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'Hydrogen valleys' on the anvil in Thiruvananthapuram and Kochi

Eyeing the status of a leading green hydrogen economy, State hopes to achieve 30% green hydrogen blending by 2027, the draft Kerala green hydrogen policy says. It also mentions State's plan for a hydrogen hub in Kochi

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Eyeing the status of a leading green hydrogen economy, Kerala hopes to develop 'hydrogen valleys' in Kochi and Thiruvananthapuram and achieve 30% green hydrogen blending in the total hydrogen usage in the State by 2027, a preliminary draft drawn up for a Kerala green hydrogen policy says.

The draft was circulated for discussion on Wednesday at a workshop on 'Hydrogen Valley in Kerala' organised by the Energy Management Centre

(EMC), IIT Palakkad, the Agency for New and Renewable Energy Research and Technology (Anert), and the Union Department of Science and Technology (DST).

Hydrogen valley

The project for hydrogen valleys in Kochi and Thiruvananthapuram will be taken up under the Hydrogen valley scheme of the DST. The draft also mentions the government's plan to set up a hydrogen hub in Kochi with focus on domestic consumption and export under the India Hydrogen Alliance (IH2A). A hydrogen valley, as per

the DST definition, is a geographical area where hydrogen serves more than one end-sector or application in mobility, industry and energy, covering all the steps in the hydrogen value chain: production, storage, transportation and distribution. 'Green hydrogen' is hydrogen produced using renewable energy.

The State hopes to be a leading hydrogen/ammonia producer and exporter as well as a 100% green hydrogen/ammonia consumption State by 2040, the draft says. Kerala is already moving ahead with plans to turn into a 100%

renewable energy-based State by 2040 and net carbon-neutral by 2050.

The draft further notes that the State is actively exploring partners to form a consortium for the hydrogen valley project. In this regard, a proposal will be submitted to the DST.

Other objectives

Achieving 30% green hydrogen blending in the total hydrogen consumption by chemical, fertilizer and refinery units in Kerala by 2027, establishing centres of excellence for R&D and developing global partnerships on export of green hydrogen are among the

plans. Kerala also aims to offer incentives to reduce the cost of green hydrogen generation to below \$2/kg initially and slash it further to less than \$1/kg in the long run, the draft says.

In October 2022, the DST had invited proposals for establishing hydrogen valley platforms in the country.

According to the DST plan, the projects will be implemented in three phases: an activation period during 2023-2027, up-scaling during 2028-2033, and a third phase during 2034-2050 where the green hydrogen technologies will reach maturity.