

GREENZO ENERGY PRIVATE LIMITED



INDIA





ABOUT COMPANY

We, GREENZO ENERGY PRIVATE LIMITED is an Indian Company, registered under the law of the Indian Government at the Registrar Company, Delhi, Corporate Identification Number is (CIN) U31900DL2021PTC378412, situated at Unit no 1104, Floor 11, Surya Kiran Building, K.G. Marg, Delhi - 110001. Chairman & Founder of the Company is Mr. Sandeep Agarwal, who has more than 25 years of experience in working in the renewable energy sector.

Greenzo Energy has a portfolio of more than 2000 MW Solar EPC; Consultancy Projects. The company now aspires to move towards Hydrogen generation, Fuel cell technologies and development of Integrated solutions.



Our Ongoing Projects

Description of Work Order S.No »

- **Timeline >>**
- 1. **>>** Engineering procurement Construction (EPC) of 8.1 MW - Ground mounted solar project - Ongoing
- **>>** Expected - COD -December 2022
- 2. Consultancy of 250 Mw Floating solar Project - Govt of India
- **>>** Completion by January 2022
- **>>>** 3. Detail Engineering and Consultancy of 5mw green hydrogen and ammonia generation with storage and transportation solution - ongoing
- **>>>** Completion by February 2022
- 4. EPC of 5 MW - Green hydrogen and ammonia generation plant to be installed at the solar park - India
- **>>>** Completion by March 2023



Pipeline Projects of Greenzo

Description of Work Order S.No »

- **Timeline >>>**
- 1. **Engineering Procurement Construction** (EPC) of 10 MW - Ground mounted solar project
- Starting: 1 January 2023
- 2. MOU signed & Contract award for DPR, Feasibility and Detailed engineering for more than 200 Mw greenhydrogen projects in India.
- Starting: Sept 2022
- 3. Comprehensive Engineering and Consultancy of 50 MW Green Hydrogen and Ammonia generation with storage and transportation solution - Nepal
- Completion by March 2023
- Many other projects (more than 2500 MW) in the pipeline. **Details mentioned Ahead.**
- **>>>** Completion by March 2026



Some of the salient features of the renewable energy sector and in particular, green hydrogen is listed below:

3 India currently has an installed Renewable Energy Capacity





159.949GW >> which is nearly 40% of the total installed power capacity in the country.

(3) OBJECTIVES LAID DOWN BY THE GOVERNMENT OF INDIA:

Net Zero Carbon Emissions by 2070.

By 2030 achieve 500 GW of renewables capacity, one billion tonnes reduction in cumulative emissions and 45% lower emissions intensity of gross domestic product (GDP).

Make India Energy Independent by 2047.

(3) **INDIA TARGETS:**

- Establish electrolysis (green hydrogen generation) capacity of over 60 GW/5 million tonnes by 2030 for domestic consumption.
- Production of 15-20 million tonnes of green steel by 2030.
- Establish an electrolyser annual manufacturing capacity of 25 GW by 2028.
- Production of green ammonia for exports by 2030 helpes India's allies to decarbonize. It may require up to 100 GW of green hydrogen.
- \$1 Billion investment into hydrogen Research and Development.

Announcements/Actions by the Indian Government:

- 3 Setting up of National Hydrogen Mission to make India a hub for the production and export of green hydrogen (15 Aug 2021).
- 3 Notification of Green Hydrogen Policy by Ministry of Power (February 17, 2022).
- Waiver of inter-state transmission charges shall be granted for a period of 25 years to the producer of Green Hydrogen and Green Ammonia from the projects commissioned before 30th June 2025.
- 3 Land in Renewable Energy Parks can be allotted for the manufacture of Green Hydrogen/Green Ammonia.
- 3 The Government of India will be setting up Manufacturing Zones (Gujrat, Maharashtra, Karnataka, Kerala and Andhra Pradesh). Green Hydrogen/Green Ammonia production plants can be set up in any of the Manufacturing Zones.
- Manufacturers of Green Hydrogen/Green Ammonia shall be allowed to set up bunkers near Ports for storage of Green Ammonia for export/use by shipping. The land for the storage purpose shall be provided by the respective Port Authorities at applicable charges.
- 3 The Government will be announcing the PLI (Production Linked Incentive) Scheme for Green Hydrogen on September 22 for the next five years, expected to be around USD Two Billion.



Demand Prospects for Hydrogen in India:

Some of the areas that merit consideration are listed below along with the possible outlook till 2050.



