




PERSONAL INFORMATION

Dr. Pao-Yu Oei



 Berlin, Germany  
 +49-(0)30-314-75846  
 [pyo@wip.tu-berlin.de](mailto:pyo@wip.tu-berlin.de)

Sex Male | Nationality German

WORK EXPERIENCE

October 2017 - Present

Head of Research Group “CoalExit” at TU Berlin

- Designing a socially acceptable framework for an upcoming coal phase-out in Germany and Europe as well as lessons for other countries.
- Supervising six interdisciplinary PhD-students.
- Teaching Operations Research as well as Energy& Climate Policy.
- (Inter-)national Policy Advisory Tasks in various projects.

May 2016 - Present

Managing Editor Journal “Economics of Energy & Environmental Policy” (EEEP)  
International Association of Energy Economics (IAEE).

- Coordination and Supervision of the Publication and Review Process.

December 2013 - Present

Guest Researcher at German Economic Research Institute (DIW Berlin)  
Department Energy, Transportation, Environment (EVU)

August 2016 – October 2017

Researcher German Advisory Council on the Environment (SRU)  
Umweltbundesamt in Berlin

April 2016 – September 2017

Post-Doctoral Researcher at TU Berlin  
Workgroup for Economic and Infrastructure Policy (WIP)

February 2013 – March 2016

Research Associate at TU Berlin

- Founding the subdivision “Resources and Environment”.
- Modeling electricity, resource and water markets with GAMS.
- Teaching graduate and undergraduate courses.

April 2012 – March 2013

Research Assistant  
DIW Berlin, EVU

April 2010 – September 2012

Research Assistant  
TU Berlin, WIP

EDUCATION AND TRAINING

April 2016 - Present

Habilitation

Technische Universität Berlin (TU Berlin) at the School of Economics and Management.  
Topic: Designing Socially Just and Economically Viable Fossil-Fuel Phase-Out Pathways

October 2012 – December 2015

PhD in Economics (Dr. rer. Oec. ; summa cum laude)  
TU Berlin

April 2007 – June 2012

Industrial Engineering (Dipl.-Ing. ; very good)  
TU Berlin

## PERSONAL SKILLS

 Mother tongue(s)  
 Other language(s)

German

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2
French	B2	B1	B1	B1	B1
Dutch	B1	A2	A2	A2	A2
Croatian	A2	A1	A1	A1	A1

Levels: A1/2: Basic user - B1/2: Independent user - C1/2 Proficient user  
 Common European Framework of Reference for Languages

Computer skills

- experienced with Microsoft Office™ tools
- experienced with GAMS, LaTeX

Organisational / managerial skills

- Head of Junior Research Group “CoalExit” at TU Berlin
- Project lead and coordination in several research projects of various sizes and durations on the topics future for coal, structural policy and energy policy.
- Involvement in numerous projects on the German and Global coal phase-out,
- Member of International Energy Policy partnership delegations
- Organisation of several seminar series in the last years, e.g. at TU Berlin and DIW Berlin

## ADDITIONAL INFORMATION

 Selected publications  
 in peer-reviewed journals

- Gerbault, C. / von Hirschhausen, C. / Kemfert, C. / Lorenz, C. / Oei, P. (2019): European electricity sector decarbonization under different levels of foresight. *Renewable Energy*. 2019. DOI: 10.1016/j.renene.2019.02.099.
- Lawrenz, L. / Xiong, B. / Lorenz, L. / Krumm, A. / Hosenfeld, H. / Burandt, T. / Löffler, K. / Oei, P. / von Hirschhausen, C. (2018): Exploring Energy Pathways for the Low-Carbon Transformation in India - A Model-Based Analysis. *Energies* 2018, 11(11), 3001.
- Oei, P. / Mendelevitch, R. (2018): “Prospects for Steam Coal Exporters in the Era of Climate Policies - The Colombian Case” in *Climate Policy*. DOI: 10.1080/14693062.2018.1449094
- Löffler, K. / Hainsch, K. / Burandt, T. / Oei, P. / 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). *Energies* 2017, 10(10), 1468.
- Mendelevitch, R. / Oei, P. (2017): The impact of policy measures on future power generation portfolio and infrastructure: a combined electricity and CCTS investment and dispatch model (ELCO); in: *Energy Systems* 2017, DOI:10.1007/s12667-017-0242-z
- Oei, P. / Mendelevitch, R. (2016): “European Scenarios of CO2 Infrastructure Investment until 2050” in *Energy Journal* 27, Special issue “Infrastructure Development and Cross-border Coordination”.
- Oei, P. / Siehlow, M. (2016): “Modeling Water Management Options for the Tigris–Euphrates Rivershed”. *International Journal of Environmental Science*. Volume 1, 2016, 140-150.
- Oei, P. / Herold, J. / Mendelevitch, R. (2014): „Modeling a Carbon Capture, Transport, and Storage Infrastructure for Europe“. *Journal of Environmental Modeling and Assessment* 05/2014. DOI 10.1007/s10666-014-9409-3.
- Schröder, A. / Oei, P. / Sander, A. / Hankel, L. / Laurisch, L. (2013): „The integration of renewable energies into the German transmission grid—A scenario comparison”, in *Energy Policy* 61, 140–150, ISSN 0301-4215.
- von Hirschhausen, C. / Herold, J. / Oei, P. (2012): “How a ‘Low Carbon’ Innovation Can Fail - Tales from a ‘Lost Decade’ for Carbon Capture, Transport, and Sequestration (CCTS)” in *Journal of Economics of Energy and Environmental Policy (EEEEP)*, Vol. 1, No. 2, 115-123, March 2012, Cleveland, Ohio, USA.

