastern Enlargement of the EU: Interactions of Environmental Policies and Trade Liberalization (with M. Mraz), in: M. H. Stierle (ed.), Economics of Transformation – Theory, Experiences and EU Enlargement, Berlin: Verlag für Wissenschaft und Forschung, 2001 (INFER Research Edition No. 6), 333-344

Mannheim, November 2013