

Personal details

Name: Dr. Brigitte Knopf
Date of birth: 28.08.1973 in Bonn
Address: MCC, Torgauer Straße 12-15, 10829 Berlin, Germany
Phone: +49 30 33 85 537-200
Email: knopf@mcc-berlin.net

Employment History

- Since 2/2015 Secretary General of the Mercator Research Institute on Global Commons and Climate Change (MCC) in Berlin
- 3/2012 – 2/2015 Deputy Head of Research Domain *Sustainable Solutions* at the Potsdam-Institute for Climate Impact Research (PIK)
- 9/2011 – 2/2015 Head of the working group *Energy Strategies Europe and Germany* at PIK
- 1/2007 – 2/2015 Senior Scientist at PIK in the Research Domain *Sustainable Solutions* lead by Prof. Ottmar Edenhofer in different positions:
- 10/2013 to 9/2014: Coordination of the Euro-CASE Assessment on the reform of the EU Emissions Trading Scheme EU-ETS (with PIK and MCC)
 - 11/2011 to 1/2014: Leading the EMF28 model comparison on *The Effects of Technology Choices on EU Climate Policy* with 12 European modeling teams
 - 1/2009 to 5/2011: *Senior Advisor* of the Technical Support Unit (TSU) of the IPCC Working Group III for the preparation of the Special Report on Renewable Energies (SRREN)
 - 1/2007 to 7/2009: Scientific coordination of the model comparison on „Mitigation at the global level” of the EU Project ADAM (Adaptation and Mitigation Strategies).
 - 1/2008 – 1/2011: Head of the PIK activity LOW-C on the exploration of the feasibility of low decarbonisation pathways
- 3/2001 – 12/2006 PhD student at PIK, member of the department *Integrated Systems Analysis*. Research activities: modelling the Indian monsoon; Indian monsoon and climate change; uncertainty analysis and uncertainty assessment; Integrated assessment of climate change
- 11/1999 – 2/2001 Employee in the R&D department of the Phönix SonnenWärme AG, Berlin, Germany. Responsible for the advancement of solar thermal plants

Education and academic degrees

11/2006	PhD in Physics (magna cum laude), University of Potsdam, Germany. Title: On Intrinsic Uncertainties in Earth System Modelling, supervised by Prof. John Schellnhuber
10/1993 - 7/1999	Graduate studies in Physics at the Philipps-University of Marburg, Germany. Specialisation: solar energy
1984 –1993	Abitur (German A levels), Albert-Einstein Gymnasium St. Augustin, Germany (grade 1,0), best of the year

Membership in committees and scientific academies

since 2013	Member of the Energy Platform of Euro-CASE (European Council of Academies of Applied Sciences, Technologies and Engineering)
since 2013	Member of the Ad-hoc Group „Europäische Integration“ of the German Project Energiesysteme der Zukunft (ESYS) (Energy Systems of the Future)
2012	Member of the acatech Group „Finanzierung der Energiewende“

Peer-reviewed:

- IPCC (2014): Climate Change 2014: Mitigation of Climate Change. **Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change** [Edenhofer, O., R. Pichs-Madruga, Y. Sokona, E. Farahani, S. Kadner, K. Seyboth, A. Adler, I. Baum, S. Brunner, P. Eickemeier, B. Kriemann, J. Savolainen, S. Schlömer, C. von Stechow, T. Zwickel and J.C. Minx (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA. (contributing author in chp 14).
- Euro-CASE Policy Position Paper: **Reform Options for the European Emissions Trading System (EU ETS)**, (contributing author)
- Knopf, B., M. Pahle, H. Kondziella, F. Joas, O. Edenhofer, Th. Bruckner. **Germany's Nuclear Phase-out: Sensitivities and Impacts on Electricity Prices and CO₂ Emissions**. EEEP, 2014, Vol 3, No 1,
- Creutzig, F., J. C. Goldschmidt, P. Lehmann, E. Schmid, F. v. Bluecher, C. Breyer, B. Fernandez, M. Jakob, B. Knopf, S. Lohrey, T. Susca, K. Wiegandt. **Catching two European Birds with one renewables stone: Mitigating climate change and Eurozone crisis by an energy transition**. Renewable and Sustainable Energy Reviews, Volume 38, p. 1015–1028, DOI: 10.1016/j.rser.2014.07.028,
- Schwanitz, J., T. Longden, B. Knopf, P. Capros. **The implications of initiating immediate climate change mitigation - A review of pioneering with the EU Roadmap**. Technological Forecasting & Social Change, DOI: 10.1016/j.techfore.2014.01.003

