

India Can Lead World In Green Steel And Green Hydrogen: Experts

[Follow](#)

Experts says that waste-to-energy is the way for India to transition to a clean and green future, not only from the environmental point of view but also from the energy security perspective

Photo Credit:



Green hydrogen can be a potential solution to attain energy security and help the domestic export industry comply with the environmental protection regulation of the European Union (EU), said experts in an event organised by WTC Mumbai and All India Association of Industries, jointly with Engineering Export Promotion Council (EEPC) and Indian Business Chamber of Luxembourg (IBCL).

While speaking on 'Creating low carbon footprints and green energy ecosystem with renewable hydrogen', experts noted that waste-to-energy is the way for India to transition to a clean and green future, not only from the environmental point of view but also from the energy security perspective.

"Municipal waste can be used to extract green hydrogen which can power automobiles and produce eco-friendly goods such as green steel. In the European Union, green steel manufacturing is competitive only in Spain as steel industries in Germany, Sweden and France use conventional manufacturing methods," said Jan Grimbrandt, CEO, Boson Energy.

Grimbrandt further explained that municipal waste carries a huge amount of hydrogen and carbon, which can be extracted to produce electricity and support green steel, fertiliser and plastics manufacturing. One Kilogram of hydrogen has the potential to generate 20 kw of electricity, which is equivalent to 5 litre of diesel. Hydrogen and carbon can be combined to produce chemicals such as ammonia, which is used in fertiliser and methanol, which is used in the plastic industry.

Vijay Kalantri, Chairman, WTC Mumbai and President, All India Association of Industries (AIAI) stressed, "Green Hydrogen has USD 19 billion market in India by 2030 as per McKinsey report. Indian government has announced Green Hydrogen Mission earlier this year and allocated Rs. 19,744 crore under this mission."

He added that the government needs to implement this mission in letter and spirit and support entrepreneurs in developing innovative technologies to generate green hydrogen. The government may support entrepreneurs by addressing land acquisition hurdles, offering incentives on taxes, stamp duty and easing other regulations for setting up waste-to-energy plants.

Kalantri pointed out that effective implementation of this mission will help India reduce energy import bills by as much as Rs 1 trillion. "Our bureaucrats need to adopt a progressive mindset in implementing this mission. Already, India emits less CO₂ compared to developed economies. By developing affordable green hydrogen technologies and equipment, we can further reduce emissions and accelerate our transition to net zero," he added.

Kalantri also said that many countries are taking the lead in policies to promote sustainable energy and sustainable finance. India should also maintain its policy leadership by facilitating sustainable finance for the clean energy transition.

Rupa Naik, Executive Director, WTC Mumbai suggested, "Trade and industry should create awareness through public events and social media campaigns on the benefits of adopting green hydrogen for a clean and sustainable future."

In his remarks, Anoop Marwaha, Regional Chairman (WR), EEPC India emphasised that green hydrogen is an idea whose time has come. The engineering sector stands to benefit from green hydrogen as it can help our exporters to comply with the low carbon manufacturing regulations of the European Union.

Rajat Srivastava, Regional Director (WR), EEPC India informed, "In India, 2.5 tonne of CO₂ is emitted while producing one tonne of liquid steel. The introduction of the Carbon Border Adjustment Mechanism (CBAM) by the European Union will affect more than USD 6.1 billion worth of Indian iron & steel exports to the EU."

From October this year, Indian exporters will have to comply with the emission disclosure requirement under the CBAM mechanism. The government and industry have together set up 12 task forces to work out the definition of green steel and the certification process to meet the compliance requirement under the CBAM process, Srivastava added.