

# Marten Ovaere

## Ghent University, Department of Economics

### Contact information

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### Academic positions

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2022-	Assistant Professor	Ghent University, Department of Economics
2020-	Fellow	Yale University, Center for Business and the Environment
2020-2022	Doctor Assistant	Ghent University, Department of Economics
2018-2020	Postdoctoral Researcher	Yale University, School of the Environment
2017-2018	Postdoctoral Researcher	KU Leuven, Department of Economics
2016	Visiting researcher	Toulouse School of Economics (spring)

### Education

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2017	Ph.D. in Economics, KU Leuven
2013	M.Sc. Advanced Studies in Economics, KU Leuven
2012	M.Sc. Energy Engineering, KU Leuven
2010	Exchange with Institut polytechnique de Grenoble (fall)
2010	B.Sc. Mechanical Engineering, KU Leuven

### Publications

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1. The proof of the pudding is in the heating: A field experiment on household engagement with heat pump flexibility, **Energy Economics** (2025), August, with Baptiste Rigaux and Sam Hamels
2. Tracking Demographic and Financial Trends in Renewable Energy Cooperative Membership in Belgium using Survey and Bank Transaction Data, **Humanities and social sciences communications** (2025), July, with Melita Van Steenberghe, Aislinn D'hulster, Johannes Weytjens, and Koen Schoors
3. Carbon Policy and the Emissions Implications of Electric Vehicles, **Journal of the Association of Environmental and Resource Economists** (2025), March, with Kenneth Gillingham and Stephanie Weber
4. Strategic climate policy in global aviation: aviation fuel taxes, efficiency standards and sustainable aviation fuel mandates with duopolistic producers, **Economics of Transportation** (2025), March, with Stef Proost.
5. The Effectiveness of Future Financial Benefits on PV Adoption-Evidence from Belgium, **Energy Economics** (2025), February, with Justus Boning, Kenneth Bruninx, Guido Pepermans and Erik Delarue
6. Which combinations of renewable energy policies work better? Insights from policy text synergies in China, **Energy Economics** (2023), October, with Xing Hu, Shiwei Yu and Xu Fang.
7. Cost-Efficiency and Quality Regulation of Energy Network Utilities, **Energy Economics** (2023), April.
8. The Effect of Flow-Based Market Coupling on Electricity Price Convergence in Central Western Europe, **Energy Economics** (2023), February, with Michiel Kenis, Kenneth Bruninx, Kenneth Van den Bergh, and Erik Delarue.

9. Electrolytic hydrogen has to show its true colors, **Joule** (2022), October, with Kenneth Bruninx and Jorge Moncada.
10. Reliability standards and generation adequacy assessments for interconnected electricity systems, **Energy Policy** (2022), 168, 113131, with Nicolas Astier.
11. Cost-effective reduction of fossil energy use in the European transport sector: An assessment of the Fit for 55 Package **Energy Policy** (2022), 168, 113085, with Stef Proost.
12. COVID-19, Green Deal and recovery plan permanently change emissions and prices in EU ETS Phase IV, **Nature Communications** (2022), 13, 1165, with Kenneth Bruninx.
13. Field Experimental Evidence Shows that Self-Interest Attracts More Sunlight, **Proceedings of the National Academy of Sciences** (2020), August, with Kenneth Gillingham and Bryan Bollinger. Featured in **Nature**, 584, 327 (2020).
14. The Short-run and Long-run Effects of Covid-19 on Energy and the Environment, **Joule** (2020), June, with Kenneth Gillingham, Christopher Knittel, Jing Li and Mar Reguant.
15. The Long-Term Impact of the Market Stability Reserve on the European Emission Trading System, **Energy Economics** (2020), June, with Kenneth Bruninx and Erik Delarue.
16. How Detailed Value of Lost Load Data Impact Power System Reliability Decisions: A Trade-off between Efficiency and Equity, **Energy Policy**, 2019, 132 (June), 1064-1075, with Evelyn Heylen, Stef Proost, Geert Deconinck and Dirk Van Hertem.
17. Energy Economics, with Joris Morbee, Guido Pepermans and Stef Proost, Acco Uitgeverij, 2019, 2nd edition, ISBN 9789463791335.
18. Fairness and Inequality in Power System Reliability: Summarizing Indices, **Electric Power Systems Research**, 2019, Vol. 168, 313-323, with Evelyn Heylen, Stef Proost, Geert Deconinck and Dirk Van Hertem.
19. A Multi-Dimensional Analysis of Reliability Criteria: From Deterministic N-1 to a Probabilistic Approach, **Electric Power Systems Research**, 2019, Vol. 167, 290-300, with Evelyn Heylen, Stef Proost, Geert Deconinck and Dirk Van Hertem.
20. Cross-border Exchange and Sharing of Generation Reserve Capacity, **The Energy Journal**, 2018, Vol. 39 (4), 57-83, with Fridrik Mar Baldursson, Ewa Lazarczyk and Stef Proost.
21. Optimal Electricity Transmission Reliability: Going beyond the N-1 Criterion, **The Energy Journal**, 2018, Vol. 39 (4), 211-234, with Stef Proost.