Other articles:

- Knopf, B., O. Edenhofer. **Save the EU Emissions Trading Scheme: set a price band**. EnergyPost, 21 October 2014
- Knopf, B., N.T. Koch, G. Grosjean, S. Fuss, C. Flachsland, M. Pahle, M. Jakob and O. Edenhofer (2014), **The European Emissions Trading System (EU ETS): ex-post analysis, the market stability reserve and options for a comprehensive reform**, Nota di Lavoro 79.2014, Milan, Italy: Fondazione Eni Enrico Mattei.
- Schmid, E., B. Knopf. **Quantifying the Long-Term Economic Benefits of European Electricity System Integration**, FEEM working paper, Nota di Lavoro 2014.003
- Nahmmacher, P., Schmid, E., Hirth, L., Knopf, B. **Carpe diem: A novel approach to select representative days for long-term power system models with high shares of renewable energy sources**. working paper
- Knopf, B., O. Geden **A warning from the IPCC: The EU's 2030 climate target cannot be set by science alone**. EnergyPost, 26 June 2014,
- Knopf, B. **You cannot compare apples with climate policies: why there is no modelgate in Brussels**. EnergyPost, 6. May 2014,
- Pahle, M., O. Tietjen, F. Joas, B. Knopf. **Erneuerbare Förderinstrumente und Risiken: Eine ökonomische Aufarbeitung der Debatte zur EEG Reform**, working paper, [pdf](#)
- Knopf, B., S. Fischer. **EU Klimaziele - Neustart für den Ökostrom**. ZEIT online, 3.3.2014, [link](#)

2013

Peer-reviewed:

- Weyant, J., B. Knopf, E. de Cian, I. Keppo, D. van Vuuren (Eds). **Introduction to the EMF28 study on scenarios for transforming the European energy system**. Special Issue in Climate Change Economics, Vol 4, supp01, [link](#)
- Edenhofer, O., Hirth, L., Knopf, B., Pahle, M., Schloemer, S., Schmid, E., Ueckerdt, F. **On the Economics of Renewable Energy Sources**, Energy Economics, <http://dx.doi.org/10.1016/j.eneco.2013.09.015>
- Schmid, E., M. Pahle, B. Knopf. **Renewable Electricity Generation in Germany: A Meta-Analysis of Mitigation Scenarios**. Energy Policy, 61, p. 1151–1163,
- Edenhofer, O., Knopf, B., Luderer, G. (2013): **Reaping the benefits of renewables in a nonoptimal world**. Proceedings of the National Academy of Sciences PNAS (DOI:10.1073/pnas.1310754110), [link](#)

- Knopf, Brigitte; Yen-Heng Henry Chen, Enrica De Cian, Hannah Förster, Amit Kanudia, Ioanna Karkatsouli, Ilkka Keppo, Tiina Koljonen, Katja Schumacher, Detlef P. van Vuuren. **Beyond 2020 - Strategies and costs for transforming the European energy system**. Climate Change Economics, Vol 4, supp01, DOI: 10.1142/S2010007813400010, [pdf](#)
- Knopf, Brigitte; Bjorn Bakken, Samuel Carrara, Amit Kanudia, Ilkka Keppo, Tiina Koljonen, Silvana Mima, Eva Schmid, Detlef van Vuuren. **Transforming the European energy system: Member States' prospects within the EU framework**. Climate Change Economics, Vol 4, supp01, DOI: 10.1142/S2010007813400058, [pdf](#)

