IACOPO SAVELLI

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Fields of Interest

- **Energy policy**: reforms and policy recommendations to enable the transition of the energy system towards net-zero carbon emission
- **Energy economics**: electricity pricing and tariffs, generation and network investments
- **Electricity market design**: wholesale electricity markets, capacity markets, community energy and peer-to-peer markets

QUALIFICATIONS

- "**Abilitazione Scientifica Nazionale**" in "**Economia Applicata**", II Fascia (Associate Professor), S.S.D. SECS-P/06 — 2023
- "**Abilitazione Scientifica Nazionale**" in "**Politica Economica**", II Fascia (Associate Professor), S.S.D. SECS-P/02 — 2024

CURRENT WORK

- **Marie Skłodowska-Curie Fellowship** — 10/2024 – Present
  Bocconi University — Milan, IT
  - Project "GREENER – Navigating energy storage challenges: profitability and net zero goals in Europe's energy transition". Centre for Research on Geography, Resources, Environment, Energy & Networks (GREEN).

PREVIOUS WORK

- Postdoctoral Researcher (RTDA – Applied Economics) — 01/2023 – 09/2024
  Bocconi University — Milan, IT
  - ***Principal Investigator*** of the 2-year project "Decarbonising the energy system by incentivising energy storages in the right places" funded with **€150k** (PNRR funds for Young Researchers)

- Postdoctoral Researcher (1 year and 4 months) — 09/2021 – 12/2022
  University of Edinburgh — Edinburgh, UK
  Research topics:
  - How smart contracts can unlock value in energy markets

- Postdoctoral Researcher in Energy Market Design (2 years) — 09/2019 – 09/2021
  University of Oxford — Oxford, UK
  Research topics:
  - New incentive schemes for low-carbon technologies
  - Local electricity market design and integration with existing national markets
  - Capacity markets and the missing money problem

- Research Associate (3 months) — 05/2019 – 08/2019
  University of Bath — Bath, UK
  Research topic:
  - Transmission network investments: planning, revenue adequacy and optimal tariff design

EDUCATION

- University of Siena — 10/2015 – 10/2018
  Ph.D. in Engineering and Information Science — Siena, IT
  Thesis: "*Towards the Integration of Electricity Markets: System-wide and Local Solutions*"
  Viva voce defense: 18 February 2019

- Baruch College – Exchange student (6 months) – GPA 4.0 — 02/2014 – 06/2014
  Master in Financial Engineering/Business Administration — New York, NY

- **University of Siena** 11/2011 – 09/2014
  Master in Finance – Grade: 110/110 cum laude Siena, IT

- **University of Macerata** 09/2008 – 11/2011
  Bachelor in Economics – Grade: 110/110 cum laude Macerata, IT

HONORS & AWARDS

- **1st prize - *Best conference paper award*** - 17th European Energy Market Conference (EEM), 2020. Paper title: "*Nodal and fixed price coexistence in distribution networks with optimal investment planning and tariff design*"

INTERNATIONAL COLLABORATION

- **Member of the Energy Revolution** (EnergyREV) **Consortium** (UKRC ref. EP/S031863/1) for 2 years (2019-2021). EnergyREV is an academic consortium in the UK with **22 Universities** and over 60 academics. Within this consortium, I successfully led and achieved the deliverables D5.1 and D6.1 within the WP3.2, developing new solutions to integrate local energy markets at the national scale.

AFFILIATION

- **2025 – Present** Research Associate at **Fondazione Eni Enrico Mattei** (FEEM).
- **2024 – Present** Affiliated Scientist at **Euro-Mediterranean Centre on Climate Change (**RFF-CMCC EIEE).

SCIENTIFIC COMMITTEE

- **Member of the Scientific Committee** for the 46th International Association for Energy Economics (IAEE) **International Conference**, Paris, 15-18 June 2025. https://iaee2025paris.org/
- **Member of the Scientific Committee** for the 18th International Association for Energy Economics (IAEE) **European Conference**, Milan, 24-27 July 2023. https://www.aiee.it/iaee_2023/

KEYNOTE SPEAKER / CHAIR

- **Keynote speaker dual-plenary** session on "Energy Transition: the EU Roadmap to 2050" at the 18th International Association for Energy Economics (IAEE) European Conference, Milan, 24-27 July 2023.
- **Chair** of the parallel session on "Integration and management of the electricity grid" at the Italian Association for Energy Economics (AIEE) 9th Energy Symposium, Rome, 20-22 November, 2025.
- **Chair** of the parallel session on "Energy storage: case studies" at the 18th International Association for Energy Economics (IAEE) European Conference, Milan, 24-27 July 2023.

