

Post-doctoral position – REFERENCE 17PDR002

Lead institution: IEE – Instituto de Energia e Ambiente da Universidade de São Paulo (Institute of Energy and Environment) Work Address of the position: Av. Prof. Luciano Gualberto, 1289 - Butantã, São Paulo - SP, 05508-010	
Supervisor name: Professor Dr Virginia Parente and Suani Coelho	Department: IEE
Co-supervisor (if any): Dr. Edmilson M. dos Santos	Department:
APPLY AT: www.rcgi.poli.usp.br/opportunities or https://goo.gl/p4ifHx <u>Position 17PDR002</u>	Type: Post-doctoral Duration: 3years Application deadline: July, 10, 2017
Project title: Energy Economics, Technology & Environment Modelling - Pos doctoral scholarship in <u>REF 17PDR002</u>	
Research theme area: Energy modelling with focus on long-term scenarios	
Abstract This project is expected to be developed in collaboration with researchers from Projects 22, 23, 24 and 27 of USP's Research Centre for Gas Innovation – RCGI (summary of these projects in found in the RCGI website at www.usp.br/rcgi). Candidates with Energy Modelling expertise will work with convergent models for the Brazilian energy reality elaborating alternative long-term scenarios. Candidates must prove experience in cost assessment of energy technologies. Candidates also must present strong background in energy econometrics to examine variables such as price, income and cross elasticities in segments that demand natural gas.	
Description Projects 22, 23, 24 and 27 of RCGI deal with future energy scenarios for Brazil assuming alternative Natural Gas demand perspectives in different economic segments such as industrial, residential, commercial, transportation and energy sector. The Pos-doctoral candidate will interact with researchers from those projects providing strong background on: (i) energy modelling technologies, (ii) cost assessment of energy technologies; and (iii) energy econometrics applied in the demand and supply side. Candidates must be familiar with energy simulation and optimization models. Exercises applied to the Brazilian energy reality will allow the construction of long-term energy scenarios simulating different perspectives for natural gas demand growth in all economic sectors. Candidates are supposed to command econometrics applied to energy issues and deal with uncertainties in dynamic models. Effects of prices, applied tariffs and elasticities will help to understand long-term trends in energy demand and supply for Brazil in aggregate terms as well as in sectorial/regional basis. Modelling approaches will have to take into consideration estimate potential of different energy sources (and different sources of natural gas in particular). Logistical costs must be assessed for additional infrastructure needed. Among alternative scenarios candidates are expected to consider cases addressing	

decarbonization strategies for Brazil, including replacements of natural gas by growing biomethane offers. In addition efficient cases of gas and energy as a whole must be taken at all levels of energy consumption.

Candidates must prove writing skills with publications in high impact international journals and are expected to co-author scientific articles together with RCGI's projects 22, 23, 24 and 27 teams.

Requirements to fill the position.

The candidate, after an international selection, will be in charge of working on modelling of energy scenarios and econometrics.

The researcher is expected to develop his/her research jointly with the other researchers of the mentioned projects, in order to allow him/her to receive the inputs needed for the research and to offer the adequate results to all involved projects as described above.

This interface proposed for the four projects will be extremely significant, allowing a more productive use of human resources and contributing to achieve more rapidly the different objectives of each project.

INFORMATION ABOUT FELLOWSHIP

The selected candidate will receive a FAPESP Post-Doctoral fellowship in the amount of R\$ 6.819,30 monthly paid in Reais and a research contingency fund, equivalent to 15% of the annual value of the fellowship which should be spent on items directly related to the research activity, as well as displacement funding, if necessary and applicable. More information about the fellowship is at: fapesp.br/en/postdoc.