Other Articles:

- Geden, Oliver; Brigitte Knopf. **Wer zu spät kommt, den bestraft...** Beitrag auf Energlobe zum EU Grünbuch 2030, [link](#)
- Geden, Oliver; Brigitte Knopf. **Die Brüsseler Gefahr**. Artikel in der taz zum EU Green paper, 28. April 2013 [link](#)

2012

Peer-reviewed:

- Schmid, E., B. Knopf. **Ambitious Mitigation Scenarios for Germany: A Participatory Approach**. Energy Policy.
- Edenhofer, O.; Wallacher, J.; Lotze-Campen, H.; Reder, M.; Knopf, B.; Müller, J. (Eds.): **Climate Change, Justice and Sustainability – Linking Climate and Development Policy**. Springer, June 2012, ISBN 978-94-007-4539-1 [link to press release](#), [weblink to the book](#)
- Knopf, B., M. Kowarsch, O. Edenhofer, G. Luderer. **Climate Change Mitigation: Options, Costs and Risks**. In: Edenhofer et al. (Eds.): Climate Change, Justice and Sustainability – Linking Climate and Development Policy. Springer, 2012 [link](#) (available on request)
- Knopf, B., M. Kowarsch, Ch. Flachsland, O. Edenhofer (with contribution from M. Hulme and C. Leggewie and D. Messner). **The 2°C target reconsidered**. In: Edenhofer et al. (Eds.): Cli-

mate Change, Justice and Sustainability – Linking Climate and Development Policy. Springer, 2012 [pdf](#)

- Knopf, B., M. Kowarsch, M. Lüken, O. Edenhofer, G. Luderer (2012). **A global carbon market and the allocation of emission rights**. In: Edenhofer, O. et al. (Eds.): Climate Change, Justice and Sustainability – Linking Climate and Development Policy. Springer, June 2012, [pdf](#)
- Pahle, M., B. Knopf, O. Edenhofer. **Die deutsche Energiewende: gesellschaftliches Experiment und sozialer Lernprozess**. GAIA 21/4 (2012): 284 – 287, [pdf](#)

Other articles:

- Pahle, M., B. Knopf, E. Schmid, O. Tietjen. **Kosten des Ausbaus erneuerbarer Energien: Eine Metaanalyse von Szenarien**. Climate Change 23/2012, [link](#)
- Edenhofer, O., B. Knopf. **Mit gutem Beispiel voran**. FAZ Verlagsbeilage zur Zukunft der Energiemärkte. 27. Juni 2012, [link](#)
- Knopf, B., M. Pahle, O. Edenhofer. **Die Energiewende hängt vom Strompreis ab – aber noch fehlt eine robuste Energiestrategie**, Energiewirtschaftliche Tagesfragen 06/2012, [pdf](#)
- Edenhofer, O., B. Knopf, G. Luderer. **Die Gretchenfrage des Klimaschutzes: "Nun sag, wie hast Du's mit dem Eigentum?"**. In: Müller, Th. (Eds) 20 Jahre Recht der Erneuerbaren Energien, Nomos Verlag, [pdf](#)
- Knopf, B., H. Kondziella, M. Pahle, M. Götz, T. Bruckner, O. Edenhofer. **La sortie du nucléaire en Allemagne: scénarios de politique énergétique**. IFRI, Note du Cerfa No 93, [link](#)
- Schmid, E., B. Knopf, N. Bauer. **REMIND-D: a hybrid energy-economy model of Germany**, FEEM working paper, Nota di Lavoro 2012.009, [pdf](#)
- Schmid, E., B. Knopf, M. Fink, St. La Branche. **Social Acceptance in Quantitative Low Carbon Scenarios**. In: Renn, O. Reichel, A., Bauer, J. (Eds), Civil Society for Sustainability - A Guidebook for connecting Science and Society, Europäischer Hochschulverlag, Bremen [pdf](#)

