

Dr. Franziska Holz

Curriculum Vitae

DIW Berlin
Dept. Energy, Transportation, Environment
Mohrenstrasse 58
10117 Berlin
Telephone +49-30-89789-337
Fax +49-30-89789-113
fholz@diw.de



Born on March 4, 1979 in Halle (Germany).
Married, two children (*2010, 2017).

<https://scholar.google.de/citations?hl=de&user=HNsPj7oAAAAJ>

ORCID: 0000-0002-3840-388X

Professional Experience

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| Since 2004 | DIW Berlin (German Institute for Economic Research), Berlin (Germany)
Department Energy, Transportation, Environment
Deputy Head of Department (since 2018)
Head of Research Area “Resource and Environmental Markets” (since 2016) |
| Since 2018 | Norwegian University of Science and Technology NTNU, Trondheim (Norway)
Adjunct international professor, NTNU Energy Transition Program |
| 2015-2018 | Hertie School of Governance, Berlin (Germany) <ul style="list-style-type: none">• 2015/2016: Vertretungsprofessorin / Professor of Governance of Energy and Infrastructure (temporary full professorship)• 2016 – 2018: Fellow |
| 2011-2014 | HTW Berlin, Berlin (Germany)
Teaching Bachelor classes in microeconomics and microeconomics |
| 2009-2020 | TU Berlin, Berlin (Germany)
Workplace for Infrastructure Policy (WIP)
Teaching Bachelor and Master classes (energy economics, operations research) |
| 2004 | Delegation of the European Commission, Washington, D.C. (USA)
Junior Consultant in the Department “Agriculture and Public Health” |

Education

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| 2009 | PhD in Economics (Dr. rer. oec.) at TU Berlin,
Thesis “Modeling the European Natural Gas Market – Static and Dynamic Perspectives of an Oligopolistic Market”, grade: summa cum laude (<i>with highest honor</i>) |
| 1998-2003 | Undergraduate and Master Studies in Economics / International Economics at Paris 1 University Panthéon-Sorbonne, grade: mention “très bien” (16/20 points, <i>very good</i>) |
| 1997 | Abitur (German final secondary education degree) at Christian-Thomasius-Gymnasium Halle/Saale, grade: 1,4 (<i>very good</i>) |

Selected research projects

- Open ENTRANCE – Open Energy Transition Analyses for a Low-Carbon Economy (2019-2023):
Horizon 2020 project, lead: SINTEF Energi
Case studies “Gas storage in a low-carbon energy system”, “Reconciling models and regulation”
- FoReSee - Fossil Resource markets and climate policy: Stranded assets, Expectations and the political Economy of climate change (2018-2021),
Joint project with ifo Institut Munich and Humboldt University’s Chair for Resource Economics,
Funded by the German Ministry of Education and Research (BMBF) in the research program
“Economics of Climate Change”
- SET-Nav – Navigating the Roadmap for Clean, Secure and Efficient Energy Innovation (2016-2019)
Horizon 2020 project, lead: TU Vienna, <http://www.set-nav.eu/>
Work packages “Scenarios for the global fossil fuel markets”, “Method workshops”, and other
work packages, e.g. on CCS in the future EU energy system.
- Coal Transitions: Research and Dialogue on the Future of Coal (2016-2018):
Funded by the KR Foundation, lead: IDDRI and Climate Strategies, <https://coaltransitions.org/>
Modeling of the global impact of regional coal phase-out policies.
- RESOURCES: International Energy Resource Markets under Climate Constraints – Strategic Behavior and Carbon Leakage in Coal, Oil, and Natural Gas Markets (2012-2015),
Joint project with the Potsdam University’s Chair of Economic Policy,
Funded by the German Ministry of Education and Research (BMBF) in the research program
“Economics of Climate Change”
- European Natural Gas Infrastructure: The Role of Gazprom in European Natural Gas Supplies. Study
commissioned by the The Greens / European Free Alliance in the European Parliament (2014).
- EMF 28 – Stanford Energy Modeling Forum, Working Group 28 on the Effects of Technology Choices on EU
Climate Policy (2011-2013), Co-leader of subgroup “Infrastructure models”
http://emf.stanford.edu/research/emf_28_the_effects_of_technology_choices_on_eu_climate_policy/
- NAMAs / Green Growth in Kazakhstan (2011-2014) – Work Package “Perspectives of the Kazakh Energy
Resource Exports and Consumption until 2050”
Joint project of DIW Berlin and DIW econ, funded by the German Ministry of Environment,
Nature Conservation and Nuclear Safety (BMU) International Climate Initiative (IKI)
<http://diw-econ.de/downloads/ausgewaehlte-projekte-im-bereich-klimaschutz-2/>
- Global Coal Markets (2008-2010)
Research project with the Stanford University’s Program on Energy and Sustainable
Development, <http://pesd.fsi.stanford.edu/research/organization/6074/67103>
- CESSA – Coordinating Energy Security in Supply Activities, 6th EU-FP (2007-2008),
Work Package Natural Gas
- EMF 23 – Stanford Energy Modeling Forum, Working Group 23 on World Natural Gas Markets and Trade
(2004-2007), <http://www.stanford.edu/group/EMF/projects/projectemf23.htm>

