Full speed ahead for hydrogen: The revised German National Hydrogen Strategy

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The German government considers green hydrogen to be a vital alternative to fossil fuels and thus a key element in the energy transition and climate protection. Consequently, it presented a National Hydrogen Strategy in 2020, which provided for a framework for the future production, transport, and usage of hydrogen and thus for corresponding innovations and investments. Last week, the Federal Government presented an updated strategy which is adapted to the latest developments and sets forth targets for 2030. The National Hydrogen Strategy 2.0. offers numerous additional opportunities for companies active in the hydrogen sector.

The National Hydrogen Strategy 2020

The initial National Hydrogen Strategy 2020 aimed to establish climate-friendly hydrogen, create the regulatory conditions for a market extension for hydrogen technologies and reduce the cost of implementing hydrogen technologies through a global market action plan. Furthermore, the goal was to support companies in Germany and enhance their competitiveness by promoting research and development and exporting innovative hydrogen technologies as well as ensuring the future national hydrogen supply from renewable energies and its downstream products. By doing so, the Federal Government wanted to protect the climate, achieve security of supply and make Germany a global pioneer for hydrogen.

The National Hydrogen Strategy 2.0

While the updated strategy generally adheres to the same targets, the goal of safeguarding energy supply assumed greater significance in light of the Russian war against Ukraine. The National Hydrogen Strategy 2.0 aims to:

1. accelerate the hydrogen market extension,
2. ensure sufficient availability of hydrogen and its derivatives,
3. establish an efficient hydrogen infrastructure,
4. establish hydrogen applications in the fields of industry, transport, electricity, and heat,

5. make Germany the leading provider of hydrogen technologies by 2030, and

6. create suitable framework conditions, in particular through efficient planning and approval procedures, uniform standards and certification systems, as well as adequately equipped and coordinated administration at all levels.

A chance for pioneers: new tenders in the hydrogen sector

In the updated strategy, the Federal Government envisages the continuation of current tenders as well as launching further tenders.

In order to ensure the availability of hydrogen, the production of hydrogen and hydrogen derivatives in Germany is to be expanded and the remaining demand to be met by imports. Almost a third of the expansion target of 10 gigawatts by 2030 is to be achieved through tenders for system-serving electrolysers. At the same time, the import of hydrogen from non-European countries will be continued to be organised via the *H2Global* trade platform. The first tenders under this initiative started in the beginning of 2023 (see our previous briefing), further tenders will follow.

To strengthen the establishment of hydrogen applications in the electricity sector, the construction of hydrogen and ammonia power plants with a capacity of 4.4 gigawatts and local hydrogen hybrid power plants with a capacity of further 4.4 gigawatts will be supported by tenders taking place from 2023 to 2028.

Additional opportunities for state support

The National Hydrogen Strategy 2.0 includes the continuation of existing and the introduction of new State aid programs.

In order to ensure the availability of hydrogen, 10% of the expansion target (10 gigawatts by 2030) is to be achieved by subsidising offshore-electrolysis. Furthermore, the budget for the first hydrogen projects within the framework of the funding program *Important Projects of common European Interest* (*IPCEI*) in the hydrogen sector is increased. Additionally, under the IPCEI, State aid approval to issue funding notices for electrolysis projects with a total installed capacity of approximately 2.5 gigawatts is expected to be issued this year. The Federal Government estimates that increased state subsidies for imports of hydrogen will be necessary as well, for example under the *H2Global* program.

Additionally, the Federal Government supports the establishment of hydrogen applications in the industry by numerous measures. Beside funding under the IPCEI, the Federal Government has recently introduced the multi-billion program '*Klimaschutzverträge*' (climate protection contracts) which compensates companies for additional costs through environmentally friendly production (see our previous briefing for further details). With regard to the transport sector, the Federal Government wants to support the planned revision of the EU Alternative Fuels Infrastructure Regulation (AFIR) by funding

projects for hydrogen refueling infrastructure. In addition, in the end of 2023, a national module under the *H2Global* mechanism for the promotion of industrial 'power-to-liquid' kerosene production will be launched.

Outlook

The National Hydrogen Strategy 2.0 promises a multitude of possibilities for pioneering companies in the hydrogen sector. New tenders and state support will be issued, while other programmes will be continued. To benefit from these additional opportunities, companies will have to meet sustainability criteria, including biodiversity, water and land use, and human rights in supply chains.

BLOMSTEIN will continue to monitor the National Hydrogen Strategy and its implications for companies active in the hydrogen sector. If you have any questions concerning the strategy and related programs, do not hesitate to contact Roland M Stein, Leonard von Rummel or Ramona Ader.