Selected publications  
in peer reviewed books

- "Energiewende: A Mid-Term Perspective on Electricity Sector Reform" forthcoming by Springer; Editor and co-authorship of the following chapters:
  - 1 - Introduction
  - 3 - Historical background on Germany's coal transition from 1950 to 2017
  - 4 - Meeting Germany's greenhouse gas emission targets implies a coal phase-out
  - 6 - Renewable energy sources as the cornerstone of the German energiewende,
  - 10 - The electricity mix in the European low-carbon transformation: Coal, nuclear, and renewables,
  - 11 - Energy infrastructures for the low-carbon transformation in Europe
  - 13 - Emission pathways towards a low-carbon energy system for Europe
  - 14 - General conclusions: 15 theses on the energiewende
- von Hirschhausen, C. / Gerbaulet, C. / Holz, F. / Oei, P. (2013): „European Energy Infrastructure Integration Quo Vadis?: Sectoral Analyses and Policy Implications“ in Theresia Theurl (Hrsg): Europa am Scheideweg. Schriften des Vereins für Socialpolitik. Band 338. Berlin: Duncker & Humboldt, ISSN 0505-2777 S. 147-178.

Selected publications  
in reports

- UNEP (2017): The Emissions Gap Report 2017 Chapter 5: Bridging the Gap – Phasing out Coal. United Nations Environment Programme, Nairobi. Contributing author: Pao-Yu Oei. ISBN: 978-92-807-3673-1
- SRU (2017): Kohleausstieg jetzt einleiten. Stellungnahme. Sachverständigenrat für Umweltfragen, Berlin. ISBN 978-3-947370-10-8.
- DIW Berlin / Wuppertal Institut / Ecologic Institut (2019): „Phasing out Coal in the German Energy Sector. Interdependencies, Challenges and Potential Solutions.“ On behalf of the BMU. Berlin.

## Selected projects

- Future of fossil fuels in the wake of greenhouse gas neutrality (FFF) (2018-2021) with DIW Berlin and PIK, funded by the German BMBF
- CoalExit: Economics of Coal Phase-Out – Identifying Building Blocks for Future Regional Transition Frameworks (2017-2022), Partners Hertie School of Governance, DIW Berlin, HU Berlin, funded by the German BMBF
- Comprehensive, Whole-of-Government Strategies on Coal Transition in Major Coal Using Countries (2017-2019), joint project with IDDRI, Climate Strategies, et al., funded by KR Foundation
- Open ENergy TRansition ANalyses for a low-carbon Economy (Open Entrance) (2019-2023); H2020 Project LC-SC3-2018-NZE-CC, joint project with Sintef, NTNU, IIASA, EdF et al., funded by the European Commission
- Modellexperiment zum Vergleich und der Ermittlung von Synergiepotenzialen von open source Frameworks in der Energiesystemanalyse (2018-2021), joint project with RLI, RWTH Aachen, TU München, Uni Flensburg, funded by the German BMWi
- Baukasten für einen „Aktionsplan regionaler Strukturwandel“ (2018), joint project with DIW Econ, Arepo Consult, funded by the German BMAS
- Kohlereader für die Kohlekommission: Die Beendigung der energetischen Nutzung von Kohle in Deutschland – Gründe, Herausforderungen, Chancen (2017-2018), joint project with Wuppertal Institut, Ecologic Institut, funded by the German BMU
- Strukturwandel in Kohleregionen als Prozess ökonomischer und sozialökologischer Transformation – Handlungsmöglichkeiten für einen sozialverträglichen Strukturwandel im Lichte der klimapolitischen Ziele (2016-2019), joint project with Wuppertal Institut, ifo Institut, IAT, E3G, Innovationsregion Lausitz, Wirtschaftsförderung metropoluhr, funded by German Umweltbundesamt
- Klimaschutz und Kohleausstieg: Politische Strategien und Maßnahmen bis 2030 und darüber hinaus (2016-2019), joint project with IZES, IWH and Öko-Institut, funded by the German Umweltbundesamt