

Interim assessment of the Clean Industrial Deal with a view to the hydrogen ramp-up

1. INTRODUCTION

The successful ramp-up of the German hydrogen economy is closely linked to the European level. Many key decisions – from the design of the regulatory framework and infrastructure planning to financing and market development – can only be effective in the EU context. Germany relies on a well-functioning European internal market for hydrogen in order to scale up imports, transport and use in an economically viable manner. At the same time, European initiatives such as the Hydrogen Bank, IPCEI funding and cross-border infrastructure projects support the development of reliable supply chains.

On 26 February 2025, the European Commission presented the Clean Industrial Deal with the aim of combining climate protection and industrial competitiveness and embedding them in an overarching growth strategy. The National Hydrogen Council (NWR) had already called in a statement in advance for the Clean Industrial Deal to also focus on strengthening the framework conditions for the ramp-up of the hydrogen economy in order to quickly create better investment conditions and planning certainty and thus the prerequisites on the way to affordable hydrogen for climate-neutral basic material production. In addition, the Hydrogen Councils of Germany, Belgium and the Netherlands had formulated corresponding requirements for the Clean Industrial Deal in a joint declaration.

Now, one year after the presentation of the Clean Industrial Deal, an interim assessment is to be made – with a particular focus on the next necessary steps that are now required at European level.

The ramp-up of the hydrogen economy continues to face major challenges. To date, there has been a lack of clear regulatory incentives in favour of the necessary demand for hydrogen, such as the creation of lead markets for low-carbon products and dedicated industrial policy support measures. In addition, the ramp-up is being held back by a regulatory framework that is too complex, the high production costs – in conjunction with the high electricity procurement costs in Germany – and the associated low demand for hydrogen. This in turn leads to caution on the part of investors when investing in production facilities, networks and application technologies.

2. HYDROGEN IN THE CLEAN INDUSTRIAL DEAL

In the Clean Industrial Deal, the EU Commission announced a series of measures to promote the use of renewable and low-CO₂ hydrogen (Section 3.2). These include:

- ◆ the adoption of a delegated act for low-carbon hydrogen,
- ◆ a study to identify barriers to the expansion of the use of renewable hydrogen in preparation for the revision of the legislation on renewable fuels of non-biogenic origin, and
- ◆ an additional tendering round of the European Hydrogen Bank including the Hydrogen Mechanism.

The legislative act to accelerate the decarbonisation of industry and initiatives to establish lead markets for low-emission raw materials, such as steel, by revising the directives on public procurement and the legislative proposal on green company fleets are also included in the toolbox.

In the view of the National Hydrogen Council, these are important steps in the right direction; however, they are not complete and in some cases not decisive and fast enough to provide the necessary impetus.

3. PRAGMATIC REGULATION

In the ramp-up phase, flexibility in the production routes for hydrogen and pragmatism in regulation are essential for a broader supply at lower costs.

It is critical that the particularly important timely revision of the **legal act on renewable fuels of non-biogenic origin** is still not in sight. This is because there are still considerable hurdles in the ramp-up process, particularly with regard to the definition of green hydrogen. The strict requirements, particularly with regard to temporal correlation and additionality, lead to increased production costs and inhibit investment, which in turn leads to a shortage of volumes and thus to further cost increases. A significant reduction in costs and an increase in the supply of renewable hydrogen can therefore be achieved by dispensing with the additionality criterion and with an hourly correlation or at least an extension of the transitional provisions (e.g., use of existing renewable electricity generation plants, temporal correlation) of the legal act until 2035. In addition to the potential cost reduction, maintaining the monthly correlation would also maintain the flexible optimisation of the electrolyzers' electricity use. In addition to making the electricity grid more flexible, this leads to a reduction in GHG emissions in hydrogen production, as electrolysis operators can shift their production to hours with a high proportion of renewable energy. These adjustments to the electricity procurement criteria should already be implemented by 2026 and not – as planned – initially undergo a review until 2028.

The long-term goal remains the use of up to 100% renewable hydrogen. However, if the hydrogen market ramp-up is delayed despite all efforts, the use of low-carbon hydrogen, both produced from natural gas with CCS and via electrolysis with low-carbon grid electricity¹, should be recognised as a pragmatic interim step. Opening up to low-carbon hydrogen from electrolysis is appropriate, as it will in any case become renewable hydrogen over time as the share of renewable energy in the electricity mix continues to increase, and in the meantime enhances both the economic and physical availability of H₂. For **such low-carbon hydrogen**, clarity has been provided insofar as the delegated act defining what constitutes low-carbon hydrogen has been implemented with its entry into force on 11 December 2025.

