

# Peter Kolp

Energy Program  
International Institute for Applied Systems Analysis (IIASA)  
2361 Laxenberg, Austria

[kolp@iiasa.ac.at](mailto:kolp@iiasa.ac.at)  
+43 2236 807 505

## EXPERTISE

Energy models, software engineering, database, data visualization, web dissemination tools.

## EDUCATION

- 1981 – 1990      Studies at the Technical University of Vienna  
Engineering / Traffic Engineering.
- 1981              Matura at the BORG in Oberpullendorf  
(general qualification for university entrance)

## PROFESSIONAL APPOINTMENTS

- 2004 – present   Professional Programmer, IIASA, Energy Program, Laxenburg, Austria
- 1999 – 2004      IRM AG ( [www.irm.at](http://www.irm.at) )
- 1989 – 1999      TEMAPLAN GmbH ( [www.temaplan.at](http://www.temaplan.at) )

## PUBLICATIONS

### Refereed Journal Articles

- 2019      Krey V, Guo F, **Kolp P**, Zhou W, Schaeffer R, Awasthy A, Bertram C, de Boer H-S, et al. (2019). Looking under the hood: A comparison of techno-economic assumptions across national and global integrated assessment models. *Energy* 172: 1254-1267. [doi](#)
- 2019      Huppmann D, Gidden M, Fricko O, **Kolp P**, Orthofer C, Pimmer M, Kushin N, Vinca A, et al. (2019). The MESSAGEix Integrated Assessment Model and the ix modeling platform (ixmp). *Environmental Modelling & Software* 112: 143-156. [doi](#)
- 2017      Fricko O, Havlik P, Rogelj J, Klimont Z, Gusti M, Johnson N, **Kolp P**, Strubegger M, et al. (2017). The marker quantification of the Shared Socioeconomic Pathway 2: A middle-of-the-road scenario for the 21st century. *Global Environmental Change* 42: 251-267. [doi](#).
- 2015      Schucht S, Colette A, Rao S, Holland M, Schoepp W, **Kolp P**, Klimont Z, Bessagnet B, Szopa S, Vautard R, Brignon J-M, Rouil L. Moving towards ambitious climate policies: monetised health benefits from improved air quality could offset mitigation costs in Europe. *Science & Policy*, 50:252-269 (June 2015) (Published online 30 March 2015).
- 2014      Blanco G. et al. Drivers, Trends and Mitigation. In: *Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.

- 2014 Clarke L. et al. Assessing Transformation Pathways. In: Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. *Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA*.
- 2013 McCollum, D.L. Krey, V. **Kolp, P.** Nagai, Y. Riahi, K. Transport electrification: A key element for energy system transformation and climate stabilization. *Climatic Change, Article in press (Published online 31 October 2013)* [doi](#)
- 2013 McCollum, D.L. Krey, V. Riahi, K. **Kolp, P.** Grubler, A. Makowski, M. Nakicenovic, N. Climate policies can help resolve energy security and air pollution challenges. *Climatic Change*, 119(2):479-494 [doi](#)
- 2012 Rao, S. Chirkov, V. Dentener, F. van Dingenen, R. Pachauri, S. Purohit, P. Amann, M. Heyes, C. Kinney, P. **Kolp, P.** Klimont, Z. Riahi, K. Schoepp, W. Environmental modeling and methods for estimation of the global health impacts of air pollution. *Environmental Modeling & Assessment*, 17(6):613-622 [doi](#)
- 2007 Grubler, A. O'Neill, B.C. Riahi, K. Chirkov, V. Goujon, A. **Kolp, P.** Prommer, I. Scherbov, S. Slentoe, E. Regional, national, and spatially explicit scenarios of demographic and economic change based on SRES. *Technological Forecasting & Social Change*, 74(7):980-1029. [doi](#)
- 2006 Nakicenovic, N. **Kolp, P.** Riahi, K. Kainuma, M. Hanaoka, T. Assessment of emissions scenarios revisited. *Environmental Economics and Policy Studies*, 7:137-173

### Other Publications

- 2018 TWI2050 - The World in 2050 (2018). Transformations to Achieve the Sustainable Development Goals. Report prepared by The World in 2050 initiative. IIASA Report. International Institute for Applied Systems Analysis (IIASA). Laxenburg, Austria. [pdf](#)
- 2017 **Kolp P** (2017). [The IIASA Scenario Database](#). In: IIASA Institutional Evaluation 2017, 27 February-1 March 2017, IIASA, Laxenburg, Austria.
- 2017 McCollum D, Krey V, Riahi K, **Kolp P**, & Makowski M (2017). Climate policies can help resolve energy security and air pollution challenges. In: IIASA Institutional Evaluation 2017, 27 February-1 March 2017, IIASA, Laxenburg, Austria. [pdf](#)
- 2013 Rogelj, J. Riahi, K. **Kolp, P.** The Emissions Gap Report 2013: A UNEP Synthesis Report [pdf](#)
- 2012 McCollum, D.L. Krey, V. Riahi, K. **Kolp, P.** Makowski, M. Schreck, B. The IIASA Energy-Multi Criteria Analysis Tool (ENE-MCA) [pdf](#)
- 2012 **Pachauri, S.** Nagai, Y. **Kolp, P.** Riahi, K. Schreck, B. (2012) The IIASA Energy Access Tool (Energy-ENACT). [pdf](#)
- 2011 Rao, S. Chirkov, V. Dentener, F. van Dingenen, R. Pachauri, S. Purohit, P. Amann, M. Heyes, C. Kinney, P. **Kolp, P.** Klimont, Z. Riahi, K. Schoepp, W. Estimation of the Global Health Impacts of Air Pollution. IASA Interim Report IR-11-035 [pdf](#)
- 2010 Rafaj, P. Rao, S. Klimont, Z. **Kolp, P.** Schoepp, W. Emissions of air pollutants implied by global long-term energy scenarios. IIASA Interim Report IR-10-019 [pdf](#)
- 2006 Furukawa, M. **Kolp, P.** Economic and Environmental performance of Natural Gas and Hydrogen Fueled Decentralized Energy Systems – A Life Cycle Analysis. Interim Report IIASA Contract No. 05-121, submitted to The Tokyo Gas Co., Ltd.

- 2005 Nakicenovic,N. Grubler,A. Chirkov,V. **Kolp,P.** Synthetic Fuel Technology Adoption under Climatic Constraints in the Asian Region. Research study conducted for the Environmental Research Center (ERC), Tsukuba, Japan; IIASA, Laxenburg, Austria [link](#)

## INTERACTIVE WEB TOOLS

The IIASA Interactive Collaboration and Dissemination Tools (“databases” selected)

Shared Socioeconomic Pathways Scenario Database [link](#) [web](#)

Global Energy Assessment Scenario Database [link](#) [web](#)

Representative Concentration Pathways Database [link](#) [web](#)

Greenhouse Gas Initiative Scenario Database [link](#) [web](#)

The IIASA Energy Access Tool (Energy-ENACT) [link](#) [web](#)

The IIASA Energy-Multi Criteria Analysis Tool (ENE-MCA) [link](#) [web](#)