Conference and seminar organization

- Research Seminar on Environment, Resource and Climate Economics (RSERC)
Since 2012 co-organizer with TU Berlin, https://www.wip.tu-berlin.de/menue/veranstaltungen/research_seminar_on_environment_resource_and_climate_economics_rserc/parameter/de/font2/maxhilfe/
- Organizer of the European PhD Seminar Natural Gas 2006-2011
Bi-annual meetings in European research institutions (Moscow, Oxford, Florence, etc.)

Peer Reviewing

Journals:

Applied Economics, Climate Policy, Communications Earth & Environment, Energy, Energy Economics, Energy Policy, Energy Research & Social Sciences, Fuel, IEEE Transactions on Power Systems, International Journal of Global Energy Issues, Journal of Environmental Economics and Management, Networks and Spatial Economics, Review of Industrial Organization, Utilities Policy, The Energy Journal.

Research Funding:

European Research Council, Swiss National Science Foundation, Canada First Research Excellence Fund

Publications

Publications in peer-reviewed journals

- Christian Hauenstein and Franziska Holz (2021): The U.S. Coal Sector between Shale Gas and Renewables: Last Resort Coal Exports? *Energy Policy*, Vol. 149, pp. 112097.
- Dawud Ansari and Franziska Holz (2020): Between Stranded Assets and Green Transformation: Fossil-Fuel-Producing Developing Countries Towards 2055. *World Development*, Vol. 130, pp. 104947.
- Dawud Ansari, Franziska Holz, and Hashem al-Kuhlani (2020): Energy Outlooks Compared: Global and Regional Insights. *Economics of Energy and Environmental Policy*, Vol. 9 (1), pp. 21-42.
- Pedro Crespo Del Granado, Gustav Resch, Franziska Holz, Marijke Welisch, Jasper Geipel, Michael Hartner, Sebastian Forthuber, Frank Sensfuss, Luis Olmos, Christiane Bernath, Sara Lumbreras, Lukas Kranzl, Andreas Müller, Stephanie Heitel, Andrea Herbst, Charlie Wilson, Andrés Ramos (2020): Energy Transition Pathways to a Low-carbon Europe in 2050: the Degree of Cooperation and the Level of Decentralization. *Economics of Energy and Environmental Policy*, Vol. 9 (1), pp. 121-135.
- Franziska Holz, Charikleia Karakosta, and Anne Neumann (2020): The Challenges of Spatial and Temporal Aggregation: Modelling Issues, Applications, and Policy Implications: Editorial. *Utilities Policy*, Vol. 62, pp. 100993.
- Dawud Ansari and Franziska Holz (2019): Anticipating Global Energy, Climate and Policy in 2055: Constructing Qualitative and Quantitative Narratives. *Energy Research & Social Science*, Vol. 58, pp. 101250.
- Roman Mendelevitch, Christian Hauenstein, and Franziska Holz (2019): The Death Spiral of Coal in the U.S. Will Changes in U.S. Policy Turn the Tide? *Climate Policy*, Vol. 19 (10), pp. 1310-1324.
- Franziska Holz, Hanna Brauers, Philipp M. Richter, and Thorsten Roobeek (2017): Shaking Dutch Grounds Won't Shatter the European Gas Market. *Energy Economics*, Vol. 64, pp. 520-529.
- Franziska Holz, Philipp M. Richter, and Ruud Egging (2016): The Role of Natural Gas in a Low-Carbon Europe: Infrastructure and Supply Security. *The Energy Journal*, Vol. 37, Special Issue 3, pp. 33-59.
