

CURRICULUM VITAE

Prof. Dr. Claudia Kemfert

Prof Dr Claudia Kemfert has been head of the department Energy, Transportation, Environment at the German Institute of Economic Research (DIW Berlin) since April 2004 and is Professor of Energy Economics and Energy Policy at the Leuphana University, Till 2019 she was Professor of Energy Economics and Sustainability at Hertie School of Governance and from 2004-2009 she was Professor of Environmental Economics at Humboldt University.

She got an award from DAAD and was honoured in 2006 as top German Scientist from the German research foundation, Helmholtz and Leibniz Association. In 2011 she was awarded with the Urania Medaille as well as B.A.U.M. Environmental Award for Best Science and got the German-Solar-Award and the Adam-Smith-Award for Market-Based Environmental Policy in 2016. She publishes her research results in high level scientific journals and acted as scientific representative for the research theme "Energy" on the "science year 2010" organised by the German Ministry of Science. She has recently published two highly recognised books to illustrate the economic impacts of climate change and energy policy. 2013 she published her book "Kampf für Strom" in which she describes the myths of the energy debate. In the same year followed the English version "The battle about electricity". 2017 followed her book "Das fossile Imperium schlägt zurück". Her latest book „Mondays for Future - Freitags demonstrieren, Samstags diskutieren und am Montag anpacken und umsetzen“ was published in spring 2020.

In 2016 Claudia Kemfert was appointed by the Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety as a member of the German Advisory Council on the Environment. Claudia Kemfert advised EU president José Manuel Barroso in a "High level Group on Energy and Climate", and she acts as an external expert for the Intergovernmental Panel of Climate Change (IPCC). Claudia Kemfert was member of the High Level Expert Group of the EU Commissioner for Environment and Sustainability and of the Advisory Group on Energy of the European Commission (DG Research). Since 2011 she has been a member of the Club of Rome. She furthermore acts as jury member for several significant sustainability prizes. She was appointed by Norbert Röttgen (CDU) as shadow minister for Energy in North Rhine-Westphalia in 2012 and by Thorsten Schäfer-Gümbel (SPD) as energy expert in Hesse in 2013.

Claudia Kemfert studied economics at Oldenburg, Bielefeld (Germany) and Stanford University (USA). Claudia Kemfert worked for the Fondazione Eni Enrico Mattei (FEEM) (Italy) and Stuttgart University (Institute for Rational Energy Use). She gave lectures at the universities of St. Petersburg (2003/04), Moscow (2000/01) und Siena (1998, 2002/03). Claudia Kemfert was Associate Professor and headed a PhD research group at Oldenburg University. She was the first associate professor in Germany who got a tenured professor position. She is project manager of diverse research projects about environmental and energy policy strategies, and she is engaged in different networks like the Energy Modeling Forum (EMF) at Stanford University.

