



## Post-doctoral position in Energy Economics

*Title: Behavioral economics and hydrogen*

**Keywords:** Energy Transition, Hydrogen economics, Behavioral economics, Experimental economics, Social Psychology and ergonomics

The **UHLYS project** is an interdisciplinary project centered on the role of hydrogen technology in the energy transition. Hydrogen as an energy carrier and its use in passenger transportation through the fuel cell technology is widely considered as part of the solution to fight the global warming issues.

The economic part of this project aims at investigating the advantages, viability and potential issues of a new hydrogen economics in which hydrogen production, storage, new networks (grids) are expected to play a significant role in a near future. The impact of this new energy vehicle on energy production and industrial activity in one side and its impact on energy consumption (transport, residential consumption, grids development etc...) on the other side is the core of our research project.

On the supply side, we need to understand in what extent the major actors in the industrial sector and in the transport sector are able to substitute fossil fuels to H<sub>2</sub> technology and in what extent the energy users and producers will react to policy stimulus such as prices/subventions (monetary interventions) to encourage H<sub>2</sub> using.

On the demand side, we should imagine future needs and new uses of hydrogen and how future users consider H<sub>2</sub> technology and risks generated by this new energy carrier.

If hydrogen technology involves lot of advantages (low or zero CO<sub>2</sub> emissions, storage...), the part of H<sub>2</sub> using in the developed countries remains low.

As a consequence, behavioral economics and prospective ergonomics are suitable methodologies to investigate in what extent the producers and future users of hydrogen technology are likely to use this new energy vehicle in the short run.

By conducting laboratory or field experiment, we hope to better understand how the major actors in the energy sector will behave and react (monetary versus nudge interventions for example).

**Host lab** : BETA, UMR CNRS INRA, University of Lorraine (France, Nancy site) ; strong cooperation with PERSEUS laboratory (Metz)

**Funding program** : ISITE LUE IMPACT UHLYS

**Position starting and Duration** : 1st October for 14 months

**Salary** : around 2500 (brut) with research funds to conduct labs experiments, field experiments, present papers in conferences and do short research visitings.

**Profil of the candidate** : PhD in economics with recongized skills in energy economics and behavioral economics

A knowledge in hydrogen economics or hydrogen technology and/or in ergonomics/psychology (prospective ergonomics) would be greatly appreciated.

Creative, autonomous and very enthusiastic about working in an interdisciplinary and challenging research environment (with engineers, psychologists and especially ergonomists).

**To apply**: Detailed CV with two papers (published or not) and one recommendation letter (in French or in English), can be sent by email to [olivier.damette@univ-lorraine.fr](mailto:olivier.damette@univ-lorraine.fr) before 31 July, 2019