Hydrogen is essential to the petroleum refining industry and is in primarily used for desulfurization of Petroleum products

Outlook

India's refinery sector is the fourth largest in the world in terms of capacity, processing almost 250 million tonnes of crude oil yearly. Currently the refinery sector accounts for almost 3 million tonnes of hydrogen demand, representing 46% of the total hydrogen demand in the country. Hydrogen demand from the refinery sector will increase until 2035. Almost 100% of hydrogen demand from refineries in 2050 can be supplied via renewable electrolysis.

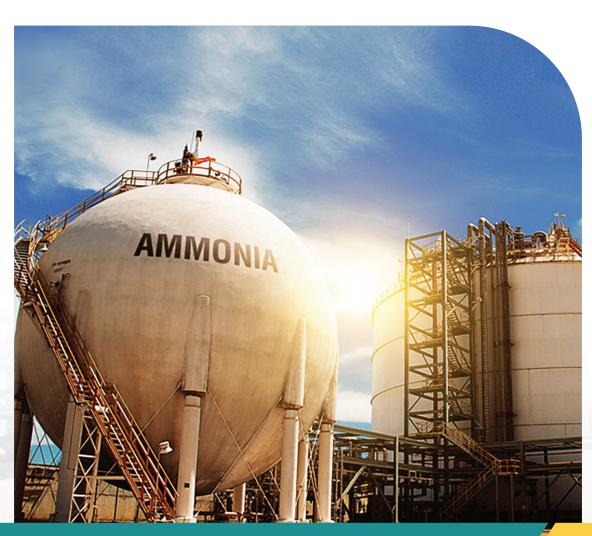




Ammonia as a fertilize Ammonia as a Hydrogen carrier and Fuel.

Outlook

With a growing need for fertilizer in the future, ammonia demand is set to double in the next three decades, increasing from 17 million tonnes in 2020 to 35 million tonnes by 2050. Ammonia production contributes to 48% of the current hydrogen demand. By 2050, this demand is set to double, representing the third largest source (21%) of final hydrogen demand after steel and heavy-duty trucking. If ammonia is going to be used as fuel for the shipping industry, the demand will increase significantly. The share of the hydrogen demand met with renewables will start picking up around 2027 when green hydrogen-based ammonia reaches cost parity with natural gas-based ammonia and will increase, beyond that to represent an 88% share by 2050.





Direct reduced iron (DRI) is likely to have a major usage of hydrogen to replace fossil fuels.

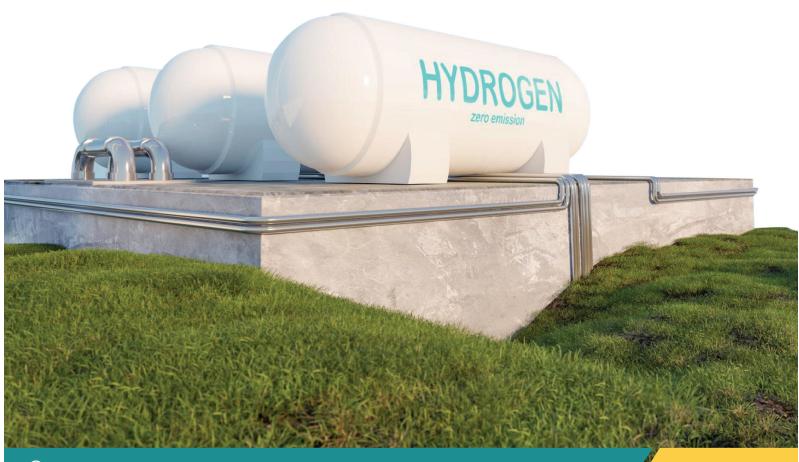
Outlook

Steel production via natural gas-based DRI contributes to 0.3 million tonnes of hydrogen demand currently. That is bound to rise to 8 million tonnes by 2050. Steel will contribute to 27% of final hydrogen demand in 2050, the highest demand among all the potential sectors.



Value propositions unique to Greenzo

- 3 Deep connects an excellent network across the Government (Central Ministries and State Governments).
- Market presence and accessibility. This would help in leveraging the 3 prime- mover advantage and a long-term partnership in the Asian region.
- With majority shareholding, it would be the preferred Company to qualify under the indigenous in India (Atmanirbhar) Program, hence a healthy Order Book for a sustained period is assured.
- \mathfrak{T} Successful implementation of several projects in a time bound manner without any cost run over has created a strong brand value in the Indian Markets.
- A strong advisory board with members drawn from NTPC, Govt of 3 India, Financial Experts etc.





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