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SELECTED RESEARCH PROJECTS

- 2020-2021 Coal Exit, funded by Resources for the Future RFF
- 2020-2021 100% Erneuerbare-Szenarien, funded by 100 Prozent Erneuerbar Stiftung
- 2019-2020 Kurzstudien Kohleausstieg, funded by BUND
- 2016-2020 Strukturwandel in Kohleregionen, funded by UBA
- 2016-2018 Klimaschutz und Kohleausstieg: Politische Strategien und Maßnahmen bis 2030 und darüber hinaus, finanziert von UBA/BMU
- 2016-2018 German-Japanese Energy Transition Council (GJETC), finanziert von GJETC
- 2016 Netzausbaubedarfe im Lichte der Energiewende, finanziert von der Herman Scheer Stiftung
- 2015-2017 Open Power System Data, finanziert von BMWi
- 2015-2016 CO2-Limits, funded by Bundestagsfraktion Bündnis90/Grüne
- 2015-2016 Kraftwerkspark Deutschland II, funded by European Climate Foundation (ECF)
- 2015-2016 Kraftwerkspark Deutschland I, funded by Heinrich-Böll-Foundation
- 2012-2016 MASMIE – Modellgestützte Analysen für die Strommarktgestaltung zur Integration erneuerbarer Energien im Rahmen der Energiewende, promoted by Mercator Foundation
- 2014-2015 DEEP Decarbonisation Projekt Länderstudie Deutschland zu Treibern und Barrieren der Energiewende, gefördert vom Deutschen Institut für Entwicklungspolitik (DIE) und des Bundesministeriums für Umwelt (BMU)
- 2012-2014 RES Grid Integration – Regulated Expansion of Electricity Transmission Networks: the Effects of Fluctuating Demand and RES Generation, promoted by the European Commission
- 2012-2014 Biochar in Agriculture – Perspectives for Germany and Malaysia, promoted by Leibniz Association (WGL)
- 2011-2013 NAMAs Central Asia – Integrierter Ansatz zur Entwicklung klimafreundlicher Wirtschaften in Zentralasien, promoted by the Federal Ministry for the Environment
- 2008-2011 EMF Energy Modelling Forum (EMF 21 Land Use, EMF 22 Climate Policy, EMF 23 Gas market, EMF 25 Energy Efficiency), Stanford University <http://emf.stanford.edu/>
- 2009 Mitigation of methane emissions - a rapid and cost-effective response to climate change, Copenhagen Consensus <http://fixtheclimate.com/>
- 2007-2010 Strukturwandel im Agrarsektor – Eine unternehmens- und politikbezogenen Analyse Research Group at Humboldt-University Berlin, promoted by The German Science Foundation DFG
- 2006-2009 Mainstreaming von Klimarisiken und -chancen im Finanzsektor: Klimabezogene Chancen und Risiken mit Schwerpunkt Vermögensverwaltung in cooperation with PIK Potsdam, University Potsdam, Germanwatch, Wuppertal Institut, promoted by The Federal Ministry of Education and Research
- 2006-2009 ADAM - ADaption And Mitigation Strategies: Supporting European Climate Policy promoted by the European Commission
- 2006-2007 WIATEC - The development of a World Integrated Assessment model of Technology-Economy-Climate change for the investigation of the impact of induced technical and behavioural change on the environment promoted by the European Commission

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- 2005–2007 Quantifizierung des Einflusses des Klimawandels auf die Trends der Häufigkeiten von Naturkatastrophen sowie deren volkswirtschaftliche und versicherte Schäden, in cooperation with Munich Re
- 2004–2005 Electricity Market Liberalization in Europe (EMELIE), Market Imperfections and their Impact on the European Economic and Environmental Situation promoted by the European Commission
- 2002–2005 Evaluation of the climatic change on the basis of coupled economical biosphere climatic models- ECOBICE, financed by the Volkswagen Foundation