2011

Peer-reviewed:

- Lüken, M., O. Edenhofer, B. Knopf, G. Luderer, N. Bauer. **The Role of Technological Availability for the Distributive Impacts of Climate Change Mitigation Policy**. Energy Policy, 2011, Volume 39, Issue 10, October 2011, Pages 6030-6039, [pdf](#)
- Knopf, B. **Achieving low CO₂ stabilisation levels: technological and economic feasibility**. In: K. Richardson, W. Steffen, D. Livermann: Climate Change: Global Risks, Challenges and Decisions, CUP, Feb. 2011. [link](#)
- Knopf, B., G. Luderer, O. Edenhofer. **Exploring the feasibility of low stabilization targets**. Wiley Interdisciplinary Reviews of Climate Change, 2 (4), 2011, [pdf](#)

Other articles:

- Knopf, B., M. Pahle, O. Edenhofer. **Die Kosten des Atomausstiegs und die Herausforderungen der Energiewende**, Neue Gesellschaft / Frankfurter Hefte 12/2011, [pdf](#)
- Edenhofer, O., B. Knopf. **Experiment Atomausstieg**. Artikel in der ZEIT vom 28.7.2011 [link](#)
- Knopf, B., H. Kondziella, M. Pahle, M. Götz, T. Bruckner, O. Edenhofer. **Der Einstieg in den Ausstieg: Energiepolitische Szenarien für einen Atomausstieg in Deutschland**. WISO Diskurs, Juni 2011, [Langfassung](#); [Kurzfassung](#)

- Knopf, B., H. Kondziella, M. Pahle, M. Götz, T. Bruckner, O. Edenhofer. **Scenarios for Phasing Out Nuclear Energy in Germany.** WISO Diskurs, [link](#)
- Knopf, B. **Brauchen wir Atomstrom für den Klimaschutz?** Blog Beitrag auf Klimalounge [link](#)

2010

Peer-reviewed:

- Edenhofer, O., Knopf, B., Leimbach, M., Bauer, N. (Eds) **The Economics of Low Stabilization,** [The Energy Journal, Volume 31 \(Special Issue 1\)](#), 2010
- Edenhofer, O., Knopf, B., Barker, T., Baumstark, L., Bellevrat, E., Chateau, B., Criqui, P., Isaac, M., Kitous, A., Kypreos, S., Leimbach, M., Lessmann, K., Magné, B., Scricciu, S., Turton, H., van Vuuren, D.P. (2010): **The economics of low stabilization: model comparison of mitigation strategies and costs.** [The Energy Journal, Volume 31 \(Special Issue 1\)](#). The Economics of Low Stabilization, 2010
- Knopf, B., Edenhofer, O., Flachsland, Chr., Kok, M.T.J., Lotze-Campen, H., Luderer, G., Popp, A. van Vuuren, D.P. (2010): **Managing the low-carbon transition – from model results to policies.** [The Energy Journal, Volume 31 \(Special Issue 1\)](#). The Economics of Low Stabilization, 2010
- Popp A., Lotze-Campen, H., Leimbach M., Knopf B., Beringer, T., Bauer N., Bodirsky B. (2010). **On sustainability of bio-energy production: integrating co-emissions from agricultural intensification.** Biomass & Bioenergy, [link](#)

Other articles:

