

Leticia Magalar Martins de Souza

E-mail: leticiamagalar@ppe.ufrj.br

SUMMARY STATEMENT

Leticia has a double degree in business and environmental engineering from PUC-Rio, a master's degree in energy planning from COPPE/UFRJ and she is a PhD candidate in energy planning at the same institution. Over the years, Leticia has specialized in developing greenhouse gas mitigation measures for the waste, industrial and building sectors and currently targets her research on materials and circular economy.

EDUCATION

Ph.D. in Energy and Environmental Planning [2020 – Present]

Universidade Federal do Rio de Janeiro, Brasil
Instituto Alberto Luiz Coimbra de Pós-Graduação e Pesquisa de Engenharia, COPPE
Supervisors: Alexandre Szklo and Pedro Rochedo

Master in Energy and Environmental Planning [2015 – 2018]

Universidade Federal do Rio de Janeiro, Brasil
Instituto Alberto Luiz Coimbra de Pós-Graduação e Pesquisa de Engenharia, COPPE
Supervisors: Alexandre Szklo and André Lucena

Undergraduate in Environmental Engineering

Pontifícia Universidade Católica do Rio de Janeiro PUC-Rio [2010-2014]
University of Queensland - Australia [2012]

MBA in Environmental Management

Universidade Federal do Rio de Janeiro, Brasil [2008-2009]
Instituto Alberto Luiz Coimbra de Pós-Graduação e Pesquisa de Engenharia, COPPE

Undergraduate in Business

Escola Superior de Propaganda e Marketing [2003-2007]
IADE - Faculdade de Design, Tecnologia e Comunicação - Portugal [2005-2006]

PUBLICATIONS

PEER-REVIEWED JOURNALS

Bezerra, P., da Silva, F., Cruz, T., Mistry, M., Vasquez-Arroyo, E., **Magalar, L.**, De Cian, E., Lucena, A. F. P., & Schaeffer, R. (2021). *Impacts of a warmer world on space cooling demand in Brazilian households*. Energy and Buildings, v. 234

Guedes, F., Szklo, A., Rochedo, P., Lantz, F., **Magalar, L.**, & Arroyo, E. M. V. (2019). *Climate-energy-water nexus in Brazilian oil refineries*. International Journal of Greenhouse Gas Control, 90, 102815.

Viviescas, C., Lima, L., Diuana, F. A., Vasquez, E., Ludovique, C., Silva, G. N., **Magalar, L.**, Lucena, Szklo, A., André F. P., Schaeffer, R. Paredes, J. R. (2019). *Contribution of Variable Renewable Energy to increase energy security in Latin America: Complementarity and climate change impacts on wind and solar resources*. Renewable and Sustainable Energy Reviews, 113.

OTHER PUBLICATIONS

Vasquez-Arroyo, E.; Gandelman, D. A.; Silva, F. Da; **Magalar, L.**; Santos, D. V.; Lucena, A. F. P. (2021). *Implications of climate change impacts for the Brazilian electricity mix*. SUSTENTABILIDADE EM DEBATE. , v.11, p.122 - 156.

Vasquez-Arroyo, E.; **Magalar, L.**; Silva, F. T. F.; Lucena, A. F. P. (2020). Chapter 3: IMPACTS, VULNERABILITY AND ADAPTATION TO CLIMATE CHANGE. Fourth National Communication of Brazil to the UNFCCC.

Magalar, L. *Modelagem da disponibilidade hídrica em refinarias de petróleo brasileiras: o caso da REPLAN*. Master Dissertation. Energy Planning Program/Federal University of Rio de Janeiro. 2018.

CONFERENCES

Magalar, L.; Gomes, L.; Baptista, L.B.; Zotin, M.Z., Szklo, A.; *Comparative analysis of copper demand in different IAMs' carbon restriction scenarios* (2021) In: Fourteen IAMC Annual Meeting.

Zotin, M. Z.; **Magalar, L.**; Baptista, L. B.; Rochedo, P.; Szklo, A. S. (2020). *The material dimensions of carbon mitigation pathways*. In: Thirteenth IAMC Annual Meeting. Thirteenth IAMC Annual Meeting.

Vasquez-Arroyo, E.; **Magalar, L.**; Guedes, F., Rochedo, P., Szklo, A.; Schaeffer, R. (2016) *A disponibilidade hídrica como possível restrição ambiental para a produção de derivados de petróleo no Brasil*. Rio Oil & Gas 2016

PROFESSIONAL POSITIONS

Visiting Researcher [2022 - Ongoing]

Institute: European Institute on Economics and the Environment
collaboration with the modelling team in exploring possible ways to represent materials flows and circular economy strategies in integrated assessment models

Researcher [2016 – Ongoing]

Institute: COPPE/CenergiaLab

Work on several research projects related to waste-to-energy technologies, waste management, mitigation and adaptation strategies in energy sector and the improvement of industry sector at the global integrated assessment model COFFEE.

External Senior Consultant [2022]

Company: WWF

Developed a life cycle assessment study of different technological routes for green hydrogen production in Brazil.

Sustainability and Climate Change Team Coordinator [2019 - 2020]

Company: WayCarbon

Led projects related to greenhouse gas mitigation, development of mitigation technologies roadmap for the mining industry, carbon pricing strategies for companies, climate adaptation, vulnerability impact assessment, and mitigation and adaptation plans for cities.

Performed extensive research on environmental, social, and governance (ESG) and green bonds framework and alternatives indicators to measure physical climate risk for the financial sector.

Researcher [2018-2019]

Brazil's fourth national communication to the UNFCCC

Institute: Ministry of Science, Technology, and Innovation (MCTI)

Main goal: To analyze impacts and vulnerabilities of climate changes in the Brazilian energy sector; Develop feasibility studies for solar, wind, and hydro energy generation; Develop mitigation and adaptation plans, and energy complementarity studies.

FINANCED PROJECTS

New Economy for the Amazon (NEA) [2021 – 2022]

Funded by: World Resources Institute (WRI)

Brazilian coordinator: Roberto Schaeffer

Role: Research Collaborator in Waste to Energy and Circular Economy areas

Main goal: Develop new infrastructure scenarios to tackle energy poverty, waste mismanage and logistics gaps

Energy Demand changes Induced by Technological and Social innovations (EDITS) [2021 – Ongoing]

Funded by: Ministry of Economy, Trade, and Industry (METI)

Brazilian coordinator: Roberto Schaeffer

Role: Research Collaborator at Industry/materials working group

Main Goal: To strengthen the research on energy and materials demand also considering socio-technical aspects.

NAVIGATE [2020 – Ongoing]

Funded by: European Commission – H2020

Role: Research Collaborator in Industry/Materials sector

Brazilian coordinator: Roberto Schaeffer

Main goal: Improve the capability of Integrated Assessment Models (IAMs) to support climate policy making

Contribution of Renewable Energy to Increase Energy Security in Latin America [2016]

Funded by: InterAmerican Development Bank (IDB)

Role: Research Collaborator

Main goal: Analyze the seasonality and variability of renewable energy resources and possible complementarities between solar, wind, and hydraulic energy among Latin American countries

FELLOWSHIP

DSc Fellowship

National Agency of Petroleum, Natural Gas, and Biofuels - PRH-41/ANP

Master Fellowship

National Council for Scientific and Technological Development (CNPq, Brazil)

Undergraduate Fellowship

National Agency of Petroleum, Natural Gas, and Biofuels - PRH-07/ANP

SKILLS

LANGUAGES: Portuguese (Native), English (Proficient), Spanish (Intermediate)

SOFTWARES: Arcgis, R and RStudio

September 9th, 2022