SELECTED PUBLICATIONS – REFEREED JOURNALS

- Martin Kittel, Leonard Goeke, Claudia Kemfert, Pao-Yu Oei, Christian von Hirschhausen (2020), Scenarios for Coal-Exit in Germany—A Model-Based Analysis and Implications in the European Context. In: *Energies* 13 (2020), 8, Art. 2041, 19 p.
- Pao-Yu Oei, Thorsten Burandt, Karlo Hainsch, Konstantin Löffler, Claudia Kemfert (2020). Lessons from Modeling 100% Renewable Scenarios Using GENeSYS-MOD. In: *Economics of Energy and Environmental Policy* 9 (2020), 1, pp. 103-120
- Bartholdsen, K.-H., Eidens, A., Löffler, K., Seehaus, F., Wejda, F., Burandt, T., Oei, P.-Y., Kemfert, C., von Hirschhausen, C. (2019). Pathways for Germany's Low-Carbon Energy Transformation Towards 2050. In: *Energies* 2019, 12(15), 2988
- Child, M., Kemfert, C., Bogdanov, D., Breyer C. (2019) Flexible Electricity Generation, Grid Exchange and Storage for the Transition to a 100% Renewable Energy System in Europe. In: *Renewable Energy* 139 (2019), pp. 80-101
- Kemfert, C. Germany and Climate Protection: From Model Pupil to Laggard—Why Coal Phasing Out Makes Economic and Ecological Sense. In: *Advanced Sustainable Systems* 3 (2019), 3, 1800155 (3 p.)
- Gerbaulet, C., von Hirschhausen, C., Kemfert, C., Lorenz, C., Oei, P.-Y. (2019). European electricity sector decarbonization under different levels of foresight. In *Renewable Energy*
- Medick, J., Teichmann, I., Kemfert, C. (2018): Hydrothermal carbonization (HTC) of green waste: Mitigation potentials, costs, and policy implications of HTC coal in the metropolitan region of Berlin, Germany. In *Energy Policy*, Volume 123, Dezember 2018, pp 503-513
- Zerrahn, A., Schill, W.-P., Kemfert, C. (2018). On the economics of electrical storage for variable renewable energy sources. In: *European Economic Review* (2018)
- Kemfert, C., Elmer, C.-F., Dross, M. (2018). Grenzen der Technologieneutralität: Infrastrukturförderung als notwendiger Pull für den Übergang zur Elektromobilität. In: *Zeitschrift für Politikwissenschaft* 27 (2018), 4, p. 483-491
- Medick, J., Teichmann, I., Kemfert, C. (2017). Hydrothermal Carbonization (HTC) of Green Waste: Mitigation Potentials, Costs, and Policy Implications of HTC Coal in the Metropolitan Region of Berlin, Germany. In: *Energy Policy* 1690 (2017)
- Löffler, K., Hainsch, K., Burandt, T., Oei, P.-Y., Kemfert, C., von Hirschhausen, C. (2017). Designing a Model for the Global Energy System - GENeSYS-MOD: An Application of the Open-Source Energy Modeling System (OSeMOSYS) In: *Energies* 10 (2017), 10, pp. 1-28.
- Kemfert, C. (2017): Germany must go back to its low-carbon future. In *Nature* 549, pp. 26-27
- Kunz, F., Rosellón, J., Kemfert, C. (2017): Introduction of Nodal Pricing into the Mexican New Electricity Market through FTR Allocations. In: *Energy Journal* 38 (2017) ,
- Kemfert, C., Kunz, F., Rosellón, J. (2016): A Welfare Analysis of Electricity Transmission Planning in Germany. In: *Energy Policy* 94 (2016) , p. 446-452
- Schröder, A., Traber, T., Kemfert, C. (2013): Market Driven Power Plant Investment Perspectives in Europe: Climate Policy and Technology Scenarios until 2050 in the Model EMELIE-ESY. In: *Climate Change Economics*. 4 (2013) , 1 , 22 p.