¹ See also NWR statement "[System friendly electrolysis](#)" (2024).

The simplification of the calculation methods in particular represents an important step for project planning. At the same time, the National Hydrogen Council recommends working on further optimising the regulation. As a result, high default values continue to be used instead of allowing project-specific and often more precise calculation methods. When defining transitional periods, particularly with regard to low-carbon hydrogen, economically acceptable utilisation periods for the corresponding plants must be guaranteed.

For hydrogen applications that require a technology change, the transitional use of natural gas can also represent a pragmatic interim step so that investments in technology change can be stimulated at an early stage.

Pragmatism is also required when implementing the ambitious **RED III industry sub-quota**. The Council is in favour of implementing the quota with the greatest possible flexibility and definitely ruling out implementation at company level. In addition, the quota needs to be adjusted at European level – for example by lowering the quota target to a realistic level and taking low-carbon hydrogen into account in the quota system. The National Hydrogen Council had called for a target of 30% in its paper on the industry sub-quota.

4. TIMELY DEVELOPMENT AND SAFEGUARDING OF THE H₂ INFRASTRUCTURE

For the hydrogen ramp-up, it is essential to develop and expand the infrastructure in line with demand and thus solve a central "chicken and egg problem". In addition to the H₂ core network and the European Hydrogen Backbone, this also includes import terminals, ammonia crackers and hydrogen storage facilities, particularly with third-party access. A rapid expansion of the European network infrastructure for hydrogen is necessary to connect production sites with favourable conditions for hydrogen production as well as large industrial centres and main customers across EU borders and to ensure a competitive supply. This is the only way to ensure reliable supply chains and sufficient quantities of hydrogen, especially for industries that cannot use hydrogen derivatives. Suitable financing models are also required for the construction of new infrastructures and the conversion of existing ones. The German amortisation account is an example of this: It spreads the costs for grid operation over time and thus prevents excessive usage fees in the initial phase.

At the same time, the reorganisation of the infrastructure must also take place in an orderly manner. Companies that rely on gas for their processes must be able to use it affordably until sufficient hydrogen is available at economically viable prices.

5. INSTRUMENTS TO REDUCE THE COST GAP

Instruments are needed to reduce the cost gap in the initial phases of market ramp-up. **Double-sided auctioning models**, such as those implemented by H2Global, are a key instrument for creating a hydrogen supply at competitive prices for industrial customers. In addition, midstream companies should be enabled to contribute their expertise in portfolio formation, demand bundling, maturity transformation and risk management for the procurement, transport and supply of end consumers. This is of central importance in order to build long-term and sustainable structures and supply contracts that enable initial supply chains and the development of a stable hydrogen market. Intermediaries must be enabled as quickly as possible to aggregate supply and hedge against default risks.

An important step has been taken with the European Hydrogen Bank's new funding round for **contracts for difference**, which will support volumes totalling almost one billion euros. The successful utilisation of the European Hydrogen Bank and H2Global requires the possibility of industry- and sector-specific tenders on the consumer side as well as the expansion of the cross-border network infrastructure. Initial proposals from scientific institutes have now been submitted for the planned import pillar – which is partly modelled on the German H2Global. An early implementation of the instrument and better combinability with other funding programmes would be welcome.

Many projects are currently not progressing due to a lack of planning certainty. The European and German funding landscape for hydrogen is generally too fragmented and small-scale. It would make sense to further develop and strengthen funding instruments such as the European Hydrogen Bank: The EHB was conceived at European level as a support programme for H₂ producers to bridge the differential costs. However, problems have arisen in the current organisation of the auction rounds, as can be seen from several cancellations of funded projects. For this reason, providers must be required to make more of a commitment to project realisation in future auction rounds. To reflect differing payment capacities across varying CO₂ reduction potentials, additional sector-specific auction rounds should be introduced, similar to the dedicated funding envelope for maritime off-takers.

Government guarantees are also needed to enable long-term hydrogen supply contracts for the industry. Many buyers of hydrogen are reluctant to enter into long-term supply commitments for reasons of (credit and balance sheet) risk, which in turn makes investments in production capacities more difficult. This is why the steel industry in particular now needs targeted hedging instruments, such as guarantee credits, which are secured via the existing federal government's large guarantee programme. In the future, it is also conceivable that commercial credit insurance – e.g., through federal guarantees – could be secured. This could reduce risk premiums and avoid negative effects on companies' credit ratings.

While corresponding instruments are included in the EU directive on electricity market design, they are missing in the hydrogen sector and should be added to the catalogue of measures of the Clean Industrial Deal.

