Indo-German Green Hydrogen Task Force

Deliverables under Subworking Group 1









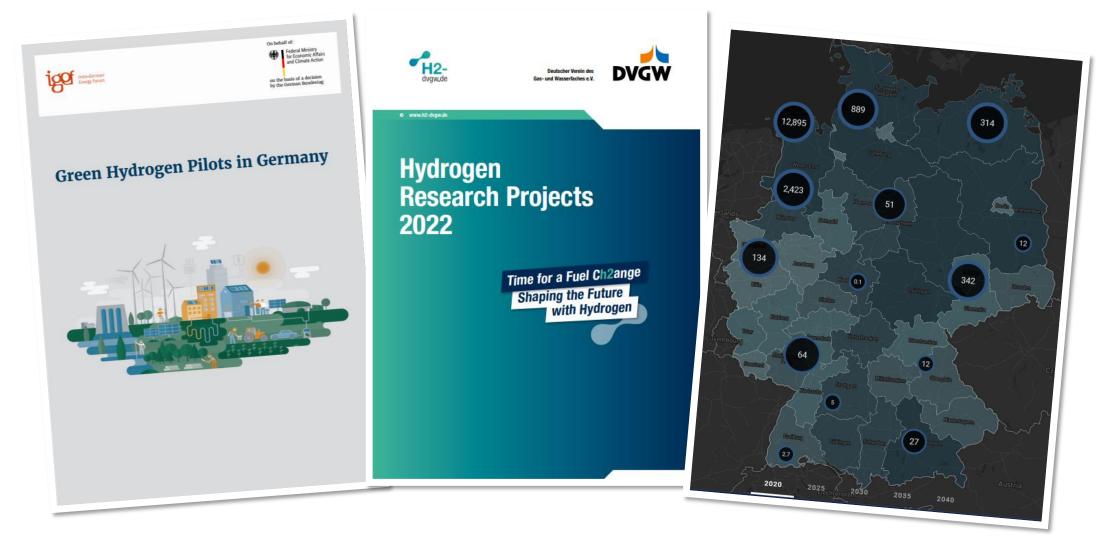
List of green hydrogen projects in India

Indo-German Energy Forum Support Office	H2 ^{UPI}	PP	PtX Hub		S AHK
Name -	Status 🔻	Location	End Use	Capacity (MW)	Project Capacity (Tonnes H2 per Annum)
NTPC - Green Hydrogen from solar	Announced	Gujarat - Khavda, Rann of Kutch	NA	NA	NA _.
NITK Surathkal - Seawater electrolysis pilot	Announced	Karnataka - Surathkal	NA	NA	NA
NHPC - Green Hydrogen Production Pilot	Announced	Himachal Pradesh - Chamba	Mobility and others	NA	NA
L&T - Green Hydrogen Plant	Commissioned	Gujarat - Hazira	NA	0.800	16.400
IOCL - Kochi Airport Green Hydrogen Production	Announced	Kerala - Kochi	Hydrogen buses	NA	NA
IOCL - Jodhpur Refinery Green Hydrogen Production	Announced	Rajasthan - Jodhpur	NA	NA	NA
Hygenco and Jindal Stainless Limited - Green Hydrogen Plant	Announced	Haryana	Steel production	NA	250.000
Hero Future Energies and Ohmium - Green Hydrogen Partnership	Announced	NA	NA	NA	NA
GH2 Solar (Uneecops Technologies) - Green Hydrogen Pilot	Announced	NA	NA	0.050	7.870
GAIL - Green Hydrogen Plant	Announced	Madhya Pradesh - Vijaipur	Hydrogen blending	10.000	1570.000
BPCL - Green Hydrogen Plant plans	Announced	Odisha	NA	NA	NA
Avaada Energy - Green Ammonia Plant	Announced	Rajasthan - Kota	Ammonia production	NA	180000.000
Advik Hi-Tech and Pure Hydrogen - Hydrogen Supply JV	Announced	NA	NA	NA	NA
Adani and Maire Tecnimont - Green Hydrogen Projects JV	Announced	NA	NA	NA	NA
ACME - Green Hydrogen and Green Ammonia Project Tamil Nadu	Announced	Tamil Nadu - Thoothukudi	NA	1500.000	min. 198000.000
ACME - Green Hydrogen and Green Ammonia Project Karnataka	Announced	Karnataka - Mangaluru	NA	NA	NA
Avaada Energy - Green Hydrogen and Ammonia	Announced	Madhya Pradesh	Ammonia production	NA	NA
BPCL - Electrolyser and Blending	Announced	Maharashtra - Ahmednagar/Aurangabad	City gas blending	5.000	NA
MAHAPREIT - Green Hydrogen Production	Announced	Maharashtra	City gas blending	1.000	NA
Reliance Industries - Green Hydrogen Ecosystem Gujarat	Announced	Gujarat - Kutch	NA	NA	NA
Jakson Green - Green Hydrogen and Ammonia	Announced	Rajasthan	Ammonia production	NA	65700.000
Keppel Corp & Greenko - JV Green Ammonia	Announced	NA	Ammonia production	NA	NA
Avaada Energy - Green Ammonia Production	Announced	Karnataka - Mangaluru	Ammonia production	NA	180000.000
ABC Cleantech - Green Hydrogen and Ammonia	Announced	Karnataka - Mangaluru	Ammonia production	NA	200000.000
Petronas - Green Ammonia Production	Announced	Karnataka - Mangaluru	Ammonia production	NA	90000.000
JSW Green Hydrogen - Green Hydrogen/Ammonia	Announced	Karnataka - Mangaluru	Ammonia production	NA	NA
O2Power - Green Hydrogen/Ammonia	Announced	Karnataka - Mangaluru	Ammonia production	NA	NA
I2HA - Kochi Green Hydrogen Hub	Announced	Kerala - Kochi	Transport	150.000	22000.000
CPCL - Green Hydrogen Production at Chennai Refinery	Announced	Tamil Nadu - Chennai	Refinery	NA	NA
NLCIL and GRIDCO - Green Hydrogen Project	Announced	Odisha	NA	NA	NA
WBPDCL - Green Hydrogen Plant Durgapur	Announced	West Bengal - Durgapur	NA	NA	NA
Greenko and John Cockerill - Green Ammonia Plant HP	Announced	Himachal Pradesh - Una	Ammonia production	140.000	NA
Petronas - Green Hydrogen and Ammonia Tamil Nadu	Announced	Tamil Nadu	Ammonia production	NA	NA
Suzuki and Yamanashi Hydrogen Manesar Project	Announced	Haryana - Manesar	NA	NA	NA
Aditya Birla Renewables and Green Hydrogen	Announced	Rajasthan	NA	NA	NA
Ocior - Gov of Gujarat MoU Green Hydrogen and Ammonia	Announced	Gujarat - Kutch	NA	NA	1000000.000