- Haftendorn, C., Holz, F., Kemfert, C. (2012): What about Coal? Interactions between Climate Policies and the Global Steam Coal Market until 2030. In: *Energy Policy* 48 (2012), p. 274-283
- Haftendorn, C., Holz, F., Kemfert, C. (2012): What about Coal? Interactions between Climate Policies and the Global Steam Coal Market until 2030. In: *Energy Policy* 48 (2012), pp. 274-283
- Traber, T., Kemfert, C. (2011): Refunding ETS Proceeds to Spur the Diffusion of Renewable Energies: An Analysis Based on the Dynamic Oligopolistic Electricity Market Model EMELIE. In: *Utilities Policy* (2011), 1, pp. 33-41
- Schill, W.-P., Kemfert, C. (2011): Modeling Strategic Electricity Storage: The Case of Pumped Hydro Storage in Germany. In: *The Energy Journal* (2011) 3, pp. 59-87
- Traber, T., Kemfert, C. (2011): Gone with the Wind? Electricity Market Prices and Incentives to Invest in Thermal Power Plants under Increasing Wind Energy Supply. In: *Energy Economics [Elektronische Ressource]* (2011) 2, pp. 249-256
- Sorda, G., Banse, M., Kemfert, C. (2010): An overview of biofuel policies across the world. In: *Energy Policy*. Vol. 38, Issue 11, pp. 6977-6988
- Kemfert, C., Schmidt, S., Höppe, P. (2010): The Impact of Socio-economics and Climate Change on Tropical Cyclone Losses in the USA. In: *Regional Environmental Change*, Volume 10, Issue 1 (2010), pp. 13-26.
- Siliverstovs, B., Otsch, R., Kemfert, C., Jaeger, C., Haas, A., Kremers, J. (2009): Climate Change and Modelling of Extreme Temperatures in Switzerland, In: *Applied Statistics*, [online first: 2009-06-14]
- Kemfert, C., Schneider, F. (2009): Der Emissionshandel in Deutschland und Österreich - ein wirksames Instrument des Klimaschutzes? In: *Perspektiven der Wirtschaftspolitik* 10 (2009), 1, pp. 92-122
- Kemfert, C., Schmidt, S., Höppe, P. (2009): Tropical Cyclone Losses in the USA and the Impact of Climate Change: A Trend Analysis Based on Data from a New Approach to Adjusting Storm Losses. In: *Environmental Impact Assessment Review* 29 (2009), pp. 359-369
- Kemfert, C., Traber, T. (2009): Impacts of the German Support for Renewable Energy on Electricity Prices, Emissions, and Firms. In: *The Energy Journal* 30 (2009), 3, pp. 155-178
- Kemfert, C., Holz, F., Hirschhausen, C. (2009): Perspectives of the European Natural Gas Markets Until 2025. In: *The Energy Journal*. Volume 30, Special Issue. pp. 137-150
- Kemfert, C., Holz, F., Hirschhausen, C. (2008): A Strategic Model of European Gas Supply. In: *Energy Economics*, Vol. 30/3, pp. 766-788
- Kemfert, C., Truong, P. T. (2008): A Flexible Global Warming Index for Use in an Integrated Approach to Climate Change Assessment In: *Environmental Modeling and Assessment* 13, Heft 4 ; pp. 503-515
- Kemfert, C. (2008): Book Review: *Markets and the Environment*, Nathaniel O. Keohane and Sheila M. Olmstead, Washington, DC: Island Press. In: *Agricultural Economics* 38, 3, pp. 385-387
- Kemfert, C. (2007): Versteigern statt Verschenken!: Warum es sinnvoll ist, eine vollständige versteigerung der Emissionsrechte anzustreben. In: *Zeitschrift für angewandte Umweltforschung* 18 (2007), 1, pp. 9-17
- Kemfert, C. (2007): Ein Zehn-Punkte-Plan für eine nachhaltige Energiepolitik in Deutschland. In: *Gaia* 16, 1, pp. 16-21
- Kemfert, C. (2007): The European Electricity and climate policy - complement or substitute? In: *Environment and Planning / C* 25 (2007), 1, pp. 115-130

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- Kemfert, C., Müller, F. (Eds.) (2007): Die Energiepolitik zwischen Wettbewerbsfähigkeit, Versorgungssicherheit und Nachhaltigkeit - Chancen und Perspektiven für die Energieversorgung. Vierteljahrshefte zur Wirtschaftsforschung 76, 1
- Kemfert, C., Truong, P.T., Brucker, T. (2006): Economic Impact Assessment of Climate Change: A Multi-Gas Investigation. In: The Energy Journal, Multi-Greenhouse Gas Mitigation and Climate Policy, Special Issue 3, pp. 441-460
- Edenhofer, O.; Lessmann, K.; Kemfert, C.; Grubb, M.; Koehler, J. (2006): Induced technological change: exploring its implications for the Economics of Atmospheric stabilization. In: The Energy Journal, Special issue 2006, pp. 57-109
- Kemfert, C. (2005): Der Strommarkt in Europa zwischen Liberalisierung und Klimaschutz- Herausforderungen für die zukünftige deutsche Energieversorgung. In: Zeitschrift für Umweltpolitik und Umweltrecht, 2/2005, pp. 243-258
- Kemfert, C. (2005): Induced Technological Change in a Multi-Regional, Multi-Sectoral, Integrated Assessment Model (WIAGEM): Impact Assessment of Climate Policy Strategiepp. In: Special Issue of Ecological Economics, ,Vol. 54/2-3 pp. 293-305
- Kemfert, C. (2004): International Climate Coalitions and trade - Assessment of cooperation incentives by issue linkage. In: Energy Policy, Vol. 32, Issp. 4, pp. 455-465
- Kemfert, C. (2002): Global Economic Implications of alternative Climate Policy Strategiepp. In: Environmental Science and Policy, Vol. 5, Issp. 5, pp. 367-384.
- Kemfert, C. (2002): An Integrated Assessment Model of Economy-Energy-Climate – The model WIAGEM-. In: Integrated Assessment, Vol. 3, 4, pp. 281-299
- Galeotti, M., Kemfert, C. (2004): Interactions between climate and trade policies, a Survey. In: Journal of World Trade, Vol. 38,.4
- Haites, E., Yamim, F., Blanchard, O., Kemfert, C. (2004): Implementing the Kyoto Protocol without Russia, Climate Policy 4, 2, pp. 143
- Kemfert, C. (1998): Estimated substitution elasticities of a nested CES production function for Germany. In: Energy Economics, 20, pp. 249-264