6. COMPETITIVE ELECTRICITY PRICES

Finally, internationally competitive electricity prices are a key prerequisite for the hydrogen ramp-up on the user side. Compared to other countries such as the USA or China, the cost of electricity is far too high, which has a negative impact on companies' overall competitiveness and planning prospects and represents a massive obstacle to investment in hydrogen-based technologies that go hand in hand with the electrification of production processes. Solutions for the rapid expansion of renewable energies, European grid connections and competitive electricity prices for industry should therefore be a clear focus of a Clean Industrial Deal. The measures announced and implemented to date are not yet sufficient.

A key instrument for energy-intensive basic industries undergoing transformation is the continuation of electricity price compensation (compensation for indirect CO₂ costs under the EU ETS 1) beyond 2030. Cuts in the area of electricity consumption benchmarks must be avoided. Reliable and long-term electricity price compensation also plays a very important role in reducing the production costs for renewable hydrogen.

With the CISAF, the EU Commission has also opened up the aid framework for an industrial electricity price for the first time, although this is not sufficient to provide any significant relief. The EU Commission must further develop the – already temporary – state aid framework for the industrial electricity price in the short term and remove restrictive requirements. In particular, the industrial electricity price should be granted for total electricity consumption and should be fully combinable with compensation for indirect CO₂ costs.

7. DEVELOPMENT OF LEAD MARKETS FOR LOW-EMISSION RAW MATERIALS

The NWR emphasises that investments in climate-friendly and hydrogen-based production processes must also be flanked on the demand side. At the start of their market launch, low-emission products are generally more expensive and therefore not competitive with conventional alternatives. The NWR therefore expressly welcomes the fact that the Clean Industrial Deal for accelerated decarbonisation also provides for the promotion of lead markets for clean products and technologies. After all, Building a business case for decarbonised products also requires concrete measures on the demand side. The aim is to create reliable initial demand, temporarily support the market ramp-up of low-emission raw materials and change procurement preferences so that they can compete with conventionally manufactured products on their own and develop their competitiveness independently.

The NWR had also called for concrete guidelines for public procurement and public procurement law to be presented as part of the Clean Industrial Deal. These should create the basis for using basic materials from the EU and, in particular, low-emission basic materials from the EU, for example in public contracts and auctions or when using funding instruments that are triggered directly via the public levels (local authorities, federal states, federal government). In any case, a distortion of competition between privately and publicly owned energy supply companies must be ruled out. In addition to the public sector as a major customer, strong incentives can also be provided, for example through the planned crediting of low-emission base materials to reduce fleet emissions. In addition, criteria should be developed to ensure that procurement with a stronger focus on sustainability simultaneously increases resilience and supports the transformation of European industry towards climate neutrality, e.g., through WTO-compatible EU preferential arrangements. Lead market development should focus in particular on sectors with low price increases for end consumers and high demand for low-emission raw materials.

8. INTRODUCTION OF A SUSTAINABILITY LABEL AND PROTECTION OF EUROPEAN INDUSTRY

As part of the Clean Industrial Deal, an Industrial Accelerator Act (IAA) is also to be adopted in order to shape lead markets at EU level and accelerate approval procedures for industrial projects. The proposal for the IAA was published on 4 March 2026. The planned introduction of a voluntary EU label – for steel and cement, among others – is an important step towards making emission reductions measurable. With the Low Emission Steel Standard (LESS), there is already an established labelling system for the steel industry that can be adopted by the EU Commission and, in addition to the transformation progress, also provides information on the scrap content and the emission intensity of the steel product. An EU label should serve as a facilitating framework that reinforces the industry's transformation efforts and is in line with existing EU legislation on product regulation and construction products. Only then can the label provide the legal certainty and market recognition needed to drive investment and change across the steel sector. Combined with measures to protect the companies decarbonising in Europe, lead markets can be created in this way.



THE GERMAN NATIONAL HYDROGEN COUNCIL

On 10 June 2020, the German Federal Government adopted the National Hydrogen Strategy and appointed the German National Hydrogen Council. The Council consists of 22 high-ranking experts in the fields of economy, science and civil society. These experts are not part of public administration. The members of the National Hydrogen Council are experts in the fields of production, research and innovation, industrial decarbonisation, transportation and buildings/heating, infrastructure, international partnerships as well as climate and sustainability. The National Hydrogen Council is chaired by former Parliamentary State Secretary Felix Chr. Matthes.

The task of the National Hydrogen Council is to advise and support the State Secretary's Committee for Hydrogen with proposals and recommendations for action in the implementation and further development of Germany's National Hydrogen Strategy.

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