FUNDING

- **Marie Skłodowska-Curie (MSCA) Fellowships** 10/2024 – Present
  Project title: "Navigating energy storage challenges: profitability and net zero goals in Europe's energy transition" Milan, IT
  I won a 2-year MSCA Postdoctoral Fellowships (ref. 101148367) to carry out my project at Bocconi on storage and renewables profitability during the Europe's energy transition towards net zero carbon emission, funded with **€ 172k** by Horizon Europe.

- **Principal Investigator** 01/2023 – 09/2024
  Project title: "Decarbonising the energy system by incentivising energy storages in the right places" Milan, IT
  Peer-reviewed project funded with **€ 150k** (PNRR - Young Researcher funds), aiming to investigate grid-scale storage's role in decarbonising the energy system.

- CINECA – High-Performance Computing 05/2023 – Present
  Awarded two ISCRA grants (approx. **2 x € 3k**) to use the High-performance computing facility at CINECA to carry on my research activity on energy system modelling (ref. HP10C6OTYJ, HP10C5ZVRV).

- Co-Investigator 11/2021 – 02/2022
  Project title: "A new design paradigm to incentivise low-carbon technologies in the UK" Oxford, UK
  Peer-reviewed project within the Energy Revolution Consortium (UKRC ref. EP/S031863/1), funded with **£ 37k**, aiming at developing new incentive schemes for renewables (www.energyrev.org.uk/news-events/news/energyrev-funds-additional-smart-local-energy-system-research/)

TEACHING

- University of Oxford, "**Electricity Market Laboratory**", **3 hours x 2 years** 03/2020 – 03/2022
  within the "Economics and Markets" course (MSc Energy Systems) Oxford, UK
  Contents:
  - Theory: Functioning of wholesale electricity markets. European day-ahead market orders. Uniform pricing vs pay-as-bid. Pool markets vs continuous trading. Introduction to nodal pricing.
  - Exercises: The students have to use Python to develop an electricity market model to determine nodal prices using economic dispatch, based on merit order, and considering network constraints.

- University of Siena, "**Energy Market**" module, **24 hours** 11/2018 – 04/2019
  within the "Electric System and Energy Market" course Siena, IT
  Contents
  - Introduction to the economic theory that regulates the market equilibrium. Concepts of demand, supply, surplus, social welfare and elasticity. Perfect and imperfect competition and main tools to determine the presence of market power.
  - Differences between spot and forward markets. Instruments for managing price risk (futures, options, contracts for difference, and financial transmission rights).
  - Bilateral trading, pool trading, pay-as-bid, uniform pricing. Reserve market. Auction and continuous trading. Types of European market orders. Nodal pricing.

- University of Siena, teaching assistant, **20 hours x 3 years** 2016 – 2018
  for the course of "Models for Financial Applications". Siena, IT
  Main duties
  - Time series analysis with **ARIMA** and **ARCH/GARCH models**.

SUPERVISION

- Post-doctoral researchers:
  - Dr Xia Yuxin, University of Oxford, 2025-present
  - Dr Mostafa Nosratabadi, University of Oxford, 2022-2024

- PhD candidates:
  - Ms Xia Yuxin, University of Edinburgh, 2021-2025
  - Ms Xiyu Ren, University of Oxford, 2021-2024

- Master's students:
  - Mr Sequera Jimenez Francisco, University of Edinburgh, 2021/2022
  - Mr Zhang Huilai, University of Edinburgh, 2021/2022
  - Mr Evan Chee Ng, University of Oxford, 2020/2021
  - Mr Armen Danielian, University of Oxford, 2019/2020

ENGAGEMENT with POLICYMAKERS

- European Commission: Electricity market – Reform of the EU's electricity market design
  - Written feedback on the amendments to Electricity Regulation (EU) 2019/943, Electricity Directive (EU) 2019/944 and Regulation (EU) No 1227/2011 (REMIT), May 2023. (https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13668-Electricity-market-reform-of-the-EUs-electricity-market-design/F3422601_en)

- Environmental Audit Committee (UK Parliament)
  - Call for evidence - "Technological Innovations and Climate Change: Community Energy". Written evidence and opinions submitted by Iacopo Savelli and Thomas Morstyn, March 2021 (https://committees.parliament.uk/writtenevidence/23693/pdf/).

- Department for Business, Energy and Industrial Strategy (BEIS), UK
  - Engagement with BEIS for developing a new design paradigm to incentivise low-carbon technologies in the UK, which resulted in the paper titled: "Putting wind and solar in their place: Internalising congestion and other system-wide costs with enhanced contracts for difference in Great Britain", Energy Economics, 2022.

