

Petroleum and Natural Gas Regulatory Board

Press Release

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PNGRB organised a mega-stakeholder interaction on Hydrogen transmission in Natural Gas Pipelines and City Gas Distribution Networks



Petroleum and Natural Gas Regulatory Board (PNGRB) is progressing on the task of transporting Green Hydrogen through Natural Gas transmission lines by blending hydrogen with Natural Gas. PNGRB is considering Natural Gas Transmission lines as a first choice for the transportation of Green Hydrogen as currently total 33000 KM of Natural Gas Transmission pipelines network has been authorised, out of which 24000 KM is operational and rest is under-construction. These Natural Gas pipelines will bridge the gap between regions with rich renewable energy resources (having high supply of Green Hydrogen) and Hydrogen consuming centres such as Fertilizer plants, Refineries and Heavy Iron & Steel Industries.

PNGRB organised a mega-stakeholder interaction on 07th March 2024 to discuss and gather inputs on the draft report of the study undertaken by PNGRB in association with World Bank and study partner ICF, to develop “*Pathways for Hydrogen transmission in Natural gas pipelines and City Gas Distribution networks*”.

Dr Anil Kumar Jain, Chairperson, PNGRB in keynote address highlighted the importance of Hydrogen Blending in Natural gas pipelines and CGD networks, expressed that PNGRB is committed to ensure safety and integrity of related infrastructure. PNGRB is also in process of formulating a global level regulatory regime for the transportation of Green Hydrogen.

In the stakeholder interaction, representatives from various Ministries, Statutory/Autonomous bodies, research institutions and Oil & Gas entities shared ideas about prospects of Hydrogen in India. The event included presentation from ICF on draft study report besides presentations from Petroleum and Explosives Safety organisation (PESO), GAIL (India) Limited and Gujarat Gas Limited (GGL) towards new initiatives being undertaken for promotion of Hydrogen in the Country.

Recognizing the potential benefits of Hydrogen blending in the Natural Gas & CGD sector, PNGRB since August-2023 is undertaking this important study in collaboration with the World Bank. The study comprises of mapping demand and supply of Hydrogen, technical assessment of the existing pipeline network for its compatibility, commercial assessment of pipeline sector, identifying bottlenecks in of Policy and Regulatory Framework and framing of roadmap milestones till 2040 for expeditious implementation of Hydrogen blending in India.

As per outcomes of draft study report, the total Hydrogen demand in India is expected to increase from current demand of **6 – 7 MMTPA** to **16 – 18.5 MMPTA** by **2040**. Major contributors of this projected demand will be from Ammonia, Refineries and Transport sector. The study also suggested blending limits for various components such as for transmission pipeline, compressors, gas turbines, gas meters, domestic appliances, CNG vehicles, and other associated equipment and fittings etc, used in the Natural gas pipelines and City Gas distribution networks. Beyond these blending limits study also projected additional CAPEX & OPEX requirements towards equipment and fittings.

This mega-stakeholder interaction will also pave way forward to achieve the target of 5 MMTPA Green Hydrogen production by 2030, set by Government of India under its clean energy agenda through National Green Hydrogen Mission.





