Clément Leblanc

Electricity and Energy Economist

Tel.: +33 6 35 78 87 59
Paris, France

email: cl.clement.leblanc@gmail.com
website: https://c-leblanc.github.io/

Work Experience

PostDoc Researcher in Energy Economics — September 2023 – September 2025

Universidad Carlos III de Madrid, EnergyEcoLab (PI: Prof. Natalia Fabra) — *Madrid, Spain*

Key work:

- Theoretical and applied work on renewable energy subsidy contracts (wind and solar), focusing in particular on risk sharing between the government and investors.
- Empirical work, notably on the redistributive consequences of the 2021-2023 electricity market crisis and on the compensation mechanism implemented in the wholesale markets in Spain and Portugal (known as the *Iberian mechanism*).
- Methods: Econometrics and Machine Learning, Electricity system simulations (technical-economic or *bottom-up* simulations), Theoretical model analysis.

Other activities: Coordinating EnergyEcoLab meetings and communications, speaking at academic conferences, *peer review* for various scientific economics journals, occasional research assistance for Prof. Fabra (research and data processing, proofreading articles).

PhD in Economics *(Defense in June 2023)* — October 2019 – August 2023

École Nationale des Ponts et Chaussées (ENPC) – CIRED — *Paris, France*

Dissertation: Microeconomic analysis of subsidy mechanisms for power generation from wind and solar sources

Advisors: Laurent LAMY (ENPC), Philippe QUIRION (CNRS); **Funding**: ANR / ADEME

I led applied and theoretical research in economics focusing on the subsidy systems implemented by many countries (particularly in Europe) to promote the development of solar and wind energy. Much of my work has focused on the sharing of **market price risk** for electricity between the government and investors in renewable energy capacity, and on how the design of subsidy systems can optimize this risk sharing. As part of this work, I developed a digital model of the dispatch of the French electricity system and neighboring countries to simulate future electricity prices on wholesale markets based on changes in the electricity mix, the cost of fossil fuels, and the price of CO_2 emission permits.

Teaching: ENPC – Cost-Benefit Analysis (2021-2023), Supervision of student group projects on topics related to electricity economics (2020-2023); Université Gustave Eiffel – Macroeconomics (2020-2021)

I Care & Consult — November 2016 – July 2019

Environmental Consulting Firm - Senior Consultant — *Paris, France*

I was responsible for studies in the field of environmental and energy economics (macroeconomic impact of energy and environmental transition, assessment and valuation of externalities and ecosystem services) and evaluation of public environmental policies.

Project Examples

- (Various Regional Authorities / Agencies) Definition of energy transition scenarios and assessment of their impact on employment and growth.
- (Environmental Ministry / French Agency for Ecological Transition) Critical analysis of the National Low-Carbon Strategy (SNBC), proposal and ex ante assessment of additional measures to achieve the 2030 targets.

Internships

- **Enerdata** *(Energy Consulting Firm)* – Grenoble (France), 2016 (6 months) – Consultant: Econometric modeling for predicting energy consumption in heavy industry (steel, cement, etc.).
- **Kyushu University** – Fukuoka (Japan), 2015 (3 months) – Academic research: Econometric study of the impact of energy taxes on growth in a panel of developed countries (OECD).
- **OECD, Environment Directorate** – Paris (France), 2014 (3 months + 6 months as part-time external consultant) – Econometric study on household responses to incentives for energy and water conservation.

Education

Université Paris-Saclay 2015 – 2016

Master's Degree in Energy, Environment, and Transportation Economics (EEET) *Paris, France*

Specialization: Prospective Modeling for Economics, Energy, and the Environment. **Other courses**: Climate Change and Growth, Natural Resource Management, Environmental Policy Evaluation, Monetization of Ecosystem Services and Externalities, Risk and Uncertainty in Economics.

ENSAE 2012 – 2015

Engineering Degree in Statistics and Economics *Paris, France*

Specialization: Data Science; **Courses**: Data Analysis, Econometrics, Statistics, Time Series, Machine Learning, Macroeconomics, Microeconomics, Game Theory, Public Policy Evaluation, Sociology, Environmental Economics, Development Economics.

Preparatory Classes in Literature and Social Sciences 2010 – 2012

Undergraduate intensive course (Math, Social Sciences, History, Philosophy, Literature) *Bordeaux, France*

Miscellaneous

Programming and Data Analysis:

- R – e.g., dplyr, ggplot2, sf *(spatial data)*, plm *(panel data regressions)*;
- Python – e.g., pandas, numpy, pyomo *(optimization modeling)*, scikit-learn *(machine learning)*;
- GAMS; Stata.

Office software: Word, Excel, PowerPoint, LaTeX.

Languages: French (native), English (fluent), Spanish (B1 – intermediary).