**Future of Green Hydrogen Energy in India: Top Insights**

**1. Strategic National Priority**

Green hydrogen is recognized as a critical component of India’s energy transition, with the National Green Hydrogen Mission aiming to make India a global hub for production, usage, and export by 2030.

**2. Policy and Investment Momentum**

The Indian government has announced substantial incentives, including a $2.1 billion outlay for electrolyzer manufacturing and green hydrogen production, to accelerate domestic industry growth and attract foreign investment.

**3. Industrial and Mobility Applications**

Key sectors expected to benefit include steel, fertilizer, and heavy transport. Green hydrogen is positioned as a decarbonization solution for hard-to-abate industries and long-haul mobility.

**4. Infrastructure and Technology Challenges**

Major challenges remain in scaling up electrolyzer manufacturing, reducing costs, developing storage and distribution infrastructure, and ensuring reliable renewable energy supply for hydrogen production.

**5. Global Leadership and Export Potential**

India’s abundant renewable resources and ambitious policy framework position it to become a major exporter of green hydrogen and derivatives (like ammonia), particularly to Europe and East Asia.

**References:**

* Grok Research Report (2025)
* IEA: "India’s Green Hydrogen Policy" (2024)
* The Hindu BusinessLine: "India’s Green Hydrogen Roadmap" (2024)