Universität Stuttgart
IER Institut für Energiewirtschaft
und Rationelle Energieanwendung

Modelling Hydrogen supply in renewable energy systems

In light of recent geopolitical changes, efforts to become independent of fossil fuels have gained momentum once again. Furthermore, limiting global warming to 2 °C requires a transition to renewable energy sources such as hydrogen.

The „greeness“ and economics of hydrogen have been a major topic of the environmental economy in the past. Therefore, we perform environmental analysis – prospective LCA, as well as techno-economic analysis using open source python tools, such as brightway.

Our research aims at understanding how policy shapes the economics and environmental implications along future hydrogen supply chains.

We continously seek for motivated students conducting analyses in this regard.

Please reach out to the e-mail address below with either own topics or enquiring for a Bachelor/Masterthesis or Forschungsarbeit.

YOUR Job

- Literature review to study the topic in more depth
- Economic modeling along exemplary hydrogen value chains
- Assessing the environmental implications
- Modelling and optimization using python frameworks (brightway, premise, activity browser)

YOUR Profile

- Enrolled in a Master’s degree in Renewable Energy, Environmental Engineering, or other programs with similar specializations
- Analytical mindset and the ability to quickly grasp new concepts
- Experience with Python and Excel, and the use of AI tools for support
- Good written and spoken English skills
- High level of initiative and self-management skills

Interesse geweckt? Dann gerne Lebenslauf, Notenspiegel und kurzes Anschreiben an:

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http://www.ier.uni-stuttgart.de/lehre/studentischearbeiten/