

Hydrohub HyChain 3 - Analysis of the current state and outlook of technologies for production

A set of environmental, social, economic, technological and political indicators for production, conversion, storage and transportation of hydrogen(-based) energy carriers from renewable energy



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Budget 130 k€

Duration 2018-2019

Objective

To deliver a repository of information on hydrogen supply chain technologies for both the HyChain program as well as other hydrogenrelated R&D in the Netherlands.

Motivation

The Netherlands is aiming for a substantial CO₂ reduction in the coming years. We intend to start using Hydrogen molecules for energy and feedstock as part of the solution set to reduce CO₂. To what extent should we make these molecules within the Netherlands and to what extent should we import them?

Project Scope

The participants will define a set of environmental, social, economic, technological and political indicators to assess the hydrogen supply chain technologies and prepare a template for fact sheets.

Alignment with HyChain 1 and 2 will be done to secure that a homogeneous dataset is built that is suitable to support decision making and answers also the needs of other projects. The collected data will be consolidated into a public report of technology fact sheets and a database that can be used to compare the options on the basis of a wide variety of criteria.

Applicability

How will the full hydrogen value chain to deliver the lowest cost, carbon-neutral hydrogen to Dutch industry develop in the near future, and what barriers stand in the way? To increase the understanding in solving this problem, the Institute for Sustainable Process Technology (ISPT) initiated the HyChain program under its System Integration program which addresses the larger H₂ supply chain issues. HyChain 3 focuses on collecting key information on technologies needed to build the renewable energy supply chains of the future. The data collected will be used for the HyChain projects and other ongoing hydrogen R&D activities.