- Ruud Egging and Franziska Holz (2016): Risks in Global Natural Gas Markets: Investment, Hedging and Trade. *Energy Policy*, Vol. 94, pp. 468-479.
- Lissy Langer, Daniel Huppmann, and Franziska Holz (2016): Lifting the US Crude Oil Export Ban: A Numerical Partial Equilibrium Analysis. *Energy Policy*, Vol. 97, pp. 258-266.
- Philipp M. Richter and Franziska Holz (2015): All Quiet on the Eastern Front? Disruption Scenarios of Russian Natural Gas Supply to Europe. *Energy Policy*, Vol. 80, pp. 177-189.
- Franziska Holz, Philipp M. Richter, and Ruud Egging (2015): A Global Perspective on the Future of Natural Gas: Resources, Trade, and Climate Constraints. *Review of Environmental Economics and Policy*, Vol. 9 (1), pp. 85-106.
- Franziska Holz und Christian von Hirschhausen (2013): The Infrastructure Implications of the Energy Transformation in Europe until 2050 – Lessons from the EMF28 Modeling Exercise. *Climate Change Economics*, Vol. 4, Supp. 01, S. 1340006.
- Daniel Huppmann and Franziska Holz (2012): Crude Oil Market Power—A Shift in Recent Years? *The Energy Journal*, Vol. 33 (4), pp. 1-22.
- Clemens Haftendorn, Franziska Holz, and Christian von Hirschhausen (2012): “The End of Cheap Coal? A Techno-economic Analysis Until 2030 using the COALMOD-World Model.” *FUEL*, Vol. 102, pp. 305-325.
- Clemens Haftendorn, Claudia Kemfert, and Franziska Holz (2012): What about Coal? Interactions between Climate Policies and the Global Steam Coal Market until 2030. *Energy Policy*, Vol. 48, pp. 274–283.

- Daniel Huppmann, Ruud Egging, Franziska Holz, Sophia Ruester, and Christian von Hirschhausen (2011): The World Gas Market in 2030 - Development Scenarios using the World Gas Model. *International Journal of Global Energy Issues*, Vol. 35 (1), pp. 64-84.
- Ruud Egging, Franziska Holz, and Steven A. Gabriel (2010): The World Gas Model: A Multi-Period Mixed Complementarity Model for the Global Natural Gas Market. *Energy*, Vol. 35 (10), pp. 4016-4029.
- Clemens Haftendorn and Franziska Holz (2010): Modeling and Analysis of the International Steam Coal Trade. *The Energy Journal*, Vol. 31 (4), pp. 201-225.
- Franziska Holz, Christian von Hirschhausen, and Claudia Kemfert (2009): Perspectives of the European Natural Gas Market until 2025. *The Energy Journal*, Vol. 30, Special Issue „World Natural Gas Markets and Trade: A Multi-Modeling Perspective“, pp. 137-150.
- Ruud Egging, Franziska Holz, Christian von Hirschhausen, and Steven A. Gabriel (2009): Representing Gaspec with the World Gas Model. *The Energy Journal*, Vol. 30, Special Issue „World Natural Gas Markets and Trade: A Multi-Modeling Perspective“, pp. 97-117.
- Ruud Egging, Steven A. Gabriel, Franziska Holz, and Jifang Zhuang (2008): A Complementarity Model for the European Natural Gas Market. *Energy Policy*, Vol. 36 (7), pp. 2385-2414.
- Franziska Holz, Christian von Hirschhausen, and Claudia Kemfert (2008): A Strategic Model of European Gas Supply (GASMOD). *Energy Economics*, Vol. 30 (3), pp. 766-788.

