



Executive Perspectives

A blog-post by Juergen Wollschlaeger, managing director at Raffinerie Heide GmbH

Green, Blue, and RED II: Germany's New Hydrogen Era

The COP26 climate negotiations have now drawn to a close, and as global governments re-examine their climate priorities, Raffinerie Heide CEO Juergen Wollschlaeger reflects on progress made, and the actions needed to translate promises to reality.

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Amidst the media frenzy and lofty goals, COP26 came to a wearied end last month, following two weeks of hard-fought negotiations. In the end, the final text remained a compromise, with last-minute interventions meaning the outcomes fell short of the ambitious pact the presidency hoped it would be.

However, as we move forward from the conference, we must ask ourselves where it is that progress is truly made: is it in conferences, like COP26, or in the boardroom as companies deliberate the many opportunities for them to deliver on climate action?

As a nascent sector, hydrogen requires both; both funding to bolster the industry, and legislation to achieve its potential. When combined, these can enable us to build the hydrogen capacity we desperately need, to decarbonise our hardest-to-abate sectors, and enable industry to relinquish its fossil fuel dependence.

In Germany, amidst a close-fought national election, the government launched its bold ambitions to become a European leader on climate action, championing green hydrogen as a key tool in mitigating national emissions, and recognising that green hydrogen must become a pillar of the nation's new energy system. The previous German government introduced the National Hydrogen Strategy, predicting demand for hydrogen to soar to over 90 TWh by 2030, requiring electrolyzers with a total capacity of over 5 GW to accommodate this load.

Germany's incoming administration has now announced its Coalition Agreement, setting out an even more ambitious plan to accelerate sustainability, innovation and industrial transformation – with hydrogen at the helm yet again. Under the agreement, the Government plans to update the National Hydrogen Strategy in 2022, increase electrolysis capacity to 10 GW by 2030 and rapidly implement IPCEI hydrogen projects to ensure the development of a hydrogen economy.

Despite this vision, however, Germany's strategy is not yet enough to ensure green hydrogen's success, with legislation still limited by that implemented at an EU scale. How then can the German government implement the legislation required to grant hydrogen the space to expand, whilst companies provide the funds to ensure its success?

What's needed to drive forward progress?

Beginning in 2022, green hydrogen will remain exempt from Germany's domestic EEG levy, comprising almost a third of the national electricity price. This enables hydrogen to be cost-competitive, supporting German green hydrogen producers. And to catalyse green hydrogen development even further, under the new Coalition Agreement the EEG levy will be removed altogether from 2023. However, the EU recently implemented reforms to its RED II directive – legislation set to help the Union meet its emission reduction target and binding renewable energy target of at least 32% by 2030. These reforms seek to determine a definition of green hydrogen, with the implications for its development still uncertain.

However, there are positives within this, including the removal of Guarantees of Origin subsidy rules, the target for 50% of hydrogen within the sector to be renewable by 2030, and a definition for renewable fuels of non-biological origin (RFONBO).

But unless followed by swift action, Germany's commitment to hydrogen remains only a preliminary step forward in its development, as opposed to a strong foundation for the sector's future investment and security.

The negotiations surrounding the package of reforms – known as the "Fit for 55" package – will continue into 2022, with the law still in only the first reading stage of the EU parliament. However, the ongoing energy crisis and internal and political conflicts threaten to derail the agenda and delay the legislation's passage, leaving still a long way to go.

Industry stands ready for action

The long processes and dependency of the hydrogen market upon the EEG levy removal are becoming barriers for hydrogen to play a pivotal role in the low-carbon energy transition. At Raffinerie Heide, we see green hydrogen as the building block for green derivatives, enabling products such as synthetic kerosene, synthetic chemicals and methanol – all solutions we are currently exploring –

which can be gamechangers, not only for the energy sector, but across wider industry. We are ready to deliver hydrogen's potential, but we need governments to lead the charge through supportive investment frameworks.

Concluding thoughts

Looking ahead, the new German government should deliver on its promises and act swiftly and decisively to improve the investment environment and incentive structure for green hydrogen in Germany. The roadmap for EEG levy removal is a positive first step, but a tangible, high impact policy is still needed to drive change towards a greener economy. More broadly, the government must set incentives for long-term investment decisions – this will not only establish Germany and Europe as leaders in green hydrogen, but also achieve 2030 climate targets and maintain momentum post-COP26.

About Raffinerie Heide

Raffinerie Heide GmbH placed in Dithmarschen, Schleswig-Holstein, is Germany's northernmost crude oil refinery.. The company has an annual processing capacity of 4.5 million tonnes of crude oil, equal to the oil demands of the entire state of Schleswig-Holstein. The refinery with a medium-sized ethos, which was founded in 2010, produces traditional petroleum products such as petrol, diesel and aviation fuel. It also produces light heating oil and base materials for the chemicals industry. Raffinerie Heide, which is one of the most complex refineries in Europe, is among the best in the continent in terms of utilisation and availability thanks to its strict standards of care in relation to maintenance.

The company which is based in Hemmingstedt and Brunsbüttel is energising itself for a new, greener future. Raffinerie Heide aims to play an active contribution in the German energy revolution. For this purpose, the company is focusing on the use of alternative resources and renewable energies in this. Together with other partners Raffinerie Heide works on the use of renewable electricity and on the production of 'green' hydrogen through electrolysis. Read more about the refinery in a future tense under: www.future-heiderefinery.com/en/