

Assignment

Living Lab EnTranCe

Decentralised hydrogen energy systems

Client:

HydroGreenn (Jan Bekkering)
Partners (envisioned): EnTranCe, N-Tra, municipality Hoogeveen

Problem:

How should stochastic behaviour of supply and demand be modelled in hydrogen supply chain analysis?

Description of the assignment:

In the green hydrogen neighbourhood in Hoogeveen (village in the north of the Netherlands) hydrogen will replace natural gas for heating. The hydrogen is preferably produced from local PV and/or wind energy. Based on an existing MILP model, the robustness of hydrogen supply is to be analysed by implementing weather data of multiple years, and the degradation of batteries in the system. Monte Carlo techniques could well be part of the analysis. Alternatively, other optimisation models, e.g. ant colony optimisation, could be the topic of research.

Suitable for students of the course(s):

technical/physical/operations research, e.g. EUREC EMRE

Type of assignment:

Master thesis

Period:

What are we, and where do you find us?

The Living Lab EnTranCe is the place where students work together with teachers, researchers, the business community, governments and/or civil society organisations on complex issues. We do this at the following locations:

- Location Proeftuin, Zernikelaan 17
- Location Energy Academy Europe, Nijenborgh 6.

Assignment

Living Lab EnTranCe

What do we offer?

Interesting, topical and multidisciplinary research assignments in the field of energy transition.

Space for collaboration with lecturers, researchers, lecturers and the professional field.

Guidance within the innovation workshop by theme coordinators, project leaders or experts.

Are you interested?

Then please contact us:

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