- Knopf, B. **Die Laufzeitverlängerung: mehr Wachstum, geringe Importrisiken, niedrige Strompreise - oder doch nicht?** Blog Beitrag zum Energiegutachten für ein Energiekonzept der Bundesregierung [link](#)
- Knopf, B., M. Kowarsch, O. Edenhofer (2010). **Das 2°C-Ziel – mehr als ein fauler Kompromiss.** In: Edenhofer, Wallacher, Reder, Lotze-Campen (Hrsg): [Global aber gerecht: Klimawandel bekämpfen – Entwicklung ermöglichen](#), Beck Verlag
- Knopf, B., M. Kowarsch, O. Edenhofer (2010). **Vermeidung des Klimawandels: Optionen und Kosten.** In: Edenhofer, Wallacher, Reder, Lotze-Campen (Hrsg): [Global aber gerecht: Klimawandel bekämpfen – Entwicklung ermöglichen](#), Beck Verlag
- Knopf, B., M. Kowarsch, M. Lüken, S. Brunner, O. Edenhofer (2010). **Begrenzung, Verteilung und Handel von CO2-Emissionsrechten.** In: Edenhofer, Wallacher, Reder, Lotze-Campen (Hrsg): [Global aber gerecht: Klimawandel bekämpfen – Entwicklung ermöglichen](#), Beck Verlag
- Edenhofer, O., Knopf, B., Luderer, G. (2010) **From Utopia to Common Sense: The Climate Mitigation Challenge.** In Cerdá, E. and Labandeira, X. (Eds) (2010) Climate Change Policies. Global Challenges and Future Prospects, Edward Elgar, Cheltenham (UK).
- Edenhofer, O., B. Knopf, G. Luderer, J. Steckel, T. Bruckner (2010) **More heat than light? On the economics of decarbonization.** In: Rübbleke, D. (Ed.). Sustainable Energy. London, Routledge Publisher
- Flachsland, C., G. Luderer, J. Steckel, B. Knopf, O. Edenhofer (2010). **International Emissions Trading and the Global Deal.** Contribution to the "Research and Forum on Economics of Climate Change - Towards a Low-Carbon Economy in China. [Earthscan](#)

Presentations (listed only since 2012)

- *Phasing out nuclear and transforming the energy system in Germany*. ARD und ZDF Medienakademie, Potsdam, 29.03.2012
- *Transforming the energy system in Germany: Impacts on electricity prices, climate targets and on Europe*. Besuch internationaler Journalisten zu "Climate Protection – Energy Efficiency", Potsdam, 08.05.2012
- *Vom globalen Klimawandel zur Energiewende in Deutschland*, GridMasterClass, Workshop zum Netzausbau in Deutschland, ECF, Berlin, 09.05.2012
- *Die Rolle von CCS für den Klimaschutz - in Deutschland, Europa und der Welt*, Ketzin Projektgruppentreffen, GFZ, Potsdam, 15.05.2012
- *Energiestrategien Europa und Deutschland*, Institutsseminar am Öko-Institut, Berlin, 31.05.2012
- *Die Energiewende - fortschrittlich oder verrückt? Lange Nacht der Wissenschaften*, Potsdam, 02.06.2012
- *Science meets Parliament*, Dialog mit Abgeordneten, Berlin, 13.06.2012
- *Energy Roadmaps in North-West Europe*, Clingendael CIEP/PBL Seminar on European Responses to the EU Energy Roadmap 2050, 28.06.2012
- *Strompreise, Investitionen und die Kosten der Energiewende - Eine Analyse energiepolitischer Szenarien*, MCC Stadtwerke Forum, Düsseldorf, Germany, 16-17 Oktober 2012 16.10.2012
- *National mitigation scenarios in the perspective of the EU Energy Roadmap*, EMF28 meeting, Berlin, 18.10.2012
- *Beyond 2020 - EU strategies towards a low carbon energy system*, EMF28 meeting, Berlin, 18-19 October 2012, 18.10.2012
- *Die Energiewende: nationale Herausforderungen und globale Einbettung*, GFZ Herbstschule, Potsdam, 12.11.2012
- *The German energy transition and the broader European and global perspective*, Visit of the American Council on Germany ACG, Potsdam, Germany, 05.12.2012
- *EMF28: The Effects of Technology Choices on EU Climate Policy*, Presentation for DG CLIMA and DG Energy, Brussels, 19.02.2013
- *EMF28 Model comparison*, Strommarkt Gruppe, Berlin 17.04.2013
- *The role of economic models in setting targets*, Climate Strategies Research Meeting on EU 2030 targets, Berlin, 04.06.2013
- *What are the grid investment requirements for a European Energiewende?* Dahrendorf Working Group, Berlin, 06.06.2013
- *EMF28 model comparison: The effects of technology choices on EU climate policy*, AMPERE Stakeholder Workshop, Brussels, 12.06.2013
- *EMF28 model comparison: The effects of technology choices on EU climate policy*, IAEE Conference, Düsseldorf, 21.08.2013
- *Die Energiewende: Kostentreiber oder Klimaretter?* Deutsches Klima Konsortium (DKK) Pressefrühstück, Berlin, 22.08.2013
- *The German Energiewende*, Visit of US guests with Bill Moomaw, Potsdam, 26.08.2013
- *The added value of model comparisons: Example of the EU Energy Roadmap*, Worldbank energy system modeling workshop, Warsaw, Poland, 17.10.2013
- *Infrastructure in Europe*, Dahrendorf Symposium, Berlin, 14.11.2013

