

Publikationen

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- (2021): Decarbonization pathways of worldwide energy systems – Definition and modeling of archetypes. In: *Applied Energy*, vol. 285, no. 01 March 2021. DOI: 10.1016/j.apenergy.2021.116438.
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- (2019): The Contribution of Carbon- Optimized Battery Electric Vehicle Charging to the Decarbonization of a Multi-Modal Energy System. In: 3rd E-Mobility Power System Integration Symposium.
- (2019): Integrated Planning and Evaluation of Multi-Modal Energy Systems for Decarbonization of Germany. In: *Energy Procedia*, vol. 158, no. February, pp. 3482-3487. DOI: 10.1016/j.egypro.2019.01.923.
- (2019): Modeling framework for planning and operation of multi-modal energy systems in the case of Germany. In: *Applied Energy*, vol. 250, no. 15 September 2019, pp. 1132-1146. DOI: 10.1016/j.apenergy.2019.05.094.
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- (2016): Improving Accuracy and Efficiency of Start-Up Cost Formulations in MIP Unit Commitment by Modeling Power Plant Temperatures. In: *IEEE Transactions on Power Systems*, vol. 31, no. 4, pp. 2578-2586. DOI: 10.1109/TPWRS.2015.2450776.
- (2016): Challenges and opportunities of power systems from smart homes to super-grids. In: *Ambio*, vol. 45, no. S1, pp. 50-62. DOI: 10.1007/s13280-015-0733-x.
- (2015): Modeling start-up times in unit commitment by limiting temperature increase and heating. In: *Proceedings of the 2015 12th International Conference on the European Energy Market (EEM)*. DOI: 10.1109/EEM.2015.7216755.
- (2015): On the optimal mix of wind and solar generation in the future Chinese power system. In: *Energy*, vol. 90, no. October, pp. 235-243. DOI: 10.1016/j.energy.2015.05.146.

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- (2013): Combining LP and MIP approaches to model the impacts of renewable energy generation on individual thermal power plant operation. In: 2013 IEEE Power & Energy Society General Meeting. DOI: 10.1109/PESMG.2013.6672804.
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- (2013): Coordinating smart homes in microgrids: A quantification of benefits. In: 2013 4th IEEE/PES Innovative Smart Grid Technologies Europe (ISGT EUROPE). DOI: 10.1109/ISGTEurope.2013.6695357.
- (2013): Nuclear fusion and renewable energy forms: Are they compatible?. In: Fusion Engineering and Design, vol. 88, no. 6-8, pp. 657-660. DOI: 10.1016/j.fusengdes.2013.01.074.
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- (2010): Flexible Operation of Cogeneration Plants - Chances for the Integration of Renewables. In: 11th European Conference of the International Association for Energy Economics (IAEE) - Energy Economy, Policies and Supply Security: Surviving the Global Economic Crisis.
- (2010): Modeling Spot Market Pricing with the Residual Load. In: Enerday - 5th Conference on Energy Economics and Technology.
- : Strom aus der Wüste - brauchen wir das?. In: Tag der Offenen Tür der TU München, Garching.
- : Power Systems Research - Why We Should Cooperate. Best Presentation Award. In: Munich School of Engineering Colloquium, Garching.
- : Combining LP and MIP approaches to model the impacts of renewable energy generation on individual thermal power plant operation. In: 2013 IEEE General Meeting Power & Energy Society, Vancouver, BC, Canada.
- : Coordinating Smart Homes in Microgrids: A Quantification of Benefits. In: 4th IEEE/PES Innovative Smart Grid Technologies Europe (ISGT Europe), Copenhagen, Denmark.
- : The German Energy Transition: Current Trends and Challenges. Invited lecture.
- : New Algorithms for the Unit Commitment Problem Based on Power Plant Temperatures. Invited lecture.
- : The German Energy Transition: A Short Introduction and Current Status. Invited lecture.
- : Modeling Temperatures in Unit Commitment. Invited lecture.
- : Modeling Start-Up Times in Unit Commitment by Limiting Temperature Increase and Heating. In: 12th International Conference on the European Energy Market, Lisbon, Portugal.
- : Optimizing the Californian Power System according to the Renewable Portfolio Standards for 2030 and Beyond.
- : Electricity System Optimization in the EUMENA Region. Technischer Bericht im Auftrag der dii GmbH, München.



: Gesicherte Stromversorgung in Bayern. Technischer Bericht im Auftrag des Bayerischen Staatsministeriums für Wirtschaft, Landesentwicklung und Energie.

