

SUMMARY COUNT OF GLOBAL H2 REFUELING STATIONS (HRS) CIRCA YEAR END 2014

WORLDWIDE	EARLY MARKET	DEMONSTRATIONS	CAPTIVE FLEETS	PRIVATE LAB/ COMPANY	OTHER	TOTAL BY STATUS
TOTAL OPEN	64	26	35	81	6	212
TOTAL PLANNED	335	2	8	14	3	362
TOTAL PROJECTED	975	0	0	0	0	525
TOTAL DECOMMISSIONED	13	35	20	41	2	111

DEFINITION OF TERMS RELATED TO STATUS AND TYPE OF HYDROGEN FUELING STATIONS

TERM	DEFINITION
OPEN	As of data set's publication, the station is open and operational.
PLANNED	A location and/or funding has been decided for the station. (South Korea has planned stations for 2020, but most other planned stations are due for construction within the next 3 years.)
PROJECTED	An agency has estimated the expected number of stations by a certain year.
DECOMMISSIONED	The station is no longer operational and there are no plans to reopen.

TYPE OF STATION	DESCRIPTION
EARLY MARKET STATION	Stations are or will be open to the public for refueling of personal vehicles; in addition, may be used as demos.
DEMONSTRATION STATION	Stations may or may not be open to the public for refueling, but are open to the public for observation. Part of projects that have a definite end date scheduled.
CAPTIVE FLEET STATION	Site is used for busses or fleets.
PRIVATE RESEARCH LAB AND/OR COMPANY SITE	Private sites that are used for research and development. Can include Universities, national government agencies and private companies, and cooperation between those entities.
OTHER (COMBINED OR UNCLEAR)	Not enough information available about the site, or a combined use of above station types (i.e. demo and captive fleet).

ABBREVIATION	SOURCES
LBST	LBST, 2015 (but likely not completely up-to-date, as this info is their product): http://www.netinform.net/H2/H2Stations/H2Stations.aspx?Continent=EU&StationID=-1
FC2000	Fuel Cells 2000 (FC2000) World, 2013: http://www.fuelcells.org/images/h2fuelingstations-world.pdf Fuel Cells 2000 (FC2000) U.S., 2013: http://www.fuelcells.org/uploads/h2fuelingstations-US4.pdf Decommissioned sites may not have current data information listed.
NREL	Excel Files, Reporting current and planned ONLY, no decommissioned
CaFCP	California Fuel Cell Partnership (CAFCP): http://cafc.org/stationmap
NEDO	New Energy and Industrial Technology Development Organization Slides (12 June 2014)
NOW	Nationale Organisation Wasserstoff-und Brennstoffzellentechnologie Slides (12 June 2014)
KHIA	Korean Hydrogen Industry Association Slides (.ppt presentation given to IEA HIA)
EOT 2009-2015	End of Term Report 2009-2015 (submitted by country directly to IEA HIA)
HN	HyNor (HN): http://hynor.no/en/stations
FCW	Fuel Cell Works (FCW), April 2014: http://fuelcellworks.com/news/2014/08/25/costa-rica-to-open-service-station-for-hydrogen-vehicles-by-end-2015/

The information contained in the Summary Count and individual country counts of HRS in the following pages are taken from sources listed in the Source table unless asterisked. Asterisks (*) indicate that individual countries clarified data obtained from other sources.

N.B. - a "-" entry indicates a "0" value.



LEADING COUNTRIES IN HRS DEVELOPMENT AND DEPLOYMENT

COUNTRY STATUS	EARLY MARKET STATION	DEMONSTRATION STATION	CAPTIVE FLEET STATION	PRIVATE RESEARCH LAB AND/OR COMPANY SITE	OTHER (COMBINED USES OR UNCLEAR)	TOTAL
UNITED STATES (W/O CA)						
Open	2	1	8	15	2	28
Planned	3	1	4	5	0	13
Projected	34	0	0	0	0	34
Decommissioned	0	8	6	9	1	24
CALIFORNIA, U.S.						
Open	8	1	2	8	1	20
Planned	49	0	1	1	1	52
Decommissioned	1	3	7	15	0	26
JAPAN *						
Open	4	16	1	25	3	49
Planned	100	0	0	0	0	100
Decommissioned	1	6	1	7	0	15
GERMANY *						
Open	15	0	0	0	0	15
Planned	35	0	0	0	0	35
Projected Total 2023	400	0	0	0	0	400
Projected Total 2030	1000	0	0	0	0	1000
Decommissioned	6	6	1	4	0	17
SOUTH KOREA						
Open	4	0	3	8	0	15
Planned (2020)	125	0	0	0	0	125
Projected 2030	500	0	0	0	0	500
Decommissioned	0	0	0	0	0	0

REFERENCE NOTES:

- 1] United States - NREL data used for all open stations. Two (2) of the open demos in FC2000 serve “self-sufficient” single-family residences. 25 stations “planned” in Hawaii; 9 projected between Maine and Florida. LBST reported 20 total decommissioned, FC2000 reported 24. FC2000 figured used.
- 2] California - The CaFCP data only reports on early market (EMS) and captive fleet stations. Data on Private Research and other stations come from NREL.
- 3] Japan - The 100 planned from NEDO are in 4 major population centers. Many HySUT stations. Differentiation inferred between Demonstration and Private Research Lab/Company sites. Data on projected stations not available for this period.
- 4] Germany - All data but decommissioned data come from NOW. 35 planned: 23 applied for funding; 12 in planning phase. By 2015, planning for 50 will be complete. Between 2015–2017 build-up to 150 to create initial overcapacity. From 2023 forward, rollout will depend on certified FCEV #s.
- 5] Korea - NREL data. Range given by government is 10–43. Korean HIA data used for planned 2020 and projected 2030.





