



MULTIPLHY



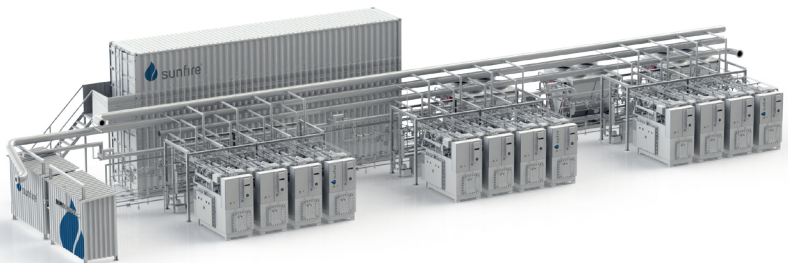
Multimegawatt high-temperature electrolyser to generate green hydrogen for production of high-quality biofuels

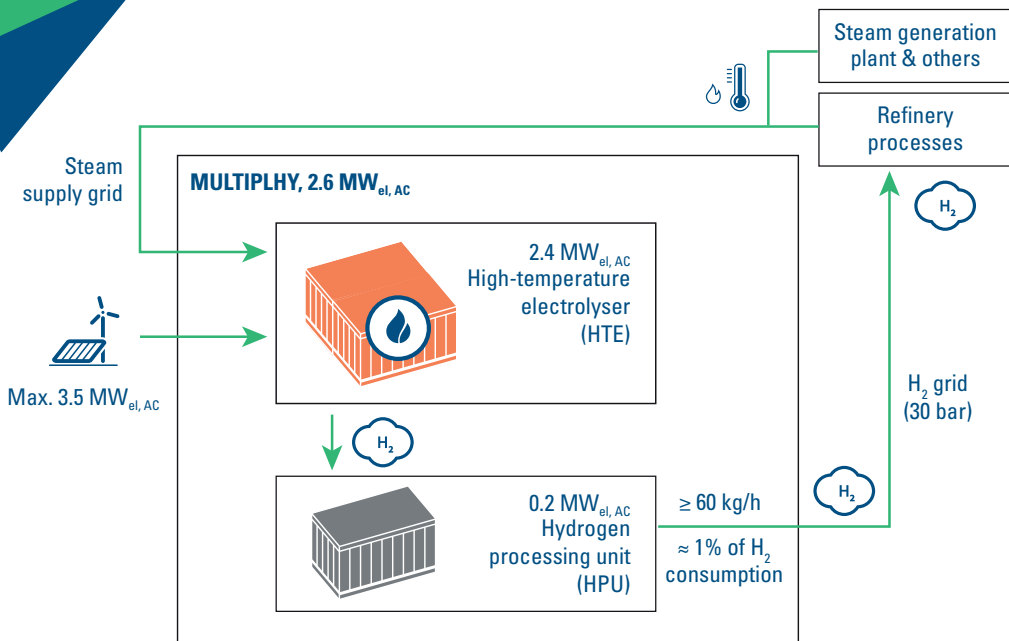


Objective

Install, integrate and operate the **world's first high-temperature electrolyser (HTE)** system in multi-megawatt-scale (~ 2.6 MW), at a renewable products refinery in Rotterdam (NL)

- ▲ Hydrogen production ≥ 60 kg/h
- ▲ **Hydrogen processing unit** to meet the quality and pressure criteria of the refinery process
- ▲ Operating period of **16000 h**, generating **960 tons green H₂**
- ▲ High electrical efficiency:
 - up to **85%**_{AC to LHV H₂}
 - ≤ 39 kWh_{el}/kg_{H₂} electricity demand










Methodology

- ▲ Scale-up of technology to multi-MW scale: modular approach
- ▲ Increase availability: improvement of robustness of auxiliary components
- ▲ Improve stack durability: lab test ≥ 25 000 h
- ▲ On-site demonstration in renewable products refinery

Consortium and role of partners

	Coordination, dissemination, stack testing	<i>France</i>
	Tech-eco analysis, renewable energy purchase, CertifHy effort	<i>France</i>
	End-user, demo site, site integration	<i>The Netherlands, Finland</i>
	HPU provider	<i>Luxembourg</i>
	Developer and provider of HTE	<i>Germany</i>

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