Vak: Energy Transport, Distribution & Storage — credits: 5

Vakcode	RWVM23ETDS
Naam	Energy Transport, Distribution & Storage
Studiejaar	2026-2027
ECTS credits	5
Taal	Engels
Coördinator	C.E.J. van Someren
Werkvormen	Onderwijs
Toetsen	Assignment ETDS - Opdracht

Leeruitkomsten

Objective of the Module:

By completing the module the student demonstrates knowledge and understanding of:

1. Structure and characteristics of electricity and gas grids
2. The characteristics of storage and the role of storage in flexible energy systems with integrated renewable energy technologies while maintaining demand and supply matches
3. Developments in energy systems, focussing on power to gas/hydrogen

And is able to:

1. Calculate the consequences of renewable energy penetration on the quality of gas and electricity, capacity of and congestion in (existing) electricity and gas grids and storage capacities
2. Perform experiments in a chemical storage lab and analyse obtained data
3. Systematically report experimental setup, method, results and conclusions in a lab report

Inhoud

Content of the module:

In this module students will learn the basics of electricity and natural gas infrastructures, from production, transport, distribution, storage, to demand. They will learn to assess the possibilities of the integration of renewables in existing energy infrastructures: congestion problems, maintaining quality and reliability of supply. The basics of heat grids is also covered. As such, students will develop a systemic vision of energy systems.

Opgenomen in opleiding(en)

European Master in Renewable Energy

School(s)

Engineering, Life Sciences & ICT

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