INTERNATIONAL PARTNERSHIP FOR
HYDROGEN AND FUEL CELLS IN THE ECONOMY

IPHE Country Update April 2016: Netherlands

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Covered Period	Period till April 2016

1. New Policy Initiatives on Hydrogen and Fuel Cell

Upcoming: Signing of the Green Deal Hydrogen and the constitution of the National Hydrogen Platform (NWP):

This national platform for public-private cooperation fosters the role of hydrogen in the future economy by: combining and strengthening of individual initiatives; identification barriers, and prioritizing actions; and, coordination of actions and new initiatives. The Platform is organized in four task forces:

(1) Sustainable hydrogen economy and safety;
(2) Infrastructure for mobility;
(3) Buses; and,
(4) Vans, trucks and specials.

(see http://www.nationaalwaterstofplatform.nl).

In addition to the participation of the Ministry of Infrastructure and the Environment, the platform involves active participation of key industrial partners (automotive industry, gas producing companies, chemical industry, refineries, seaports etc.).

2. Hydrogen and Fuel Cell R&D Update

Safety aspects are an important issue in licensing procedures for new hydrogen refuelling infrastructure. In order to facilitate the licensing procedures, do's and don'ts regarding installations for delivery of hydrogen have been developed and published, following a joint project by the government and industry. This safety publication fits in the national "Series on Dangerous Substances". April 2015: Hydrogen: Installations for delivery of hydrogen to road vehicles.
See: http://www.publicatiereeksgevaarlijkestoffen.nl/publicaties/PGS35.html

3. Demonstration and Deployments Update

N/A

4. Events and Solicitations

N/A

5. Investments: Government and Collaborative Hydrogen and Fuel Cell Funding

N/A

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Summary Country Update April 2016: Netherlands

Transportation	Target Number	Current Status	Partnerships, Strategic Approach	Policy Support
Fuel Cell Vehicles[1]	2.000 by 2020	22 (April 2016)		• Subsidy/No tax for purchase Fuel Cell Cars (national government)
FC Bus	100 by 2020	12 (scheduled)		• Subsidy for purchase, target group: PTA
Fuel Cell Trucks[2]	500 vans and 20 trucks by 2020	2		
Forklifts	No target			• No support policy
H_2 Refueling Stations	**Target Number**	**Current Status**	**Partnerships, Strategic Approach**	**Policy Support**
70 MPa On-Site Production	20 by 2020	1 (April 2016)		
70 MPa Delivered		1		
35 MPa On-Site Production	20 by 2020	1		
35 MPa Delivered		1		
Stationary	**Target Number[3]**	**Current Status**	**Partnerships, Strategic Approach**	**Policy Support**

[1] Includes Fuel Cell Electric Vehicles with Range Extenders
[2] As above

Small[4]	No target			
Medium[5]	No target			
Large[6]	No target			
District Grid[7]	No target			
Regional Grid[8]	No target			
Telecom backup	No target			
H_2 Production	**Target[9]**	**Current Status**	**Partnerships, Strategic Approach**	**Policy Support**
Fossil Fuels[10]	As soon as possible climate neutral (no CO_2-emission well to wheel)			Green Deal H_2
Water Electrolysis[11] (PEM, Alkaline,	No target			

[3] Targets can be units installed and/or total installed capacity in the size range indicated
[4] <5 kW (e.g., Residential Use)
[5] 5kW – 400 kW (e.g., Distributed Residential Use)
[6] 0.3MW – 10 MW (e.g., Industrial Use)
[7] 1MW – 30 MW (e.g., Grid Stability, Ancillary Services)
[8] 30MW plus (e.g., Grid Storage and Systems Management)
[9] Target can be by quantity (Nm^3, kg, t) and by percentage of total production; also, reference to efficiency capabilities can be a target
[10] Hydrogen produced by reforming processes
[11] Please indicate if targets relate to a specific technology (PEM, Alkiline, SOEC)

SOEC)				
By-product H_2	No target			
Energy Storage from Renewables	**Target[12]**	**Current Status**	**Partnership, Strategic Approach**	**Policy Support**
Power to Power[13] Capacity	No target			
Power to Gas[14] Capacity	No target			

[12] Can be expressed in MW of Installed Capacity to use the electricity from renewable energy generation, and Annual MWh of stored energy capacity
[13] Operator has an obligation to return the electricity stored through the use of hydrogen back to electricity
[14] Operator has the opportunity to provide the stored energy in the form of hydrogen back to the energy system through multiple channels (e.g., merchant product, enriched natural gas, synthetic methane for transportation, heating, electricity)