Léopold Monjoie

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Education

2018 – Present	Ph.D. Economics (in progress), University of Paris Dauphine *Expected completion date: 2022.*
2016 – 2018	M.Sc. Energy and environmental economics, master *Energie Finance Carbone*, University of Paris Dauphine.
2013 – 2016	B.Sc. Applied Economics, University of Paris Dauphine - University of Orléans.

Research Fields

Applied Microeconomics – Energy Economics – Industrial Organization – Regulation and Market Design

Research - Work in progress

How to design reserve markets? The case of the demand function in capacity markets

Abstract. This paper studies reserve markets' design, aiming to provide producers with sufficient incentives to invest in production capacities. For some essential goods such as electricity or medical supplies, wholesale markets' private incentives are sometimes not adequate to ensure that producers make enough investments. While the supply function emerges naturally from producers on those markets, the demand function is not always spontaneous. The public-good nature of investment during high demand periods implies that consumers do not willingly participate in those reserve markets. Then, the regulator must administratively create the demand function so the market can clear. Therefore, its design can take various forms depending on which agents sustain the cost of capacity. To assess each design implication, we introduce an analytical model to represent the interdependencies between three electricity markets: the upstream energy market, the downstream retail market, and the capacity market. We start by including imperfect competition in the downstream retail market into the classical investment decisions' model with uncertain demand. Then we describe how each design option modifies the equilibrium in the downstream market. Therefore, each demand specification also impacts the demand

function made by retailers in the upstream market. In turn, it can lower or increase investment in generation capacity. As our model characterized an equilibrium, the supply function, and the demand function on the three markets, it is easily expandable to agent heterogeneity and information issues.

The relation between procurement design and market efficiency: an application to capacity markets

Abstract. We study the effects of different capacity product designs on investment and production decisions in electricity markets. Using a single project valuation model, we simulate future profits of different generation technologies. We give the investment the options to participate in the capacity market and two managerial options: postponing investment decisions and mothballing the asset. We show that the bidding behavior in the capacity market and production decisions are significantly correlated with the procurement design. Hence, this mechanism's role in correcting electricity market inefficiencies and the incentive to invest in greener technologies could be altered considerably by policymakers' choice in product designs. This study fits into a general framework as soon as a regulator has implemented a secondary market in which agents sell a commitment in a primary market. The model created for this paper can also be adapted to take into account risks and information issues.

A survey on electricity market design: How can we model behaviors in capacity markets?

Keywords. Electricity market - Market design - Generation adequacy - Capacity markets - Capacity remuneration mechanisms

How market design affects actors' behaviors and price formation in an imperfect environment: the case of capacity markets.

Keywords. Capacity market - Strategic behavior - Competitive benchmark analysis - Restructured electricity market - Auction design

A review on the state of the art of multi-unit auctions: what implications for the study of capacity market design.

Keywords: Multi-unit auctions - Electricity markets – Market power – Regulation – Market design

Teaching

Lecturer, Microeconomics - 2d year Bachelor.
University of Paris Dauphine 2019–2021 (3 years)

Honors and Scholarships

2021	US Association for Energy Economics Winner of Best Poster Award
2020	French Association for Energy Economics Winner of Young Professional Second-Best Paper Award
2018	University of Paris Dauphine - Valedictorian
2015	University of Orléans- Valedictorian

Professional experience

Applied Work

2018 – Present	Junior economist working with the French Transport System Operator RTE. My thesis work is used to shed light on the possible evolutions of the European electricity system's market design.
2020 – Present	Ph.D. student working with the Chaire European Electricity Market directed by Prof. Jan Horst Keppler. I participate in the transversal research theme of 2020/21, devoted to "Financing Long-Term Investment in Hybrid Electricity Markets." I contribute to two research groups: (i) The Link between Short Term Dispatch and Long-Term Financing and (ii) Retail Tariffs and Investment.

Internship

2018	Junior Economist – RTE (Paris)
2017	Financial Analyst – Akuo Energy (Paris) Research Officer – NERA Economic Consulting (Paris)
2016	Economic Analyst – France Energie Eolienne (Paris)
2015	Assistant – NGO GreenMap System (New York) Business Development – EV Box (New York)