PHD STUDENTS SUPERVISION

PhD Student	Subject	Finalised
Fournier Gabela, Julio Gustavo	"On the economic effects of natural disasters: Frontiers in applied spatial computable general equilibrium modeling"	2020
Stöckl, Fabian	"Substituting Clean for Dirty Production: Understanding Prospects for Green Growth"	10/2020 finalised
Wealer, Ben	"The Political Economy of Nuclear Power Dual Use, Electricity Generation, Decommissioning of Power Plants, and Long-term Storage of Nuclear Waste"	07/2020 finalised
Mendelevitch, Roman	Modelling of Coal Markets and CCTS	10/2016 finalised
Zerrahn, Alexander	Multi-Stage Models of Electricity Markets	04/2016 finalised
Egerer, Jonas	Distributional effects and cooperation in the transformation of the German and European electricity sector	04/2016 finalised
Teichmann, Isabel	Three Topics in Agriculture: Private Quality Standards, Marketing Channels, and Biochar	01/2016 finalised
Richter, Philipp Moritz	Trade and Climate Policies – Carbon Leakage in Energy and Goods Markets	10/2015 finalised
Huppmann, Daniel	Strategic behaviour in a carbon-constrained world -- Advances in complementarity modelling of energy markets	06/2014 finalised
Schröder, Andreas	Modeling Infrastructure Investments in Electricity Markets	02/2013 finalised
Groba, Felix	Renewable Energies´ Dissemination and International Trade – An Empirical Assessment of Policy, Markets and Innovation	02/2013 finalised
Haftendorn, Clemens	Economics of the Global Steam Coal Market - Modeling Trade, Competition and Climate Policies	10/2012 finalised
Schill, Wolf-Peter	Erneuerbare Energien: Effekte für den Strommarkt und Mobilität	06/2011 finalised
Braun, Frauke	Volkswirtschaftliche Effekte von erneuerbaren Energien- Bewertung anhand des ökonomischen Modells Nigem	12/2010 finalised
Schmidt, Silvio	Economic assessment of extreme climate events (MunichRe)	05/2010 finalised
Holz, Franziska	Impact Assessment of the liberalised gas market	01/2009 finalised
Kalashnikov, Vitaly	Impact Assessment of the liberalised electricity market	01/2009 finalised

Tichler, Robert	Optimal energy prices and implications of energy price modifications in the Upper Austrian economy	10/2008 finalised
Müller-Pelzer, Franziska	Evaluation of CDM options in South America	10/2008 finalised
Schumacher, Katja	Evaluation of the electricity market in Europe	08/2007 finalised
Dröge, Susanne	Linkages between trade policy and environmental policy	08/2005 finalised

