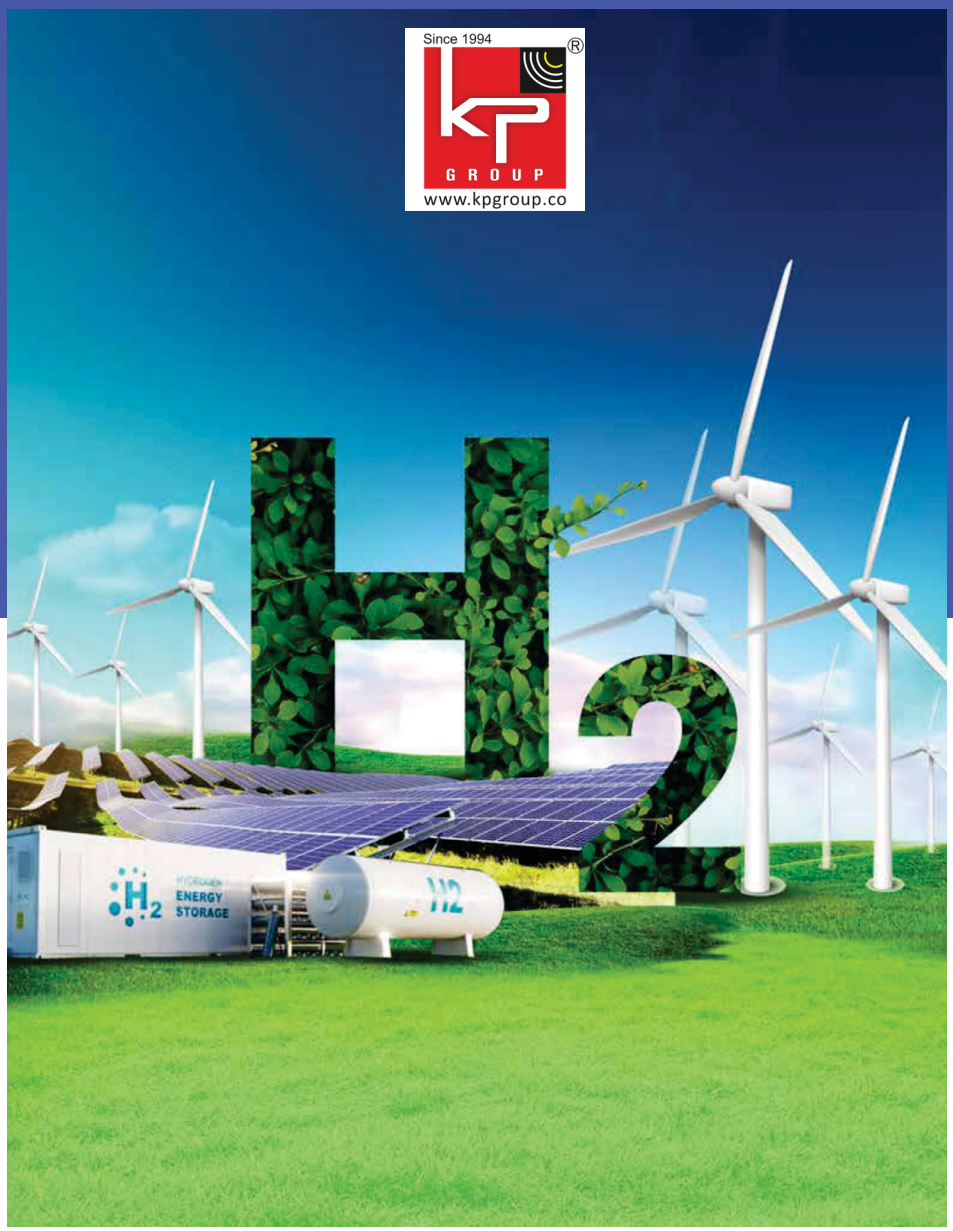
KPI GREEN HYDROGEN
AND
AMMONIA PVT. LTD.



CLEAN, GREEN, LIMITLESS, REDEFINING ENERGY

GREEN HYDROGEN & GREEN AMMONIA

Since 1994

KP GROUP

www.kpgroup.co

FUELLING A CLEAN FUTURE WITH GREEN HYDROGEN

What is Green Hydrogen?

Green hydrogen is hydrogen gas produced using renewable energy sources such as wind, solar, or hydropower through a process called electrolysis. Electrolysis involves splitting water molecules (H2O) into hydrogen (H2) and oxygen (O2) using an electric current.

Green hydrogen holds promise as a clean energy carrier that can be used in various sectors such as transportation, industry, and energy storage. It can be used directly as a fuel for vehicles, or it can be converted into other forms of energy such as electricity or synthetic fuels.

The "green" in green hydrogen refers to the fact that it's produced with minimal carbon emissions, if any, making it environmentally friendly. Unlike traditional methods of hydrogen production, which often rely on fossil fuels like natural gas and result in carbon emissions, green hydrogen production doesn't generate greenhouse gases as renewable energy sources are used in the process.

