

HAI Newsletter



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Editorial Committee

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Centre gets bids for green hydrogen, electrolyser production incentives

Reliance Industries, JSW Energy, Torrent Power, and Bharat Petroleum Corp are among 14 companies that have bid for incentives under India's green hydrogen plan, according to a government agency. Twenty companies including Reliance Industries, Adani Group, Jindal India, Larsen & Toubro, and Bharat Heavy Electricals have also submitted bids for incentives to manufacture electrolyzers, statements from Solar Energy Corp of India said. India invited pilot bids under its \$2 billion program to incentivize the production of green hydrogen and the manufacturing of electrolyzers. Bids for 0.55 million metric tons of green hydrogen production have been received against the invited 0.45 million tons, the statements showed. The companies include Acme Cleantech, Sembcorp Green Hydrogen, CESC, Greenko ZeroC and Avaada GreenH2, they said. For an invitation to set up 1.5 gigawatts of electrolyzer manufacturing capacity, bids for 3.4 GW were received, the statements showed. India aims to reach 5 million tons in annual green hydrogen production capacity by 2030

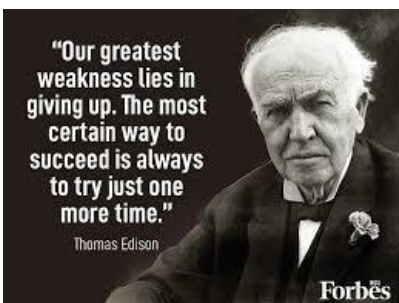
Ref: <https://www.business-standard.com/>



5 MMT green hydrogen can help cut Rs 1 trn worth fossil fuel imports: Singh

With the 5 million metric tonnes (MMT) installed capacity under the National Green Hydrogen Mission, India can reduce imports of fossil fuel worth Rs 1 lakh crore by 2030, Union Minister R K Singh said. In January 2023, the Union Cabinet approved the National Green Hydrogen Mission with an outlay of Rs 19,744 crore with an aim to make India a global hub for manufacturing this clean source of energy. Green hydrogen has the potential to replace fossil fuels including natural gas, either as a source of energy or as a feedstock, thereby contributing to reduction in dependence on import of fossil fuels, the Minister for New and Renewable Energy informed the Rajya Sabha.

Ref: <https://www.business-standard.com/>



New MIT design captures 40 percent more solar energy for green hydrogen production

The system will be geared toward producing carbon-free H₂ in a process powered entirely by the sun. MIT engineers have developed a new solar energy reactor system designed somewhat like a train that can be used for the production of green hydrogen. The conceptual design for “solar thermochemical hydrogen” was published in the Solar Energy Journal. In the study published in the Solar Energy Journal, the MIT team described a system that captures heat from the sun to directly split water molecules for green hydrogen production. The system is highly efficient and does not lead to the production of greenhouse gas emissions. Though there are other methods of green hydrogen production, the majority of today’s H₂ is produced using natural gas and other fossil fuels, with unmitigated carbon emissions. The result is considered a form of “grey” fuel because while it can still be used carbon emission-free, its production involves carbon emissions. Conversely, the team’s solar thermochemical hydrogen (STCH) relies entirely on the sun and does not produce carbon emissions.

Ref: <https://www.pv-magazine.com/>



Govt. initiates talks on green hydrogen exports to EU nations

The Centre has initiated discussions for possible export of green hydrogen to France, Italy and Germany. The government is sending the proposals through the Ministry of External Affairs. India is targeting other European Union nations such as Netherlands, Austria and Sweden for its green hydrogen exports. Exports are sought under Article 6.2 of the Paris Agreement. According to a report of the National Green Hydrogen Mission, bilateral negotiations with Japan, South Korea and Singapore are “underway” for signing the agreements. The second meeting of the empowered group under the mission was held earlier this month.

Ref: <https://www.thehindubusinessline.com/>



India, Saudi tie up for grid, green hydrogen

India and Saudi Arabia signed a memorandum of understanding (MoU) on securing a green hydrogen supply chain and cooperation on power grid interconnection. The MoU was signed in Riyadh by Union Minister for Power and New and Renewable energy RK Singh and the Saudi Minister of energy Abdulaziz bin Salman Al-Saud on the sidelines of the MENA Climate Week 2023. “This memorandum of understanding aims to establish a general framework for cooperation between the two countries in the field of electrical interconnection; exchange of electricity during peak times and emergencies; co-development of projects; co-production of green/clean hydrogen and renewable energy; and also establishing secure, reliable and resilient supply chains of materials used in green/clean hydrogen and the renewable energy sector,” said a statement from the ministry of power. The MoU comes nearly a month after both countries signed an agreement for cooperation in energy, including renewable energy, energy efficiency, grid interconnection, strategic petroleum reserves, and energy security.