## Working Papers

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23. Market Inefficiencies in Renewable Support Policies: Evidence from Offshore Wind Contracts for Difference in Great Britain, with Melita Van Steenberghe. Revise and resubmit at the **Journal of the Association of Environmental and Resource Economists**
24. Mind the Peak: The Role of Peak Demand Charges and Real-Time Pricing in Residential Electricity Flexibility, with Mark Vergouwen
25. Product Differentiation through Labels: Evidence from EU Energy Relabeling, with Justus Böning, Maximilian Kaiser, Alexander Edeling and Siegfried Dewitte
26. Emission trading and overlapping environmental support: installation-level evidence from the EU ETS, with Klaas Mulier and Leo Stimpfle
27. Effects of Rooftop Solar on the Distribution Grid: Evidence from Connecticut, with Kenneth Gillingham and Xingchi Shen

28. The Heterogeneous Value of Solar and Wind Energy: Empirical Evidence from the United States and Europe, with Kenneth Gillingham

## Teaching and student supervision

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- *Energy Economics and Policy* (Ghent University), Fall 2024 - present
- *Environmental Economics and Policy* (Ghent University), Spring 2022 - present
- *Micro-economics* (Ghent University), Fall 2023 - present
- *Introduction to Economic Scientific Research* (Ghent University), Spring 2023 - present
- *Financing and Deploying Clean Energy* (Yale University, online course), Fall 2019 - present
- *Research Methods for Business Students III* (Ghent University), Spring 2021 - 2023
- **Guest lectures:** *Introduction to Energy Regulation II* (Council of European Energy Regulators, Spring 2024), *Green Deal Master elective* (Vlerick Brussels, Spring 2023-2025), *Sustainable Development* (Ghent University, Spring 2022-2025), *Physical Science of Climate Change* (Yale University, Spring 2020-2022), *Energy Economics and Policy Analysis* (Yale University, Fall 2018-2020), *Energy Economics* (KU Leuven, Spring 2013-2018), *Energy Technology and Economy* (KU Leuven, Spring 2013-2018), *Environmental and Transportation Economics* (KU Leuven, Fall 2017), *Science and Sustainability* (KU Leuven, Spring 2017)
- **Student supervision:**
  - Supervisor: Baptiste Rigaux, Melita Van Steenberghe, Victoria Chiseliov, Mark Vergouwen, Leonard Stimpfle (co-supervisor)
  - Supervisory committee: Thomas Lebbe (Ghent University), Vinanda Pye (Ghent University), Milan Vervoort (Ghent University), Alice Xu (Hertie School), Elise Chambard (KU Leuven)
  - Examination committee: Martin Roach (Vlerick/KU Leuven, 2022), Sam Hamels (Ghent University, 2021)
  - Successful master thesis students: +60 students (KU Leuven, Yale and Ghent), 2015-present

## Project experience

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| 2024-2027 | CROCODILE - ‘Cross-border Coordination of Offshore Grids under Different Designs for Day-Ahead and Ancillary Service Markets’, <b>Federal Energy Transition Fund</b>    |
| 2024-2026 | BE-WISE - ‘Strengthening the competitiveness of the Belgian offshore wind sector via industrial policy strategies and economics’, <b>Federal Energy Transition Fund</b> |
| 2023-2026 | Interflex - ‘Unlocking the barriers to accelerate and scale up residential flexibility in Belgium’. <b>Federal Energy Transition Fund</b>                               |
| 2023-2027 | ‘Climate regulation and firms: Evidence from the European Union emissions trading system’, <b>Research Foundation Flanders</b>  |
| 2023      | Consultant for <b>DG ENER</b>   |
| 2022-2025 | Sea2Socket - Short Chain from Sea to Socket, <b>Federal Energy Transition Fund</b>  |
| 2022      | Study on ‘EU ETS revision’, <b>Minister of Climate, Environment, Sustainable Development and Green Deal of Belgium</b>  |
| 2021-2025 | FLEXSYS - Flexible Energy Systems for Security of Supply, <b>Federal Energy Transition Fund</b>   |
| 2021-2024 | ‘An empirical estimation of consumer and producer response to electricity prices’, <b>Research Foundation Flanders</b>  |
| 2019-2020 | Study on ‘Network Effects in Future Electricity Grids’, <b>Iberdrola</b>  |
| 2018-2020 | Solar Energy Evolution and Diffusion, <b>US Department of Energy</b>  |
| 2016      | Evaluation study of ‘Flemish Energy Efficiency Policy’, <b>Flemish Energy Agency</b>  |
| 2013-2017 | Electricity Transmission Reliability, <b>European Commission 7th FP</b>   |

## Awards

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2021	Best Paper Award at FSR Annual Conference
2016	Best Student Paper Award at IAEE International Conference, Bergen, Norway

