

Industry / Energy / Govt unveils hydrogen policy as India takes aim at fossil fuel

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The policy aims to promote green hydrogen, green ammonia

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Rituraj Baruah Utpal Bhaskar

Green hydrogen policy offers cheaper electricity, fee waiver for inter-state power transmission The race towards green energy assumes significance at a time the ongoing Russia-Ukraine crisis has raised energy costs

NEW DELHI : The government on Thursday unveiled India's new green hydrogen policy, promising cheaper renewable power, fee waiver for inter-state power transmission for 25 years for projects commissioned before June 2025, land in renewable energy parks, and mega manufacturing zones to help local industries wean themselves off fossil fuels.

The policy, aimed to promote green hydrogen and green ammonia, will also facilitate the so-called 'banking' of green power, where a green power producer can save surplus renewable power with an electricity distribution company for up to 30 days. It also envisages building bunkers near ports to store green ammonia for exports.

Green hydrogen is generated by breaking down water in an electrolyzer. The hydrogen produced can be combined with nitrogen to make ammonia, avoiding hydrocarbons in the production

process. Green ammonia is used to store energy and in fertilizer manufacturing. India has set a target to produce 5 million tonnes (mt) of green hydrogen by 2030.

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“Green hydrogen/green ammonia shall be defined as hydrogen /ammonia produced by way of electrolysis of water using renewable energy; including renewable energy which has been banked and the hydrogen/ammonia produced from biomass,” a Union power ministry notification said.

The race towards green energy assumes significance at a time the ongoing RussiaUkraine crisis has raised energy costs across the world, hurting in particular India, which imports 85% of its oil and 53% of natural gas requirements.

A shift to large-scale use of hydrogen fuel can help bolster India’s geopolitical heft and bolster energy security. India’s playbook involves leveraging the country’s landmass and low solar and wind tariffs to produce low-cost green hydrogen and ammonia for exports.

“Green hydrogen/green ammonia plants will be granted open access for sourcing of renewable energy within 15 days of receipt of application complete in all respects,” the notification said. Mint reported on 10 June about open access facilitation for renewable energy, green hydrogen exports and setting up integrated hydrogen hubs being focus areas of the National Hydrogen Energy Mission.

Open access allows large power users, typically those who consume more than 1MW, to buy power from the open market instead of depending on an expensive grid. However, this has not taken off as state governments have increased standard charges on open access renewable energy projects.

The government will also mandate the use of green hydrogen and green ammonia under the policy in a phased manner, power and new and renewable energy minister Raj Kumar Singh said on Wednesday. The government plans to bring in Green Hydrogen Consumption Obligation in fertilizer production and petroleum refining, akin to renewable purchase obligations (RPO) as reported by Mint earlier.

“There is an increased consensus around the world that concerted steps need to be taken to reduce global warming to levels less than 2°C and, if possible, to cap it at 1.5°C higher than pre-industrial levels. Various countries have pledged their nationally determined contributions to ensure energy

transition and reduce emissions. Most large economies, including India, have committed to net-zero targets," the notification said

India's Green Hydrogen Policy comes when climate action has taken centre stage in India's public policy discourse. At the COP-26 summit in Glasgow last year, Prime Minister Narendra Modi pledged to make India carbon-neutral by 2070.

reduction of emissions, especially in the hard to abate sectors. The government of India "Transition to green hydrogen and green ammonia is one of the major requirements for

have had under consideration a number of policy measures to facilitate the transition from fossil fuel/fossil fuel-based feedstocks to green hydrogen/green ammonia both as energy carriers and as chemical feedstock for different sectors," the notification added.

Also, green energy consumed for the production of this emission-free fuel will be treated as RPO, and electricity consumed beyond the RPO obligation will count towards compliance of those discoms in whose area such projects are located. RPOs require electricity distribution companies to buy a fixed amount of renewable energy to cut reliance on fossil fuels.

"Distribution licensees may also procure and supply renewable energy to the manufacturers of green hydrogen/green ammonia in their states," the notification said. India's total hydrogen demand is expected to touch 11.7 million tones (mt) by 2029-30 from the current 6.7 mt. Around 54% or 3.6 mt of India's annual hydrogen consumption of 6.7 mt is utilized in petroleum refining and the rest in fertilizer production. This is, however, 'grey' hydrogen, produced from fossil fuels such as natural gas or naphtha. The government wants to encourage exports to Japan, South Korea, and Europe.

“The government has tried to address some of the key demands of the industry in terms of open access, grid banking and faster approvals for green hydrogen and ammonia projects. We specifically welcome the provisions to set up bunkers near ports for the export of green ammonia,” Manoj K. Upadhyay, founder and chairman of renewable energy company ACME Group said in a statement.