IIT-K, IIT-BHU to anchor UP's green hydrogen push

The centres will focus on applied, experimental research in green hydrogen production, storage, transportation and utilisation

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LUCKNOW: The Uttar Pradesh government has approved establishment of two Centres of Excellence (CoE) for green hydrogen, selecting university-led consortia in Kanpur and Varanasi–Gorakhpur under the UP Green Hydrogen Policy–2024, officials said.

The decision, based on the recommendations of a high-level expert committee, was cleared by energy minister AK Sharma through an order issued two weeks ago.

Under the approval, the first CoE will be jointly set up by the Indian Institute of Technology (IIT) Kanpur and Harcourt Butler Technical University (HBTU), Kanpur, while the second will be established by IIT-BHU, in partnership with Madan Mohan Malaviya University of Technology (MMMUT), Gorakhpur.

Both centres will function as joint facilities, operating from the campuses of the partner institutions with shared academic leadership, research infrastructure and equipment.

As per the approved framework, the lead institutions will bear at least 50% of the cost of research infrastructure and equipment. The facilities will be accessible to both partner universities, and joint supervision of projects —including PhD research—will be permitted, allowing faculty from one insti-



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tution to act as co-guides or co-investigators in the other.

The centres will focus on applied and experimental research in green hydrogen production, storage, transportation and utilisation, besides supporting industrial applications and providing technical and policy advisory inputs to the state government.

The policy framework makes it clear that no additional state funding will be provided for creating new infrastructure beyond the approved provisions. The centres will also have to comply with Clause 6.6 of the Green Hydrogen Policy-2024, which mandates at least 25% reservation for women in project-related opportunities.

Officials said the CoE would serve as nodal technical bodies for UP, supporting state departments, industries, startups and academic institutions and assisting in the implementation of green hydrogen projects.

The centres are also expected to play a key role in achieving the state's target of ensuring that at least 50% of green hydrogen produced in UP is consumed within the state, apart from supporting pilot and demonstration projects, including proposals for green hydrogen-based transport corridors.

"The government sees the move as a strategic step towards positioning UP as a major hub for green hydrogen research, manufacturing and deployment. in keeping with the broader clean energy transition," a senior energy department official said.

UP's ambitious Green Hydrogen Policy 2024 targets the production of 1 million metric tons annually with capital subsidies, land incentives and tax benefits. UP has already signed an MoU with Japan's Yamanashi Prefecture that will extend support in production, supply, and technological development of green hydrogen in the state. Over a half a dozen private companies signed MoUs in the last investors' summit to set up green hydrogen production plants in the state.

Green hydrogen is called so because the entire process to produce it is powered by renewable energy. It is used for purposes like industry, petroleum refinery, manufacturing of ammonia and heavy duty mobility etc.