

INP Reference

H2-Energy Park Am Mittelkai, Stuttgart

LOCATION: Stuttgart, Germany

SERVICES: Commissioning, Project management, Site management, Documentation, As-built status and data recording, Pre-project planning and tendering, Basic-engineering and pre-engineering, Detail engineering, Installation supervision

INDUSTRY BRANCH/TYPE OF PLANT: Green Energy

CLIENT: Stadtwerke Stuttgart GmbH

Project description

As part of the „H2 GeNeSiS“ flagship project, the Stuttgart model region aims to build a hydrogen pipeline along the Neckar river as a basis for scaling up the hydrogen economy in the Stuttgart region. Both producers and users will connect themselves to the pipeline, thus developing a far-reaching distribution network.

As part of this flagship project, Stadtwerke Stuttgart GmbH is implementing a plant for the production, storage and feed-in of regeneratively produced hydrogen into a pipeline as well as parallel utilization by means of a trailer filling plant. The hydrogen produced is thus used both by local industry and the mobility sector. The plants are to be operated in line with the grid and thus contribute to the flexibility of grid operation.

The aim of the project is to build a process plant for the primary production of hydrogen that is cost-optimized over its entire life cycle. During planning, the focus is not only on construction costs, but also on high availability, high efficiency and low operating costs.

Containerized electrolysis systems with an output of 10 MW and 180 kg H₂/h will be used. The hydrogen obtained will have a quality of at least 4.0. The electrolyzers supply an H₂ pipeline and a loading storage for H₂ truck trailers. The heat released from the process will be used to heat a nearby property.

INP Services

- Planning and design of the required main components
 - Electrolyser
 - H₂ compressor
 - H₂ transfer station (pipeline)
 - H₂ LP-storage system
 - H₂ MP/HP-storage system
 - H₂ filling stations for truck loading
 - Battery storage
- Planning of the overall plant in the area of machine and plant technology, electrical and control technology, the associated

POINTS OF CONTACT



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construction measures and the relevant fire and explosion protection measures

- Planning and design of the connection to the electrical supply of the energy park
- Medium-voltage distribution board with integrated transformer stations
- Planning and design of the connection to the water and wastewater network
- Planning and design of the connection to a potential heating network
- Planning and design of the necessary construction measures, taking into account the available space, noise, flood and fire protection conditions
- Preparation of documents for submission to the authorities to clarify eligibility for approval
- Active support during the approval process, including obtaining and coordinating all necessary expert opinions
- Compilation of the framework conditions and creation of a service description and specifications for a functional, open-concept tender for all required components and trades