

International Partnership for Hydrogen and Fuel Cells in the Economy

## **Germany Update**

39<sup>th</sup> IPHE Steering Committee Meeting 26 – 27 April 2023 Pretoria, South Africa





### Investments/Funding/Policies/Initiatives

- Federal government is currently working on **revising the hydrogen strategy** in order to anchor the targets from the coalition agreement (e.g., increasing the electrolyser capacity to 10 gigawatts by 2030).
- In December 2022, the Federal Ministry of Economics and Climate Protection (BMWK) started the tendering process for the import of green hydrogen derivatives under the <u>H2Global mechanism</u>.
- In February 2023, the <u>European Commission assessed and approved</u> a €55 million (approx. USD 60,05 million) direct funding for a green hydrogen project of steel company ArcelorMittal Hamburg GmbH by the federal government under EU state aid rules.
- In February 2023, NOW GmbH, on behalf of the BMDV, started a <u>funding call for electrolysis plants</u> for the production of hydrogen for the transport sector.



## **Announcements / New Initiatives Germany**

#### New Research & Development, Demonstration and/or Deployment Activities

 In December 2022, the <u>roll-out of series production of fuel cell trucks</u> in Germany started. The "XCIENT Fuel Cell" from manufacturer Hyundai represents the start for the HyLane fleet, which will initially consist of 44 trucks.



 The deadline for the <u>application in the HyLand competition</u>, category HyPerformers II, ended in late January 2023. 13 projects applied, a total of €45 million (approx. USD 49,1 million) is available from the market activation guideline of the NIP II. The winners of HyPerformer II are expected to be announced in late April 2023.







#### **Key Collaborations**

The German chapter of Dutch transmission system operator Gasunie is entering the implementation phase of the **hydrogen project** "<u>HyPerLink</u>". Between Bremen and Hamburg, the company is starting to convert the first 54-kilometer-long natural gas pipeline section for **transporting hydrogen**. The grid operator is making advance payments of around €10 million (approx. USD 10,95 million). In total, the pipeline will reach a length of around 660 kilometers and connect the Netherlands with Germany and Denmark.





## Numbers of Deployment and Infrastructure – Germany

| Transportation                 | Target Number | Current Status                              | Partnerships, Strategic<br>Approach  | Support Mechanism  |
|--------------------------------|---------------|---|--|--|
| FC passenger vehicles (M1)     | -             | 2,218 (April 2023)                          |  | Subsidy for purchase for fleets<br>(NIP II 3rd Call) incl. construction<br>of refueling infrastructure.  |
| FC busses (M1-M3)              | -             | 104 (April 2023)                            | Joint procurement in Europe,<br>funded by JIVE, FCH-JU and<br>NIP I and II | Subsidy for purchase (NIP II call 2018) incl.<br>construction/installation of refueling infrastructure.<br>New funding guideline for procurement of vehicles<br>and infrastructure since 2021 in place. Duration<br>2021-2025. Two calls already happened. |
| FC commercial vehicles (N1-N3) | -             | 43 (April 2023)                             |  | R&D activities of NIP. New funding<br>guideline for procurement of vehicles and<br>infrastructure since 2021 in place Duration: 2021-<br>2026. Two calls already happened.   |
| Forklifts                      | -             | 201 (April 2023) plus 189 in implementation | Industry Network Clean<br>Intralogistics Net (CIN)                         | NIP market activation, additional procurement call.  |





## Numbers of Deployment and Infrastructure – Germany

| H <sub>2</sub> Refueling<br>Stations           | Target Number   | Current Status  | Partnerships, Strategic<br>Approach       | Support Mechanism  |
|--|---|---|---|--|
| 70 MPa<br>Delivered                            | 100 by 2020 (basic<br>network)                                  | 89 in operation + 4 in optimization mode<br>(refueling already possible, but not yet<br>officially opened), plus 15 in planning or under<br>construction (Feb 2023) | H2 Mobility, others                       | Subsidy for construction/ installation for publicly accessible stations for road transport.  |
| 35 MPa<br>Delivered                            | 400 by 2025; 1000 by<br>2030 (depending on<br>vehicle roll out) | 15 in operation + 3 in optimization mode, 19 in planning or under construction (Feb 2023)   | H2 Mobility, others                       | Subsidy for construction/ installation for publicly accessible stations for road transport.  |
| Stationary                                     | Target Number <sup>16</sup>                                     | Current Status  | Partnerships, Strategic<br>Approach       | Support Mechanism  |
| Small  | No target   | 21,607 units approved for funding (2016 through December 2022)  |   | KfW programme 433 of the BMWK, a combination<br>of fix rate and capacity-related subsidies. The KfW<br>433 was transferred to the " <u>New Federal Support</u><br><u>for Efficient Buildings (BEG)</u> ". More units will be<br>added in the future. |
| Telecom backup                                 | No target   | 950 (April 2023) plus 508 in implementation   | Industry Network Clean<br>Power Net (CPN) | Subsidy for procurement (NIP II call).   |
| H <sub>2</sub> Production                      | Target <sup>17</sup>  | Current Status  | Partnerships, Strategic<br>Approach       | Support Mechanism  |
| Water Electrolysis<br>(PEM, Alkaline,<br>SOEC) | 10 GW by 2030.<br>(pledged by new<br>government)                | 78 MWel plus >3 GWel planned or proposed as part of IPCEI   |   | Various support schemes.   |



# Thank you



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