HRS IN EUROPEAN COUNTRIES

COUNTRY (EUROPE)	EARLY MARKET STATION	DEMONSTRATION STATION	CAPTIVE FLEET STATION	PRIVATE RESEARCH LAB AND/OR COMPANY SITE	OTHER (COMBINED USES OR UNCLEAR)	TOTAL
AUSTRIA						
Open	1	0	0	2	0	3
Planned	1	0	0	0	0	1
Decommissioned	0	0	0	1	0	1
BELGIUM *						
Open	1	0	1	0	0	2
Planned	1	0	0	0	0	1
Decommissioned	0	1	1	2	0	4
CZECH REPUBLIC						
Open	0	0	1	0	0	1
DENMARK *						
Open	5	0	0	0	0	5
Planned	3	0	0	0	0	3
Projected	3	0	0	0	0	3
Decommissioned	1	1	0	0	0	2
FINLAND						
Open	0	1	0	1	0	2
Decommissioned	0	1	0	0	0	1
FRANCE						
Open	1	0	7	0	0	8
Projected	20	0	0	0	0	20
GREECE						
Open	0	0	0	1	0	1
Decommissioned	0	0	0	1	0	1
ICELAND						
Decommissioned	2	0	0	0	0	2
ITALY						
Open	1	0	1	2	0	4
Planned	0	1	1	0	0	2
Decommissioned	0	3	1	1	0	5
LUXEMBOURG						
Decommissioned	0	0	1	0	0	1

REFERENCE NOTES:

- 6) Belgium - The Heldmond station is open and includes 350 and 700 bar for cars, buses and heavy duty vehicles. Brussels station has 350 for light duty forklifts and cars.
- 7) Czech Republic - Combination bus and public station
- 8) Denmark - All of the early Danish market stations are part of the Hydrogen Link program



HRS IN EUROPEAN COUNTRIES

COUNTRY (EUROPE)	EARLY MARKET STATION	DEMONSTRATION STATION	CAPTIVE FLEET STATION	PRIVATE RESEARCH LAB AND/OR COMPANY SITE	OTHER (COMBINED USES OR UNCLEAR)	TOTAL
THE NETHERLANDS *						
Open	1	1	0	0	0	2
Planned	5	0	0	0	0	5
Projected	13	0	0	0	0	13
Decommissioned	0	0	1	1	0	2
NORWAY						
Open	3	0	1	2	0	6
Planned	3	0	0	0	1	4
Projected	0	0	0	0	40	40
Decommissioned	0	1	0	0	0	1
PORTUGAL						
Decommissioned	0	1	0	0	0	1
SLOVENIA						
Open	0	0	1	1	0	2
SPAIN						
Open	3	0	0	1	0	4
Decommissioned	0	0	2	1	0	3
SWEDEN *						
Open	2	0	0	1	0	3
Planned	1	0	0	0	0	1
Decommissioned	0	1	1	0	0	2
SWITZERLAND						
Open	1	0	1	1	0	3
Decommissioned	0	0	0	1	0	1
TURKEY						
Open	1	0	0	0	0	1
Decommissioned	1	1	0	0	0	2
U.K.						
Open	8	1	3	3	0	15
Planned	9	0	0	5	1	15
Decommissioned	0	4	1	0	0	5





HRS IN ASIA AND AUSTRALIA

COUNTRY (ASIA & AUSTRALIA)	EARLY MARKET STATION	DEMONSTRATION STATION	CAPTIVE FLEET STATION	PRIVATE RESEARCH LAB AND/OR COMPANY SITE	OTHER (COMBINED USES OR UNCLEAR)	TOTAL
AUSTRALIA						
Open	0	1	0	1	0	2
Planned	0	0	0	1	0	1
Decommissioned	0	1	0	0	0	1
CHINA						
Open	0	2	0	1	0	3
Planned	0	0	1	0	0	1
Decommissioned	0	1	0	1	0	2
INDIA						
Open	0	1	1	1	0	3
SINGAPORE						
Open	2	0	0	0	0	2
Decommissioned	0	0	0	2	0	2
TAIWAN						
Open	0	0	0	2	0	2
Planned	0	0	0	1	0	1
THAILAND						
Planned	0	0	1	0	0	1



HRS IN CANADA AND SOUTH AMERICA

COUNTRY (AMERICAS)	EARLY MARKET STATION	DEMONSTRATION STATION	CAPTIVE FLEET STATION	PRIVATE RESEARCH LAB AND/OR COMPANY SITE	OTHER (COMBINED USES OR UNCLEAR)	TOTAL
ARGENTINA						
Open	0	1	0	0	0	1
BRAZIL						
Open	0	0	1	0	0	1
Decommissioned	0	0	1	0	0	1
CANADA						
Open	1	0	3	5	0	9
Projected	0	0	0	0	0	0
Decommissioned	1	4	2	4	2	13
COSTA RICA						
Planned	0	0	0	1	0	1