Book chapters

- Franziska Holz, Jonas Egerer, Clemens Gerbault, Pao-Yu Oei, Roman Mendelevitch, Anne Neumann, Christian von Hirschhausen: Energy Infrastructures for the Low-Carbon Transformation in Europe, in: *“Energiewende “Made in Germany” : Low Carbon Electricity Sector Reform in the European Context”*, pp. 283-317, Cham: Springer, 2018.
- Franziska Holz, Clemens Haftendorn, Roman Mendelevitch, and Christian von Hirschhausen: The COALMOD-World Model: Coal Markets Through 2030, in: M. C. Thurber and R. K. Morse (Eds.) *“The Global Coal Market: Supplying the Major Fuel for Emerging Economies”*, pp. 411-472, Cambridge University Press, 2015.
- Clemens Haftendorn, Franziska Holz, Claudia Kemfert, and Christian von Hirschhausen: Global Steam Coal Markets until 2030 – Perspectives on Production, Trade, and Consumption under Increasing Carbon Constraints. In: R. Fouquet (Ed.) *“Handbook on Energy and Climate Change”*, pp. 103-122, Edward Elgar Publ., 2013.
- Christian von Hirschhausen, Franziska Holz, Anne Neumann and Sophia Rüster: Supply Security and Natural Gas. In: F. Lévêque et al. (Eds.) *“Security of Energy Supply in Europe: Natural Gas, Nuclear, and Hydrogen”*, pp. 3-20, Edward Elgar Publ., 2010.

Edited volume

- “Security of Energy Supply in Europe: Natural Gas, Nuclear, and Hydrogen”, Eds.: F. Lévêque, J.-M. Glachant, J. Barquín, C. von Hirschhausen, F. Holz, and W. J. Nuttall. Edward Elgar Publ., August 2010.

Selected other publications

- Franziska Holz, Claudia Kemfert (2020): „Neue Gaspipelines und Flüssiggas-Terminals sind in Europa überflüssig“. DIW Aktuell 50 and DIW Focus 6 “No Need for New Natural Gas Pipelines and LNG Terminals in Europe”. DIW Berlin, Berlin.