<u>List of green hydrogen projects in India</u> is continuously updated and provided to members of the Indo-German Green Hydrogen Task Force.

List of green hydrogen projects in Germany





If not received yet, please access overview on Green Hydrogen Pilots in Germany here.

Supplier directories for green hydrogen and fuel cell technology by VDMA



If not received yet, please email us via hydrogen@energyforum.in.

Long term purchase agreements with suppliers outside EU

H2Global Stiftung Hintco

- +4.3 bio EUR grant earmarked for suppliers from countries outside EU
- Current value: 900 mio. EUR
 - Deadline for Green Ammonia ended on 28 Feb. 2023
 - Deadline <u>Green Methanol</u> + <u>SAF</u> is 11 April 2023
- More info: https://www.bmwk.de/Redaktion/EN/Dossier/market-consultation-H2Global.html



22 March 2023 @ 16:00 hr IST/ 11:30 hr CET: Task Force Meeting on Financing Options for Green Hydrogen Projects. For more information, mail us at hydrogen@energyforum.in.

Webinar on Carbon Finance Revenue for Green Hydrogen Projects











- 2,2 6,7 Mio. EUR annual revenue from green H2 certificate sales estimated for a 100 MW green H2 project with certificate prices projected to range between 10 and 30 EUR per tonne CO2
- First contracts foreseen to be signed in 2023
- More info: www.hydrogenfornetzero.org
- Webinar took place on 15 February 2023. Recording can be found <u>here</u>.

List on upcoming business delegations, trade fairs and events















- 22.03. Online Session on German funding schemes and credit lines for Green Hydrogen projects in India
- 22.03. Webinar on <u>Hydrogen Clusters around ports</u>
- 28. 29.03. <u>Berlin Energy Transition Dialogue</u>, Berlin, Germany
- 04.04. 05.04. Green Steel World, Essen, Germany
- 11.04. Webinar on EU Sustainability Criteria for GH2
- 17.04. 21.04. Indian Business Delegation to Hannover Messe (+100 exhibitors) with India Side Event, Germany
- 18.04. 19.04. <u>5th Edition of Green Hydrogen in India</u>, by India Infrastructure
- 18.04. Webinar on Green Shipping for Hydrogen
- 09. 11.04. Indian Business delegation to World Hydrogen Summit 2023, Rotterdam, Netherlands
- 11.04. Indo-German Green Hydrogen Dialogue, Berlin, Germany
- 28. 29.04. Trade Fair and Conference RenewX, Hyderabad, India
- 01. 05.05. Conference and Trade Fair India Energy Storage Week, Delhi, India
- 14. 16.06. Indian Business delegation to Intersolar Europe, Munich, Germany
- 03. 04.08. Conference Green Hydrogen India 2023, Greater Noida, India
- 04. 06.10. **German Pavilion at trade fair and conference** Windergy India 2023, Chennai, India
- 04. 06.10. **German Pavilion at trade fair and conference** at Renewable Energy Expo 2023, Greater Noida, India

Thank You