Ref: <https://www.livemint.com/>



EU launches first green hydrogen auction with ceiling price of €4.50/kg

The European Commission, with the support of the European Hydrogen Bank, has initiated its first green hydrogen auction. The auction has a maximum price of €4.50 (\$4.91) per kilogram. Approved projects will receive subsidies for a period of 10 years, in addition to the revenue generated from the sales of hydrogen. These projects are required to start production within the next five years. Renewable hydrogen producers can apply for support in the form of a fixed premium per kilogram of hydrogen produced. This should close the gap between the production price and the price that consumers are currently willing to pay in a market where non-renewable hydrogen production is still cheaper. Bidders have until Feb. 8, 2024, to submit their proposals through the EU tenders and financing portal. Bids must be based on a proposed price premium per kilogram of renewable hydrogen produced, up to a ceiling price of €4.50/kg. Bids up to this limit, and that also meet other qualification requirements, will be ranked from lowest to highest bid price and supported in that order, until the auction budget is exhausted.

Ref: <https://www.pv-magazine.com/>



10th International Hydrogen and Fuel Cell Conference (IHFC)

The Hydrogen Association of India (HAI) organized the 10th International Conference on Hydrogen and Fuel Cells during 3-5 December 2023, at the Crown Plaza, Varanasi. The conference was supported by sponsors and contributors from all over the world. There was considerable support and cooperation by dignitaries from Academia like IIT Roorkee and IIT BHU. International Speakers and delegates from countries like USA, United Kingdom, Australia, and Germany were present during the conclave. Around 200 people registered and attended the 3-day conference, comprising of dignitaries from MoP&NG, experts/panelists/speakers, knowledge partners, delegates, and poster presenters. This included 04 nos. of VIPs, 06 nos. of organizers, 52 nos. of panelists/speakers, 06 Exhibitors, 11 Poster Presenters, and Delegates. The sessions were planned during the conference on topics such as hydrogen availability, its impact on the economy in India, production, storage, transportation, & utilization, hydrogen application for mobility, fuel cells, and safety and regulatory measures for hydrogen implementation.

Ref: <https://www.hai.org.in/>



NamX is choosing hydrogen combustion engines over fuel cells

The Paris-based H2 car startup has taken a different direction in the development of the vehicle. NamX, a startup that had previously been focused on fuel cell cars, has dropped that focus in favor of hydrogen combustion engines. This is taking the Paris-based company in a sharp new direction from where it was headed for 18 months. For the last year and a half, NamX has been placing the spotlight on its HUV model, which was an electric vehicle powered by an H2 fuel cell. That said, the company has stated that it has made a “strategic move” toward V8 hydrogen combustion engines for its first vehicle, instead of relying on a fuel cell. According to the company, it decided to move ahead with the internal combustion technology because choosing fuel cells would mean that they would need to “rely on rare earth metals,” whereas combustion engines are “a proven and time-tested technology that has benefited from decades of investment and continuous enhancements.”



Ref: <https://www.hydrogenfuelnews.com/>

Upcoming events:

- 2nd Hydrogen India Summit ,
New Delhi, 23-24 Jan, 2024
- 2nd BUSINESS SUMMIT
GO HYDROGEN, Antwerp,
Belgium 21-22 Feb, 2024
- 4th American Hydrogen
Forum Houston, Texas
28-29 February, 2024
- Hydrogen Technology Expo
Hayat Centric, New Delhi,
25-26 Apr, 2024

NEOM Green Hydrogen Company marks major milestone with initial equipment delivery

The world's largest green hydrogen plant, which is being constructed by NEOM Green Hydrogen Company (NGHC) in NEOM, Saudi Arabia, has received its initial batch of wind power turbines, which were delivered at the Port of NEOM located in Oxagon. The turbines are now being transported to the Wind Garden site. Once they reach this destination, which is located near the Gulf of Aqaba, the wind turbines will be assembled and installed. The delivery of the turbines marks a milestone in the construction and development of the green hydrogen project.

Ref: <https://www.hydrogenfuelnews.com/>



FORVIA scores a hydrogen storage win in North America

FORVIA (Nanterre, France), the world's seventh largest automotive technology supplier, has won a contract to supply Type IV hydrogen storage systems for an unnamed North American manufacturer's medium-duty commercial trucks. A master of Type IV and Type III H₂ storage tanks. FORVIA has established itself as a leader in Type III and Type IV hydrogen storage tanks, making them a top choice for manufacturers of commercial H₂ trucks, buses and other commercial vehicles. Both of these storage solutions are constructed with carbon fiber winding and have been designed to store hydrogen gas.

Ref: <https://www.hydrogenfuelnews.com/>



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China's Trina Solar eyeing India's market for Green Hydrogen Electrolysers

Chinese solar power giant Trina Solar is bullish about India's energy sector growth story and is planning to sell Electrolysers to Independent Power Producers (IPPs) in the local market for Green Hydrogen production, Todd Li, President of Trina Solar Asia Pacific, told ET Energy world in an exclusive interaction. Trina Solar is a solution service provider for IPPs and developers. It supplies modules and trackers and is also present into energy storage. The company has a battery cell manufacturing capacity and a containerized energy storage solution for IPPs.

Ref: <https://www.hydrogenfuelnews.com/>