- Pao-Yu Oei, Karlo Hainsch, Konstantin Löffler, Christian von Hirschhausen, Franziska Holz, Claudia Kemfert (2019): A New Climate for Europe: 2030 Climate Targets Must Be More Ambitious. *DIW Weekly Report*, 40-41/2019, pp. 365-372.
- Ruud Egging, Pedro Crespo del Granado, Franziska Holz, Peter Kotek, Borbala Tóth (2019): The role of natural gas in an electrifying Europe. SET-Nav Issue Paper (www.set-nav.eu).
- Franziska Holz, Ivo Valentin Kafemann, Oliver Sartor, Tim Scherwath, Thomas Spencer (2018): What does “peak coal” mean for international coal exporters? A global modelling analysis on the future of the international steam coal market. *IDDRI and Climate Strategies* (www.coaltransitions.org)
- Anne Neumann, Leonard Göke, Franziska Holz, Claudia Kemfert, Christian von Hirschhausen: Erdgasversorgung: Weitere Ostsee-Pipeline ist überflüssig. *DIW Wochenbericht 27* (2018) and *Weekly Report 27* (2018) “Natural Gas Supply: No Need for Another Baltic Sea Pipeline”. DIW Berlin, Berlin.
- Franziska Holz, Tim Scherwath, Ivo Valentin Kafemann, Christian Skar, Hector Marañon-Ledesma, Pedro Crespo del Granado, Andres Ramos, Luis Olmos, Quentin Ploussard, Sara Lumberras, Andrea Herbst, Tobias Fleiter (2018): Case Study Report on The Role for Carbon Capture, Transport and Storage in Electricity and Industry in the Future. SET-Nav Project (www.set-nav.eu)
- Dawud Ansari, Franziska Holz (2018): Issue Paper on Scenarios of the global fossil fuel markets. SET-Nav Project (www.set-nav.eu)
- Franziska Holz, Clemens Haftendorn, Roman Mendelevitch, Christian von Hirschhausen (2016): A Model of the International Steam Coal Market (COALMOD-World). *DIW Data Documentation 85*. DIW Berlin, Berlin.
- Daniel Huppmann and Franziska Holz: What about the OPEC cartel? *DIW Roundup 58* (2015). DIW Berlin, Berlin.
- Daniel Huppmann and Franziska Holz: Modelling the Impact of Energy and Climate Policies. *DIW Roundup 44* (2014). DIW Berlin, Berlin.
- Christian von Hirschhausen, Franziska Holz, Clemens Gerbaulet, Casimir Lorenz: Europäische Energiewirtschaft: hoher Investitionsbedarf für Nachhaltigkeit und Versorgungssicherheit. *DIW Wochenbericht 27* (2014) and *DIW Economic Bulletin 7* (2014) “European Energy Sector: Large Investments Required for Sustainability and Supply Security”. DIW Berlin, Berlin.
- Franziska Holz, Hella Engerer, Claudia Kemfert, Philipp M. Richter, and Christian von Hirschhausen: European Natural Gas Infrastructure: The Role of Gazprom in European Natural Gas Supplies. *DIW Berlin Politikberatung kompakt 83* (2014). DIW Berlin, Berlin.
- Hella Engerer, Franziska Holz, Philipp M. Richter, Christian von Hirschhausen, and Claudia Kemfert: Europäische Erdgasversorgung trotz politischer Krisen sicher. *DIW Wochenbericht 22* (2014) and *DIW Economic Bulletin 8* (2014) “European Natural Gas Supply Secure Despite Political Crises”. DIW Berlin, Berlin.
- Jan Abrell, Clemens Gerbaulet, Franziska Holz, Casimir Lorenz, and Hannes Weigt (2013): Combining Energy Networks: The Impact of Europe’s Natural Gas Network on Electricity Markets until 2050. *DIW Discussion Paper 1317*. DIW Berlin, Berlin.
- Clemens Haftendorn, Franziska Holz, Tim Winke, and Christian von Hirschhausen (2011): Entwicklungen des internationalen Handels mit Kesselkohle - Lehren aus dem COALMOD-World Modell. *Glückauf*, Vol. 147 (12), pp. 566-571. Also in *Energiewirtschaftliche Tagesfragen* (2012), Vol. 62 (3), pp. 38-43.
- Christian von Hirschhausen, Clemens Haftendorn, Johannes Herold, Franziska Holz, Anne Neumann, and Sophia Rüster: Europe’s Coal Supply Security: Obstacles to Carbon Capture, Transport and Storage. *CEPS Policy Brief 223* (2010). CEPS, Brussels.
- Christian von Hirschhausen, Franziska Holz, Daniel Huppmann, and Claudia Kemfert: Weltölmärkte: Angebotsmacht der OPEC ungebrochen. *DIW Wochenbericht 23* (2009) and *Weekly Report 22* (2009) “World Crude Oil Markets: OPEC's Supplier Power Remains Unchallenged”. DIW Berlin, Berlin.

- Clemens Haftendorn, Karen Freund, Christian von Hirschhausen, and Franziska Holz: Indien: Entwicklung auf Kosten des Klimas. *DIW Wochenbericht* 51/52 (2008). DIW Berlin, Berlin.
- Clemens Haftendorn, Christian von Hirschhausen, and Franziska Holz: Auf dem Weg zu einer "COAL-PEC"? *DIW Wochenbericht* 40 (2008) and *Weekly Report* 10 (2008) "Moving towards a "COAL-PEC"?" DIW Berlin, Berlin.
- Franziska Holz: How Dominant is Russia on the European Natural Gas Market? Results from Modeling Exercises. *Applied Economics Quarterly, Supplement* 2007, Vol. 53 (58), pp.85-101.
- Franziska Holz and Christian von Hirschhausen: Höhere Sicherheit der europäischen Erdgasversorgung durch Öffnung und Integration der Märkte. *DIW Wochenbericht* 24 (2007). DIW Berlin, Berlin.
- Christian von Hirschhausen, Claudia Kemfert, and Franziska Holz: Russische Energie- und Klimapolitik bleibt widersprüchlich – Herausforderungen für die EU. *DIW Wochenbericht* 10 (2005) and *Weekly Report* 11 (2005) "Russian Energy and Climate Policy Remains Inconsistent: Challenges for the EU" DIW Berlin, Berlin.
- Franziska Holz: Der Aufholprozess der EU-Kohäsionsländer. *IWH Discussion Paper* 152 (2001). Institut für Wirtschaftsforschung Halle, Halle/Saale.