LIST OF PUBLICATIONS

- Journal papers

[J.20]	I Savelli, D Howey, T Morstyn, "Locating large-scale energy storage: spillover effects, carbon emissions, and balancing costs across Italy", **Utilities Policy**, 2025. **IF$_{2025}$: 4.4**
[J.19]	Y Xia, I Savelli, T Morstyn, "Integrating local market operations into transmission investment: A tri-level optimization approach", **Applied Energy**, 2025. **IF$_{2025}$: 11.4**

[J.18]	Antonini, E., Di Bella, A., Savelli I, "Weather- and climate-driven power supply and demand time series for power and energy system analyses", **Scientific Data**, 2024. **IF$_{2025}$: 6.9**
[J.17]	I Savelli, C Hepburn, T Morstyn, "A blueprint for energy systems in the era of central bank digital currencies", **Technological Forecasting and Social Change**, 2024. **IF$_{2025}$: 13.3**
[J.16]	Y Xia, I Savelli, T Morstyn, "An incentive regulation approach for balancing stakeholder interests in transmission merchant investment", Electric Power Systems Research, 2024. IF$_{2025}$: 4.2
[J.15]	X. Ren, I. Savelli, T. Morstyn, "Making resource adequacy a private good: The good, the bad, and the ugly", **Joule**, 2024. **IF$_{2024}$: 39.8**
[J.14]	I Savelli, HR Bokkisam, P Cuffe, T Morstyn, "On-demand energy flexibility market via smart contracts to help reduce balancing costs in Great Britain", **Energy Economics**, 2023. **IF$_{2023}$: 12.8**
[J.13]	F. Billimoria, F. Fele, I. Savelli, T. Morstyn and M. McCulloch, "An Insurance Paradigm for Improving Power System Resilience via Distributed Investment," *IEEE Transactions on Energy Markets, Policy and Regulation*, 2023
[J.12]	A Parede, J Aguado, C Essayeh, Y Xia, I Savelli, T Morstyn, "Stacking Revenues from Flexible DERs in Multi-Scale Markets using Tri-Level Optimization", *IEEE Transactions on Power Systems*, 2023. IF$_{2023}$: 7.32
[J.11]	Iacopo Savelli, Thomas Morstyn, "The energy flexibility divide: An analysis of whether energy flexibility could help reduce deprivation in Great Britain", ***Energy Research & Social Science***, Volume 100, 2023. **IF$_{2023}$: 6.7**
[J.10]	P Grunewald, M Aunedi, SM Nosratabadi, T Morstyn, I Savelli, V Kumtepeli, D Howey, "Taking the long view on short-run marginal emissions: how much carbon does flexibility and energy storage save?", *Oxford Open Energy*, 2023.
[J.9]	Iacopo Savelli, Jeffrey Hardy, Cameron Hepburn, Thomas Morstyn, "Putting wind and solar in their place: Internalising congestion and other system-wide costs with enhanced contracts for difference in Great Britain", ***Energy Economics***, v.113, 2022. **IF$_{2023}$: 12.8**
[J.8]	Farhad Billimoria, Filiberto Fele, Iacopo Savelli, Thomas Morstyn, Malcolm McCulloch, "An insurance mechanism for electricity reliability differentiation under deep decarbonization", ***Applied Energy***, Volume 321, 2022. **IF$_{2023}$: 11.2**
[J.7]	Thomas Morstyn, Iacopo Savelli, Cameron Hepburn, "Multiscale design for system-wide peer-to-peer energy trading", *One Earth*, vol. 4, Issue 5, Cell Press, 2021. IF$_{2023}$: 16.2
[J.6]	Iacopo Savelli, Thomas Morstyn, "Better together: Harnessing social relationships in smart energy communities", ***Energy Research & Social Science***, vol. 78, 2021. **IF$_{2023}$: 6.7**
[J.5]	Iacopo Savelli, Thomas Morstyn, "Electricity prices and tariffs to keep everyone happy: A framework for fixed and nodal prices coexistence in distribution grids with optimal tariffs for investment cost recovery", vol. 103, ***Omega***, 2021. **IF$_{2023}$: 6.9**
[J.4]	Iacopo Savelli, Antonio De Paola, Furong Li, "Ex-ante dynamic network tariffs for transmission cost recovery", ***Applied Energy***, v. 258, 2020. **IF$_{2023}$: 11.2**
[J.3]	Bertrand Cornélusse, Iacopo Savelli, Antonio Giannitrapani, Simone Paoletti, Antonio Vicino, "A Community Microgrid Architecture with an Internal Local Market", in ***Applied Energy***, vol. 242C, pp. 547-560, 2019. **IF$_{2023}$: 11.2**
[J.2]	Iacopo Savelli, Bertrand Cornélusse, Antonio Giannitrapani, Simone Paoletti, Antonio Vicino, "A new approach to electricity market clearing with uniform purchase price and curtailable block orders", in ***Applied Energy***, Vol. 226, pp. 618 - 630, 2018. **IF$_{2023}$: 11.2**
[J.1]	Iacopo Savelli, Antonio Giannitrapani, Simone Paoletti, Antonio Vicino, "An Optimization Model for the Electricity Market Clearing Problem with Uniform Purchase Price and Zonal Selling Prices", *IEEE Transaction on Power System*, Vol. 33, 2018. IF$_{2023}$: 7.32