This versatility makes it a key player in efforts to decarbonize industries and reduce overall greenhouse gas emissions.

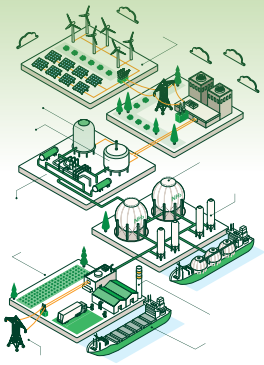
1MW

GREEN HYDROGEN PLANT,
MATAR, BHARUCH

GREEN AMMONIA

About Green Ammonia:

- It is produced by using hydrogen from water electrolysis and nitrogen separated from the air.



- These are then fed into the Haber process (also known as Haber-Bosch) which is powered by sustainable electricity.
- In the Haber process, hydrogen and nitrogen are reacted together at high temperatures and pressures to produce ammonia[NH3].
- Green ammonia production is where the process of making ammonia is 100% renewable and carbon-free.
- It can be used in
  - Fuel for engines such as locomotives and shipping, replacing diesel and marine fuel oil
  - Fuel source for electricity power generation
  - Building block to make fertilisers for use in agriculture
  - Feedstock for industrial and manufacturing applications ranging from water purification through to pharmaceuticals

♦ Biomass to Hydrogen

Decarbonizing with Agricultural Waste

Our Biomass-to-Hydrogen initiative introduces an innovative and sustainable way to produce green hydrogen using agricultural and organic waste. Through a proprietary thermochemical conversion process, we are turning waste into wealth producing clean hydrogen while solving the biomass disposal challenge.

Advantages:

- Circular economy approach
- Reduction in air pollution from stubble burning
- Empowerment of rural communities with decentralized hydrogen production units.

Pilot Project Update: 1 MW Plant Launch

Our flagship **1 MW Green Hydrogen Pilot Plant in Matar, Bharuch** is on track to commence commercial production by June-July 2025.

This fully integrated project, blending hydrogen with LPG for industrial use, serves as the blueprint for upcoming large-scale deployments. It symbolizes KPI Group's innovation-first approach to decarbonization and sustainability.

♦ What Makes Hydrogen Green? Renewable Energy!

- To earn the 'green' label, hydrogen must be produced using electricity from clean sources, such as the sun or wind.
- Environmental Benefit: Reduced Emissions
- Adopting green hydrogen production, powered by renewables, significantly cuts down carbon emissions compared to traditional hydrogen methods that use fossil fuels.
- Clean Operation: Zero Greenhouse Gases
- When we use clean energy for electrolysis, we're not releasing any harmful greenhouse gases. It's all clean, promoting a cleaner environment.

♦ Sustainable Energy Systems: A Step Forward

- Green hydrogen is not just about today; it's about a sustainable tomorrow. It's a big step towards energy systems that doesn't harm our Earth.
- Green hydrogen can be easily integrated into existing energy infrastructures, compatible with all sorts of renewable energy sources.
- Looking Ahead: Green Hydrogen's Bright Future
- The journey of green hydrogen is just getting started. It's set to revolutionise how we handle energy, aiming for a world with zero carbon emissions and a stable energy supply.

OUR OFFERING

Onsite Generation (BOO, BOOT Model)

Application Development

Bulk Deliveries

Fuel Cells

OUR ACHIEVEMENT

Asia's First 1 MW Green Hydrogen Plant for Industrial Use

We are proud to announce the successful setup of a 1 MW Green Hydrogen Plant in Matar, Bharuch, Gujarat. This groundbreaking project blends green hydrogen with LPG to fuel Asia's largest galvanizing plant, operated by KP Group.

This achievement marks a significant milestone in the industrial use of green hydrogen, showcasing its potential to reduce carbon footprints while maintaining operational efficiency. Located in the heart of Gujarat, this plant is a testament to our commitment to innovation and sustainability.

We are also taking initiative for

Fleet Transition Plan:

Gradual replacement of conventional diesel or gasoline-powered vehicles with hydrogen fuel cell vehicles (FCVs) for employee commutes and logistics.

Initial deployment of hydrogen-powered buses or shuttles for employee transportation.

WHY CHOOSE US?

- **Pioneers in Green Energy: We are at the forefront of green hydrogen and ammonia production in India.**
- **Proven Expertise: Backed by KP Group's decades of experience in the energy sector.**
- **Sustainable Impact: Our solutions significantly reduce carbon emissions and support global climate goals.**
- **Cutting-Edge Technology: We use state-of-the-art technology to ensure efficiency, reliability, and scalability.**
- **Commitment to Quality: Adherence to international standards and best practices in every project.**

OUR VISION FOR THE FUTURE

At KPI Green Hydrogen and Ammonia Pvt Ltd, we envision a world powered by clean, renewable energy. Our future goals include:

- Expanding our green hydrogen and ammonia production capacity.
- Partnering with global industries to accelerate decarbonization.
- Innovating new technologies to make green energy more accessible and affordable.

We are committed to playing a pivotal role in India's journey towards energy independence and sustainability.

Since 1994
KP GROUP
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10 GW BY 2030

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