

# BILFINGER ENGINEERING'S COMMITMENT TO **EFFICIENCY** AND **SUSTAINABILITY**

## PERMITTING FOR THE LARGEST RENEWABLE HYDROGEN PLANT AT THE PORT OF ROTTERDAM, COMMISSIONED BY SHELL

### Project Scope

Bilfinger Engineering was commissioned by Shell to handle the environmental and building permits for the largest renewable hydrogen plant in the port of Rotterdam. The renewable hydrogen produced at this facility will be supplied to Shell Energy and Chemicals Park Rotterdam through the HyTransPort pipeline, effectively displacing a portion of grey hydrogen usage in the refinery.

This shift will substantially reduce carbon emissions associated with energy product manufacturing, including petrol, diesel, and aviation fuel. Additionally, as the market for heavy-duty hydrogen-powered trucks grows, Shell's renewable hydrogen supply can aid in decarbonizing commercial road transport.

### Services Provided:

- Permitting



**BILFINGER**



**Client:** Shell

**Location:** Rotterdam, the Netherlands

**Market:** Energy

**Key feature:** Largest renewable  
hydrogen plant in Europa

**Capacity:** 200MW Electrolyser

**Output:** 60,000 kg hydrogen per day

The journey to securing these permits began at the end of 2020. During the process, some design adjustments were necessary, prompting consultants from Bilfinger Engineering to collaborate closely with Shell and other stakeholders to address several permitting challenges (e.g. noise emissions). Fortunately, early identification of the issue allowed the team to find solutions that minimized design disruptions and both the environmental permit and building permit could be issued. The collaborative efforts between Bilfinger Engineering, Shell and the stakeholders were instrumental in overcoming complex challenges.

### Added value

Bilfinger Engineering emerged as the preferred choice for this project due to several key factors. The commitment of Bilfinger Engineering to communication with the client, coupled with dedication to delivering high-quality and timely results, sets the company apart. Furthermore, the problem-solving skills and agility of Bilfinger Engineering proved advantageous throughout the permitting process.



**“We are proud to have successfully completed the permitting for Shell and their new renewable hydrogen plant. This project fits our strategy to create a sustainable and future-proof industry and we are happy to support Shell in their ambition to help build a global hydrogen economy by developing opportunities in the production, storage, transport, and delivery of hydrogen to end customers.”**

- Monique Overbosch, Regional Director bij Bilfinger Engineering

### Sustainability and Efficiency

Bilfinger Engineering’s successful permitting of Shell’s largest renewable hydrogen plant in Rotterdam is a significant step towards the efficient production of sustainable alternative energy sources. By securing the required permits, Bilfinger Engineering has played an important role in enabling Shell to proceed with the planned construction of the hydrogen plant. The team’s dedication to effective communication, high-quality results, and problem solving has been instrumental in this achievement, fostering ongoing collaborations with Shell in various hydrogen-related projects. Solidifying Bilfinger Engineering’s commitment to a future-proof and sustainable industry.