AWARDS

- 2020: Vordenker-Preis, portfolio institutionell Awards
- 2016: Adam-Smith-Award for Market-Based Environmental Policy
- 2016: German Solar Award
- 2011: B.A.U.M. Environmental Award, category "science", for outstanding commitment in environment protection and sustainability
- 2011: Urania-Medaille for her outstanding commitment to a scientifically based change of awareness of sustainable economy in our society
- 2006: Elf der Wissenschaft, 11 Spitzenforscher ("dream team of german science") awarded by DFG, Helmholtz and Leibniz Association
- 2003: Best Paper Award EABR Conference
- 1998: Award by Verein für Socialpolitik for international presentations
- 1997: Grant by DAAD for the PhD Programm of Stanford University

MEMBERSHIPS

- Verein für Socialpolitik
- Vereinigung Deutscher Wissenschaftler (VDW e.V.)
- European Association of Environmental and Resource Economists (EAERE)
- American Economic Association (AEA)
- International Association for Energy Economics (IAEE)
- Association of Environmental and Resource Economists (AERE)
- International Society for Ecological Economics
- Energy Modelling Forum (EMF)
- European Climate Forum (ECF)
- Umweltausschuss des Vereins für Socialpolitik
- International C3E Ambassador Corps

EXPERT COMMITTEES

- German Advisory Council on the Environment
- High Level Group of Energy and Climate of EU President Barroso (2006 until 2009)
- Expert group EU Commissioner (2012-2014)
- Club of Rome
- Advisory Board Energieforschung und Energietechnologien, Bavarian Ministry of Economic Affairs, Infrastructure, Transport and Technology (2012)
- Advisory Board of Federal academie of Security Policy
- Advisory Board of Energiecampus Nürnberg
- Scientific Board of WIFO (Austrian Institute for Economic Research)
- Scientific Board of the Energy Institute at Johannes Kepler University, Linz
- Scientific Board of EUREF Institute Berlin
- Scientific Board of Kulturwissenschaftliches Instituts Essen
- Scientific Board of NATIONAL GEOGRAPHIC GERMANY
- Scientific Board of Deutschen Biomasseforschungszentrum (DBFZ)
- Scientific Board of Energie-Forschungszentrum Niedersachsen (EFZN)
- Scientific Board of Zeitschrift für Neues Energierecht (ZNER)
- Advisory Group on Energy of EU Commission (DG Research) (2012-2014)
- Expert Group of the states Hessen (Schäfer-Gümbel) and Niedersachsen (Wenzel)
- Energy Commtity party executive of SPD (2014)
- Board of Trustees of Technologiestiftung Berlin
- Board of Trustees of Deutsche KlimaStiftung

Advisory Board of 100 Prozent erneuerbare stiftung
Advisory Board of forum Nachhaltig Wirtschaften
Advisory Board of Institut für Europäische Politik (IEP)
Advisory Board of B.A.U.M. Science
Advisory Board of Körber-Stiftung
Advisory Board of Deutsches Museum München
Advisory Board of Innovationszentrum Energie (IZE)
Frankfurter Zukunftsrat
Board of Trustees of Münchener Rück Stiftung
Advisory Board of CLEAN TECH WORLD
Advisory Board of Deutsche Umweltstiftung
Expert group about global issues, Federal Foreign Office (2012-2014)
Ambassador of the Science Year 2010 – The future of Energy, Federal Ministry of Education and Research
High Level Jury Sustainable Energy Europe Awards of EU Commission
Committee of Environment- and Ressource Economy, Society of Socialpolicy
Jury of: Deutscher Studienpreis, Berlin Science Award of the The Governing Mayor, German Sustainability Award, German Environmental Award, Environmental Award of Allianz, „Ökoglobe“ and „365 Places in the Land of Ideas“

REFEREE FOR

The Energy Journal
Energy Economics
Environment and Development Economics
Energy Policy
Climate Policy
Ecological Economics
Environmental and Resource Economics
Environmental Economics
Gaia
Economics of Energy and Environmental Policy
Journal of Sustainability Research
Energies

EDITOR

Applied Economics Quarterly
Gaia
Energy Efficiency
Latin American Economic Review (LAER)
Research Journal of Environmental
Advanced Sustainable Systems
ZNER Zeitschrift für Neues Energierecht

Berlin, October 2020