## Referee service

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- **Economics:** Contemporary Economic Policy, Ecological Economics, Economics of Energy & Environmental Policy, Energy Economics, Energy Policy, European Economic Review, Journal of Air Transport Management, Journal of Environmental Economics and Management, Journal of Environmental Economics and Policy, Journal of Policy Analysis and Management, The Electricity Journal, The Energy Journal, Utilities Policy
- **General Energy:** Cell Reports Sustainability, Climate Policy, Environmental Research Letters, Environmental Science & Technology, Electric Power Systems Research, Energy Reports, Energy Research & Social Science, iScience, Joule, Journal of Environmental Management
- **Funding:** German Research Foundation, Swiss National Science Foundation, UMONS

## University service

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2024-	Education Committee MSc General Economics (MAE)
2024-	Research Cell Department of Economics
2022	Co-organizer Belgian Environmental Economics Day, Ghent
2021-	Organizer Ghent University Environmental Economics Seminar
2021-	Ghent University PhD/Postdoc Recruitment committee
2020-2025	Board Member, Benelux Association for Energy Economics
2018	Member of working group on sustainable transportation, KU Leuven
2018	Secretary of the Metaforum working group on Energy, KU Leuven
2016-2018	Board member Young Researchers Society for Sustainability, KU Leuven

## Public outreach

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- Appeared or mentioned in De Standaard, De Morgen, De Tijd, Gazet van Antwerpen, Het Laatste Nieuws, Trends, Knack, Radio 1, VRT NWS, E&E News, Nature Research Highlights, The Guardian, Bloomberg, Science Daily, Clean Energy Finance Forum
- Presentations to a general audience: HackBelgium (Brussels, 2018), SRBE-KBVE Seminar (Brussels, 2018), Power Market Debate (Yale University, 2018), Climate Summerschool (Gent, 2021)
- Gentse Economische Inzichten: Heating flexibly with heat pumps (2025), Hoe we de vraag naar elektriciteit beter kunnen doen reageren op variabele hernieuwbare energie (2024), Four recommendations for a stable and sustainable electricity market (2023)
- Op-eds: Capaciteitstarief is wel degelijk nuttig instrument (2025, De Tijd), Interventies nodig voor consument én energietransitie (2022, De Tijd), Schiet niet op de boodschapper (2022, De Standaard), Realpolitiek is de enige uitweg (2022, De Standaard), Zonder gas lukt het niet (2021, De Standaard), Trek klimaatlessen uit coronacrisis (2021, De Tijd), Waarom geen premie voor wie vrijwillig in het donker zit? (2018, De Standaard), Brengt energiepact eindelijk klaarte? (2017, De Tijd), Het energiedebat moet narekenbaar worden (2014, De Tijd)
- Co-founder of Carbon+Alt+Delete VZW (2017), which transitioned to a for-profit company (2020).

## Invited seminars and conference presentations

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2025	Paris School of Economics, University of Groningen, UC Louvain Saint-Louis, University of Calgary, UC Berkeley, University of Alberta, Belgian Environmental Economics Day, Pentilateral Energy Forum, Groningen Energy Climate Economics and Business Days, CESifo Area Conference on Energy and Climate Economics, IAEE Paris, 1st International Alpine Workshop on Energy Economics and Policy, Netherlands Bureau for Economic Policy Analysis (CPB)
2024	Technical University of Munich, International Workshop on Empirical Methods in Energy Economics, CEPR-NBB joint research workshop on Reaching Net Zero, National Bank of Belgium National Colloquium, EAERE Summer Conference, CEER
2023	Institute of Energy Economics (University of Cologne), Congress of Belgian Economists
2022	Mannheim Energy Conference, FSR Annual Sustainability Conference on Greening Infrastructures, ESIM Seminar (KU Leuven), EAERE Summer Conference, Belgian Environmental Economics Day, Energy System Costs Workshop (KU Leuven), Climate Change Litigation in Europe conference
2021	IX International Symposium on Energy Transition, Belgian Environmental Economics Day, Florence School of Regulation Annual Conference, EAERE Summer Conference
2020	Grantham Research Institute (London School of Economics), University of Barcelona, Yale Public Utilities Group, Ghent University
2019	Stanford University, Yale University, KU Leuven, Ghent University, AERE Summer Conference, Northeast Workshop on Energy Policy and Environmental Economics (Harvard University), International Workshop on Empirical Methods in Energy Economics, Heartland Environmental and Resource Economics Workshop, CU Environmental & Resource Economics Workshop, Behaviour Energy and Climate Change Conference, Symposium on Energy Systems (KU Leuven)
2018	Environmental Economics Lunch Seminar (Yale University), International Association for Energy Economics (Groningen), Johns Hopkins University, Advanced Workshop in Regulation and Competition (Ellicott City, USA)
2017	EARIE conference, IAEE International conference, FAEE workshop (Mines ParisTech), BAEE workshop (KU Leuven, Young Researchers Seminar (Florence School of Regulation), Advanced Geography Debate on Renewable Energy (KU Leuven, Belgium)
2016	IAEE international conference, Young Energy Economists and Engineers Seminar (University of Edinburgh)
2015	Cologne International Energy Summer (University of Cologne, Germany), BAEE workshop (Université Catholique de Louvain, Belgium)

Last update: November 2025