- *Europäische Energiestrategien im Modellvergleich*, Bundesministerium für Wirtschaft und Technologie BMWi, Berlin, 26.11.2013
- *Commentary from the perspective of the EMF28 model comparison on the transformation of the European energy system*, AMPERE Final Conference, Brussels, 21.01.2014
- *The German Energiewende and climate change mitigation – the only game in town or only a green dream?* Australian-German College of Climate and Energy Transitions, Australia, Video presentation, 30.04.2014
- *Energiewende – alles kein Problem, oder?* Lange Nacht der Wissenschaften, Potsdam, 10.05.2014
- *Die Market Stability Reserve im EU ETS: nur ein ‚backloading de-luxe‘ oder eine echte Reformoption?* BDEW Gesprächskreis „Energiepolitischer Dialog“, 14.05.2014
- *Reformoptionen für den EU-ETS - Ergebnisse der Euro-CASE Energieplattform*, Bund deutscher Industrie (BDI), ETS Projektgruppe, Berlin, 17.09.2014
- *Current momentum of the German Energiewende – What have we achieved? What are the challenges?* GIZ Renewable Energy week, Berlin 6.10.2014

Media contributions (listed only since 2012)

- Die Energiewende. Interview zur Langen Nacht der Wissenschaften mit der MAZ, 30.05.2012
- Renewable power: Germany's energy gamble. Interview mit nature, 10.04.2013
- Interview zu CCS. BILD, 09.08.2013
- Where is EU energy and climate strategy going? Interview with Interfax, 20.08.2013
- Das Thema Energie. Interview mit rbb Radio zur Energiewende, 28.08.2013
- Low carbon technologies. Interview with Technology Review, 28.08.2013
- Die Energiewende und Europa. Interview mit Inforadio Berlin, 03.10.2013
- Die Zukunft der Energiewende. Interview mit The Guardian, 28.10.2013
- Die Energiewende - Kostentreiber oder Klimaretter? Interview mit Springer, 28.10.2013
- TV Interview zu Klima- und Energiezielen der EU für 2030. RTL Nachtjournal, 15.01.2014
- TV Interview zu EU2030. 3 Sat Nano, 17.01.2014
- Die Ziele der EU Kommission für 2030. Radio Interview, 21.01.2014
- The German Energiewende and the European context. Swedish Television, 09.09.2014
- EU Klima- und Energiepolitik für 2030. Interview mit Interfax, 20.10.2014
- Die Beschlüsse des Europäischen Rates zur Klima- und Energiepolitik für 2030. Interview Deutschlandfunk Radio, 24.10.2014
- Interview zu Beschlüssen des Europäischen Rates zur Klima- und Energiepolitik für 2030. Bayerischer Rundfunk, 23.10.2014
- Interview zu den EU2030 Klima- und Energiezielen. EU Observer, 23.10.2014
- Interview zu den EU2030 Klima- und Energiezielen. Euractive, 23.10.2014
- Interview zur Reform des Europäischen Emissionshandels. dpa, 26.9.2014
- Interview on the reform of the EU Emissions trading system. EnergyPost, 24.9.2014