

## ERGO

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### GREEN HYDROGEN POLICY- A STEP TOWARDS INDIA'S ENERGY TRANSITION

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The Ministry of Power (**MoP**) on 17 February 2022 announced the much awaited Green Hydrogen Policy (**Green Hydrogen Policy**). The Union Budget of 2021 had first mentioned about the proposed National Hydrogen Mission. Thereafter, on the occasion of the 75<sup>th</sup> Independence Day, the Prime Minister announced the launch of the National Hydrogen Mission with an underlying objective of making India energy independent before 2047 i.e. before its 100<sup>th</sup> year of independence. The National Hydrogen Mission aims to facilitate production of 5 (five) million tonnes of green hydrogen by 2030 and the related development of renewable energy capacity.

The policy, though named as Green Hydrogen Policy, provides a framework for production and development of green ammonia as well. Green hydrogen and green ammonia have been defined as hydrogen or ammonia produced by way of electrolysis of water using renewable energy including renewable energy which has been banked or produced from biomass. It is relevant to mention that earlier, MoP had published the draft Electricity (Promoting Renewable Energy through Green Energy Open Access) Rules, 2021, where green hydrogen was first recognised and defined as "*hydrogen produced using electricity from the renewable sources*". With the Green Hydrogen Policy finally being launched, the government has paved the way for development of green hydrogen as well as green ammonia as an alternative source of energy and future fuel in India.

#### ***Some of the key highlights of the Green Hydrogen Policy:***

- ***Waiver of inter-state transmission (ISTS) charges:*** ISTS connectivity between the green hydrogen / green ammonia manufacturing plant and the renewable energy project would be granted on priority under the Electricity (Transmission System Planning, Development and Recovery of Inter-State Transmission Charges) Rules, 2021. The Green Hydrogen Policy provides a waiver of ISTS charges for a period of 25 (twenty-five) years to green hydrogen / ammonia projects commissioned before 30 June 2025. It is worth noting that in November 2021, MoP pursuant to an order had indicated that from 1 July 2025, renewable energy project developers have to start paying ISTS transmission charges in a phased manner. The order had provided waiver of ISTS charges for green hydrogen plants commissioned by 30 June 2025 for a period 8 (eight) years from the date of commissioning.
  
- ***Developers given the option to manufacture green hydrogen / green ammonia by using renewable energy produced from projects developed themselves or a third party anywhere or sourced from power exchange-*** Developers have been

given the flexibility to manufacture green hydrogen / green ammonia by using renewable energy produced by renewable projects located anywhere, whether owned by the developer themselves or by a third party, or sourced from power exchanges. Green hydrogen / green ammonia plants would be granted open access within 15 (fifteen) days of receipt of the application and the charges for the same would be as per the rates prescribed in the relevant rules. Distribution companies are also allowed to procure and supply renewable energy for green hydrogen / ammonia manufacturers in their states at nominal rates with small margins determined by the relevant state electricity regulatory commission.

- **Banking of renewable energy-** Developers of green hydrogen / ammonia can bank the unconsumed renewable power with distribution companies for a period of up to 30 (thirty) days. The banking charges applicable will be as per the charges fixed by the state electricity regulatory commission, which shall be not more than the difference of average tariff of renewable energy bought by the distribution company in the previous year and the average market clearing price in day ahead market during the month in which the renewable power is banked.
- **Land and setting up of manufacturing zones-** The Green Hydrogen Policy proposes allotment of land in renewable energy parks for setting up of green hydrogen / ammonia plants and allows manufacturers to set up bunkers in ports for storage of green ammonia for export. The land for bunkers in port areas will be provided by relevant port authorities as per the applicable charges. Government also proposes to set up manufacturing zones designated for green hydrogen / ammonia projects.
- **Renewable energy used for production of green hydrogen / ammonia to count towards RPO obligations-** Green hydrogen / ammonia producers can claim the renewable energy used for production of green hydrogen / ammonia towards their renewable purchase obligation (**RPO**) compliance. Any consumption of renewable energy beyond the obligation of the procurer would count towards the RPO compliance of the distribution companies situated in the area where the project is located.
- **Time bound and single portal clearance-** To attract investments and to facilitate time bound processing of applications for clearances and permissions, the Ministry of New and Renewable Energy will establish a single portal for all statutory clearances and permission required for manufacture, transportation, storage and distribution of green hydrogen / ammonia. Authorities are to provide the requisite clearances and permissions within a period of 30 (thirty) days from the date of application.

### Comments

India imports more than 4/5<sup>th</sup> (four-fifth) of its oil and half of its natural gas requirements. As such, green hydrogen is seen as the future fuel to reduce India's dependency on fossil fuels and make it self-sufficient. Green hydrogen and green ammonia assume more importance at a time the ongoing crisis in Europe has raised global fuel costs.

The recent COP 26 Climate Conference in Glasgow demonstrated that the world is ready for green hydrogen and it will be one of the key elements to achieve net zero target. With the roll out of Green Hydrogen Policy the government has set the wheels in motion towards India's big energy transition. Hydrogen being one the most abundant element on the planet will play a key role in climate action globally. In the recent years with manifold increase in the demand of hydrogen, the Green Hydrogen Policy promises to be a gamechanger for India's energy market. The Green Hydrogen Policy is a forward

looking policy, providing incentives and opportunities for attracting developers to venture into production of green hydrogen / ammonia. Waiver of ISTS charges for green hydrogen / ammonia projects commissioned before 30 June 2025, would incentivise developers to expedite development of green hydrogen / ammonia projects. Further, allowing, project proponents to set up bunker in port lands will also provide avenues for developers to explore export activities. The aim of bringing in economies of scale and competitive pricing will provide good traction in long run.

The Green Hydrogen Policy is a step in the right direction and will help India achieve its twin objectives, of creating demand for green hydrogen along with increasing the installed capacity of renewable energy. The policy will enable India to hone-in hydrogen and ammonia as an alternate fuel and reduce dependency on fossil fuels. As per The Energy and Resources Institute, the demand for hydrogen is to increase by five-fold in 2050. While the policy does not create a demand push by mandating green hydrogen / ammonia consumption obligations, akin to RPO, on certain industries like fertilizer production and petroleum refining which primarily use grey hydrogen or provides incentives to consumers to adopt the same, however, the policy would provide much impetus to India's clean energy transition and climate action, which was also one of the most echoed themes in the recent Union Budget. Some of the issues relating to demand may be addressed by the government in the subsequent phases.

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