- Conference Proceedings

[C.12]	Iacopo Savelli, "The problem of diminishing storage profits from arbitrage", 46th International Association for Energy Economics (IAEE) International Conference, Paris, 2025
[C.11]	Iacopo Savelli, Yuxin Xia, Thomas Morstyn, "An incentive scheme for storage investments to help reduce carbon emissions", International Association for Energy Economics (IAEE) 45th International Conference, Istanbul, 2024.
[C.10]	Iacopo Savelli, Marco Percoco, "The effect of deploying large-scale energy storages in Italy", 18th European Conference of the International Association for Energy Economics, Milan, 2023.
[C.9]	B Bird, HR Bokkisam, I Savelli, T Morstyn, P Cuffe, "Towards a Blockchain Implementation of a Governance & Revenue Dispersal Mechanism for Investments in Battery Energy Storage Systems", 2023 IEEE Belgrade PowerTech.
[C.8]	H. R. Bokkisam, Iacopo Savelli, T. Morstyn and P. Cuffe, "Towards a Distributed Autonomous Organisation for Financing, Governing and Disbursing Revenues of a Battery Energy Storage System," 2022 IEEE 1st Global Emerging Technology Blockchain Forum: Blockchain & Beyond (iGETblockchain), Irvine, CA, USA, 2022.
[C.7]	Iacopo Savelli, Cameron Hepburn, Thomas Morstyn, "*Nodal and fixed price coexistence in distribution networks with optimal investment planning and tariff design*", 17th Intern. Conf. on the European Energy Market (EEM), 1-6, 2020. Received the ***1st prize - Best conference paper*** award.
[C.6]	Antonio De Paola, Iacopo Savelli, Thomas Morstyn, "*A novel ex-ante tariff scheme for cost recovery of transmission investments under elasticity of demand*", 17th International Conf. on the European Energy Market (EEM), 1-6, 2020
[C.5]	Iacopo Savelli, Bertrand Cornélusse, Simone Paoletti, Antonio Giannitrapani, Antonio Vicino, "*A Local Market Model for Community Microgrids*", *Proceedings of the 58th Conference on Decision and Control (CDC)*, Nice, France, 2019.
[C.4]	Simone Paoletti, Iacopo Savelli, Andrea Garulli, Antonio Vicino, "*A bilevel programming approach to piecewise affine system identification*", *Proceedings of the 58th Conference on Decision and Control (CDC)*, Nice, France, 2019.
[C.3]	Laurine Duchesne, Iacopo Savelli, Bertrand Cornélusse, "*Sensitivity Analysis of a Local Market Model for Community Microgrids*", in *Proceedings of the 13th IEEE PES Power Tech Conference,* Milano, Italy, 2019.
[C.2]	Iacopo Savelli, Bertrand Cornélusse, Antonio Giannitrapani, Simone Paoletti, Antonio Vicino, "*Introducing Block Orders in the Italian Day- Ahead Electricity Market*", in *Proceedings of the 15th International Conference on the European Energy Market (EEM)*, Lodz, Poland, 2018, pp. 1-6.
[C.1]	Iacopo Savelli, Antonio Giannitrapani, Simone Paoletti, Antonio Vicino, "*An Exact Solution to the Market Clearing Problem with Uniform Purchase Price*", in *Proceedings of IEEE PES Innovative Smart Grid Technologies Conference Europe (ISGT-Europe)*, Torino, 2017, pp 1-6.

- Seminars
  - "*How the European day-ahead electricity market works*", University of Liege, Belgium, December 18th, 2017.
  - "*A New Approach for Solving the Market Clearing Problem with Uniform Purchase Price and Curtailable Block Orders*", European Commission's Joint Research Centre (JRC), November 28th, 2017, Ispra, Italy.

SKILLS

Computer skills: Python, Vyper, Blockchain, Pyomo, Cplex, GAMS, High-Performance Computing, GitHub, MATLAB, VBA/Excel, SQL
GRE Quant: 168/170